



Concrete
SOLUTIONS
OVER AND UNDER
Boston

FALL 2003
Boston

PROGRAM BOOK

Saturday, September 27 through
Wednesday, October 1
Sheraton Boston Hotel

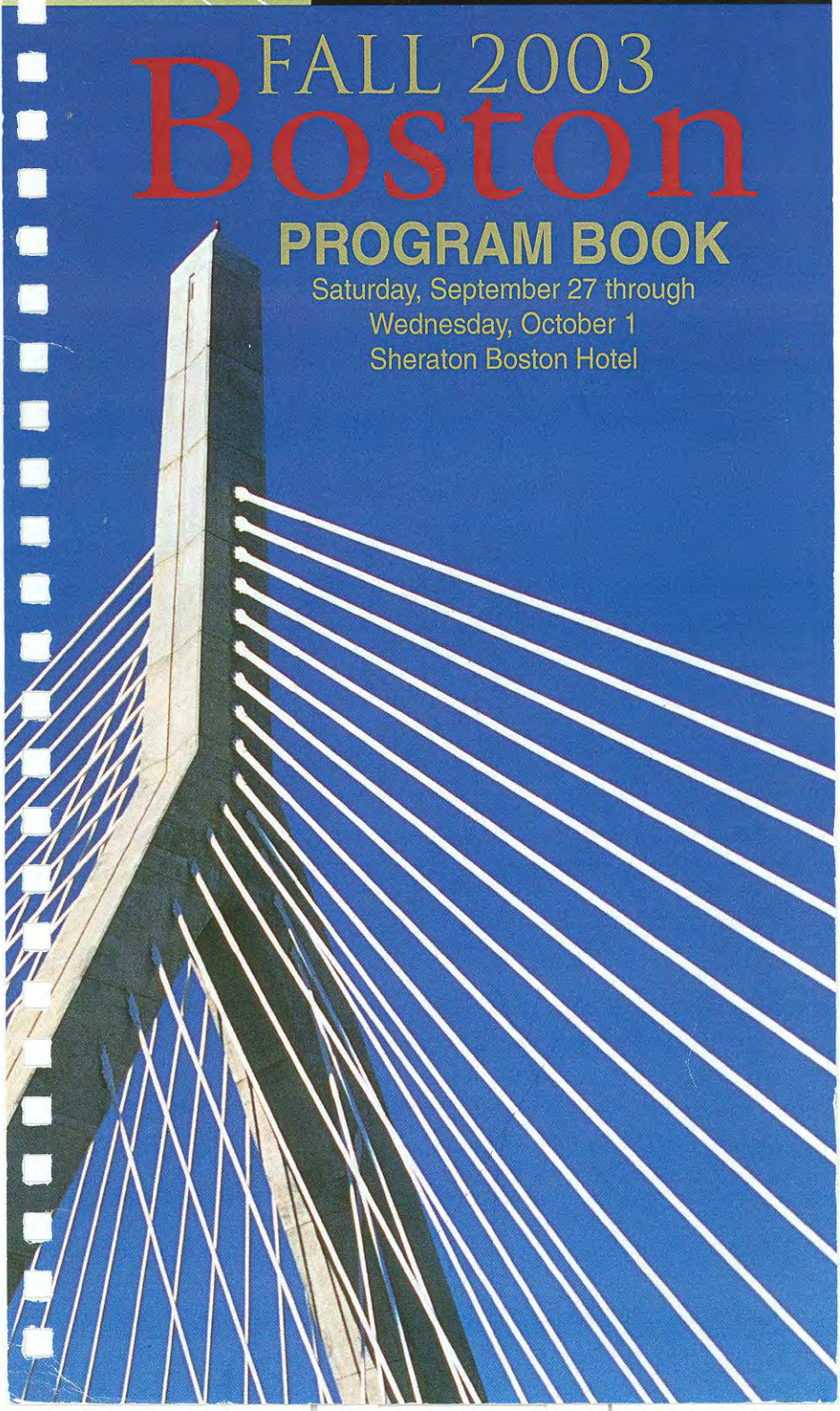


Table of Contents

ACI Fall 2003 Convention
September 27 - October 1, 2003
Sheraton Boston Hotel
Boston, MA

ACI Board Committees & Chairs	Inside Back Cover
ACI New England Chapter Convention Committee	18
ACI New England Chapter Officers	17
ACI President's Welcome Letter	7
ACI Sustaining Members	4
Board of Direction	3
Boston Mayor Welcome Letter	8
Centennial Information	21
Certification Programs	9
Contractor's Day Lunch	101
Contractor's Day Session	95
Convention Committee	Inside Back Cover
Cornerstone Leadership Campaign	20
Educational Seminar	121
Exhibitor Floor Plan	Between 24 & 25
Exhibitor Hours & Information	26
Fall 2003 Educational Seminar Information	123
Future ACI Conventions	10
General Information	22
Hotel Map	Between 24 & 25
Hotel Meeting Room Index	25
International Conference	12
International Luncheon	117
International Symposium	31
Numeric Committee Listing	55
Opening Session & Lewis H. Tuthill Lecture	65
Program at a Glance	41
Publications	11
Registration Information & Hours	22
Special Events	32
Sponsors	13
Student Concrete Cube Competition	61
Student Luncheon	81
Technical & Educational Session Highlights	60
Tour Highlights	39

American Concrete Institute Board of Direction

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American Concrete Institute Sustaining Members



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Baker Concrete
Construction



Dayton/Richmond
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Boral Material
Technologies



The Euclid
Chemical Company

Sustaining Members as of 9/03/03

American Concrete Institute Sustaining Members



Expanded Shale,
Clay & Slate Institute



FUTURE TECH CONSULTANTS
Construction Materials Engineering,
Inspection & Testing Services

Future Tech Consultants

GRACE
Construction Products

W.R. Grace & Co.



Ground Heaters, Inc.

ISG RESOURCES, INC.

ISG Resources, Inc.

KI KLEINFELDER
An employee owned company

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LAFARGE
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LEHIGH
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Lithko
CONTRACTING, INC.

Lithko Contracting, Inc.



LONESTAR

LONESTAR Industries, Inc.



Master Builders
Technologies

MEADOW **MB** BURKE

Meadow Burke

Sustaining Members as of 9/03/03

American Concrete Institute Sustaining Members



W. R. Meadows Inc.



Seretta Construction, Inc.



Municipal Testing
Laboratories, Inc.



SI Concrete Systems



Sika Corporation



Portland Cement
Association



St. Lawrence Cement



Precast/Prestressed
Concrete Institute



Structural Preservation
Systems, Inc.



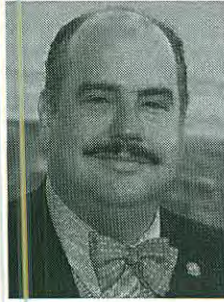
Pro Mix Technologies



Tru Wall Concrete, Inc.

Sustaining Members as of 9/03/03

ACI President's Welcome



ACI Members, Guests, and Spouses –
Welcome to Boston!

ACI has the privilege of hosting its Fall 2003 Convention in Boston! First I would like to give a warm and special welcome to our committee members, who are the backbone of our Institute. Second, a friendship embrace to all of our International members, who as partners share with us the common goal of “Progress Through Knowledge.”

The Convention theme is “Concrete Solutions Over & Under Boston.” There will be over 25 educational and technical sessions addressing the latest developments in the science and practice of concrete. Several presentations will help us discover the wonderful infrastructure development throughout the City of Boston. In addition, over 350 committee meetings will take place throughout the week.

Some of the regularly scheduled activities include: the Opening Session, followed by the Welcome Reception, Concrete Mixer on Monday, theme sessions, forums, Contractor’s Day, International Luncheon, Student Concrete Cube Competition, and a new educational seminar on ***Seismic and Wind Design Considerations for Concrete Buildings***.

While you are renewing acquaintances with old friends and making new ones, take advantage of the wonderful tours and programs that the ACI New England Chapter has arranged for convention attendees and their guests. Remember to also visit the ACI Bookstore, where our staff will help you find the publication you have been looking for from hundreds of titles available.

I look forward to seeing all of you in the magnificent and historical City of Boston. Ida will be personally welcoming guests and spouses at the guest hospitality and tour program. Enjoy the convention, knowing that with your work we are helping the Institute and the concrete industry move forward for the next 100 years.

Thanks!

A handwritten signature in black ink, appearing to read 'J. Izquierdo-Encarnación'.

José (Pepe) Izquierdo-Encarnación

Boston Mayor's Welcome



CITY OF BOSTON • MASSACHUSETTS

OFFICE OF THE MAYOR
THOMAS M. MENINO

American Concrete Institute
38800 Country Club Drive
Farmington Hills, MI 48331 U.S.A.

Dear American Concrete Institute Attendees:

Welcome to Boston!

It gives me great pleasure to welcome you to Boston—a dynamic city steeped in history, culture, Old World charm, academic and medical excellence and cosmopolitan sophistication. It is an urban environment where high-rise symbols of tomorrow harmonize with cherished emblems of yesterday.

Our Shining City on the Hill is the quintessential American city. Boston belongs to a diversity of people whose heritage is drawn from every corner of the world. They have shaped a distinctive city of unique neighborhoods and character without compromising our common heritage. The greatness of Boston lies less within the pages of history than in the hearts of its people.

As Mayor, I invite you to share our vitality and take advantage of all that Boston has to offer. Stroll the decks of the USS Constitution or the sidewalks of fashionable Newbury Street. Celebrate feast days with the North End's Italian community, explore the historical landmarks on the Freedom Trail, or discover unique treasures such as the new Dreams of Freedom Museum.

A Boston tradition awaits you in our selection of world class hotels, nationally acclaimed restaurants and superb shops. A variety of entertainment offerings will help make your visit a memorable one.

Again, welcome. Enjoy your stay, and learn why Boston was rated as the American city with the best quality of life.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tom M. Menino', is written over a light blue horizontal line.

Thomas M. Menino
Mayor of Boston

ACI Certification

YOUR industry – YOUR programs!

*The list of Supporters
continues to GROW!!*

These national organizations participate (cooperate) with ACI in programs to improve the quality of concrete construction

American Concrete Pavement Association
American Shotcrete Association
American Subcontractors Association *
American Society of Concrete Contractors
American Society for Testing and Materials
Cement and Concrete Reference Laboratory
Concrete Construction Magazine
Laborers-AGC Education and Training Fund *
National Ready Mixed Concrete Association
Portland Cement Association
Precast/Prestressed Concrete Institute
Tilt-Up Concrete Association
U. S. Army Corps of Engineers

**** ACI's two newest participants!***



Concrete — A Century of Innovation

ACI Spring 2004 Convention

March 14-18, 2004

WASHINGTON HILTON AND TOWERS, WASHINGTON DC



Concrete – A Century of Innovation



Hosted by the ACI National
Capital Chapter

Watch for registration material in January!

**Visit the ACI Bookstore Located
in the Grand Ballroom and
Browse our Bargains**

**All ACI Publications
are Discounted!**

318-02

*Building Code Requirements for
Structural Concrete and Commentary*

IPS-1

*Essential Requirements for
Reinforced Concrete Buildings*

MCP-2003

*2003 ACI Manual of Concrete Practice
(Six-part set plus separate index
or CD-Rom)*


SP-215

*Field Applications of FRP
Reinforcement: Case Studies*

**Plus over 100 Additional
Publications available on Concrete**



Concrete — A Century of Innovation



Seismic Bridge Design and Retrofit for Earthquake Resistance

2003 International Conference
American Concrete Institute

December 8-9, 2003
Hilton Torrey Pines
La Jolla, California

Major earthquakes around the world have repeatedly exposed the vulnerability of bridges under seismic stress. Learn about recent advances in seismic bridge research and implementation from more than 20 of the world's leading seismic bridge engineers and researchers.

**For more information, contact:
ACI Member/Customer Services
Phone: 248-848-3800
Fax: 248-848-3801
Email: bkstore@concrete.org**

Convention Sponsors

Platinum

Aggregate Industries Northeast Region
ATC Associates, Inc.
Boston Sand & Gravel Company
Ciment Quebec, Inc.
Grace Construction Products
Lafarge North America
Massachusetts Concrete & Aggregate
Producers Association (MaCAPA)
Master Builders, Inc.
S&F Concrete Contractors, Inc.
St. Lawrence Cement

Gold

American Shotcrete Association
Construction Materials Engineering Council
D&M Concrete Floor Company
Germann Instruments, Inc.
Glens Falls Lehigh Cement Company
ISG Resources, Inc.
King Packaged Materials Company
J. L. Marshall & Sons, Inc.
Pure Technologies, Ltd.
Reinforced Concrete Construction Committee (RC³)
RediMix Companies
Sika Corporation
Slag Cement Association
Separation Technologies, Inc.
Vector Corrosion Technologies

Silver

Carroll Concrete
MacLellan Concrete Company, Inc.
Miller Engineering & Testing, Co., Inc.
Myers Associates
Northern New England Concrete Promotion
Association (NNECPA)
PRM Concrete Corporation
Silica Fume Association
Simpson Gumpertz & Heger, Inc.
Spa Steel Products Co., Inc.

Sponsor listing as of 9/04/03

Convention Sponsors

Bronze

CIA (Herman Protze)
Earthtech
Fletcher Granite Company
Lampasona Concrete Corp.
Massachusetts Construction Industry Board (MCIB)
Mansour Construction, Inc.
McDevitt Trucks, Inc.
Norlite
Oshkosh Truck Corp./McNeilus Companies
SI Concrete Systems
S&S Concrete Floors, Inc.
Earl R. Somero & Associates
Thompson & Lichtner Co., Inc.
Wiss Janney Elstner Associates, Inc.

Contributor

ACI Arizona Chapter
Blakeslee Prestress, Inc.
Gilbane Building Company
James Instruments, Inc.
L.M. Scofield Co.
PCI/New England Region
Romano Associates, Inc.
Silpro Corp.
Somero Enterprises
Varney Bros. Sand & Gravel, Inc.

Participant

Barton Engineering
Kurt G. Benedict, P.E.
Consolidated Concrete
Jackson Construction
K.J. Greene Consultants
Anthony Kojundic
Tom McHale
Jon Mullarky
Nycon, Inc.
Wayne A. Tarr

Sponsor listing as of 9/04/03

Exhibiting Sponsors



Aggregate Industries
NE Region



American Shotcrete
Association



ATC Associates, Inc.



Boston Sand & Gravel
Company



CMEC



Germann Instruments, Inc.



Glens Falls Lehigh
Cement Group



Grace Construction
Products



King Packaged
Materials Company



Lafarge North
America



Massachusetts Concrete and
Aggregate Producers
Association (MaCAPA)



Master Builders
Technologies

Master Builders, Inc.



Myers Associates

Exhibitor list as of 8/22/03

Exhibiting Sponsors

NORTHERN NEW ENGLAND
CONCRETE PROMOTION
ASSOCIATION



Northern New England
Concrete Promotion
Association

SFA

SILICA FUME ASSOCIATION

Silica Fume
Association

pure TECHNOLOGIES

Pure Technologies, Ltd.

FC³ Reinforced Concrete
Construction Committee

SCA
SLAG CEMENT
ASSOCIATION

Slag Cement
Association

STI
Separation Technologies, Inc.
A Titan America Business

Separation
Technologies, Inc.

SPA STEEL PRODUCTS CORP.

Spa Steel
Products Co.,
Inc.



S&F CONCRETE CONTRACTORS
INCORPORATED

S&F Concrete
Contractors, Inc.

GranCem
CEMENT
www.slawrencecement.com

St. Lawrence Cement



Sika Corporation

VECTOR
CORROSION
TECHNOLOGIES

Vector Corrosion
Technologies

Exhibitor list as of 8/22/03

ACI New England Chapter Officers

President

Douglas J. Smith
Separation Technologies, Inc.

Vice President

Wayne A. Tarr
SI Concrete Systems

Past President

Kevin Demello
D&M Concrete Floor Co., Inc.

Treasurer

Evan Karalolos
Thompson & Lichtner Co.

Board Members

Tony Fidanos
S&F Concrete Contractors, Inc.

Brian Barry
Dragon Cement

Gabriel R. Crocker
Gale Associates, Inc.

ACI New England Chapter Convention Committee

Co-Chairs

Manny Mattos

D&M Concrete Floor Co., Inc.

Wayne M. Tarr

Aggregate Industries

Advisor

Duke Pointer

Fletcher Granite Company

Treasurer

Christopher Bowker

Bowker Associates

Contractor's Day

Christopher J. Zarba

Blakeslee Prestress, Inc.

Peter Craig

Concrete Constructives

Exhibits

David Bissonnette

The Redimix Companies

Fundraising

John S. Colby

W.R. Grace & Company

Brian Cusack

Master Builders, Inc.

Wayne A. Tarr

SI Concrete Systems

ACI New England Chapter Convention Committee

Guest Program

Douglas J. Smith
Separation Technologies, Inc.

Jim Lee
Boston Sand & Gravel Co.

Mike Salvo
Boston Sand & Gravel Co.

Tony Fidanos
S&F Concrete Contractors, Inc.

Publicity

Arthur Stenberg
MaCAPA

Bob Myers
Myers Associates

Tom Bartholomew
NNECPA

Social Activities

John Galagher
Glens Falls Lehigh Cement Company

Evan Karalolos
Thompson & Lichtner Co.

Student Program

Kurt G. Benedict
Wentworth Institute

Daniel Jansen
Tufts University

Thomas Bowker
ATC Associates, Inc.

Technical Program

Marcia Kelly
Earth Tech

*The ACI New England Chapter desk is
located outside the Grand Ballroom.*



An Endowment Campaign for ACI's Second Century

Concrete — A Century of Innovation

The goal of this very important student fellowship endowment campaign, which runs through Fall 2003, is to raise \$5,000,000 to support the “best & brightest” future concrete professionals. All ACI members and friends are encouraged to participate in this initiative. Pledges of any amount are welcome, and payment can be extended over 5 years.

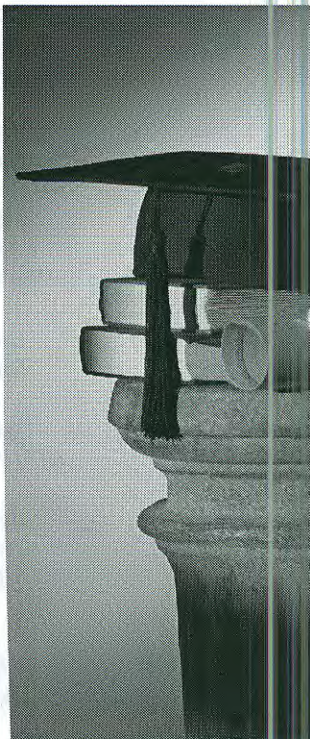
The Campaign Steering Committee includes:

- | | |
|---------------------------|-------------------|
| ■ Dan Baker, <i>Chair</i> | ■ Bob Epifano |
| ■ George Barney | ■ Bob Garbini |
| ■ Jim Cagley | ■ Charles Pankow |
| ■ Terry Dooley | ■ Roger Phares |
| ■ Peter Emmons | ■ Mike Shydrowski |

These individuals can answer your questions or provide you with a pledge form. Seek them out during the convention this week.

Information packets are also available at the ACI Bookstore in the registration area. Pick up your copy today!

Administered by:



1904 2004



CONCRETE · A CENTURY OF INNOVATION

ACI has been serving the concrete industry since 1904 and is poised for continued leadership in concrete technology going into its second century. We're inviting you to be a part of that future. Take a look at just some of the events in store:

CENTENNIAL DINNER

This dinner will recognize individual contributions to the concrete community and honor our past presidents. This event will take place during the 2004 Spring Convention in Washington, D.C.

CONCRETE OF THE FUTURE MIXER

See what's ahead for the concrete industry in years to come! This mixer will be held during the 2004 Fall Convention in San Francisco, California.

INTERNATIONAL CONFERENCES

Conferences are scheduled for Paris, Australia/New Zealand, India and Brazil.

ACI HISTORY BOOK

An historical publication highlighting significant progress and recognizing individual ACI member contributions.

All ACI members will receive a free copy.

CENTENNIAL BOOK

A high quality, coffee-table style book highlighting 100 years of innovation in concrete design, engineering, materials, and construction.

This Centennial celebration will also provide multiple opportunities for members and friends of ACI to support the Centennial. For more information on these Centennial activities, please visit our website at

<http://www.concrete.org>

or email us at 100years@concrete.org.

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General Information

Convention Registration

Grand Blrm

The ACI staff is available to answer your convention questions at the ACI registration desk during the following hours:

Friday	2:00 PM - 6:00 PM
Saturday	8:00 AM - 5:00 PM
Sunday	7:30 AM - 5:00 PM
Monday	8:00 AM - 5:00 PM
Tuesday	8:00 AM - 12:00 PM

Educational Seminar Registration


Wednesday	7:45 AM - 8:00 AM
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Name Badges

ACI uses ribbons to identify attendees. Name badge ribbons are color-coded for identification as follows:

Member: Navy	Guest: Tan
Student: Green	Staff: Maroon

Attention ACI Members!

First-time convention attendees have a lobster  on their badge. Please welcome them to the convention.

Please Note: Name badges MUST be worn to all functions for admittance. You will not be admitted to the Opening Session at the Hynes Convention Center located in Ballroom B without a name badge.

Speaker Ready Room

Thursday, September 25 - Tuesday, September 30
7:00 AM - 7:00 PM

Located in the Hampton Room, third floor
(conference level) of the Sheraton Boston Hotel.
Copiers, PCs with printers, and caramates are available
for speakers, moderators, and chairs.

Schedule Changes

Cancellations, additions and location changes in the event schedule will be posted daily on the message board in the **Grand Ballroom** near ACI Registration.

General Information



Audio and video taping are strictly prohibited without the expressed written consent of the speaker.



In consideration of fellow attendees, please turn off cell phones and pagers when attending meetings and sessions.

Beverage Breaks

Grand Ballroom

Beverages will be available at the following times courtesy of ACI International. Quantities are limited.

Saturday

Coffee 7:30 AM - 10:00 AM
Soda 1:00 PM - 4:00 PM

Sunday

Coffee 7:30 AM - 10:00 AM
Soda 1:00 PM - 4:00 PM

Monday

Coffee 7:30 AM - 10:00 AM
Soda 1:00 PM - 4:00 PM

Tuesday

Coffee 7:30 AM - 10:00 AM
Soda 1:00 PM - 4:00 PM

Alcohol Policy

All ACI-sponsored receptions will offer nonalcoholic beer and soft drinks. No alcohol will be served to anyone under the age of 21.

Cyber Cafe

Need to check your e-mail? Stay connected to home and work at the Cyber Cafe located in the **Grand Ballroom**.

Saturday	8:00 AM - 5:00 PM
Sunday	8:00 AM - 6:00 PM
Monday	8:00 AM - 6:00 PM
Tuesday	8:00 AM - 12:00 PM

General Information

Local Information

The ACI New England Chapter has prepared a welcome bag for you that contains local literature. The welcome bags will be distributed at the ACI Registration Desk.

Local Shopping

The Prudential Center, which is connected to the Sheraton, offers a variety of shops and restaurants. Mall hours are Monday-Saturday 10:00 AM-8:00 PM and Sunday 12:00 PM-6:00 PM.

Sheraton Boston Hotel Restaurants

Apropos – traditional New England cuisine, Open daily
6:00 AM - 2:00 AM

Turning Point Lounge – Beverages & hors d'oeuvres, Open daily
11:00 AM - 1:30 AM

Local Restaurants

The Prudential Center offers 11 restaurants and 14 food court eateries. The food court is open Monday - Friday 7:00 AM-9:00 PM, Saturday 8:00 AM-9:00 PM, and Sunday 9:00 AM-7:00 PM. **NOTE:** You may charge meals to your room at the Sheraton at participating restaurants only, including Top of the Hub and Marche.

Transportation Around Town

Boston has many different modes of transportation around town. You can catch the trolleys, busses, or the subway to most places in and around Boston. See the concierge for directions.

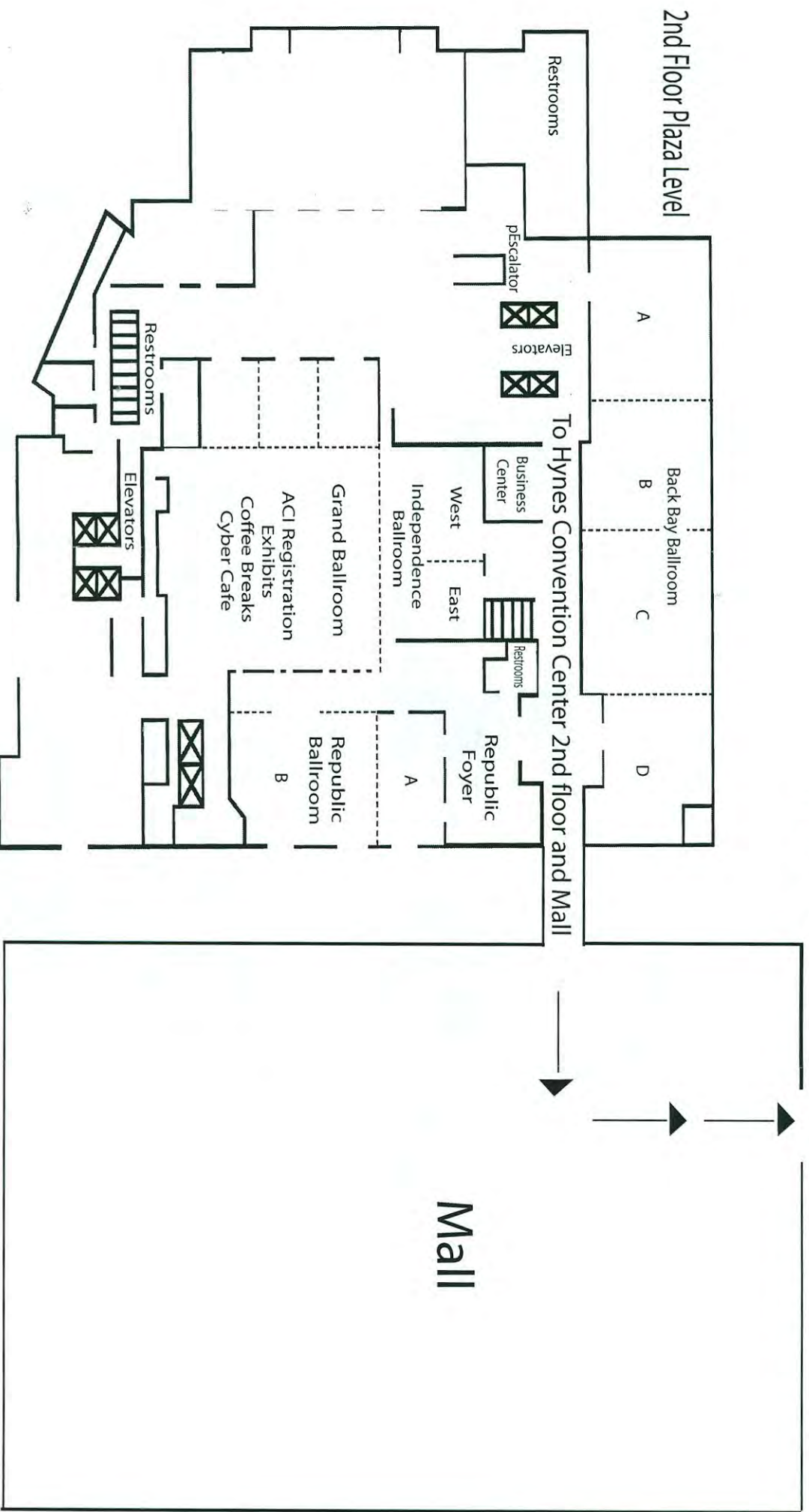
Tour Transportation

All tours will depart from the Dalton Street Exit at the Sheraton.

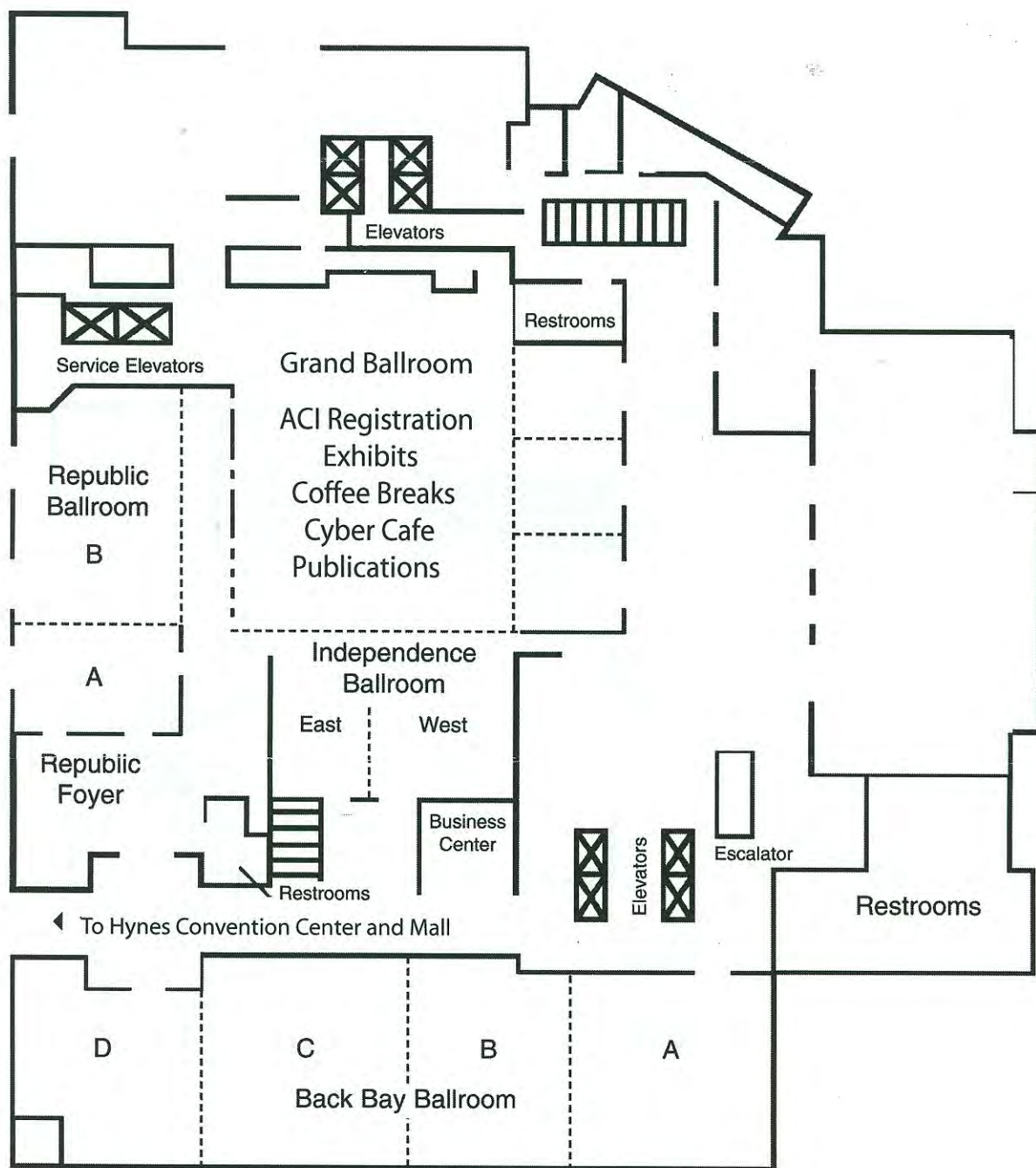
Future Convention Information

If you would like to receive information for future ACI conventions via e-mail, please e-mail your name and e-mail address to conventions@concrete.org.

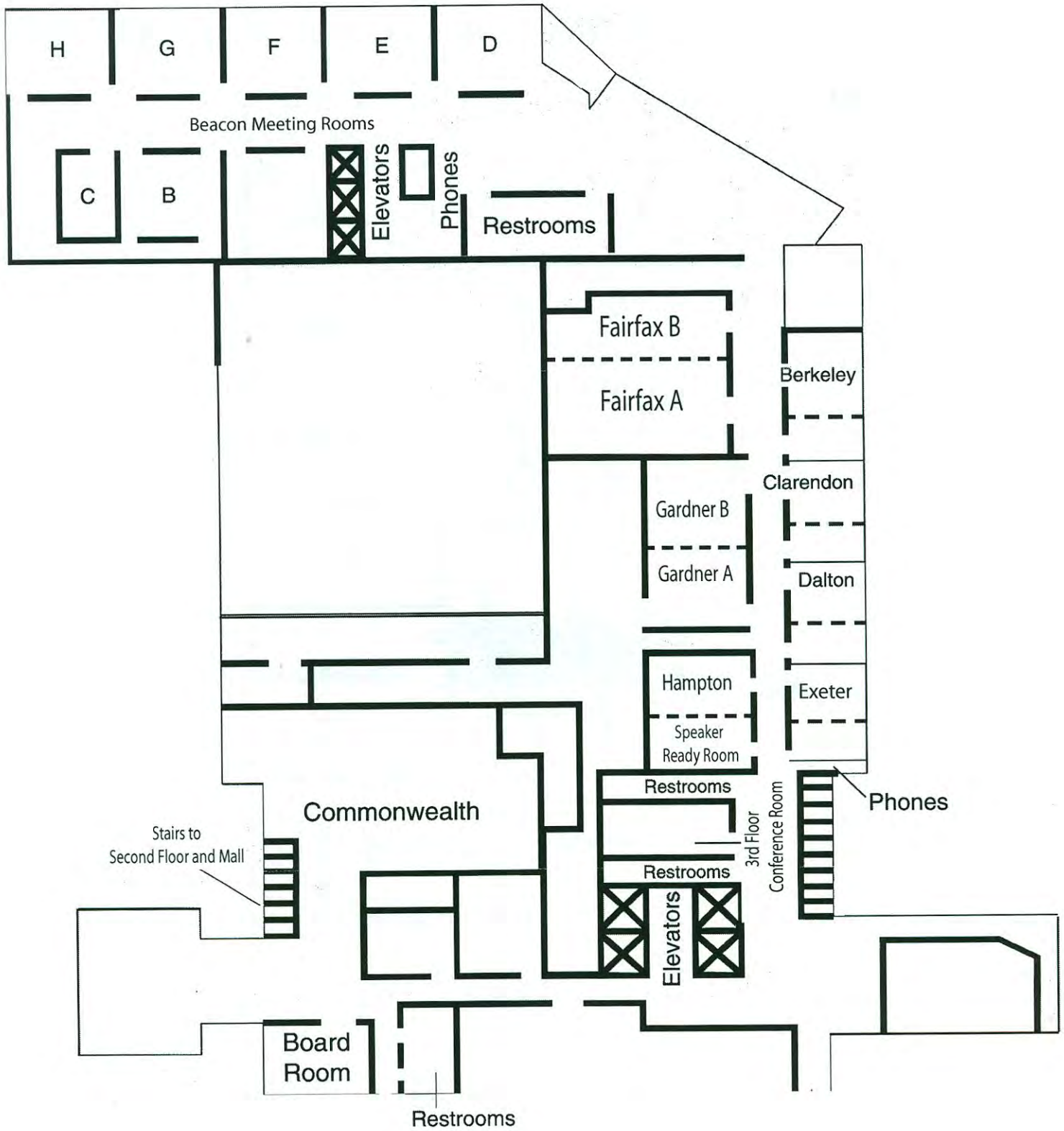
Entrance to Hynes Convention Center



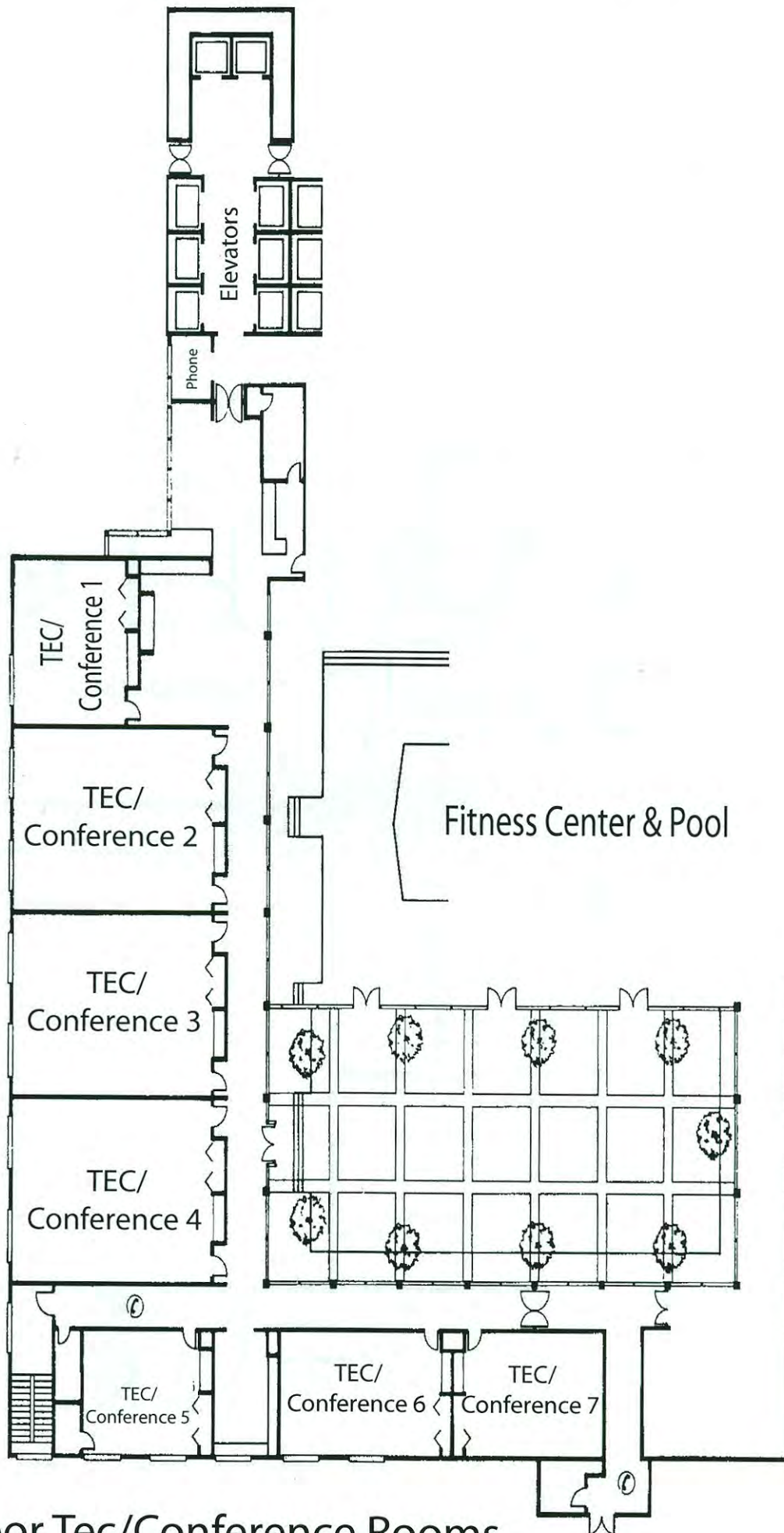
Hynes Convention Center 3rd Floor



2nd Floor Plaza Level



3rd Floor Conference Level



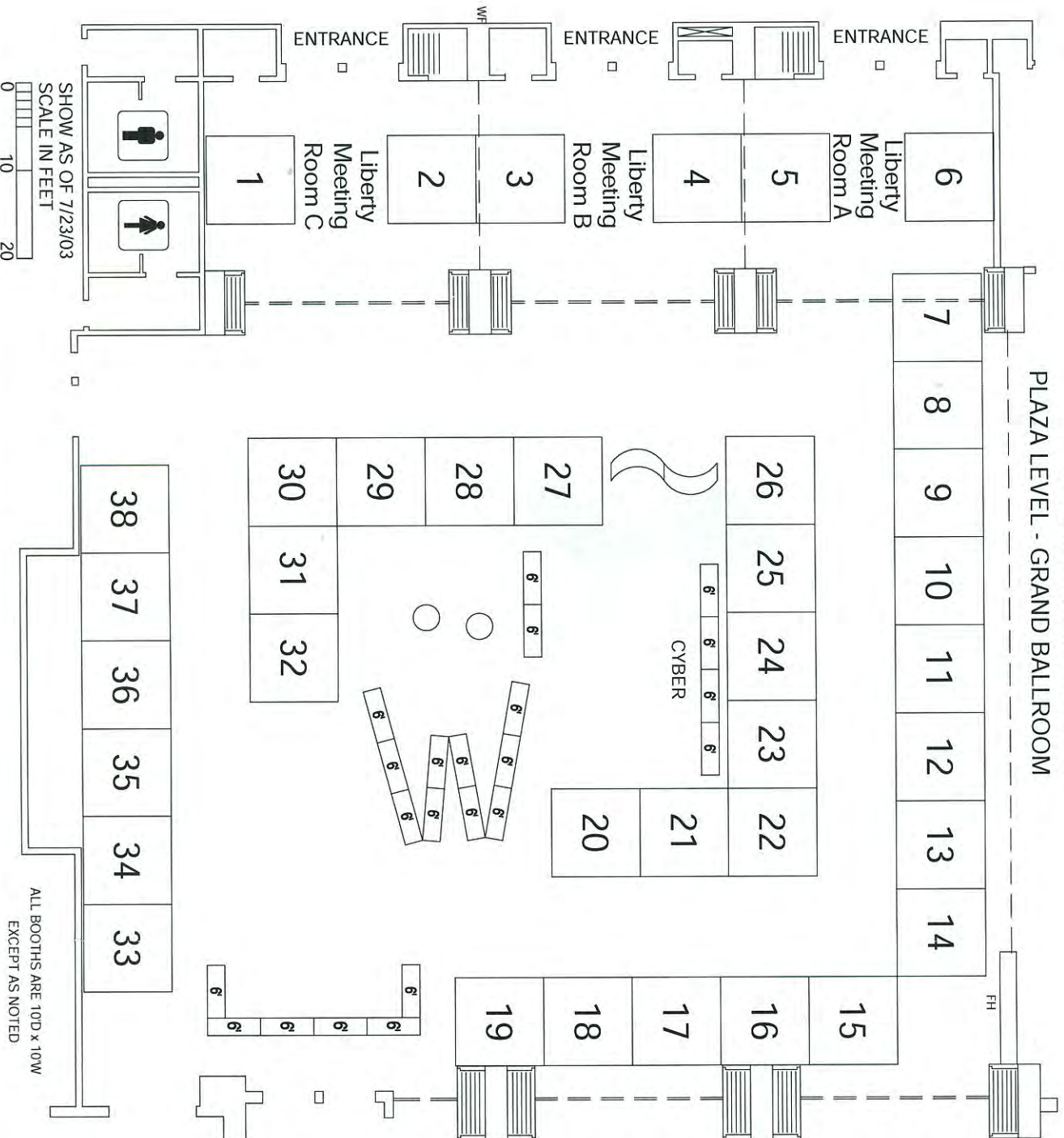
5th Floor Tec/Conference Rooms

AMERICAN CONCRETE INST. FALL CONVENTION

SEPTEMBER 27-30, 2003

SHERATON BOSTON
BOSTON, MASS.

PLAZA LEVEL - GRAND BALLROOM



ALL BOOTHS ARE 10'D x 10'W
EXCEPT AS NOTED

Where's That Meeting Room?

Second Floor (Plaza Level)

Back Bay Ballroom A	Back Bay Blrm A
Back Bay Ballroom B	Back Bay Blrm B
Back Bay Ballroom C	Back Bay Blrm C
Back Bay Ballroom D	Back Bay Blrm D
Business Center	Business Center
Grand Ballroom	Grand Blrm
Independence East	Independence E
Independence West	Independence W
Republic A	Republic A
Republic B	Republic B
Republic Foyer	Republic Foyer

Hynes Convention Center-Ballroom B (access Hynes Blrm B via the 2nd floor)

Hynes Blrm

Third Floor (Conference Level)

	Abbreviation
Beacon B	Beacon B
Beacon C	Beacon C
Beacon D	Beacon D
Beacon E	Beacon E
Beacon F	Beacon F
Beacon G	Beacon G
Beacon H	Beacon H
Berkeley	Berkeley
Boardroom	Boardroom
Clarendon	Clarendon
Commonwealth	Commonwealth
Conference Room	Conference Rm
Dalton	Dalton
Exeter	Exeter
Fairfax A	Fairfax A
Fairfax B	Fairfax B
Gardner A	Gardner A
Gardner B	Gardner B
Speaker Ready Room	Hampton

Fifth Floor (TEC/Conference Rooms)

	Abbreviation
TEC/Conference Room 1	TEC/Conference 1
TEC/Conference Room 2	TEC/Conference 2
TEC/Conference Room 3	TEC/Conference 3
TEC/Conference Room 4	TEC/Conference 4
TEC/Conference Room 5	TEC/Conference 5
TEC/Conference Room 6	TEC/Conference 6
TEC/Conference Room 7	TEC/Conference 7

Exhibitors

Exhibits

Grand Blrm

Sponsored by the ACI New England Chapter

Exhibit Hours:

Saturday	8:00 AM - 5:00 PM
Sunday	8:00 AM - 6:00 PM
Monday	8:00 AM - 6:00 PM
Tuesday	8:00 AM - 6:00 PM

Exhibitor Name

Booth

Aggregate Industries NE Region

34

Aggregate Industries NE Region is a producer of ready-mix concrete and stone.

American Shotcrete Association

25

The American Shotcrete Association provides education and training on the use of shotcrete in concrete construction and repair. The ASA also supports the ACI Nozzleman Certification program. These programs serve to promote the use of high-quality shotcrete as a cost-effective solution to owners and designers.

ATC Associates, Inc.

2

ATC Associates, Inc., is a full-service engineering and environmental firm with 66 offices nationwide. ATC's staff of over 1800 includes engineers and scientists who address engineering and environmental concerns confronting large or small clients. The company's services include geotechnical engineering/construction materials testing, building sciences, environmental management, infrastructure engineering, and training.

Boston Sand & Gravel Company

21

Boston Sand & Gravel Company is a producer of ready-mix concrete and aggregates.

CMEC

29

CMEC is a not-for-profit organization whose goal is to improve the quality of the production, inspection, and testing of construction materials through the accreditation, education, and certification programs it provides. CMEC was founded in June 1983, and is now recognized both nationally and internationally for its accreditation and education programs.

Exhibitor list as of 9/3/03. An updated listing will be located outside the Grand Ballroom.

Exhibitors

<u>Exhibitor Name</u>	<u>Booth #</u>
Germann Instruments, Inc. Germann Instruments, Inc., provides testing equipment for nondestructive investigation of concrete structures, durability of new structures, service life estimation, fast track construction, structural integrity, corrosion investigation, repair quality, and monitoring.	37 & 38
Glens Falls Lehigh Cement Group Glens Falls Lehigh Cement Group is a producer and distributor of portland, masonry, white, colored, and "ALLCEM" slag cements.	28
Grace Construction Products Grace Construction Products manufactures specialty construction chemicals and building materials, including value-added concrete admixtures and fibers to improve the strength, durability, and chloride resistance of concrete; cement additives to improve production and quality; masonry products for block, pavers, and retaining wall producers; and waterproofing, fire protection, and fire stops materials.	27
King Packaged Materials Company King Packaged Materials Company is a leading supplier of pre-packaged shotcrete, grout and other specialty cementitious products to the North American mining, tunneling, and construction industries. Through its Minequip Division, King is also a leading supplier of Aliva shotcrete equipment and HANY grouting systems.	31
Lafarge North America Lafarge is a cement, slag cement, masonry cement, fly ash, and concrete manufacturer.	30
Massachusetts Concrete and Aggregate Producers Association (MaCAPA) MaCAPA is a ready-mix concrete promotion organization for the states of Massachusetts and Rhode Island.	23
Master Builders, Inc. Master Builders, Inc., is a leading provider of innovative chemical and mineral admixtures used to improve placing, pumping, finishing, and appearance of concrete in the ready-mix, precast, manufactured concrete products, underground construction, and paving markets. Master Builders admixtures ensure high strength and durability, inhibit corrosion of steel embedded in concrete, reduce permeability, and improve resistance to chemical attack.	32

Exhibitors

<u>Exhibitor Name</u>	<u>Booth #</u>
Myers Associates Myers Associates is an authorized dealer for Forney, Gilson, Humboldt, James Instruments, Soil Test, Deslauriers, etc. Myers Associates also sells concrete testing equipment.	19
Northern New England Concrete Promotion Association Northern New England Concrete Promotion Association is a concrete promotion association for the states of Maine, New Hampshire, and Vermont.	33
Pure Technologies, Ltd. Pure Technologies, Ltd., specializes in the manufacture, supply, and management of remote structural instrumentation and surveillance systems. Pure's proprietary SoundPrint Acoustic Monitoring System is used throughout the world to detect and locate failures of tensioned reinforcements in bridges, pipelines, and buildings. Automated Internet-based data transmission, centralized data processing, and web-based reporting provides timely, cost-effective information to owners and engineers.	22
Reinforced Concrete Construction Committee (RC³) Reinforced Concrete Construction Committee promotes cast-in-place concrete as a building material in high-rise structures in the Boston metro area.	36
Separation Technologies, Inc. (STI) For concrete industry users, Separation Technologies, Inc., and the ProAsh brand deliver a consistent, high quality, branded fly ash that meets and exceeds customers' needs and expectations for cost savings, dependability, product strength and durability, and customer desirability as an environmentally friendly "green product."	24
S&F Concrete Contractors, Inc. S&F Concrete Contractors, Inc. is a complete concrete contractor. Divisions include: concrete formwork division; cast-in-place structural concrete formwork, rebar & mesh, post-tensioning; Concrete Flatwork Division; pump, place & finish; and Specialty Floor Division; distribution & manufacturing facilities, and superflat.	35

Exhibitors

<u>Exhibitor Name</u>	<u>Booth #</u>
Sika Corporation Sika Corporation Construction Products Division of Lyndhurst, NJ, is a technology leader with over 90 years of experience in concrete materials and restoration technology. Sika's product line includes concrete admixtures, sealants, adhesives, corrosion inhibitors, specialty mortars, epoxy resins, structural strengthening systems, grouts, anchoring adhesives, overlays, and protective coatings. Full service sales and technical offices support customers nationwide. Visit the Sika Corporation Construction Products Division website at www.sikausa.com .	4
Silica Fume Association The Silica Fume Association, through a cooperative agreement with the Federal Highway Administration, provides high-performance concrete technology transfer to transportation departments and to the design and construction communities.	18
Slag Cement Association The Slag Cement Association (SCA) represents producers and shippers of slag cement in the U.S. The SCA is the leading source of knowledge on blast furnace slag-based cementitious products. The SCA educates customers, specifiers, and other end-users on the various attributes, benefits, and uses of these products.	3
Spa Steel Products Co., Inc. Spa Steel Products Co, Inc., is the manufacturer of the Thermocure II Concrete Cylinder Curing Box, which heats and cools to maintain the required temperature during the field curing of test cylinder molds.	1
St. Lawrence Cement St. Lawrence Cement is a leading producer and supplier of products and services for the construction industry, namely cement and GranCem. Through its various units, St. Lawrence Cement operates cement plants, distribution terminals, and mineral component plants throughout the Northeast and into Canada.	20

Exhibitors

Exhibitor Name

Booth #

Vector Corrosion Technologies

26

Vector Corrosion Technologies specializes in products and services for extending the service life of concrete structures subject to deterioration caused by corrosion of the reinforcing steel and alkali silica reaction. Vector's services include concrete condition/corrosion testing, and the supply and installation of the appropriate concrete repair and corrosion protection system.

Seventh International Symposium on Utilization of High-Strength/ High-Performance Concrete

**June 20 - 24, 2005
Washington, D.C., USA**

Watch for details in the Calls for Papers section in *CI* for the following topics:

National Reports
History and Definition
Materials/Mixture Design/Research
Structural Design/Research
Construction Techniques
Case Histories
Codes/Specifications
Quality Control
Cost Effectiveness

For further information, contact:

Phyllis Erebtor, Liaison

Phone: 248-848-3784

Fax: 248-848-3768

E-mail: Phyllis.Erebtor@concrete.org



Concrete — A Century of Innovation

Special Events Saturday, September 27

Student Concrete Cube Competition
11:30 AM - 5:00 PM

Republic B

Sponsored by Committee E801 and the
ACI New England Chapter

The objective of this competition is to produce a concrete cube that achieves, as closely as possible, a target design strength of 40 MPa and a target mass of 220 grams per cube (moderately lightweight concrete). Come cheer on your favorite team!

Opening Session
Lewis H. Tuthill Lecture Series
5:15 PM - 6:30 PM

Hynes Blrm B

Sponsored by ACI International

Kick off the Fall Convention by attending this opening event. Gather with other ACI attendees to help recognize chapters, international attendees, and students. **Please note: You must wear your name badge to enter the Hynes Convention Center.**



Speaker: James S. Pierce
Chief
Water Resources
Services Division
Technical Service Center
Bureau of Reclamation
Littleton, CO

Topic: Tut's Treasure: A Legacy of
Continuing Value for the
New Century

One of Lewis Tuthill's main concerns throughout his career was quality concrete construction. Tut's treasure was his lasting contributions to the literature, including the early editions of ACI SP-1, the Concrete Primer, major portions of several other ACI publications, and the Bureau of Reclamation's Concrete Manual. During this presentation, Mr. Pierce will review current quality control practices and challenge the industry to uphold Tut's legacy.

Special Events Saturday, September 27

Welcome Reception
6:30 PM - 7:30 PM

Grand Ballroom

Sponsored by the ACI New England Chapter

Start your convention week by visiting the exhibit booths, meeting other attendees and interacting with other top industry professionals. A cash bar and light snacks will be available to keep you going during this jam-packed networking hour.



Following the reception, head out to dinner to one of Boston's fine restaurants. See the

concierge for reservations. **Note:** *Beverages for this event must be paid for with cash and cannot be charged to your room.*

**Hot Topic—Specifications and
Responsibilities for Crack Repair**
7:30 PM - 9:30 PM

Back Bay Dining Room

Sponsored by the Hot Topic Committee and the ACI New England Chapter

Session Moderator: John C. Hukey

What cracks in reinforced concrete structures require repair? Is crack width the determining criterion for repairs? Are crack widths predictable and controllable? Who is responsible for controlling crack widths and paying for repairs? At this hot topic session, speakers representing the views of owners, design professionals, and contractors will discuss the answers to these important questions.

Special Events Sunday, September 28

Grace Laboratories Off-Site Tour (*Free*)

8:15 AM - 11:30 AM

Sponsored by the ACI New England Chapter and Grace Construction Products' Research and Development Laboratories

ACI attendees, students and faculty advisors may board the bus at 8:15 am at the Dalton Street exit of the Sheraton Hotel for a tour of Grace Construction Products' Research and Development Laboratories. Bus space is limited and on a first come first serve basis.

The tour will feature:

- Analytical & Technical Services laboratories supporting Grace's sales force and their customers, as well as R&D and Manufacturing, microscopy laboratory, and one of the analytical chemistry laboratories.
- Material Engineering Laboratory responsible for Grace's durability products, such as corrosion inhibitors and shrinkage-reducing admixtures.
- Concrete Fabrication and Testing areas supporting all of the Specialty Construction Chemicals' R&D groups with testing of their products.
- Fiber Testing laboratory responsible for the STRUX line of products, Verifi, and other Grace fiber projects.

Special Events Sunday, September 28

✓ **Student Luncheon Buffet** **Commonwealth**
12:00 PM - 2:00 PM
\$25US per person (*FREE for students*)

Sponsored by the ACI New England Chapter, Master Builders, and Grace Construction Products' Research and Development Laboratories



Speaker: Larry R. Roberts
Director
Technology, Planning and Transfer
Grace Construction
Cambridge, MA



Speaker: Joseph A. Daczko
Group Manager of Concrete
Technology
Department of Research and
Development
Master Builders, Inc.
Cleveland, OH

Topic: Self-Consolidating Concrete

Self-consolidating concrete (SCC) is gaining widespread acceptance in North America. Its performance characteristics include high fluidity and stability resulting in ease of placement and consolidation. The performance of SCC is dictated by the project requirements.

Awards for 1st, 2nd, and 3rd place in the Student Concrete Cube Competition will be announced during the luncheon.

Menu: All American Deli Buffet, dessert,
tea and coffee

Tickets may be purchased at the ACI Registration Desk until 24 hours prior to the event. Please notify the ACI Registration Desk if you have any dietary restrictions.

✓ **Separate Fee Required**

Special Events Sunday, September 28

Women in ACI Reception 5:00 PM - 6:00 PM

Republic Foyer

Sponsored by ACI International

Join other women in ACI for an informal reception. This gathering is a great networking opportunity and is free to all wishing to attend.



Light refreshments and a cash bar will be available.

Note: Beverages for this event must be paid for with cash and cannot be charged to your room.

123 Forum: Structural Health Monitoring— Do Costs Justify Benefits? 7:30 PM - 10:00 PM

Back Bay D

Sponsored by Committee 123

Session Moderator: Mohammad S. Khan

Following its long tradition, ACI Committee 123 brings industry experts together again in Boston to debate another subject, this time, whether the costs associated with structural health monitoring justify its benefits. Structural health monitoring typically involves hundreds, or even thousands, of sensors attached or embedded to the structural elements of an existing or new structure and allows real-time monitoring of various deterioration parameters. However, the downside is that the process is extremely time-consuming and requires extensive software and hardware. The benefits of a carefully planned and installed health monitoring system are undeniable, but the question is whether the structure owners can afford such systems. Are the costs justified for certain critical structures, while for others traditional structural monitoring is the way to go? Is it reasonable to anticipate that with technological advancements, the complexities of health monitoring systems would be simplified and the costs would decrease in the future? Our panelists will address these and many other questions.

Special Events Monday, September 29

✓ Contractor's Day Lunch

Commonwealth

12:00 PM - 2:00 PM

\$28US per person

Hosted by CLC and the ACI New England Chapter



Speaker: Steve M. Charney
Managing Partner
New York Office
Peckar & Abramson
New York City, NY

Topic: Managing the Risks of Mold

Menu: Custom croissant plate, dessert,
tea and coffee

Tickets may be purchased at the ACI Registration Desk until 24 hours prior to the event. Please notify the ACI Registration Desk if you have any dietary restrictions.

Concrete Mixer—Foods from the Neighborhoods of Boston

Grand Birm

6:30 PM - 8:00 PM

Sponsored by the ACI New England Chapter

Exchange ideas and meet others in the industry, while experiencing the flavors of Boston, with food from the neighborhoods of Beacon Hill, Faneuil Hall Marketplace, the North End, Chinatown, Back Bay, and the Boston Symphony of Sweets. **Note:** *Beverages for this event must be paid for with drink tickets included in registration packet or with cash and cannot be charged to your room.*



✓ Separate Fee Required

Special Events Tuesday, September 30

✓ **International Luncheon Buffet** **Commonwealth**
12:00 PM - 2:00 PM
\$30US per person

Hosted by the International Committee

Speaker: Ronald Lee
Project Manager
John A. Martin & Associates
Los Angeles, CA

Title: The Engineering Challenges of The Ray and Maria Stata Center

The 430,000 ft² Stata Center is a visionary academic complex at MIT, designed by Pritzker Prize-winning architect Frank O. Gehry that demands creative structural engineering solutions to meet the



challenges posed by the architecture. Only nine stories above ground with three stories below, the center houses many different functional facilities including two-tiered classrooms, a large auditorium, athletic facilities, a child care center, as well as research laboratories. As with Gehry's other buildings, such as the Nationale-Nederlanden Building in the Czech Republic, and the Guggenheim Museum in Bilbao, Spain, the Stata Center has characteristics of amorphous form with deconstructive appearance (see the photograph). These characteristics provide challenging opportunities for the structural designer. The center is under construction on the MIT campus.

Menu: Italian North End style buffet,
dessert, tea and coffee

Tickets may be purchased at the ACI Registration Desk until 24 hours prior to the event. Please notify the ACI Registration Desk of any dietary restrictions.

✓ **Separate Fee Required**

Tour Highlights

Saturday, September 27, 2003

Introduction to Boston

2:00 PM - 4:00 PM

\$69US per person

Explore Boston and Cambridge, and Boston's "Left Bank" with a fun and informative guide. You'll see the neighborhoods of Boston, from the Victorian townhouses of the Back Bay to the elegant homes of Beacon Hill. Visit the shopper's paradise that includes upscale Newbury Street, the urban discount district of Downtown Crossing, and the glitzy and fun boutiques of Quincy Market and Faneuil Hall Marketplace. Then take a trip across the Charles River on a swan boat to Cambridge and Harvard Universities, where you will explore historic Harvard Yard on foot and learn about the "Statue of Three Lies," and visit Harry Elkins Widener Memorial Library. Also, see the world famous collection of hand blown glass plant models, known as "The Glass Flowers," in Harvard's Botanical Museum. This unique collection was created by glass artisans Leopold Blaschka and his son, Rudolph, from 1887-1936 and is the only one of its kind in the world. En route back to the hotel, stop for shopping and free time at Faneuil Hall Marketplace and taxi back on your own. (20 person minimum; 34 person maximum)



Sunday, September 28, 2003

9:00 AM - 12:00 PM and

Wednesday, October 1, 2003

1:00 PM - 4:00 PM

The Big Dig

\$46US per person

Tour the Central Artery Tunnel project, otherwise known as the "Big Dig." It is the largest and most technologically challenged highway project ever attempted in American history. This project includes a tunnel under the Boston Harbor, a 14-lane bridge, an 8 to 10 lane underground expressway, 7.5 miles of highway and 3.8 million cubic yards of concrete. Opportunities to view inside the Big Dig may be limited, as most openings will be closed, but there will be plenty to see above ground. (30 person minimum; 34 person maximum)



All tours depart from the Dalton Street Exit.

Tour Highlights

Sunday, September 28

Apropos Dining Rm

Guest Tea

3:30 PM - 5:00 PM

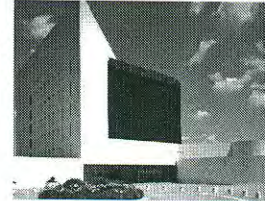
Join other ACI guests for this intimate gathering in the Apropos Dining Room, hosted by Mrs. Izquierdo-Encarnación.

Monday, September 29

In the Footsteps of JFK and Jackie

9:00 AM - 12:00 PM

\$68US per person



Follow the path of one of our most celebrated statesmen, from his newly installed memorial statue on Beacon Hill to the John F. Kennedy Library and Museum. You will see a short film of JFK's life and explore more than 20 exhibits featuring rare film and television footage, historic documents, personal family keepsakes, and treasures from the White House. Jackie's wedding gown and engagement ring along with other wedding memorabilia will be on display. Because of its extreme delicacy, this is the last time that the wedding gown will be on public display. (20 person minimum; 34 person maximum)

Tuesday, September 30

Newport, Rhode Island

Where the Living is Easy

9:00 AM - 5:00 PM

\$87US per person

(Marble House) Ira Kerns photo courtesy of The Preservation Society of Newport County



Experience the grandeur of Newport, Rhode Island, first-hand. Start your day with a guided tour of the dazzling mansion, Marble House, one of 11 historic properties of the Preservation Society, which represents three centuries of American architecture, decorative arts, and history. As you pass by the Ocean Drive estates that are home to today's Newport millionaires, your guide will share fascinating anecdotes about the Astors and the Vanderbilts and their friends and descendants who once made, and who continue to make, Newport the Queen of summer resorts. Enjoy lunch on your own at one of Newport's historic taverns or oceanside seafood restaurants. Finish the day at The Astor's Beechwood Mansion, where you will become a member of Newport's elite society during the Victorian era. You'll be treated as a member of America's first social register, the famous "Four Hundred," created by Mrs. Astor, as the costumed Gilded Era "upstairs and downstairs" characters curtsy to you and include you in their fun. (20 person minimum; 47 person maximum)

All tours depart from the Dalton Street Exit.



Thursday, September 28

Friday, September 29

10:00 AM - 12:00 PM

The first ACI report for the... will be submitted to the...



Friday, September 29

10:00 AM - 12:00 PM

10:00 AM - 12:00 PM

The first ACI report for the... will be submitted to the... The...



Friday, September 30

10:00 AM - 12:00 PM

10:00 AM - 12:00 PM

The first ACI report for the... will be submitted to the... The...

All have departed for the Dallas area.

Program at a Glance

All schedule and location changes will be posted at the
ACI Registration Desk daily.

Thursday, September 25

12:00PM - 10:00PM

TAC-RG1	TAC Review Group 1 M1	Beacon D
TAC-RG2	TAC Review Group 2 M1	Beacon F
TAC-RG3	TAC Review Group 3 M1	Beacon G
TAC-RG4	TAC Review Group 4 M1	Beacon H

6:00PM - 10:00PM

TAC	Technical Activities M1	Commonwealth
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Friday, September 26

7:00AM - 6:00PM

TAC	Technical Activities M2	Commonwealth
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8:30AM - 5:00PM

EAC	Educational Activities M1	Beacon B
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Saturday, September 27

7:00AM - 5:00PM

TAC	Technical Activities M3	Commonwealth
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8:00AM - 10:00AM

440-H	FRP-Reinforced Concrete	Fairfax A
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8:00AM - 1:00PM

TAC-RG1	TAC Review Group 1 M2	Commonwealth
TAC-RG2	TAC Review Group 2 M2	Berkeley A
TAC-RG3	TAC Review Group 3 M2	Boardroom
TAC-RG4	TAC Review Group 4 M2	Conference Rm

8:30AM - 10:00AM

IC-Pub 232-A	International-Publications/Website Natural-Pozzolans	TEC/Conference 5 Beacon C
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8:30AM - 11:30AM

C640	Craftsman	Beacon B
CLC	Construction Liaison	TEC/Conference 7
E801	Student Activities	Beacon E
301-D	Spec-Arctl, LWC, Mass, SCC	Berkeley B
315-B	Detailing-Constructibility	Clarendon
350-C	Env Str-Reinf & Devel	Gardner B
403	Bond & Development	Independence E
533	Precast Panels	TEC/Conference 2

8:30AM - 1:00PM

301-C	Spec-Mixtures, Place, Constr	TEC/Conference 4
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8:30AM - 5:00PM

551	Tilt-Up	Beacon F
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9:00AM - 11:00AM

IC-Conf	International-Conferences	TEC/Conference 1
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Program at a Glance

All schedule and location changes will be posted at the
ACI Registration Desk daily.

Saturday, September 27—continued

9:00AM - 12:00PM

MEMC Membership TEC/Conference 6

10:00AM - 11:30AM

E701 Materials for Concrete Construction Beacon D
IC-Rel International-Relationships TEC/Conference 5
325-D Pavements-Materials and Tests Beacon C
342 Bridge Evaluation TEC/Conference 3

10:00AM - 12:00PM

440-M FRP-Repair of Masonry Str Fairfax A

10:00AM - 5:00PM

355 Anchorage Gardner A

11:30AM - 1:00PM

C630-T Transportation Inspector TEC/Conference 7
HTC Hot Topic TEC/Conference 5
237 Self Consolidating Concrete M1 Beacon E
350-SC Env Str-Steering Comm Gardner B

Session

11:30AM - 1:00PM

Session Moderator Orientation Independence W
Workshop

11:30AM - 3:30PM

423 Prestressed Back Bay C
506-B Shotcreting-Fiber-Reinforced Beacon H

12:00PM - 2:00PM

SUS Sustaining Members Independence E

1:00PM - 2:00PM

440-L FRP-Durability Fairfax A

1:00PM - 3:00PM

IC-Mem International-Membership TEC/Conference 7
TGCA Task Group for Centennial Activities Beacon B
231 Early-Age Beacon G

1:00PM - 3:30PM

362-A Parking Str-Standard Beacon D

Session

1:00PM - 5:00PM

Student Concrete Cube Competition Republic B

2:00PM - 3:30PM

IC-Cert International Certification Boardroom
E903 Convention Training TEC/Conference 5

Program at a Glance

All schedule and location changes will be posted at the
ACI Registration Desk daily.

Saturday, September 27—continued

2:00PM - 3:30PM—continued

365-A	Standards Model Development	TEC/Conference 1
439-A	Steel Reinf-Wire	Beacon E
544-A	FRC-Production & Applications	TEC/Conference 3

2:00PM - 5:00PM

RCC	Responsibility	Dalton
223	Nondestructive Testing M1	Fairfax A
301-A	Spec-General Requirements	Beacon C
301-E	Spec-Prestressed	Berkeley B
309	Consolidation	TEC/Conference 6
315	Detailing	TEC/Conference 4
335	Footings	Fairfax B
343	Bridge Design	Independence W
352	Joints	Gardner B
370	Dynamic & Vibratory Effects	Berkeley A
375	Design for Wind Loads	Clarendon

Sessions

2:00PM - 5:00PM

- ★ FRP Composites for Internal Reinforcement Back Bay
- ★ Boston Central Artery Tunnel Project Back Bay D

2:30PM - 5:00PM

445-A	Shear & Torsn-Strut & Tie	Independence E
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3:00PM - 4:00PM

TGCF	Task Group for Centennial Funding	Beacon B
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3:30PM - 5:00PM

IC	International Committee	Beacon D
201-C	Durability-Condition Survey Rpt	TEC/Conference 7
224	Cracking	TEC/Conference 1
237	Self-Consolidating Concrete M2	Back Bay C
332-TG3	Residential-Education	Boardroom
341-C	Equake Res Brdgs-Retrofit	Beacon H
439-B	Steel Reinf-Mechanical Splices	Beacon E
506-D	Shotcreting-Swimming Pools	TEC/Conference 5
544-B	FRC-Education	TEC/Conference 3

Session

5:15PM - 6:30PM

Opening Session and the Lewis H. Tuthill Lecture Series	Hynes Blrm B
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★ Denotes theme session

Program at a Glance

All schedule and location changes will be posted at the
ACI Registration Desk daily.

Saturday, September 27—continued

6:30PM - 7:30PM

Welcome Reception Grand Blrm

6:30PM - 9:00PM

318-TG2 Code-TG-Notation & Terminology Commonwealth

7:00PM - 8:30PM

318-TG1 Code-TG-Min Torsional Reinf Beacon C

Session

7:30PM - 9:30PM

Hot Topic—Specifications and Responsibilities for Crack Repair Back Bay D

7:30PM - 10:00PM

347-A Formwork-Specification Beacon D

Sunday, September 28

6:30AM - 8:15AM

Workshop for Technical Committee Chairs Commonwealth

7:00AM - 8:30AM

Speaker's Skill Training Breakfast: Preaching, Teaching, and Reaching Fairfax A

8:00AM - 10:00AM

TGSD Board Task Grp-Impact on Sus Dev Conference Rm

8:15AM - 9:15AM

440-D FRP-Research Gardner A

8:30AM - 10:00AM

341-A Equake Res Brdgs-Columns Beacon H
506-A Shotcreting-Evaluation TEC/Conference 5
546-A Repair-Underwater Beacon C
549-A Thin Reinforced-Applications Berkeley B

8:30 AM - 11:30 AM

C610 Field Technician Beacon B
117 Tolerances Fairfax B
303 Architectural CIP Beacon D
311 Inspection Beacon E
524 Plastering TEC/Conference 1
548-A Polymers-Overlays Independence W

8:30AM - 12:30PM

347 Formwork Beacon G
364-A Rehabilitation-Evaluation Clarendon

Program at a Glance

All schedule and location changes will be posted at the
ACI Registration Desk daily.

Sunday, September 28—continued

8:30AM - 1:00PM

232	Fly Ash & Natural Pozzolans	Independence E
313-B	Code-Reinf/Development	Republic B
313-C	Code-Serviceability/Safety	TEC/Conference 3
313-D	Code-Flexure & Axial Loads	TEC/Conference 4
313-G	Code-Prestressed Precast	TEC/Conference 2

8:30AM - 5:00PM

349-C	Nuclear Str-Anchorage	Beacon F
543	Piles	Dalton

8:30AM - 6:30PM

350-D	Env Str-Structural	Boardroom
350-E	Env Str-Precast/Prestressed	Berkeley A

Sessions

9:00AM - 12:00PM

	Research in Progress	Back Bay D
★	FRP Composites for External Reinforcement, Part I	Back Bay C
	Pervious Concrete	Back Bay B
	Seismic Versus Blast Comparison and Contrast of a Multi-Hazard Design	Back Bay A
	New Developments and Techniques in Bond and Development of Reinforcement	Republic A

9:30AM - 12:30PM

369	Seismic Rehab	TEC/Conference 6
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10:00AM - 11:30AM

E803	Faculty Network Coordinating	Fairfax A
341-B	Equake Res Brdgs-Pier Walls	Beacon H
421	Reinforced Slabs	Conference Rm

10:00AM - 12:00PM

506-E	Shotcreting-Specifications	TEC/Conference 5
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10:00AM - 1:00PM

211-D	Proportioning-High Strength	Gardner A
445-C	Shear & Torsn-Punching Shear	TEC/Conference 7
546-B	Repair-Material Selection Guide	Beacon C

★ Denotes theme session

Program at a Glance

All schedule and location changes will be posted at the
ACI Registration Desk daily.

Sunday, September 28—continued

11:30AM - 1:00PM

DLTG	Distance Learning Task Group	TEC/Conference 1
E706	Repair Application Procedures	Beacon E
201-D	Durability-Oversight	Beacon H
345	Bridge Construction	Conference Room
548-B	Polymers-Sulfur Concrete	Berkeley B
549	Thin Reinforced	Beacon D

Session

11:30AM - 1:00PM

Session Moderator Orientation Workshop	Independence W
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11:30AM - 1:30PM

341 Earthquake-Resistant Bridges	Fairfax A
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11:30AM - 2:00PM

207 Mass Concrete	Beacon B
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12:00PM - 2:00PM

✓ Student Luncheon	Commonwealth
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12:30PM - 2:00PM

440-I FRP-Prestressed Concrete	TEC/Conference 6
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1:00PM - 2:30PM

506-C Shotcreting-Guide	TEC/Conference 5
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2:00PM - 3:30PM

INT ADV Internet Advisory	TEC/Conference 1
121 Quality Assurance	Independence E
215 Fatigue	Gardner A
544-E FRC-Mechanical Properties	Independence W
548-C Polymers-Str Design & Analysis	Berkeley B

2:00PM - 5:00PM

MKTC Marketing	TEC/Conference 7
212 Chemical Admixtures	TEC/Conference 6
236-A Material Science-Workability	Beacon B
305 Hot Weather	Fairfax A
335 Composite-Hybrid	Beacon E
350-K Env Str-Hazardous Materials	Beacon C
362 Parking Structures	Clarendon
441 Columns	Beacon H
444 Experimental Analysis	Fairfax B
546-C Repair-Guide	Beacon D
550 Precast Structures	Beacon G

✓Separate fee required

Program at a Glance

All schedule and location changes will be posted at the ACI Registration Desk daily.

Sunday, September 28—continued Sessions

2:00PM - 5:00PM

Limits on Concrete Temperature and the Environment During Curing	Back Bay A
Applications of Fiber-Reinforced Concrete in Highway Bridges	Back Bay B
★ FRP Composites for External Reinforcement, Part II	Back Bay C
Emerging Technologies in Civil Infrastructure Applications	Back Bay D
Foundations for Vibrating Machinery	Republic A

2:00PM - 6:30PM

313-A	Code-General Concrete Constr	TEC/Conference 2
313-E	Code-Shear & Torsion	TEC/Conference 3
313-F	New Mat. Products & Ideas	TEC/Conference 4
313-H	Code-Seismic Provisions	Republic B
350-B	Env Str-Durability	Conference Rm

2:30PM - 5:00PM

340	Design Aids	TEC/Conference 5
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3:30PM - 5:00PM

C650	Tilt-Up	TEC/Conference 1
544-F	FRC-Durability	Independence W
543-TG	Polymers-Task Group Modified Doc	Berkeley B

3:30PM - 6:30PM

437	Strength Evaluation	Independence E
445-E	Shear & Torsn-SOA Torsion	Gardner A

5:00PM - 6:00PM

Women in ACI Reception	Republic Foyer
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5:00 PM - 6:30 PM

C620	Laboratory Tech Cert	TEC/Conference 1
E702	Designing Concrete Structures	TEC/Conference 5
123	Research	Berkeley B
211-H	Proportioning-Self Consolidating	Beacon E
236	Material Science	Beacon B
350-J	Env Str-Education	Beacon C
435	Deflection	Fairfax B
440-F	FRP-Repair-Strengthening	Fairfax A
447	Finite Element Analysis	Beacon F
544-C	FRC-Testing	Independence W
555	Recycled	Beacon D

★ Denotes theme session

Program at a Glance

All schedule and location changes will be posted at the
ACI Registration Desk daily.

Sunday, September 28—continued

5:00PM - 7:30PM

506-F Shotcreting-Underground Beacon G

5:00PM - 10:00PM

355-TG Anchorage-Task Group Clarendon

7:00PM - 9:30PM

TRRC TAC Repair & Rehab Berkeley A

Session

7:30PM - 10:00PM

123 Forum: Structural Health
Monitoring—Do Costs Justify
Benefits? Back Bay D

Monday, September 29

7:00AM - 8:30AM

TMC TAC Metrication TEC/Conference 1

7:00 AM - 9:00 AM

TTTC TAC Technology Transfer TEC/Conference 6

7:00 AM - 12:00 PM

EAC Educational Activities M2 Beacon B

Session

7:30 AM - 8:30 AM

Chapter Forum: How to Host a
Convention Fairfax A

8:30AM - 10:00AM

C630 Construction Inspector TEC/Conference 7

E804 Edu Awards Nomination Committee TEC/Conference 5

118 Computers Beacon E

213-B Lightweight-By-Product Agg Fairfax B

223-B Shr Compensating-Field Meas Clarendon

332-TG2 Residential-Standard M1 Commonwealth

350-G Env Str-Tightness Testing Conference Rm

8:30AM - 10:30AM

506 Shotcreting Republic B

8:30AM - 11:30AM

CAC Chapter Activities Fairfax A

201 Durability TEC/Conference 3

209 Creep & Shrinkage Berkeley A

235 Knowledge-Based Systems Dalton

Program at a Glance

All schedule and location changes will be posted at the
ACI Registration Desk daily.

Monday, September 29—continued

8:30AM - 11:30AM-continued

351-A	Equip Fdns-Static Fdns	Berkeley B
357	Offshore & Marine	Beacon H
522	Pervious Concrete	Beacon F
546	Repair	Beacon G
548	Polymers	TEC/Conference 4
552	Cement Grouting	Beacon D

8:30AM - 1:00PM

302	Floor Construction	Gardner A & B
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8:30AM - 6:30PM

318	Building Code M2	Back Bay C
350-F	Env Str-Seismic	Boardroom

9:00AM - 10:00AM

440-C	FRP State-of-Art	TEC/Conference 2
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Sessions

9:00AM - 12:00PM

Contractor's Day: Anatomy of a Slab Problem—Diagnosis to Repair	Back Bay D
Responsibility in Concrete Construction	Independence E
Roller-Compacted Concrete Pavements	Independence W
Interactions Between Admixtures and Cementitious Materials	Republic A

10:00AM - 11:30AM

E802	Teaching Methods and Edu Mat	TEC/Conference 2
223-C	Shr Compensating-Constr	Clarendon
225	Hydraulic Cements	Fairfax B
350-H	Env Str-Editorial	Conference Rm
503	Adhesives	TEC/Conference 7

10:00AM - 12:30PM

216	Fire Resistance	Beacon E
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10:00AM - 1:00PM

C660	Shotcrete Nozzleman M1	TEC/Conference 1
349-A&B	Nuclear Str-Design & Materials	TEC/Conference 5
440-K	FRP-Material Characteristics	TEC/Conference 6

10:30AM - 12:30PM

CRC	Concrete Research Council	Republic B
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Program at a Glance

All schedule and location changes will be posted at the
ACI Registration Desk daily.

Monday, September 29—continued

11:00AM - 12:00PM

SDC Strategic Development Council Beacon C

11:30AM - 1:00PM

116	Terminology & Notation	Beacon F
207-A	Mass Concrete-RCC in Dams	TEC/Conference 7
211-C	Proportioning-No Slump	Beacon H
211-E	Proportioning-Evaluation	Beacon G
213	Lightweight	Fairfax B
221	Aggregates	TEC/Conference 3
332-TG2	Residential-Standard M2	Beacon D
334	Shells	Dalton
346	CIP Pipe	Clarendon
439	Steel Reinforcement	TEC/Conference 2
515	Protective Systems	TEC/Conference 4

11:30AM - 3:30PM

350-A Env Str-General & Concrete Conference Rm

12:00PM - 1:00PM

124 Aesthetics Beacon B

12:00PM - 2:00PM

✓ Contractor's Day Lunch Commonwealth

1:00PM - 4:00PM

440 Fiber Reinforced Polymer Gardner A & B

2:00PM - 3:30PM

SCO	Scholarship Council (ConREF)	Beacon C
120	History	Beacon E
544-D	FRC-Structural Uses	TEC/Conference 3

2:00PM - 5:00PM

CPC	Certification Programs	TEC/Conference 1
E703	Concrete Construction Practices	TEC/Conference 5
211-A	Proportioning-Editorial	TEC/Conference 7
222	Corrosion	TEC/Conference 4
223	Shrinkage-Compensating	TEC/Conference 2
229	Controlled Low-Strength	Beacon G
234	Silica Fume	Clarendon
325-C	Pavements-RCC	Fairfax B
330	Parking Lots & Site Paving	Dalton
349	Nuclear Structures	Beacon D
351	Equip Foundations	Beacon B
364	Rehabilitation	Beacon F
372	Prestressed/Wire-Wrapped	Beacon H

✓Separate fee required

Program at a Glance

All schedule and location changes will be posted at the
ACI Registration Desk daily.

Monday, September 29—continued

2:00PM - 5:00PM

Sessions

Contractor's Day: Innovative Precast Framing Systems from Theory to Practice Back Bay D

Open Paper Session Independence E

Polymer Concrete Structural Design, Overlay Applications, and Quality Control Republic B

Shrinkage and Creep of Concretes Containing Shrinkage-Reducing Admixtures (SRA) Republic A

Colloidal Aspects of Cement Paste Independence W

2:00PM - 6:30PM

360 Slabs on Ground Berkeley A & B

3:00PM - 5:00PM

CC Convention Committee Fairfax A

3:30PM - 5:00PM

214 Strength Tests TEC/Conference 6

303-C Curing-Accelerated Beacon C

446 Fracture Mechanics TEC/Conference 3

3:30PM - 5:30PM

544 Fiber Reinforced Concrete Commonwealth

3:30PM - 6:30PM

332-TG2 Residential-Standard M3 Beacon E

350-L Env Str-Specifications Conference Rm

5:00PM - 6:30PM

303-D Curing-HPC Beacon C

348 Safety Beacon F

363-A High-Strength State-of-Art-Report TEC/Conference 5

5:00PM - 8:00PM

C660 Shotcrete Nozzleman M2 TEC/Conference 1

6:30PM - 8:00PM

Concrete Mixer Grand Blrm

Program at a Glance

All schedule and location changes will be posted at the
ACI Registration Desk daily.

Tuesday, September 30 Session

7:00AM - 8:30AM

Faculty Network Breakfast Commonwealth

7:00AM - 10:00AM

TSC TAC Specifications Gardner A

8:30AM - 10:00AM

PUBC	Publications	TEC/Conference 1
TAC	TG on Tolerances	Conference Rm
230	Soil Cement	TEC/Conference 4
304	Measuring/Mix/Trans/Placing	Republic B
445-B	Shear & Torsn-Seismic Shear	TEC/Conference 3
523-A	Cellular-Autoclaved Aerated	Clarendon

8:30AM - 11:30AM

E601	Seminar Oversight Committee	TEC/Conference 5
306	Cold Weather	Berkeley B
308-B	Curing-Specifications	Dalton
318-S	Spanish Translation	Berkeley A
318-TG3	Code-TG-Slender Columns	Fairfax B
325-A	Pavements-Design	Gardner B
504	Joint Sealants & Bearing Systems	TEC/Conference 6

8:30AM - 1:00PM

332 Residential Concrete Republic A

8:30AM - 6:30PM

350 Environmental Structures Back Bay C

9:00AM - 12:00PM

373 Prestressed/Tendons Fairfax A

9:00 AM - 12:00 PM

Sessions

Factors Involved in Strength
Design of Footings Independence E

Selection of Materials for
Concrete Repair Back Bay D

Fracture Mechanics: Testing
and Applications Independence W

9:00AM - 5:00PM

355-fib Fastenings to Concrete M1 TEC/Conference 2

10:00AM - 11:30AM

523 Cellular Concrete Clarendon

Program at a Glance

All schedule and location changes will be posted at the
ACI Registration Desk daily.

Tuesday, September 30—continued

10 00AM - 12:00PM

IC-SC 363	Intl Conference Steering Committee High-Strength	TEC/Conference 1 TEC/Conference 4
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10 00AM - 1:00PM

365	Service Life	TEC/Conference 3
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10 30AM - 6:00PM

301	Specifications	Republic B
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11 00AM - 5:00PM

359	Nuc Containment Str	Gardner A
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11 30AM - 1:00PM

IJBRC 303-A	Intl Joints & Bearings Curing-Guide	Fairfax B Dalton
325-B	Pavements-Overlays	Gardner B
	Cryogenic Applications (Organizational Mtg)	TEC/Conference 6

11 30AM - 2:00PM

445	Shear & Torsion	Clarendon
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12 00PM - 2:00PM

	✓ International Luncheon	Commonwealth
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12 00PM - 6:00PM

ITG-4	ITG4-Seismic Applications	TEC/Conference 5
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2:00PM - 3:30PM

211-B	Proportioning-Lightweight	Clarendon
211-G	Proportioning-Shrinkage Component	Dalton
371	Water Towers	Republic A

2:00PM - 5:00PM

233	Ground Slag	TEC/Conference 6
308	Curing	Fairfax B
313-W	318 Intl Workshop Planning	Berkeley B
374	Seismic Design	Fairfax A

2:00PM - 5:00PM

Sessions

	Updating Cold Weather Concreting Practices	Independence E
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	Aerated Autoclaved Concrete— An Innovative Building Solution	Independence W
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✓Separate fee required

Program at a Glance

All schedule and location changes will be posted at the
ACI Registration Desk daily.

Tuesday, September 30—continued

2:00PM - 6:30PM

307 Chimneys

Gardner B

3:30PM - 6:30PM

211 Proportioning

TEC/Conference 4

5:00PM - 6:30PM

325 Pavements

TEC/Conference 2

Wednesday, October 1

7:45AM - 5:00PM

Session

✓ACI Educational Seminar:
Seismic and Wind Design
Considerations for Concrete
Buildings

Independence W

9:00AM - 5:00PM

355-fib Fastenings to Concrete M2

Commonwealth

10:00AM - 5:00PM

BOD Board of Direction

Fairfax

✓Separate fee required

Numeric Committee Listing

(M)=MEETING (TG)=TASK GROUP (WG)=WORK GROUP

COMM	COMMITTEE TITLE	DAY	TIME	ROOM
BO D	Board of Direction	Wed	10:00 AM-5:00 PM	Fairfax
C610	Field Technician	Sun	8:30 AM-11:30 AM	Beacon B
C620	Laboratory Tech Cert	Sun	5:00 PM-6:30 PM	TEC/Conference 1
C630	Construction Inspector	Mon	8:30 AM-10:00 AM	TEC/Conference 7
C630-T	Transportation Inspector	Sat	11:30 AM-1:00 PM	TEC/Conference 7
C640	Craftsman	Sat	8:30 AM-11:30 AM	Beacon B
C650	Tilt-Up	Sun	3:30 PM-5:00 PM	TEC/Conference 1
C660	Shotcrete Nozzleman M1	Mon	10:00 AM-1:00 PM	TEC/Conference 1
C660	Shotcrete Nozzleman M2	Mon	5:00 PM-8:00 PM	TEC/Conference 1
CAC	Chapter Activities	Mon	8:30 AM-11:30 AM	Fairfax A
CC	Convention Committee	Mon	3:00 PM-5:00 PM	Fairfax A
CLC	Construction Liaison	Sat	8:30 AM-11:30 AM	TEC/Conference 7
CPC	Certification Programs	Mon	2:00 PM-5:00 PM	TEC/Conference 1
CRC	Concrete Research Council	Mon	10:30 AM-12:30 PM	Republic B
DLTG	Distance Learning Task Group	Sun	11:30 AM-1:00 PM	TEC/Conference 1
E601	Seminar Oversight Committee	Tue	8:30 AM-11:30 AM	TEC/Conference 5
E701	Materials for Concrete Construction	Sat	10:00 AM-11:30 AM	Beacon D
E702	Designing Concrete Structures	Sun	5:00 PM-6:30 PM	TEC/Conference 5
E703	Concrete Construction Practices	Mon	2:00 PM-5:00 PM	TEC/Conference 5
E706	Repair Application Procedures	Sun	11:30 AM-1:00 PM	Beacon E
E801	Student Activities	Sat	8:30 AM-11:30 AM	Beacon E
E802	Teaching Methods and Edu Mat	Mon	10:00 AM-11:30 AM	TEC/Conference 2
E803	Faculty Network Coordinating	Sun	10:00 AM-11:30 AM	Fairfax A
E804	Edu Awards Nomination Committee	Mon	8:30 AM-10:00 AM	TEC/Conference 5
E903	Convention Training	Sat	2:00 PM-3:30 PM	TEC/Conference 5
EAC	Educational Activities M1	Fri	8:30 AM-5:00 PM	Beacon B
EAC	Educational Activities M2	Mon	7:00 AM-12:00 PM	Beacon B
HTC	Hot Topic	Sat	11:30 AM-1:00 PM	TEC/Conference 5
IC	International Committee	Sat	3:30 PM-5:00 PM	Beacon D
IC-Cert	International Certification	Sat	2:00 PM-3:30 PM	Boardroom
IC-Conf	International-Conferences	Sat	9:00 AM-11:00 AM	TEC/Conference 1
IC-Mem	International-Membership	Sat	1:00 PM-3:00 PM	TEC/Conference 7
IC-Pub	International-Publications/Website	Sat	8:30 AM-10:00 AM	TEC/Conference 5
IC-Rel	International-Relationships	Sat	10:00 AM-11:30 AM	TEC/Conference 5
IC-SC	Intl Conference Steering Committee	Tue	10:00 AM-12:00 PM	TEC/Conference 1
IJBC	Intl Joints & Bearings	Tue	11:30 AM-1:00 PM	Fairfax B
INT ADV	Internet Advisory	Sun	2:00 PM-3:30 PM	TEC/Conference 1
ITG 4	ITG4-Seismic Applications	Tue	12:00 PM-6:00 PM	TEC/Conference 5
ME/IC	Membership	Sat	9:00 AM-12:00 PM	TEC/Conference 6
MKT C	Marketing	Sun	2:00 PM-5:00 PM	TEC/Conference 7
PUB C	Publications	Tue	8:30 AM-10:00 AM	TEC/Conference 1
RCC	Responsibility	Sat	2:00 PM-5:00 PM	Dalton
SCC	Scholarship Council (ConREF)	Mon	2:00 PM-3:30 PM	Beacon C
SDC	Strategic Development Council	Mon	11:00 AM-12:00 PM	Beacon C
SUS	Sustaining Members	Sat	12:00 PM-2:00 PM	Independence E
TAC	Technical Activities M1	Thur	6:00 PM-10:00 PM	Commonwealth
TAC	Technical Activities M2	Fri	7:00 AM-6:00 PM	Commonwealth
TAC	Technical Activities M3	Sat	7:00 AM-5:00 PM	Commonwealth
TAC	TG on Tolerances	Tue	8:30 AM-10:00 AM	Conference Rm
TAC-RG1	TAC Review Group 1 M1	Thur	12:00 PM-10:00 PM	Beacon D
TAC-RG1	TAC Review Group 1 M2	Sat	8:00 AM-1:00 PM	Commonwealth
TAC-RG2	TAC Review Group 2 M1	Thur	12:00 PM-10:00 PM	Beacon F
TAC-RG2	TAC Review Group 2 M2	Sat	8:00 AM-1:00 PM	Berkeley A
TAC-RG3	TAC Review Group 3 M1	Thur	12:00 PM-10:00 PM	Beacon G
TAC-RG3	TAC Review Group 3 M2	Sat	8:00 AM-1:00 PM	Boardroom
TAC-RG4	TAC Review Group 4 M1	Thur	12:00 PM-10:00 PM	Beacon H
TAC-RG4	TAC Review Group 4 M2	Sat	8:00 AM-1:00 PM	Conference Rm

Numeric Committee Listing

(M)=MEETING (TG)=TASK GROUP (WG)=WORK GROUP

COMM	COMMITTEE TITLE	DAY	TIME	ROOM
TGCA	Task Group for Centennial Activities	Sat	1:00 PM-3:00 PM	Beacon B
TGCF	Task Group for Centennial Funding	Sat	3:00 PM-4:00 PM	Beacon B
TMC	TAC Metrication	Mon	7:00 AM-8:30 AM	TEC/Conference 1
TRRC	TAC Repair & Rehab	Sun	7:00 PM-9:30 PM	Berkeley A
TSC	TAC Specifications	Tue	7:00 AM-10:00 AM	Gardner A
TTTC	TAC Technology Transfer	Mon	7:00 AM-9:00 AM	TEC/Conference 6
TGSD	Board Task Grp-Impact on Sus Dev	Sun	8:00 AM-10:00 AM	Conference Rm
116	Terminology & Notation	Mon	11:30 AM-1:00 PM	Beacon F
117	Tolerances	Sun	8:30 AM-11:30 AM	Fairfax B
118	Computers	Mon	8:30 AM-10:00 AM	Beacon E
120	History	Mon	2:00 PM-3:30 PM	Beacon E
121	Quality Assurance	Sun	2:00 PM-3:30 PM	Independence E
123	Research	Sun	5:00 PM-6:30 PM	Berkeley B
124	Aesthetics	Mon	12:00 PM-1:00 PM	Beacon B
201	Durability	Mon	8:30 AM-11:30 AM	TEC/Conference 3
201-C	Durability-Condition Survey Rprt	Sat	3:30 PM-5:00 PM	TEC/Conference 7
201-D	Durability-Oversight	Sun	11:30 AM-1:00 PM	Beacon H
207	Mass Concrete	Sun	11:30 AM-2:00 PM	Beacon B
207-A	Mass Concrete -RCC in Dams	Mon	11:30 AM-1:00 PM	TEC/Conference 7
209	Creep & Shrinkage	Mon	8:30 AM-11:30 AM	Berkeley A
211	Proportioning	Tue	3:30 PM-6:30 PM	TEC/Conference 4
211-A	Proportioning-Editorial	Mon	2:00 PM-5:00 PM	TEC/Conference 7
211-B	Proportioning-Lightweight	Tue	2:00 PM-3:30 PM	Clarendon
211-C	Proportioning-No Slump	Mon	11:30 AM-1:00 PM	Beacon H
211-D	Proportioning-High Strength	Sun	10:00 AM-1:00 PM	Gardner A
211-E	Proportioning-Evaluation	Mon	11:30 AM-1:00 PM	Beacon G
211-G	Proportioning-Shrinkage Component	Tue	2:00 PM-3:30 PM	Dalton
211-H	Proportioning-Self Consolidating	Sun	5:00 PM-6:30 PM	Beacon E
212	Chemical Admixtures	Sun	2:00 PM-5:00 PM	TEC/Conference 6
213	Lightweight	Mon	11:30 AM-1:00 PM	Fairfax B
213-B	Lightweight-By-Product Agg	Mon	8:30 AM-10:00 AM	Fairfax B
214	Strength Tests	Mon	3:30 PM-5:00 PM	TEC/Conference 6
215	Fatigue	Sun	2:00 PM-3:30 PM	Gardner A
216	Fire Resistance	Mon	10:00 AM-12:30 PM	Beacon E
221	Aggregates	Mon	11:30 AM-1:00 PM	TEC/Conference 3
222	Corrosion	Mon	2:00 PM-5:00 PM	TEC/Conference 4
223	Shrinkage-Compensating	Mon	2:00 PM-5:00 PM	TEC/Conference 2
223-B	Shr Compensating-Field Meas	Mon	8:30 AM-10:00 AM	Clarendon
223-C	Shr Compensating-Constr	Mon	10:00 AM-11:30 AM	Clarendon
224	Cracking	Sat	3:30 PM-5:00 PM	TEC/Conference 1
225	Hydraulic Cements	Mon	10:00 AM-11:30 AM	Fairfax B
228	Nondestructive Testing M1	Sat	2:00 PM-5:00 PM	Fairfax A
229	Controlled Low-Strength	Mon	2:00 PM-5:00 PM	Beacon G
230	Soil Cement	Tue	8:30 AM-10:00 AM	TEC/Conference 4
231	Early-Age	Sat	1:00 PM-3:00 PM	Beacon G
232	Fly Ash & Natural Pozzolans	Sun	8:30 AM-1:00 PM	Independence E
232-A	Natural-Pozzolans	Sat	8:30 AM-10:00 AM	Beacon C
233	Ground Slag	Tue	2:00 PM-5:00 PM	TEC/Conference 6
234	Silica Fume	Mon	2:00 PM-5:00 PM	Clarendon
235	Knowledge-Based Systems	Mon	8:30 AM-11:30 AM	Dalton
236	Material Science	Sun	5:00 PM-6:30 PM	Beacon B
236-A	Material Science-Workability	Sun	2:00 PM-5:00 PM	Beacon B
237	Self-Consolidating Concrete M1	Sat	11:30 AM-1:00 PM	Beacon E
237	Self-Consolidating Concrete M2	Sat	3:30 PM-5:00 PM	Back Bay C
301	Specifications	Tue	10:30 AM-6:00 PM	Republic B
301-A	Spec-General Requirements	Sat	2:00 PM-5:00 PM	Beacon C
301-C	Spec-Mixtures, Place, Constr	Sat	8:30 AM-1:00 PM	TEC/Conference 4
301-D	Spec-Arctl, LWC, Mass, SCC	Sat	8:30 AM-11:30 AM	Berkeley B
301-E	Spec-Prestressed	Sat	2:00 PM-5:00 PM	Berkeley B

Numeric Committee Listing

(M)=MEETING (TG)=TASK GROUP (WG)=WORK GROUP

COMM	COMMITTEE TITLE	DAY	TIME	ROOM
302	Floor Construction	Mon	8:30 AM-1:00 PM	Gardner A & B
303	Architectural CIP	Sun	8:30 AM-11:30 AM	Beacon D
304	Measuring/Mix/Trans/Placing	Tue	8:30 AM-10:00 AM	Republic B
305	Hot Weather	Sun	2:00 PM-5:00 PM	Fairfax A
306	Cold Weather	Tue	8:30 AM-11:30 AM	Berkeley B
307	Chimneys	Tue	2:00 PM-6:30 PM	Gardner B
308	Curing	Tue	2:00 PM-5:00 PM	Fairfax B
308-A	Curing-Guide	Tue	11:30 AM-1:00 PM	Dalton
308-B	Curing-Specifications	Tue	8:30 AM-11:30 AM	Dalton
308-C	Curing-Accelerated	Mon	3:30 PM-5:00 PM	Beacon C
308-D	Curing-HPC	Mon	5:00 PM-6:30 PM	Beacon C
309	Consolidation	Sat	2:00 PM-5:00 PM	TEC/Conference 6
311	Inspection	Sun	8:30 AM-11:30 AM	Beacon E
315	Detailing	Sat	2:00 PM-5:00 PM	TEC/Conference 4
315-B	Detailing-Constructibility	Sat	8:30 AM-11:30 AM	Clarendon
318	Building Code M2	Mon	8:30 AM-6:30 PM	Back Bay C
318-A	Code-General Concrete Constr	Sun	2:00 PM-6:30 PM	TEC/Conference 2
318-B	Code-Reinf/Development	Sun	8:30 AM-1:00 PM	Republic B
318-C	Code-Serviceability/Safety	Sun	8:30 AM-1:00 PM	TEC/Conference 3
318-D	Code-Flexure & Axial Loads	Sun	8:30 AM-1:00 PM	TEC/Conference 4
318-E	Code-Shear & Torsion	Sun	2:00 PM-6:30 PM	TEC/Conference 3
318-F	New Mat. Products & Ideas	Sun	2:00 PM-6:30 PM	TEC/Conference 4
318-G	Code-Prestressed Precast	Sun	8:30 AM-1:00 PM	TEC/Conference 2
318-H	Code-Seismic Provisions	Sun	2:00 PM-6:30 PM	Republic B
318-S	318 Spanish Translation	Tue	8:30 AM-11:30 AM	Berkeley A
318-W	318 Intl Workshop Planning	Tue	2:00 PM-5:00 PM	Berkeley B
318-TG1	Code-TG-Min Torsional Reinf	Sat	7:00 PM-8:30 PM	Beacon C
318-TG2	Code-TG-Notation & Terminology	Sat	6:30 PM-9:00 PM	Commonwealth
318-TG3	Code-TG-Slender Columns	Tue	8:30 AM-11:30 AM	Fairfax B
325	Pavements	Tue	5:00 PM-6:30 PM	TEC/Conference 2
325-A	Pavements-Design	Tue	8:30 AM-11:30 AM	Gardner B
325-E	Pavements-Overlays	Tue	11:30 AM-1:00 PM	Gardner B
325-C	Pavements-RCC	Mon	2:00 PM-5:00 PM	Fairfax B
325-D	Pavements-Materials and Tests	Sat	10:00 AM-11:30 AM	Beacon C
330	Parking Lots & Site Paving	Mon	2:00 PM-5:00 PM	Dalton
332	Residential Concrete	Tue	8:30 AM-1:00 PM	Republic A
332-TG2	Residential-Standard M1	Mon	8:30 AM-10:00 AM	Commonwealth
332-TG2	Residential-Standard M2	Mon	11:30 AM-1:00 PM	Beacon D
332-TG2	Residential-Standard M3	Mon	3:30 PM-6:30 PM	Beacon E
332-TG3	Residential-Education	Sat	3:30 PM-5:00 PM	Boardroom
334	Shells	Mon	11:30 AM-1:00 PM	Dalton
335	Composite-Hybrid	Sun	2:00 PM-5:00 PM	Beacon E
336	Footings	Sat	2:00 PM-5:00 PM	Fairfax B
340	Design Aids	Sun	2:30 PM-5:00 PM	TEC/Conference 5
341	Earthquake-Resistant Bridges	Sun	11:30 AM-1:30 PM	Fairfax A
341-A	Equake Res Brdgs-Columns	Sun	8:30 AM-10:00 AM	Beacon H
341-B	Equake Res Brdgs-Pier Walls	Sun	10:00 AM-11:30 AM	Beacon H
341-C	Equake Res Brdgs-Retrofit	Sat	3:30 PM-5:00 PM	Beacon H
342	Bridge Evaluation	Sat	10:00 AM-11:30 AM	TEC/Conference 3
343	Bridge Design	Sat	2:00 PM-5:00 PM	Independence W
345	Bridge Construction	Sun	11:30 AM-1:00 PM	Conference Rm
346	CIP Pipe	Mon	11:30 AM-1:00 PM	Clarendon
347	Formwork	Sun	8:30 AM-12:30 PM	Beacon G
347-A	Formwork-Specification	Sat	7:30 PM-10:00 PM	Beacon D
348	Safety	Mon	5:00 PM-6:30 PM	Beacon F
349	Nuclear Structures	Mon	2:00 PM-5:00 PM	Beacon D
349-A & B	Nuclear Str-Design & Materials	Mon	10:00 AM-1:00 PM	TEC/Conference 5
349-C	Nuclear Str-Anchorage	Sun	8:30 AM-5:00 PM	Beacon F
350	Environmental Structures	Tue	8:30 AM-6:30 PM	Back Bay C

Numeric Committee Listing

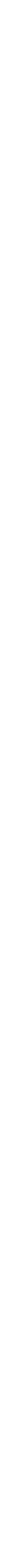
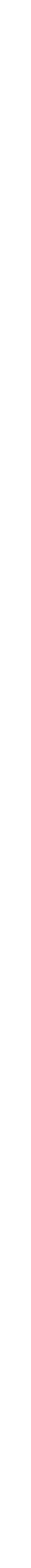
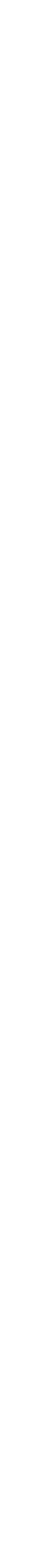
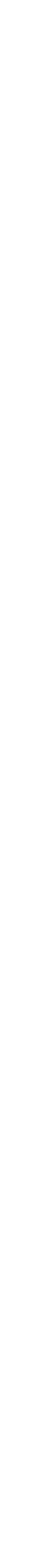
(M)=MEETING (TG)=TASK GROUP (WG)=WORK GROUP

COMM	COMMITTEE TITLE	DAY	TIME	ROOM
350-A	Env Str-General & Concrete	Mon	11:30 AM-3:30 PM	Conference Rm
350-B	Env Str-Durability	Sun	2:00 PM-6:30 PM	Conference Rm
350-C	Env Str-Reinf & Devel	Sat	8:30 AM-11:30 AM	Gardner B
350-D	Env Str-Structural	Sun	8:30 AM-6:30 PM	Boardroom
350-E	Env Str-Precast/Prestressed	Sun	8:30 AM-6:30 PM	Berkeley A
350-F	Env Str-Seismic	Mon	8:30 AM-6:30 PM	Boardroom
350-G	Env Str-Tightness Testing	Mon	8:30 AM-10:00 AM	Conference Rm
350-H	Env Str-Editorial	Mon	10:00 AM-11:30 AM	Conference Rm
350-J	Env Str-Education	Sun	5:00 PM-6:30 PM	Beacon C
350-K	Env Str-Hazardous Materials	Sun	2:00 PM-5:00 PM	Beacon C
350-L	Env Str-Specifications	Mon	3:30 PM-6:30 PM	Conference Rm
350-SC	Env Str-Steering Comm	Sat	11:30 AM-1:00 PM	Gardner B
351	Equip Foundations	Mon	2:00 PM-5:00 PM	Beacon B
351-A	Equip Fdns-Static Fdns	Mon	8:30 AM-11:30 AM	Berkeley B
352	Joints	Sat	2:00 PM-5:00 PM	Gardner B
355	Anchorage	Sat	10:00 AM-5:00 PM	Gardner A
355-fib	Fastenings to Concrete M1	Tue	9:00 AM-5:00 PM	TEC/Conference 2
355-fib	Fastenings to Concrete M2	Wed	9:00 AM-5:00 PM	Commonwealth
355-TG	Anchorage-Task Group	Sun	5:00 PM-10:00 PM	Clarendon
357	Offshore & Marine	Mon	8:30 AM-11:30 AM	Beacon H
359	Nuc Containment Str	Tue	11:00 AM-5:00 PM	Gardner A
360	Slabs on Ground	Mon	2:00 PM-6:30 PM	Berkeley A & B
362	Parking Structures	Sun	2:00 PM-5:00 PM	Clarendon
362-A	Parking Str-Standard	Sat	1:00 PM-3:30 PM	Beacon D
363	High-Strength	Tue	10:00 AM-12:00 PM	TEC/Conference 4
363-A	High-Strength State-of-Art-Report	Mon	5:00 PM-6:30 PM	TEC/Conference 5
364	Rehabilitation	Mon	2:00 PM-5:00 PM	Beacon F
364-A	Rehabilitation-Evaluation	Sun	8:30 AM-12:30 PM	Clarendon
365	Service Life	Tue	10:00 AM-1:00 PM	TEC/Conference 3
365-A	Standards Model Development	Sat	2:00 PM-3:30 PM	TEC/Conference 1
369	Seismic Rehab	Sun	9:30 AM-12:30 PM	TEC/Conference 6
370	Dynamic & Vibratory Effects	Sat	2:00 PM-5:00 PM	Berkeley A
371	Water Towers	Tue	2:00 PM-3:30 PM	Republic A
372	Prestressed/Wire-Wrapped	Mon	2:00 PM-5:00 PM	Beacon H
373	Prestressed/Tendons	Tue	9:00 AM-12:00 PM	Fairfax A
374	Seismic Design	Tue	2:00 PM-5:00 PM	Fairfax A
375	Design for Wind Loads	Sat	2:00 PM-5:00 PM	Clarendon
408	Bond & Development	Sat	8:30 AM-11:30 AM	Independence E
421	Reinforced Slabs	Sun	10:00 AM-11:30 AM	Conference Rm
423	Prestressed	Sat	11:30 AM-3:30 PM	Back Bay C
435	Deflection	Sun	5:00 PM-6:30 PM	Fairfax B
437	Strength Evaluation	Sun	3:30 PM-6:30 PM	Independence E
439	Steel Reinforcement	Mon	11:30 AM-1:00 PM	TEC/Conference 2
439-A	Steel Reinf-Wire	Sat	2:00 PM-3:30 PM	Beacon E
439-B	Steel Reinf-Mechanical Splices	Sat	3:30 PM-5:00 PM	Beacon E
440	Fiber Reinforced Polymer	Mon	1:00 PM-4:00 PM	Gardner A & B
440-C	FRP State-of-Art	Mon	9:00 AM-10:00 AM	TEC/Conference 2
440-D	FRP-Research	Sun	8:15 AM-9:15 AM	Gardner A
440-F	FRP-Repair-Strengthening	Sun	5:00 PM-6:30 PM	Fairfax A
440-H	FRP-Reinforced Concrete	Sat	8:00 AM-10:00 AM	Fairfax A
440-I	FRP-Prestressed Concrete	Sun	12:30 PM-2:00 PM	TEC/Conference 6
440-K	FRP-Material Characteristics	Mon	10:00 AM-1:00 PM	TEC/Conference 6
440-L	FRP-Durability	Sat	1:00 PM-2:00 PM	Fairfax A
440-M	FRP-Repair of Masonry Str	Sat	10:00 AM-12:00 PM	Fairfax A
441	Columns	Sun	2:00 PM-5:00 PM	Beacon H
444	Experimental Analysis	Sun	2:00 PM-5:00 PM	Fairfax B
445	Shear & Torsion	Tue	11:30 AM-2:00 PM	Clarendon
445-A	Shear & Torsn-Strut & Tie	Sat	2:30 PM-5:00 PM	Independence E
445-B	Shear & Torsn-Seismic Shear	Tue	8:30 AM-10:00 AM	TEC/Conference 3

Numeric Committee Listing

(M)=MEETING (TG)=TASK GROUP (WG)=WORK GROUP

COMM	COMMITTEE TITLE	DAY	TIME	ROOM
445-C	Shear & Torsn-Punching Shear	Sun	10:00 AM-1:00 PM	TEC/Conference 7
445-E	Shear & Torsn-SOA Torsion	Sun	3:30 PM-6:30 PM	Gardner A
446	Fracture Mechanics	Mon	3:30 PM-5:00 PM	TEC/Conference 3
447	Finite Element Analysis	Sun	5:00 PM-6:30 PM	Beacon F
503	Adhesives	Mon	10:00 AM-11:30 AM	TEC/Conference 7
504	Joint Sealants & Bearing Systems	Tue	8:30 AM-11:30 AM	TEC/Conference 6
506	Shotcreting	Mon	8:30 AM-10:30 AM	Republic B
506-A	Shotcreting-Evaluation	Sun	8:30 AM-10:00 AM	TEC/Conference 5
506-B	Shotcreting-Fiber-Reinforced	Sat	11:30 AM-3:30 PM	Beacon H
506-C	Shotcreting-Guide	Sun	1:00 PM-2:30 PM	TEC/Conference 5
506-D	Shotcreting-Swimming Pools	Sat	3:30 PM-5:00 PM	TEC/Conference 5
506-E	Shotcreting-Specifications	Sun	10:00 AM-12:00 PM	TEC/Conference 5
506-F	Shotcreting-Underground	Sun	5:00 PM-7:30 PM	Beacon G
515	Protective Systems	Mon	11:30 AM-1:00 PM	TEC/Conference 4
522	Pervious Concrete	Mon	8:30 AM-11:30 AM	Beacon F
523	Cellular Concrete	Tue	10:00 AM-11:30 AM	Clarendon
523-A	Cellular-Autoclaved Aerated	Tue	8:30 AM-10:00 AM	Clarendon
524	Plastering	Sun	8:30 AM-11:30 AM	TEC/Conference 1
533	Precast Panels	Sat	8:30 AM-11:30 AM	TEC/Conference 2
543	Piles	Sun	8:30 AM-5:00 PM	Dalton
544	Fiber Reinforced Concrete	Mon	3:30 PM-5:30 PM	Commonwealth
544-A	FRC-Production & Applications	Sat	2:00 PM-3:30 PM	TEC/Conference 3
544-B	FRC-Education	Sat	3:30 PM-5:00 PM	TEC/Conference 3
544-C	FRC-Testing	Sun	5:00 PM-6:30 PM	Independence W
544-D	FRC-Structural Uses	Mon	2:00 PM-3:30 PM	TEC/Conference 3
544-E	FRC-Mechanical Properties	Sun	2:00 PM-3:30 PM	Independence W
544-F	FRC-Durability	Sun	3:30 PM-5:00 PM	Independence W
546	Repair	Mon	8:30 AM-11:30 AM	Beacon G
546-A	Repair-Underwater	Sun	8:30 AM-10:00 AM	Beacon C
546-B	Repair-Material Selection Guide	Sun	10:00 AM-1:00 PM	Beacon C
546-C	Repair-Guide	Sun	2:00 PM-5:00 PM	Beacon D
548	Polymers	Mon	8:30 AM-11:30 AM	TEC/Conference 4
548-A	Polymers-Overlays	Sun	8:30 AM-11:30 AM	Independence W
548-B	Polymers-Sulfur Concrete	Sun	11:30 AM-1:00 PM	Berkeley B
548-C	Polymers-Str Design & Analysis	Sun	2:00 PM-3:30 PM	Berkeley B
548-TG	Polymers-Task Grp Modified Doc	Sun	3:30 PM-5:00 PM	Berkeley B
549	Thin Reinforced	Sun	11:30 AM-1:00 PM	Beacon D
549-A	Thin Reinforced-Applications	Sun	8:30 AM-10:00 AM	Berkeley B
550	Precast Structures	Sun	2:00 PM-5:00 PM	Beacon G
551	Tilt-Up	Sat	8:30 AM-5:00 PM	Beacon F
552	Cement Grouting	Mon	8:30 AM-11:30 AM	Beacon D
555	Recycled	Sun	5:00 PM-6:30 PM	Beacon D
	Cryogenic Applications (Organizational Mtg)	Tue	11:30 AM-1:00 PM	TEC/Conference 6



Saturday, September 27

11:30 AM - 1:00 PM

**Session Moderator
Orientation Workshop**

Independence W

Sponsored by Committee E903

Session Moderator: David G. Kittridge
Consultant
Maitland, FL

Session Co-Moderators: Richard P. Bohan
Director of Education
Department of Education
and Training
Portland Cement Association
Skokie, IL

Charles S. Hanskat
Manager
Business Development
DN Thermal Energy Systems
El Cajon, CA

Ensuring that all ACI session moderators understand the duties and responsibilities of moderating a session is one of the goals of this workshop, as well as ensuring that they are aware of the resources available and planning timetables. Approval to sponsor a technical session at an ACI convention is contingent on prior attendance at a session moderator orientation workshop. All moderators of technical and educational sessions are required by TAC and EAC to attend one of these orientation workshops before their scheduled session. This workshop is also offered on Sunday, September 28.

Saturday, September 27

11:30 AM - 5:00 PM

**Student Concrete Cube
Competition**

Republic B

Sponsored by Committee E802 and the
ACI New England Chapter

Program Coordinators: Abdeldjelil Belarbi
Associate Professor
Department of Civil Engineering
University of Missouri-Rolla
Rolla, MO

Kurt G. Benedict
Associate Professor
Department of Civil, Construction
and Environment
Wentworth Institute of Technology
Boston, MA

Introduction

1:00 PM

Abdeldjelil Belarbi, Associate Professor, Department of Civil
Engineering, University of Missouri-Rolla, Rolla, MO

Student Concrete Cube Competition

1:05 PM

The objective of this competition is to produce a concrete
cube that achieves, as closely as possible, a target design
strength of 40 MPa and a target mass of 220 g per cube
(moderately lightweight concrete).

Saturday, September 27

2:00 PM - 5:00 PM

**★ FRP Composites for
Internal Reinforcement**

Back Bay B

Sponsored by Committee 440

Session Moderator: Vicki L. Brown
Associate Professor & Chair
Department of Civil Engineering
Widener University
Chester, PA

Session Co-Moderator: Renato Parretti
Structural Engineer
Co-Force America, Inc.
Rolla, MO

Introduction 2:00 PM

Sami H. Rizkalla, Distinguished Professor, Department of Civil Engineering & Construction, North Carolina State University, Raleigh, NC

**FRP Reinforced Concrete in Texas
Transportation—Past, Present, and Future 2:05 PM**

Tim Bradberry, Engineer-Manager, Texas Department of Transportation Bridge Division, TXDOT, Austin, TX; and *S. Wallace*, Carter & Burgess Inc.

**Design and Testing of Highway Concrete
Bridge Deck Reinforced with Glass and
Carbon FRP Bars 2:30 PM**

E. El-Salakawy, Research Assistant Professor, Department of Civil Engineering, University of Sherbrooke, Sherbrooke, QC, Canada; and *Brahim Benmokrane*, University of Sherbrooke

**CFRP Prestressed Concrete
Lighting Columns 2:55 PM**

Giovanni P. Terrasi, Head of R&D/Engineering Department, SACAC AG, Switzerland; and *J. M. Lees*, University of Cambridge

★ Denotes theme session

Saturday, September 27

2:00 PM - 5:00 PM

★ FRP Composites for Internal Reinforcement *continued*

FRP for Prestressing of Concrete Bridges in Canada **3:20 PM**

Sami H. Rizkalla, Distinguished Professor, Department of Civil Engineering & Construction, North Carolina State University, Raleigh, NC; and *G. Tadros*, ISIS Canada

Production Testing of CFRP Grid Reinforced Concrete Panels for a Floating Pier **3:45 PM**

Markus Wernli, Project Engineer, BERGER/ABAM Engineers Inc., Federal Way, WA; *Robert F. Mast*, BERGER/ABAM Engineers Inc.; and *G. E. Warren*, Naval Facilities Engineering Service Center

GFRP Connector and Partially Precast Concrete Sandwich Panel System **4:10 PM**

Ralf Gastmeyer, Partner, Riedel und Gastmeyer Partnerschaft, Lichtenstein; and *Rex C. Donahey*, Composite Technologies Corp.

Preliminary Performance Observations for an FRP Reinforced Concrete Bridge Deck **4:35 PM**

A. A. Huckelbridge, Associate Professor of Civil Engineering, Case Western Reserve University, Cleveland, OH; and *A. K. Eitel*, Case Western Reserve University

★ Denotes theme session

Saturday, September 27

2:00 PM - 5:00 PM

**★ Boston Central Artery
Tunnel Project**

Back Bay D

Sponsored by the ACI New England Chapter

Session Moderator: Marcia Kelly
Senior Structural Engineer
Earth Tech
Concord, MA

Session Co-Moderator: Daniel C. Jansen
Assistant Professor
Department of Civil Engineering
Tufts University
Medford, MA

Introduction **2:00 PM**
Marcia Kelly, Senior Structural Engineer, Earth Tech,
Concord, MA

The Central Artery Tunnel Project **2:05 PM**
Matthew R. Dindio, Public Affairs Specialist, Massachusetts
Turnpike Authority, Boston, MA

**Design of the Leonard P. Zakim Bunker
Hill Bridge** **2:35 PM**
Sena Kumarasena, Deputy Project Manager, HNTB,
Boston, MA

**Construction of the Leonard P. Zakim Bunker
Hill Bridge** **3:05 PM**
Paul Giroux, Assistant Project Manager, Kiewit, Medway, MA

Design of the Fort Point Channel Crossing **4:05 PM**
Mike Haire, Assistant Project Manager, Gannett Fleming,
Braintree, MA; and *Paul Smith*, Gannett Fleming, Braintree

**Construction of the Fort Point
Channel Crossing** **4:35 PM**

★ Denotes theme session

Saturday, September 27

5:15 PM - 6:30 PM

**Opening Session and the Hynes Blrm B
Lewis H. Tuthill Lecture Series**

Sponsored by ACI International

Kick off the Fall Convention by attending this opening event. Gather with other ACI attendees to help recognize chapters, international attendees, and students. **Please note: You must wear your name badge to enter the Hynes Convention Center.**



Speaker: James S. Pierce
Chief
Water Resources
Services Division
Technical Service Center
Bureau of Reclamation
Littleton, CO

Topic: Tut's Treasures: A Legacy of
Continuing Value for the New
Century

One of Lewis Tuthill's main concerns throughout his career was quality concrete construction. Tut's treasure was his lasting contributions to the literature, including the early editions of ACI SP-1, the Concrete Primer, major portions of several other ACI publications, and the Bureau of Reclamation's Concrete Manual. During this presentation, Mr. Pierce will review current quality control practices and challenge the industry to uphold Tut's legacy.

Saturday, September 27

6:30 PM - 7:30 PM

Welcome Reception

Grand Blrm

Sponsored by the ACI New England Chapter

Start your convention week by visiting the exhibit booths, meeting other attendees and interacting with other top industry professionals. A cash bar and light snacks will be available to keep you going during this jam-packed networking hour.



Following the reception, head out to dinner to one of Boston's fine restaurants. See the

concierge for reservations. **Note:** *Beverages for this event must be paid for with cash and cannot be charged to your room.*

Saturday, September 27

7:30 PM - 9:30 PM

Hot Topic—Specifications and Responsibilities for Crack Repair **Back Bay D**

Sponsored by the Hot Topic Committee and the ACI New England Chapter

Session Moderator: John C. Hukey
 Technical Services
 Cement and Chemical Products
 Dayton Superior Construction
 Products Group
 Kansas City, KS

Introduction **7:30 PM**
John C. Hukey, Technical Services, Cement and Chemical Products, Dayton Superior Construction Products Group, Kansas City, KS

Specifications and Responsibilities for Crack Repair: From a Contractor's Point of View **7:35 PM**
Kim D. Basham, Senior Structural Engineer, Structural Services, Inc., Cheyenne, WY

Specifications and Responsibilities for Crack Repair: From a Design Professional's Point of View **8:05 PM**
Narendra K. Gosain, Senior Vice President, Walter P. Moore & Associates, Houston, TX

Specifications and Responsibilities for Crack Repair: From an Owner's Point of View **8:35 PM**
Anthony L. Quaglia, Senior General Superintendent, Gilbane Building Co., Providence, RI

Questions and Answers **9:05 PM**

Sunday, September 28

6:30 AM - 8:15 AM

Workshop for Technical Committee Chairs Commonwealth

Sponsored by the Technical Activities Committee (TAC)

Session Moderator: David H. Sanders
Associate Professor
Department of Civil Engineering
University of Nevada
Reno, NV

Technical committee chairs are invited to join TAC members and ACI staff for the new convention tradition, a “real” breakfast and an opportunity to meet with your fellow Chairs and TAC members. Seating is arranged so that Chairs sit at the same table as their TAC contact. There is time for table discussions, a general question-and-answer session, and a short presentation on recent developments of interest to ACI Chairs. In Boston, ACI staff will introduce website balloting for committee use, and a short tutorial is expected. Don’t miss this one.

All technical committees are expected to be represented at this workshop. If you are unable to attend, please ask the secretary or another committee member to represent the committee.

Sunday, September 28

7:00 AM - 8:30 AM

**Speaker's Skill Training Breakfast: Fairfax A
Preaching, Teaching, and Reaching**

Sponsored by Committee E903

Session Moderator: Richard P. Bohan
Director of Education
Department of Education
and Training
Portland Cement Association
Skokie, IL

Preaching, Teaching, and Reaching 7:00 AM

Richard P. Bohan, Director of Education, Department of
Education and Training, Portland Cement Association,
Skokie, IL

You can't give your audience what they want without first knowing who they are. This session looks at the different audiences at ACI sessions and what each one of them is looking for. By knowing what their audiences are looking for, speakers who attend this session can walk away with five specific items that will improve their presentation.

Sunday, September 28

9:00 AM - 12:00 PM

Research in Progress

Back Bay D

Sponsored by Committee 123

Session Moderator: Kolluru V. Subramaniam
Assistant Professor
Department of Civil Engineering
The City College of New York
New York, NY

Session Co-Moderator: Michelle R. Nokken
Doctoral Candidate
Department of Civil Engineering
University of Toronto
Toronto, ON, Canada

Introduction 9:00 AM

Kolluru V. Subramaniam, Assistant Professor, Department of Civil Engineering, The City College of New York, New York, NY

Determining the Influence of Curing 9:01 AM

Conditions on Water Loss from Pastes and Mortars with X-Ray Absorption

Gary S. Wojcik, NIST/NRC Post-Doctoral Research Associate, National Institute of Standards and Technology, Gaithersburg, MD; *Kiri L. Feldman*, National Institute of Standards and Technology

Set Time Retardation of Concrete Caused by Fly Ash 9:15 AM

Zhaozhou Zhang, Manager, Analytical Services and Development, Boral Material Technologies, Inc., San Antonio, TX; *Russell Hill*, Boral Material Technologies, Inc.

Optimization of Aggregates in Concrete Mixes 9:30 AM

Pedro N. Quiroga, Graduate Student, Department of Civil Engineering, University of Texas at Austin, Austin, TX; *David W. Fowler*, University of Texas at Austin

Study of the Correction Factor for Impact-Echo Tests on Concrete Slabs 9:45 AM

John S. Popovics, Assistant Professor, Department of Civil and Environmental Engineering, University of Illinois at Urbana-Champaign, Urbana, IL; *Nicole D. Jackson*, University of Illinois at Urbana-Champaign

Sunday, September 28

9:00 AM - 12:00 PM

Research in Progress *continued*

Effect of Curing and Damage on Surface Wave Velocity and Through Wave Velocity in Large-Scale Concrete **10:00 AM**

Christopher C. Ferraro, Department of Civil and Coastal Engineering, University of Florida, Gainesville, FL; *Andrew J. Boyd*, University of Florida

Behavior of Masonry Strengthened with Inorganic High-Strength Polymer Composites **10:15 AM**

Mohamed H. Nazier, Graduate Assistant, Department of Civil Engineering, Rutgers University, Piscataway, NJ; *Perumalsamy N. Balaguru*, Rutgers University

Restrained FRP-Reinforced Concrete Bridge Deck Slabs under Concentrated Loads **10:30 AM**

Sherif E. El-Gamal, Graduate Student, Department of Civil Engineering, University of Sherbrooke, Sherbrooke, QC, Canada; *Ehab F. El-Salakawy* and *Brahim Benmokrane*, University of Sherbrooke

Investigation of CFRP Reinforced Concrete Beam Failure **10:45 AM**

David G. Taggart, Professor, Department of Mechanical Engineering and Applied Mechanics, University of Rhode Island, Kingston, RI; *George Tsiatas*, *Arun U. Nair*, *Andrew F. Wilson*, and *Thomas J. Kim*, University of Rhode Island; *Hiroshi Yoshida* and *Mitsuru Yokoo*, Chemical Grouting Company, Ltd; *Kensuke Yagi*, Mitsubishi Chemical Functional Products, Inc.; and *Kiyoshi Horii*, Shirayuri Women's College

Shake Table Testing of Post-Tensioned Concrete Masonry Walls **11:00 AM**

Gavin D. Wright, Graduate Student, Department of Civil, Construction and Environmental Engineering, North Carolina State University, Raleigh, NC; *Mervyn J. Kowalsky*, North Carolina State University; and *Jason M. Ingham*, University of Auckland

Sunday, September 28

9:00 AM - 12:00 PM

Research in Progress

continued

**Behavior of Reinforced Concrete Box
Girders under Combined Seismic Torsion
and Shear**

11:15 AM

Gary Greene, Jr., Graduate Student, GAANN Fellow,
Department of Civil, Architectural, and Environmental Engineering,
University of Missouri-Rolla, Rolla, MO; and *Abdeldjelil
Belarbi*, University of Missouri-Rolla

**Collapse Control of Irregular Reinforced
Concrete Buildings for Earthquake Excitation
Using Story-Safety Factor**

11:30 AM

Thuat V. Dinh, Graduate Student, Department of
Architecture and Civil Engineering, Nagoya Institute of
Technology, Nagoya, Japan; and *Toshikatsu Ichinose*, Nagoya
Institute of Technology

**Structural Behavior of Walls Constructed
with Insulated Concrete T-Blocks**

11:45 AM

Bijan H. Ahmadi, Director, Continuing Engineering Education,
University of Bahrain, Bahrain

Sunday, September 28

9:00 AM - 12:00 PM

★ FRP Composites for External Reinforcement, Part I **Back Bay C**

Sponsored by Committee 440

Session Moderator: Stephanie L. Walkup
Wiss Janney Elstner
Associates, Inc.
Princeton Junction, NJ

Session Co-Moderator: Milan Vatovec
Simpson Gumpertz & Heger, Inc.
Waltham, MA

Introduction **9:00 AM**
Antonio Nanni, V&M Jones Professor of Civil Engineering,
Department of Civil Engineering, University of Missouri-Rolla,
Rolla, MO

Real Life Application of FRP in Egypt **9:05 AM**
Ibrahim Mahfouz, Associate Dean, College of Engineering,
Zagazeeg University, Cairo, Egypt; and *T. Rizk*, Lawrence
Technology University

FRP Retrofit of the Ring-Beam of a Nuclear Reactor Containment Structure **9:30 AM**
Kenneth Neale, Canada Research Chair in Advanced
Engineered Material Systems, Department of Civil
Engineering, University of Sherbrooke, Sherbrooke, QC,
Canada; *Marc Demers*, University of Sherbrooke; *A. Popovic*,
Atomic Energy of Canada Ltd; *Sami H. Rizkalla*, North
Carolina State University; and *Gamil Tadros*, ISIS Canada

Increasing the Flexural Capacity of an Existing Reinforced Concrete Bridge in Texas Using CFRP Composites **9:55 AM**
Sergio F. Breña, Assistant Professor, College of Engineering,
University of Massachusetts-Amherst, Amherst, MA; and
Mark A. Steves, Texas Department of Transportation

★ Denotes theme session

Sunday, September 28

9:00 AM - 12:00 PM

★ **FRP Composites for External Reinforcement, Part I** *continued*

Reinforcing of a Cathedral Tower with CFRP Laminates 10:20 AM

Gustavo Tumialan, Structural Engineer, Simpson Gumpertz & Heger, Inc., Boston, MA; *D. Torrealva* and *E. Pasquel*, Catholic University of Peru; and *Antonio Nanni*, University of Missouri-Rolla

Strengthening of a Bridge Using Two FRP Technologies 10:45 AM

Paolo Casadei, Post-Doctoral Candidate, Department of Civil Engineering, University of Missouri-Rolla, Rolla, MO; *N. Galati*, University of Lecce; *R. Parretti*, Co-Force America; and *Antonio Nanni*, University of Missouri-Rolla

Field Applications of Concrete-Filled FRP Tubes for Marine Piles 11:10 AM

Amir Z. Fam, Assistant Professor, Department of Civil Engineering, Queen's University, Kingston, ON, Canada; *Robert H. Greene*, Lancaster Composite; and *Sami H. Rizkalla*, North Carolina State University

Use of Externally Bonded FRP for Rehabilitation of Bridges in Western Canada 11:35 AM

Gamil Tadros, Technical Applications Consultant, ISIS Canada, Winnipeg, MB, Canada; *Robin L. Hutchinson*, University of Manitoba; *J. Kroman*, City of Calgary; and *Sami H. Rizkalla*, North Carolina State University

★ Denotes theme session

Sunday, September 28

9:00 AM - 12:00 PM

Pervious Concrete

Back Bay B

Sponsored by Committee 522

Session Moderator: Nader Ghafoori
Professor and Chair
Department of Civil and
Environmental Engineering
University of Nevada-Las Vegas
Las Vegas, NV

Session Co-Moderator: David J. Akers
Pavement Engineer
California Cement Promotion Council
San Diego, CA

Introduction **9:00 AM**
Nader Ghafoori, Professor and Chair, Department of Civil and
Environmental Engineering, University of Nevada-Las Vegas,
Las Vegas, NV

Pervious Concrete Applications and **9:05 AM**
Market Drivers
Dan R. Brown, Director of Technical Services, Georgia
Concrete and Products Association, Tucker, GA

Properties of Pervious Concrete **9:30 AM**
Nader Ghafoori, Professor and Chair, Department of Civil and
Environmental Engineering, University of Nevada-Las Vegas,
Las Vegas, NV

Construction Methods for Pervious **10:00 AM**
Concrete Applications
Matthew A. Offenberg, Pavements Engineer, Rinker Materials,
Inc., Casselberry, FL

Sunday, September 28

9:00 AM - 12:00 PM

Pervious Concrete

continued

Pervious Concrete Pavement

10:30 AM

Contractor Certification

Bob J. Banka, President, Concrete Solutions, Inc.,
Eugene, OR

Design Uses of Pervious Concrete for

11:00 AM

Stormwater Infiltration

Dale Fisher, President, PCI Systems, Inc., Canton, GA

Pervious Concrete Pavements in Poorly

11:30 AM

Draining Soils

Michael L. Lemming, Professor, Department of Civil Engineering,
North Carolina State University, Raleigh, NC

Sunday, September 28

9:00 AM - 12:00 PM

Seismic Versus Blast Comparison and Contrast of a Multi-Hazard Design **Back Bay A**

Sponsored by Committee 370

Session Moderator: Robert G. Pekelnicky
Degenkolb Engineers
San Francisco, CA

Introduction to Seismic Versus Blast Design **9:00 AM**
Eric B. Williamson, Assistant Professor, University of Texas at Austin, Austin, TX

Comparison of Blast and Seismic Design of Petrochemical Industry Structures **9:30 AM**
Madhav Nene, Fluor Daniel, Inc., Aliso Viejo, CA

Summary of Study on the Blast Resistance Gained from Seismic Retrofit Techniques **10:00 AM**
Jack R. Hayes, Structural Engineer, CERL/US Army Engineer Research and Development Center, Champaign, IL

Influence of Seismic Detailing in Blast Response of Reinforced Concrete Structures in Bogota, Colombia **10:30 AM**
Luis E. Garcia, Visiting Professor, Department of Civil Engineering, Purdue University, West Lafayette, IN

Quantitative Evaluation of Seismic Detailing for Blast Resistance in New Concrete Building Design **11:00 AM**
Robert G. Pekelnicky, Degenkolb Engineers, San Francisco, CA

Damage Patterns and Stability of Buildings Subjected to Earthquake and Blast Loading **11:30 AM**
Matti Adan, Managing Engineer, Exponent-Failure Analysis Associates, Menlo Park, CA

Sunday, September 28

9:00 AM - 12:00 PM

**New Developments and
Techniques in Bond and
Development of Reinforcement**

Republic A

Sponsored by Committee 408

Session Moderator: Adolfo B. Matamoros
Assistant Professor
University of Kansas
Lawrence, KS

Session Co-Moderator: JoAnn P. Browning
Assistant Professor
University of Kansas
Lawrence, KS

Introduction 9:00 AM

Adolfo B. Matamoros, Assistant Professor, University of Kansas, Lawrence, KS

Pull-Out Tests of Prestressing Strands in UHPC 9:05 AM

Eric Steinberg, Associate Professor/Assistant Chair, Department of Civil Engineering, Ohio University, Athens, OH; and *Anna Lubbers*, Ohio University

Bond Behavior of Lap Spliced 9:35 AM

Fiber-Reinforced Polymer (FRP) Bars

A. Cihan Pay, Graduate Research Assistant, Purdue University, West Lafayette, IN; and *Robert J. Frosch*, Purdue University

Bond and Development of Reinforcing 10:05 AM

Bars in High-Strength Fiber-Reinforced Concrete

Peter H. Bischoff, Associate Professor, Department of Civil Engineering, University of New Brunswick, Fredericton, NB, Canada; and *Fred Berube*, University of New Brunswick

Sunday, September 28

9:00 AM - 12:00 PM

**New Developments and
Techniques in Bond and
Development of Reinforcement**

continued

**Connections with Post-Installed Rebars
in Concrete** **10:35 AM**

Rolf Eligehausen, Professor, Institute for Construction
Materials, Universitat Stuttgart, Stuttgart, Germany; and
Isabelle Simons, Universitat Stuttgart

**Bond-Slip Response of Reinforcing Bars
Grouted in Ducts** **11:05 AM**

John F. Stanton, Professor, Department of Civil and Environmental
Engineering, University of Washington, Seattle, WA; and *Dawn
E. Lehman* and *Dan J. Raynor*, University of Washington

**Bond Provisions in ACI 318 versus Test
Results—Recommended Changes in the Code** **11:35 AM**

David Darwin, Ackers Distinguished Professor, Department of
Civil, Architectural, and Environmental Engineering, University
of Kansas, Lawrence, KS

Sunday, September 28

11:30 AM - 1:00 PM

**Session Moderator
Orientation Workshop**

Independence W

Sponsored by Committee E903

Session Moderator: David G. Kittridge
Consultant
Maitland, FL

Session Co-Moderators: Richard P. Bohan
Director of Education
Department of Education
and Training
Portland Cement Association
Skokie, IL

Charles S. Hanskat
Manager
Business Development
DN Thermal Energy Systems
El Cajon, CA

Ensuring that all ACI session moderators understand the duties and responsibilities of moderating a session is one of the goals of this workshop, as well as ensuring that they are aware of the resources available and planning timetables. Approval to sponsor a technical session at an ACI convention is contingent on prior attendance at a session moderator orientation workshop. All moderators of technical and educational sessions are required by TAC and EAC to attend one of these orientation workshops before their scheduled session.

Sunday, September 28

12:00 PM - 2:00 PM

✓ **Student Luncheon Buffet** **Commonwealth**
\$25US per person
(FREE for students)

Sponsored by the ACI New England Chapter, Master Builders, and Grace Construction Products' Research and Development Laboratories



Speaker: Larry R. Roberts
Director
Technology, Planning and Transfer
Grace Construction
Cambridge, MA



Speaker: Joseph A. Daczko
Group Manager of
Concrete Technology
Department of Research
and Development
Master Builders, Inc.
Cleveland, OH

Topic: Self-Consolidating Concrete

Self-consolidating concrete (SCC) is gaining widespread acceptance in North America. Its performance characteristics include high fluidity and stability resulting in ease of placement and consolidation. The performance of SCC is dictated by the project requirements.

Awards for 1st, 2nd, and 3rd place in the Student Concrete Cube Competition will be announced during the luncheon.

Menu: All American Deli Buffet,
dessert, tea and coffee

Tickets may be purchased at the ACI Registration Desk until 24 hours prior to the event. Please notify the ACI Registration Desk of any dietary restrictions.

✓ **Separate Fee Required**

Sunday, September 28

2:00 PM - 5:00 PM

Limits on Concrete and the Environment During Curing **Back Bay A**

Sponsored by Committee 308

Session Moderator: Michael Thomas
Professor
Department of Civil Engineering
University of New Brunswick
Fredericton, NB, Canada

Session Co-Moderator: Steve Gebler
Senior Principal Engineer
Construction Technology Labs
Skokie, IL

Introduction **2:00 PM**
Michael Thomas, Professor, Department of Civil Engineering,
University of New Brunswick, Fredericton, NB, Canada

Effect of Elevated-Temperature Curing on Microstructure and Transport Properties of Concrete **2:05 PM**
Rachel J. Detwiler, Principal Engineer, Construction
Technologies Laboratories, Skokie, IL

Some Mysteries Surrounding DEF **2:35 PM**
Jan Skalny, Consultant, Holmes Beach, FL; and *Gene Hill*,
Openaka Corp., Inc.

Mitigating Expansion in Heat-Cured Concrete **3:05 PM**
Terry Ramlochan, Post-Doctoral Candidate, Department of
Civil Engineering, University of Toronto, Toronto, ON, Canada;
R. Doug Hooton, University of Toronto; and *Michael Thomas*,
University of New Brunswick

Effect of Heat Curing on the Properties of Concrete **3:35 PM**
Kenneth C. Hover, Professor and Weiss Presidential Fellow,
Department of Civil and Environmental Engineering, Cornell
University, Ithaca, NY

Sunday, September 28

2:00 PM - 5:00 PM

**Limits on Concrete and the
Environment During Curing**

continued

Temperature Limits to Avoid DEF

4:05 PM

Karen Scrivener, Professor, Swiss Federal Institute of
Technology, Lausanne, Switzerland

DEF: Disparities Between the Lab and Field

4:35 PM

Michael Thomas, Professor, Department of Civil Engineering,
University of New Brunswick, Fredericton, NB, Canada

Sunday, September 28

2:00 PM - 5:00 PM

Applications of Fiber-Reinforced Concrete in Highway Bridges Back Bay B

Sponsored by Committees 343 and 544

Session Moderator: Nur Yazdani
Professor
Department of Civil
and Environmental Engineering
Florida State University
Tallahassee, FL

Session Co-Moderator: Nemkumar P. Banthia
Professor
Department of Civil Engineering
University of British Columbia
Vancouver, BC, Canada

Introduction 2:00 PM
Nur Yazdani, Professor, Department of Civil and Environmental Engineering, Florida State University, Tallahassee, FL

Application of Structural Synthetic Fibers for Highway Bridge Rehabilitation 2:05 PM
Michael Mahoney, Fiber Technology Manager, The Euclid Chemical Company, Cleveland, OH; *Jean F. Trottier*, Dalhousie University; and *Nicholas Adams*, The Euclid Chemical Company

Cyclic Response of Bridge Piers with Ductile Fiber-Reinforced Concrete Hinge Regions 2:35 PM
Sarah L. Billington, Assistant Professor, Department of Civil and Environmental Engineering, Stanford University, Stanford, CA; and *J. Matthew Rouse*, Cornell University

Fiber-Reinforced Concrete Wearing Surface for Orthotropic Deck Bridge 3:05 PM
Ward N. Marianos, Jr., Senior Associate, Modjeski and Masters, Inc., St. Louis, MO; *David W. Petermeier*, Modjeski and Masters, Inc.; and *George F. Ryan*, Illinois Department of Transportation

Sunday, September 28

2:00 PM - 5:00 PM

Applications of Fiber-Reinforced Concrete in Highway Bridges *continued*

Reduction of Anchorage Zone Steel in Post-Tensioned Girders with Fiber Applications **3:35 PM**

Nur Yazdani, Professor, Department of Civil and Environmental Engineering, Florida State University, Tallahassee, FL; and *Saif A. Haroon* and *Lisa Spainhour*, Florida State University

Design Concept for Jointless Bridge Decks Using Engineered Cementitious Composites **4:05 PM**

Gregor Fischer, Assistant Professor, Department of Civil and Environmental Engineering, University of Hawaii, Honolulu, HI; and *Yun Kim* and *Victor C. Li*, University of Michigan

FRP Reinforced Steel Free Modular Deck System **4:35 PM**

Vistasp M. Karbhari, Professor, Department of Structural Engineering, University of California, San Diego, La Jolla, CA; and *Lijuan (Dawn) Cheng* and *Frieder Seible*, University of California, San Diego

Sunday, September 28

2:00 PM - 5:00 PM

★ FRP Composites for External Reinforcement, Part II **Back Bay C**

Sponsored by Committee 440

Session Moderator: Carol K. Shield
Associate Professor
Department of Civil Engineering
University of Minnesota
Minneapolis, MN

Session Co-Moderator: Garth Fallis
Vice President
Vector Construction Group
Winnipeg, MB, Canada

Introduction **2:00 PM**

John P. Busel, Executive Director, Market Development
Alliance of the FRP Composite Industry, Harrison, NY

Flexural Strengthening of Impacted PC Girder with FRP Composites **2:05 PM**

Renato Parretti, Senior Structural Engineer, Co-Force America, Inc., Rolla, MO; *Antonio Nanni*, University of Missouri–Rolla; *J.Cox*, Master Contractors; *Chip Jones*, Emery Sapp & Sons, Inc.; and *Randy L. Mayo*, Missouri Department of Transportation

Carbon FRP Strengthening of PCCP Aqueducts **2:30 PM**

Tarek Alkhrdaji, Design Engineer, Strengthening Division, Structural Preservation Systems Inc., Baltimore, MD; and *Jay Thomas*, Structural Preservations Systems, Inc.

Use of Composites in the Rehabilitation of Civil Engineering Structures **2:55 PM**

Ronald J. Watson, President, R.J. Watson, Inc., Amherst, NY

★ Denotes theme session

Sunday, September 28

2:00 PM - 5:00 PM

★ FRP Composites for External Reinforcement, Part II *continued*

Innovative Stengthening of the Reptile Building at the Zoo of Antwerp **3:20 PM**

Stijin Matthys, Post-Doctoral Researcher, Magnel Laboratory for Concrete Research, Department of Structural Engineering, Ghent University, Ghent, Belgium; *L. Taerwe*, Ghent University; *J. Janssens*, ETEC NV; and *D. DeNeef*, ECC/ETEC/TRADECC NV

Field Retrofit of Prestressed Concrete T-Beam Using CFRP **3:45 PM**

Ian N. Robertson, Associate Professor, Department of Civil and Environmental Engineering, University of Hawaii, Honolulu, HI; and *A. A. Agapay* and *L. M. Nakashima*, University of Hawaii

Bridge Strengthening with Advanced Composite Systems **4:10 PM**

Miklos Basler, Sika Corporate Construction, Sika Services AG; *David White*, Sika Corporation; and *Mario Desroches*, Sika Canada, Inc.

Flexural Strengthening of Masonry Walls in High School Using FRP Bars **4:35 PM**

Gustavo Tumialan, Structural Engineer, Simpson Gumpertz & Heger, Inc., Boston, MA; *N. Galati*, University of Lecce; *Antonio Nanni*, University of Missouri-Rolla; and *D. Tyler*, Western Waterproofing Co., Inc.

★ Denotes theme session

Sunday, September 28

2:00 PM - 5:00 PM

**Emerging Technologies in Back Bay D
Civil Infrastructure Applications**

Sponsored by the Technology Transfer Committee

Session Moderator: Emmanuel K. Attiogbe
Director
Technical Services
Master Builders, Inc.
Cleveland, OH

Session Co-Moderator: James T. Dikeou
Consulting Engineer
Englewood, CO

Introduction 2:00 PM

Emmanuel K. Attiogbe, Director, Technical Services, Master Builders, Inc., Cleveland, OH

Use of Lithium Compounds in Combination with Pozzolans or Slag for Controlling Expansion Due to Alkali-Silica Reaction 2:05 PM

Michael Thomas, Professor, Department of Civil Engineering, University of New Brunswick, Fredericton, NB, Canada

Self-Actuating Fiber Composites for Auto-Adaptive Structures 2:35 PM

Neven Krstulovic-Opara, Managing Engineer, Civil Engineering, HPCS Consulting, Irvine, CA

Cyclic Response of Precracked Prestressed T-Girders at Different Levels of CFRP Strengthening 3:05 PM

Hayder A. Rasheed, Assistant Professor, Department of Civil Engineering, Kansas State University, Manhattan, KS; and *Kyle H. Larson* and *Robert Peterman*, Kansas State University

Sunday, September 28

2:00 PM - 5:00 PM

Emerging Technologies in Civil Infrastructure Applications *continued*

In-Situ Conductivity Method for Monitoring Bleeding and Segregation in Cement-Based Materials **3:35 PM**

Kamal H. Khayat, Professor, Department of Civil Engineering, University of Sherbrooke, Sherbrooke, QC, Canada; and *C. Jolicoeur* and *T. V. Pavate*, University of Sherbrooke

Use of Shrinkage-Compensating Concrete in the Field of Repairs **4:05 PM**

Benoit Bissonnette, Associate Professor, Department of Civil Engineering, Laval University, Quebec City, QC, Canada; *Felipe J. Perez*, Lehigh University; and *R. Gagne*, University of Sherbrooke, *F. Lauture*, and *R. Morin*, Public Works and Environment Service, Montreal

Cracking Potential of Concrete Under Restrained Shrinkage **4:35 PM**

Emmanuel K. Attiogbe, Director, Technical Services, Master Builders, Inc., Cleveland, OH; and *Heather T. See* and *Matthew A. Miltenberger*, Master Builders, Inc.

Sunday, September 28

2:00 PM - 5:00 PM

**Foundations for
Vibrating Machinery**

Republic A

Sponsored by Committee 351

Session Moderator: William L. Bounds
Director, Structural Engineering
Fluor Daniel, Inc.
Sugar Land, TX

Session Co-Moderator: Andrew Rossi, Jr.
President/CEO
Five Star Products, Inc.
Fairfield, CT

Introduction 2:00 PM

William L. Bounds, Director, Structural Engineering, Fluor Daniel, Inc., Sugar Land, TX

**ACI 351's Report on Foundations for
Dynamic Machinery—Design Criteria 2:01 PM**

James P. Lee, Senior Technical Advisor, Halliburton KBR, Houston, TX

**ACI 351's Report on Foundations for
Dynamic Machinery—Design Methods 2:25 PM**

Tod Sutton, Engineer, Department of Civil Engineering, University of Kansas, Lawrence, KS

**Case History: Design of Two
Machine Foundations 2:50 PM**

William L. Bounds, Director, Structural Engineering, Fluor Daniel, Inc., Sugar Land, TX

**Case History of Repairing Cracked
Foundation for Large Reciprocating
Gas Compressor 3:15 PM**

Robert L. Rowan, Jr., CEO, Robert L. Rowan & Associates, Houston, TX

Sunday, September 28

2:00 PM - 5:00 PM

Foundations for *continued*
Vibrating Machinery

Machine Foundation Repair and Grouting 3:40 PM

Andrew Rossi, Jr., President/CEO, Five Star Products, Inc., Fairfield, CT

Foundation and Isolation Design for a 4:05 PM
Road Simulator

Scott D. Campbell, Project Engineer, Kinetics Noise Control, Dublin, OH

Foundation Design for a 6 MW High-Speed 4:30 PM
Reciprocating Compressor

J. Pete Harrell, Principal Engineer, Southwest Research Institute, San Antonio, TX; *P. Joe Pantermuehl*, *Ralph E. Harris*, and *Anthony J. Smalley*, Southwest Research Institute; *Robert L. Rowan*, Robert L. Rowan & Associates; *Hugh A. Shaffer*, Compressor Systems, Inc.; and *Leo W. Hoover*, National Fuel Gas Supply Corporation

Sunday, September 28

5:00 PM - 6:00 PM

Women in ACI Reception Republic Foyer

Sponsored by ACI International

Join other women in ACI for an informal reception. This gathering is a great networking opportunity and is free to all wishing to attend. Light refreshments and a cash bar will be available. **Note:** *Beverages for this event must be paid for with cash and cannot be charged to your room.*



Sunday, September 28

7:30 PM - 10:00 PM

123 Forum: Structural Health Monitoring—Do Costs Justify Benefits? Back Bay D

Sponsored by Committee 123

Session Moderator: **Mohammad S. Khan**
Vice President
Professional Service Industries, Inc.
Fairfax, VA

Introduction 7:30 PM
Mohammad S. Khan, Vice President, Professional Service Industries, Inc., Fairfax, VA

Connecticut DOT's Experience with Structural Health Monitoring 7:35 PM
Robert G. Lauzon, Supervising Engineer, Office of Research & Materials, Connecticut Department of Transportation, Rocky Hill, CT

Structural Health Monitoring—Is There a Need for More Research & Development 7:45 PM
Ken Maser, President, Infrasense, Inc., Arlington, MA

Structural Health Monitoring Becoming More Practical from Advances in NDE Technology 7:55 PM
Mark Moore, Senior Consultant and Unit Manager, Wiss Janney Elstner Associates, Norcross, GA

Economic Benefits Through Structural Health Monitoring 8:05 PM
Thomas L. Weinmann, Manager, Department of Sensors & Structural Diagnostics, Construction Technology Laboratories, Inc., Skokie, IL

Is Your Bridge Talking to You? 8:15 PM
June B. White, Business Development Engineer, Physical Acoustics Corporation, Princeton, NJ

Questions, Answers, and Discussion 8:25 PM

Monday, September 29

7:30 AM - 8:30 AM

Chapter Forum: How to Host a Convention **Fairfax A**

Sponsored by the Chapter Activities Committee

Session Moderator: LaGrit (Sam) F. Morris
Director of Administration
Georgia Concrete and
Products Association
Tucker, GA

Session Co-Moderator: Margaret A. Reed
Wiss Janney Elstner Associates
Northbrook, IL

Introduction

7:30 AM

LaGrit (Sam) F. Morris, Director of Administration, Georgia
Concrete and Products Association, Tucker, GA

Ever wonder if your chapter could host an ACI Convention? If the answer is yes, this is the session to attend. Find out how to request to host a convention, the chapter's responsibilities and what benefits the chapter will receive for hosting a convention. Chapter officers and members are encouraged to attend.

Monday, September 29

9:00 AM - 12:00 PM

**Contractor's Day: Back Bay D
Anatomy of a Slab Problem—
Diagnosis to Repair**

Sponsored by CLC and the ACI New England Chapter

Session Moderator: Christopher J. Zarba
Marketing Representative
Blakeslee Prestress, Inc.
Bradford, CT

Session Co-Moderator: Peter A. Craig
Consultant
Concrete Constructives
Greene, ME

Introduction 9:00 AM
Christopher J. Zarba, Marketing Representative, Blakeslee
Prestress, Inc., Bradford, CT

Diagnosis to Repair 9:05 AM
Paul L. Kelley, Principal, Simpson Gumpertz & Heger, Inc.,
Arlington, MA

Diagnosis to Repair 10:35 AM
Peter A. Craig, Consultant, Concrete Constructives,
Greene, ME

Monday, September 29

9:00 AM - 12:00 PM

Responsibility in Concrete Construction Independence E

Sponsored by the RCC Committee

Session Moderator: Norman L. Scott
Consulting Engineer
Consulting Engineers Group
Mt. Prospect, IL

Introduction **9:00 AM**
Norman L. Scott, Consulting Engineer, Consulting Engineers Group, Mt. Prospect, IL

Judges and Building Codes **9:05 AM**
Kenneth B. Bondy, Consulting Structural Engineer, West Hills, CA

Responsibility in the Construction Industry **9:35 AM**
James Lefter, Adjunct Professor, Department of Civil and Environmental Engineering, Virginia Tech, Crofton, MD

Investigative Methodology on Concrete Foundations in Sulfate Soils **10:05 AM**
Geoffrey Hichborn, Sr., President, Hichborn Consulting Group, Orange, CA

Nobody Wins at the Courthouse **10:35 AM**
Jon Mullarky, Consultant, Chester, MD

Practices and Duties of Forensic Investigators: How Quality Assurance Is Maintained through the Legal System **11:05 AM**
Boyd A. Clark, Senior Materials Scientist, RJ Lee Group, Inc., Monroeville, PA

Questions and Answers **11:35 AM**

Monday, September 29

9:00 AM - 12:00 PM

Roller-Compacted Concrete Pavements Independence W

Sponsored by Committee 325

Session Moderator: David W. Pittman
Acting Director
Geotechnical and
Structures Laboratory
U.S. Army Engineer Research
and Development Center
Vicksburg, MS

Session Co-Moderator: Norbert J. Delatte, Jr.
Associate Professor
Department of Civil and
Environmental Engineering
University of Alabama
at Birmingham
Birmingham, AL

Introduction 9:00 AM
David W. Pittman, Acting Director, Geotechnical and Structures
Laboratory, U.S. Army Engineer Research and Development
Center, Vicksburg, MS

Freeze/Thaw Durability and Performance 9:05 AM
of RCC in Quebec
Martin Gendreau, Technical Director, SEM, Inc., QC, Canada

RCC Durability—Corps of Engineers 9:35 AM
Experience
David W. Pittman, Acting Director, Geotechnical and Structures
Laboratory, U.S. Army Engineer Research and Development
Center, Vicksburg, MS

High Fly Ash RCC Pavements 10:05 AM
Philip T. Seabrook, FACI

Tennessee Experience 10:35 AM
Frank Lennox, Manager of Technical/Marketing Services,
Signal Mountain Cement Co., Division of RC Cement,
Chattanooga, TN

Monday, September 29

9:00 AM - 12:00 PM

**Roller-Compacted
Concrete Pavements**

continued

RCC: The Contractor's Perspective

11:00 AM

*Ronald L. Peltz, Manager, A.G. Peltz Group, LLC,
Birmingham, AL*

**Use of Gyrotary Compactor for Making
RCC Specimens**

11:35 AM

*Norbert J. Delatte, Jr., Associate Professor, Department of
Civil and Environmental Engineering, University of Alabama
at Birmingham, Birmingham, AL*

Monday, September 29

9:00 AM - 12:00 PM

**Interactions Between Republic A
Admixtures and
Cementitious Materials**

Sponsored by Committee 236

Session Moderator: Karthik H. Obla
Technical Manager
Boral Materials Technology, Inc.
San Antonio, TX

Session Co-Moderator: Aulis Kappi
R&D Manager
Consolis Technology Oy
Parainen, Finland

Introduction 9:00 AM
Aulis Kappi, R&D Manager, Consolis Technology Oy,
Parainen, Finland

Incompatibility and Setting Problems 9:05 AM
Rachel J. Detwiler, Principal Engineer, Construction Technology
Laboratories, Skokie, IL

Polycarboxylate Polymers and Blends in 9:35 AM
Different Cements
Franz J. Wombacher, Head of Admixture Research and
Development, Sika Technology AG, Zürich, Switzerland; and
Urs Maeder and I. Schober, Sika Technology AG

Effects of Cement Variations on 10:05 AM
Concrete Workability
Aulis Kappi, R&D Manager, Consolis Technology Oy,
Parainen, Finland; *Erik Nordenswan* and *Klaus Juvas*,
Consolis Technology Oy; and *Kai Salo*, Oy Sika Finland AB

Use of Admixtures to Develop 10:35 AM
High-Performance Concrete in the Central
Artery/Tunnel Project
Prabir K. Das, Vice President, Parsons Brinkerhoff,
New York, NY

Monday, September 29

9:00 AM - 12:00 PM

Interactions Between Admixtures and Cementitious Materials *continued*

Hydration Behavior of Cements with Different Gypsum Levels in the Presence of Standard Chemical Admixtures 11:05 AM

Stephen A. Farrington, Senior Scientist, Degussa Construction Chemicals Americas/Master Builders, Inc., Cleveland, OH

Recent Advances on Interactions Between Cementitious Systems and Chemical Admixtures 11:35 AM

Arezki Tagnit-Hamou, Professor of Civil Engineering, Department of Civil Engineering, University of Sherbrooke

Monday, September 29

12:00 PM - 2:00 PM

✓ Contractor's Day Lunch **Commonwealth**
\$28US per person

Hosted by CLC and the ACI New England Chapter



Speaker: Steve M. Charney
Managing Partner
New York Office
Peckar & Abramson
New York, NY

Topic: Managing the Risks of Mold

Menu: Custom croissant plate,
dessert, tea and coffee

***Tickets may be purchased at the ACI Registration Desk
until 24 hours prior to the event. Please notify the ACI
Registration Desk of any dietary restrictions.***

✓ Separate Fee Required

Monday, September 29

2:00 PM - 5:00 PM

Contractor's Day: Back Bay D
Innovative Precast Framing
Systems from Theory to Practice

Sponsored by CLC and the ACI New England Chapter

Session Moderator: Christopher J. Zarba
Marketing Representative
Blakeslee Prestress, Inc.
Bradford, CT

Session Co-Moderator: Peter A. Craig
Consultant
Concrete Constructives
Greene, ME

Introduction 2:00 PM
Christopher J. Zarba, Marketing Representative, Blakeslee
Prestress, Inc., Bradford, CT

Precast Construction Using Emulative Connections 2:05 PM
Alvin C. Ericson, Technical Consultant, Bonita Springs, FL

Ground Breaking—Precast Concrete Framing Systems for Seismic Design 3:35 PM
Joseph C. Sanders, Senior Vice President, Director of
Engineering, Charles Pankow Builders, Ltd., Altadena, CA

Monday, September 29

2:00 PM - 5:00 PM

Open Paper Session **Independence E**

Sponsored by Committee 123

Session Moderator: JoAnn P. Browning
Assistant Professor
University of Kansas
Lawrence, KS

Session Co-Moderator: John S. Popovics
Assistant Professor
Department of Civil Engineering
University of Illinois
Urbana, IL

Introduction **2:00 PM**
JoAnn P. Browning, Assistant Professor, University of Kansas, Lawrence, KS

Corrosion Testing of Mineral and Chemical Admixture Combinations **2:01 PM**
Scott A. Civjan, Assistant Professor, Department of Civil and Environmental Engineering, University of Massachusetts, Amherst, MA; and *James M. LaFave*, University of Illinois; and *Joanna Trybulski* and *Daniel Lovett*, University of Massachusetts; and *Jose Lima*, Rhode Island Department of Transportation; and *Donald W. Pfeifer*, Wiss Janney Elstner Associates, Inc.

Shake Table Tests on High Seismic Performance Shear Walls **2:25 PM**
Y. L. Mo, Professor, Department of Civil and Environmental Engineering, University of Houston, Houston, TX; and *Jianxia Zhong*, University of Houston; and *Wen-I Liao* and *Chin-Hsiung Loh*, National Center for Research on Earthquake Engineering

Monday, September 29

2:00 PM - 5:00 PM

Open Paper Session *continued*

Shear Behavior of High-Strength Concrete Bridge Girders 2:50 PM

Thomas Nagle, Research Assistant, University of Illinois at Urbana-Champaign, Urbana, IL; and *Daniel A. Kuchma* and *Neil M. Hawkins*, University of Illinois at Urbana-Champaign

Punching Shear Design Approaches for Concrete Two-Way Slabs Reinforced with FRP Bars 3:15 PM

Carlos E. Ospina, Design Engineer, BERGER/ABAM Engineers, Inc., Federal Way, WA; and *Scott D. B. Alexander* and *J. J. Roger Cheng*, University of Alberta

Enhanced Porosity Concrete: Permeability, Electrical Conductivity, and Acoustical Performance 3:40 PM

Narayanan Neithalath, Research Assistant, School of Civil Engineering, Purdue University, West Lafayette, IN; and *W. Jason Weiss* and *Jan Olek*, Purdue University

Concrete Mix Design to Reduce Cracking in Bridge Decks 4:05 PM

Heather A. K. McLeod, Research Assistant, University of Kansas, Lawrence, KS; and *David Darwin* and *JoAnn P. Browning*, University of Kansas

Fracture Analysis of the Debonding between FRP and Concrete 4:30 PM

Mohamad Ali-Ahmad, Post-Doctoral Candidate, Department of Civil Engineering, City College of New York, New York, NY; and *Kolluru V. Subramaniam* and *Michel Ghosn*, City College of New York

Monday, September 29

2:00 PM - 5:00 PM

**Polymer Concrete Structural
Design, Overlay Applications,
and Quality Control**

Republic B

Sponsored by Committee 548

Session Moderator: Milton D. Anderson
DJA Consultants Inc.
Casper, WY

Session Co-Moderator: Tom T. Wickett
National Sales Manager
Reactive Resins Division
Degussa Corporation
Piscataway, NJ

Introduction **2:00 PM**
Milton D. Anderson, DJA Consultants Inc., Casper, WY

**Comparison of Methacrylate Reactive
Resin to HMWM and Epoxy Crack Sealers** **2:05 PM**
*Tom T. Wickett, National Sales Manager, Reactive Resins
Division, Degussa Corporation, Piscataway, NJ*

**Design and Behavior of Thermal Stresses
in Polymer Concrete Overlays** **2:40 PM**
*David W. Fowler, Professor, Department of Civil Engineering,
University of Texas at Austin, Austin, TX*

**Use of Polymer Concrete in Precast
Modular Level Railroad Grade Crossings** **3:15 PM**
*Mike S. Stenko, President, Transpo Industries, New
Rochelle, NY*

Epoxy Polymer Concrete Overlays **3:50 PM**
*Brad Nemunaitis, Director, Technical Services, Tamms
Industries, Kirkland, IL*

**Historic Anatomy of a Polymer
Concrete Building Panel** **4:25 PM**
*Wafeek S. Wahby, Professor, School of Technology, Eastern
Illinois University, Charleston, IL*

Monday, September 29

2:00 PM - 5:00 PM

**Shrinkage and Creep of Republic A
Concretes Containing
Shrinkage-Reducing Admixtures (SRAs)**

Sponsored by Committee 209

Session Moderator: Akthem A. Al-Manaseer
Professor and Chair
Department of Civil and
Environmental Engineering
San Jose State University
San Jose, CA

Session Co-Moderator: David A. Lange
Associate Professor
Department of Civil Engineering
University of Illinois
Urbana, IL

Introduction 2:00 PM

Akthem A. Al-Manaseer, Professor and Chair, Department of Civil and Environmental Engineering, San Jose State University, San Jose, CA

Critical Review of Shrinkage-Reducing Admixtures for Concrete: Benefits and Noteworthy Applications 2:05 PM

Charles K. Nmai, Chief Engineer, Master Builders, Inc., Cleveland, OH

Effectiveness of SRA on Reducing Concrete Shrinkage and Drying Time 2:35 PM

Neal S. Berke, Principal Scientist, Grace Construction Products, W.R. Grace & Co., Cambridge, MA; and *Lianfang Li*, Grace Performance Chemicals

Early-Age Tensile Creep and Shrinkage of Concrete with SRA 3:05 PM

Matt D'Ambrosia, Research Assistant, Department of Civil Engineering, University of Illinois, Urbana, IL; and *David A. Lange*, University of Illinois

Monday, September 29

2:00 PM - 5:00 PM

**Shrinkage and Creep of
Concretes Containing
Shrinkage-Reducing Admixtures (SRAs)** *continued*

**Long-Term Drying Shrinkage of
SRA Concretes** **3:35 PM**

Carlos Videla, Professor, School of Engineering, Pontificia
University Catolica, Santiago, Chile

**SRA, Mineral Admixtures and
Concrete Shrinkage** **4:05 PM**

Akthem A. Al-Manaseer, Professor and Chair, Department of
Civil and Environmental Engineering, San Jose State University,
San Jose, CA; and *R. Meggenti*, CALTRANS

**Drying Shrinkage Prediction for Concrete
Containing SRA** **4:35 PM**

Akthem A. Al-Manaseer, Professor and Chair, Department of
Civil and Environmental Engineering, San Jose State University,
San Jose, CA; and *S. Ristanovic*, San Jose State University

Monday, September 29

2:00 PM - 5:00 PM

**Colloidal Aspects of Independence W
Cement Paste**

Sponsored by Committee 236

Session Moderator: David A. Rothstein
President
DRP Consulting, Inc.
Boulder, CO

Introduction 2:00 PM

David A. Rothstein, President, DRP Consulting, Inc.,
Boulder, CO

Structure of C-S-H at the Nanometer 2:05 PM

Level and Its Relationship to Properties

Hamlin M. Jennings, Professor of Civil Engineering and
Materials Science, Department of Civil Engineering,
Northwestern University, Evanston, IL

Virtual Concrete at the Nanometer Scale: 2:35 PM

Incorporating C-S-H into Cement Hydration Models

Edward J. Garboczi, Leader, Inorganic Materials Group,
National Institute of Standards and Technology,
Gaithersburg, MD

Mechanical Properties of Colloid 3:05 PM

**C-S-H—What We Know and Do Not
Know from Naniondentation**

Franz-Joseff Ulm, Professor, Department of Civil and
Environmental Engineering, Massachusetts Institute of
Technology, Cambridge, MA

Bulk Structure of C-S-H from C₃S/Alite 3:35 PM
Hydration as a Function of Time

Harald Justnes, Professor, Chief Scientist, SINTEF Civil and
Environmental Engineering, Cement & Concrete, Trondheim,
Norway; and *Knut O. Kjellsen*, Norcem R&D

Monday, September 29

2:00 PM - 5:00 PM

Colloidal Aspects of Cement Paste *continued*

Neutron and X-Ray Scattering Studies of C-S-H Gel Formation During Cement Hydration 4:00 PM

Andrew J. Allen, Physicist, National Institute of Standards and Technology, Gaithersburg, MD

Water Content of the C-S-H Gel and Syneresis Effects During Decalcification of Hardened Cement Pastes 4:35 PM

Jeffrey J. Thomas, Professor, Department of Civil Engineering, Northwestern University, Evanston, IL; and *J. J. Chen* and *Hamil M. Jennings*, Northwestern University

Monday, September 29

6:30 PM - 8:00 PM

**Concrete Mixer—Foods from
the Neighborhoods of Boston**

Grand Blrm

Sponsored by the ACI New England Chapter

Exchange ideas and meet others in the industry, while experiencing the flavors of Boston, with food from the neighborhoods of Beacon Hill, Faneuil Hall Marketplace, the North End, Chinatown, Back Bay, and the Boston Symphony of Sweets. **Note:** *Beverages for this event must be paid for with drink tickets included in registration packet or with cash and cannot be charged to your room.*



Tuesday, September 30

7:00 AM - 8:30 AM

Faculty Network Breakfast Commonwealth

Sponsored by Committee E803

Session Moderator: Andrea J. Schokker
Henderson Professor
Department of Civil Engineering
Pennsylvania State University
University Park, PA

The Faculty Network Breakfast is an open forum to address issues related to the dissemination of ACI information to faculty members. Presentations and discussion will include opportunities for faculty and student members, free literature/resource awareness, scholarship information, and any other topics of interest to faculty and student members of ACI. Free educational materials will be given to all session attendees. A continental breakfast will be available.

Tuesday, September 30

9:00 AM - 12:00 PM

**Factors Involved in Independence E
Strength Design of Footings**

Sponsored by Committee 336

Session Moderator: Diane M. Campione
Project Manager
Alfred Benesch & Company
Chicago, IL

Session Co-Moderator: William H. Oliver, Jr.
Staff Engineer
CenterPoint Energy
Houston, TX

Introduction **9:00 PM**
Diane M. Campione, Project Manager, Alfred Benesch
& Company, Chicago, IL

Strengthening Relationship Between **9:05 AM**
SE and GE
Clyde N. Baker, Senior Principal Engineer, STA Consultants
Limited, Vernon Hills, IL

Structural Engineering View of Strength **9:40 AM**
Design of Footings
Diane M. Campione, Project Manager, Alfred Benesch &
Company, Chicago, IL

Geotech's View of Strength Design **10:05 AM**
of Footings
Rodrigo Salgado, Professor, School of Civil Engineering,
Purdue University, West Lafayette, IN

International Developments in **10:40 AM**
Geotechnical Strength Design of Footings
Robert M. Semple, Senior Associate, Mueser Rutledge
Consulting Engineers, New York, NY

Foundation Design and ACI 318 **11:05 AM**
Edward J. Ulrich, Jr., President, Ulrich Engineers Inc.,
Houston, TX

Panel Discussion **11:35 AM**

Tuesday, September 30

9:00 AM - 12:00 PM

Selection of Materials for Concrete Repair **Back Bay D**

Sponsored by Committee 546

Session Moderator: Myles A. Murray
President
Restruction Corporation
Sedalia, CO

Session Co-Moderator: Paul E. Gaudette
Project Engineer
Wiss Janney Elstner Associates
Chicago, IL

Introduction **9:00 PM**
Myles A. Murray, President, Restruction Corporation,
Sedalia, CO

Where Are the Necessary Performance Criteria When Selecting Repair Materials? **9:05 AM**
Peter H. Emmons, President & CEO, Structural Group,
Baltimore, MD; *Alexander M. Vaysburd*, Vaycon Consulting,
Inc.; and *James E. McDonald*, U.S. Army Corps of Engineers

Engineer/Owner Perspective on Repair Material Selection **9:30 AM**
Paul D. Carter, Technical Specialist, CH2M-HILL, Edmonton,
AB, Canada

Protecting Unbonded Prestressed Tendonds **10:00 AM**
Myles A. Murray, President, Restruction Corporation,
Sedalia, CO; *Jack Morrow*, Jamor Engineering, Ltd.

High-Performance Concrete Overlays **10:30 AM**
Michael M. Sprinkel, Associate Director, Virginia Transportation
Research Council, Charlottesville, VA

Tuesday, September 30

9:00 AM - 12:00 PM

Selection of Materials for Concrete Repair *continued*

Corrosion Protection Options to Provide Durability of Concrete Repairs **11:00 AM**

David W. Whitmore, Vice President, Vector Construction Group, Winnipeg, MB, Canada

Key Customer Characteristics of Repair Systems for Durable Repairs **11:30 AM**

Timothy R. Gillespie, Manager, Product Marketing, Sika Corporation, Lyndhurst, NJ

Tuesday, September 30

9:00 AM - 12:00 PM

**Fracture Mechanics: Independence W
Testing and Applications**

Sponsored by Committee 446

Session Moderator: Daniel C. Jansen
Assistant Professor
Department of Civil Engineering
CalPoly State University
San Louis Obispo, CA

Session Co-Moderator: Barzin Mobasher
Associate Professor
Department of Civil Engineering
Arizona State University
Tempe, AZ

Introduction 9:00 AM

Daniel C. Jansen, Assistant Professor, Department of Civil Engineering, CalPoly State University, San Louis Obispo, CA

**Fracture Mechanical Characterization of
Cementitious Composites Using the Wedge
Splitting Test Method 9:05 AM**

Alexander Rieder, W.R. Grace & Co., Cambridge, MA

**Use of R-Curves in Characterization of
Fracture Processes in Cement-Based Materials 9:35 AM**

Barzin Mobasher, Associate Professor, Department of Civil Engineering, Arizona State University, Tempe, AZ

**Issues Related to Fracture Testing Standards
for Concrete Materials 10:05 AM**

Vellore S. Gopalaratnam, Professor, Department of Civil and Environmental Engineering, University of Missouri-Columbia, Columbia, MO

Tuesday, September 30

9:00 AM - 12:00 PM

Fracture Mechanics: *continued*
Testing and Applications

Quantifying Size of Compression Damage 10:35 AM
for Reinforced Concrete Flexural Predictions

W. Jason Weiss, Assistant Professor, Civil Engineering,
Purdue University, West Lafayette, IN

Can Information from Multiple Unload 11:05 AM
Cycles Lead to a Size Independent
Fracture Toughness?

James H. Hanson, Assistant Professor, Department of Civil
Engineering, Rose-Hulman Institute of Technology, Terre
Haute, IN

Consequences of Fracture Mechanics for 11:30 AM
Size Effect in Shear Failure of Beams

Zdenek P. Bažant, McCormick School Professor and Walter
P. Murphy Professor, Department of Civil Engineering,
Northwestern University, Evanston, IL; and *Qiang Yu* and
Mohammad T. Kazemi, Northwestern University

Tuesday, September 30

12:00 PM - 2:00 PM

✓ **International
Luncheon Buffet
\$30US per person**

Commonwealth

Hosted by the International Committee

Speaker: Ronald Lee
Project Manager
John A. Martin & Associates
Los Angeles, CA

Title: The Engineering Challenges of
The Ray and Maria Stata Center

The 430,000 ft² Stata Center is a visionary academic complex at MIT, designed by Pritzker Prize-winning architect Frank O. Gehry that demands creative structural engineering solutions to meet the challenges posed by the architecture. Only nine



stories above ground with three stories below, the center houses many different functional facilities, including two-tiered classrooms, a large auditorium, athletic facilities, a child care center, as well as research laboratories. As with Gehry's other buildings, such as the Nationale Nederlanden Building in the Czech Republic, and the Guggenheim Museum in Bilbao, Spain, the Stata Center has characteristics of amorphous form with deconstructive appearance (see the photograph). These characteristics provide challenging opportunities for the structural designer. The center is under construction on the MIT campus.

Menu: Italian North End style buffet,
dessert, tea and coffee

Tickets may be purchased at the ACI Registration Desk until 24 hours prior to the event. Please notify the ACI Registration Desk of any dietary restrictions.

✓ **Separate Fee Required**

Tuesday, September 30

2:00 PM - 5:00 PM

Updating Cold Weather Concreting Practices **Independence E**

Sponsored by Committee 306

Session Moderator: Charles J. Korhonen
Research Civil Engineer
U.S. Army Cold Regions
Research and Engineering Laboratory
Hanover, NH

Session Co-Moderator: Kevin A. MacDonald
Vice President
Cemstone Engineering Services
Mendota Heights, MN

Introduction **2:00 PM**
Charles J. Korhonen, Research Civil Engineer, U.S. Army
Cold Regions Research and Engineering Laboratory,
Hanover, NH

Estimating In-Situ Strength **2:05 PM**
Kim D. Basham, Senior Structural Engineer, Structural
Services, Inc., Cheyenne, WY

Accelerating Early-Age Strength **2:30 PM**
Tate Coverdale, Director, Product Technologies, Master
Builders, Inc., Beechwood, OH

Thermal Modeling **2:55 PM**
Kevin A. MacDonald, Vice President, Cemstone Engineering
Services, Mendota Heights, MN

Evaporation Concerns **3:20 PM**
Kenneth C. Hover, Professor and Weiss Presidential Fellow,
Department of Civil and Environmental Engineering, Cornell
University, Ithaca, NY

Sub-Zero Concrete **3:45 PM**
Charles J. Korhonen, Research Civil Engineer, U.S. Army
Cold Regions Research and Engineering Laboratory,
Hanover, NH

Tuesday, September 30

2:00 PM - 5:00 PM

**Updating Cold Weather
Concreting Practices** *continued*

Corrosion Control **4:10 PM**
*Robert Hoopes, Technical Services Engineer,
W.R. Grace & Co., Cambridge, MA*

Residential Construction **4:35 PM**
*James R. Baty, Technical Director, Concrete Foundations
Association, Mount Vernon, IA*

Tuesday, September 30

2:00 PM - 5:00 PM

Aerated Autoclaved Concrete—An Innovative Building Solution **Independence W**

Sponsored by Committee 523

Session Moderator: Ronald E. Barnett
General Manager
AERCON Florida, LLC
Haines City, FL

Session Co-Moderator: Caijun Shi
CJS Technology Inc.
Burlington, ON, Canada

Introduction **2:00 PM**
Ronald E. Barnett, General Manager, AERCON Florida, LLC,
Haines City, FL

Overview of the Guide for Using Autoclaved Aerated Concrete Panels (Introduction to AAC) **2:05 PM**
Fouad H. Fouad, Professor, Department of Civil Engineering,
University of Alabama, Birmingham, AL

Case Studies **2:35 PM**
Felipe Babbitt, Engineering Manager, E-Crete, Scottsdale, AZ

Design Basics **3:05 PM**
Ronald E. Barnett, General Manager, AERCON Florida, LLC,
Haines City, FL

Design Examples **3:35 PM**
Keith Itzler, Assistant Branch Manager, Dewberry-Goodkind
Inc., New York, NY

Technical Basics, Part One: Materials **4:05 PM**
Fouad H. Fouad, Professor, Department of Civil Engineering,
University of Alabama, Birmingham, AL

Technical Basics, Part Two: Including Seismic Data **4:35 PM**
Richard E. Klingner, Professor, Department of Civil Engineering,
University of Texas, Austin, TX; and *Jennifer E. Tanner*,
University of Wyoming

Wednesday, October 1

7:45 AM - 5:00 PM

✓ **ACI Educational Seminar: Independence W
Seismic and Wind Design
Considerations for
Concrete Buildings**

Sponsored by the ACI New England Chapter and
ACI International

Instructors:

David A. Fanella is Director of Engineering at S.K. Ghosh Associates Inc., Northbrook, IL. Until recently, Dr. Fanella was with the Portland Cement Association in Skokie, IL, where he was responsible for the promotion of buildings and special structures. Dr. Fanella is an active member of ACI Committees 340, Design Aids for ACI Building Codes; 374, Performance-Based Seismic Design of Concrete Buildings; and 375, Performance-Based Design of Concrete Buildings for Wind Loads. He is also a member of ASCE 7 and the Structural Engineers Association of Illinois. He has authored or co-authored many of PCA's structural publications, including a series of articles on time-saving design methods for reinforced concrete.

S. K. Ghosh heads the consulting firm of S.K. Ghosh Associates Inc. in Northbrook, IL, and Laguna Niguel, CA, and is Adjunct Professor of Civil Engineering at the University of Illinois at Chicago. He is an ACI Fellow, serves as a member of ACI Committee 318, Standard Building Code, and is a former member of the Technical Activities Committee. Dr. Ghosh has published extensively in the design of high-rise concrete buildings and in earthquake-resistant design of concrete structures. He is a member of the Board of Direction of the Building Seismic Safety Council and is a member of the ASCE Committee on Minimum Design Loads for Buildings and Other Structures.

*The registration fee includes seminar handouts,
continental breakfast, lunch, and coffee breaks.
This seminar is worth 7.5 PDHs or 0.75 CEUs.*

✓ **Separate Fee Required**

Wednesday, October 1

7:45 AM - 5:00 PM

ACI Educational Seminar *continued*
Seismic and Wind Design
Considerations for Concrete Buildings

How do the IBC 2000 requirements affect the design of reinforced concrete structures in your area?

The level of seismicity at a site has always been an important factor in the design of buildings for earthquakes. Occupancy has become a consideration in recent times. Another important factor, which is formally addressed in the 2000 IBC seismic requirements, is the type of soil that is present at the site. If these factors place your structure in a seismic design category equivalent to that of Seismic Zones 3 or 4, they trigger a large number of seismic detailing requirements in Chapter 21 of ACI 318-02. This can change the time, effort, and money needed to design and construct a structure as the seismic design category becomes more severe.

Based on the newly published book, *Seismic and Wind Design of Concrete Buildings*, instructors S. K. Ghosh and David A. Fanella will first provide an overview of earthquake-resistant and wind-resistant design, including a description of how concrete buildings respond to earthquake and wind forces. They'll thoroughly explain seismic and wind design requirements in the 2000 IBC and compare the seismic provisions with those in the model codes it replaced.

They'll also illustrate application of the seismic and wind provisions by designing and detailing typical structural members (slabs, beams, columns, and shearwalls) in the following structures, which are located in areas of low, moderate, and high seismic risk on different types of soil:

- Office building with dual and moment-resisting frame systems
- Residential building with shear wall-frame interactive and building frame systems
- School building with moment-resisting frame
- Residential building with bearing wall system
- Parking structure with building frame system

Educational Seminars

Registration and Information on Additional ACI Seminars

Stop by the convention registration area for a seminar brochure. To register or for more detailed information, call Seminar Registration at 248-848-3815, fax 248-848-3801, or email carla.parker@concrete.org. You can also visit us on the web at www.concreteseminars.com.

TROUBLESHOOTING CONCRETE CONSTRUCTION

One-day seminar for contractors, design engineers, specifiers, government agencies, and material suppliers.

This seminar will provide attendees with solutions to problems with concrete. The seminar will cover how to place reinforcement, how to prevent most cracks, making functional construction joints, what cracks can reveal, how to properly vibrate concrete, how to detect delaminations, and how to identify deterioration of concrete. Complimentary publications include: ACI 301-99, 302.1R-96, 303R-91, 308R-01, and 309.2R-98.

This seminar is worth 7.5 PDHs or 0.75 CEUs.

Free publications, a \$272.50 value, are included.

Nashville, TN	TNF	October 7, 2003
Sacramento, CA	CAF	October 15, 2003
Washington, DC	DCF	November 6, 2003
Salt Lake City, UT	UTF	November 12, 2003
Charlotte, NC	NCF	November 19, 2003
Grand Rapids, MI	MIF	December 9, 2003
New York, NY	NYF	December 11, 2003

Educational Seminars

CONCRETE REPAIR BASICS

One-day seminar for engineers, repair contractors, material suppliers, maintenance personnel, and public works engineers. Attendees will learn the best methods and materials for economical and effective concrete repairs. The seminar will cover causes and evaluation of problems in deteriorating concrete, repair techniques, repair materials, cracks and joints, and protection systems, overlays, and specifications for structures. Complimentary publications include: ACI 201.1R-92(97), 224.1R-93(98), 364.1R-94(99), 437R-91(97), and 546 R-96(01). This seminar is worth 7.5 PDHs or 0.75 CEUs. **Free publications, a \$162.50 value, are included.**

Ft. Myers, FL	FLF	October 8, 2003
Birmingham, AL	ALF	October 22, 2003
Washington, DC	DCF	November 7, 2003
Salt Lake City, UT	UTF	November 13, 2003
Charlotte, NC	NCF	November 20, 2003
Grand Rapids, MI	MIF	December 10, 2003

CONCRETE SLABS ON GROUND

One-day seminar for specifiers, architects, contractors, building owners, and government agencies. Attendees will learn to design, specify, and build quality concrete floors. This seminar will cover short- and long-term geotechnical concerns, and how to avoid floor moisture problems, design low-shrinkage concrete mixtures with good finishability, minimize problems due to curling and shrinkage, minimize joint problems while maximizing economy, design and build any one of the nine classes of floors, design, specify, and build for appropriate F-numbers, troubleshoot slabs, and know the differences between the six types of slabs on ground. Complimentary publications include: ACI 302.1R-96 and 360R-92(97). This seminar is worth 7.5 PDHs or 0.75 CEUs. **Free publications, a \$172.00 value, are included.**

Denver, CO	COF	October 8, 2003
San Antonio, TX	TXF	October 14, 2003
Cleveland, OH	OHF	October 28, 2003
Milwaukee, WI	WIF	November 5, 2003
Roanoke, VA	VAF	November 11, 2003
Los Angeles, CA	CAF	November 18, 2003
Baltimore, MD	MDF	December 2, 2003
Albuquerque, NM	NMF	December 8, 2003

Educational Seminars

NEW—TROUBLESHOOTING CONCRETE FLOOR PROBLEMS

One-day seminar for contractors, design engineers, specifiers, government agencies, and material suppliers. Attendees will learn how to avoid or solve these problems: slow-drying concrete that delays flooring application; air quality issues related to water vapor emissions; conflicting moisture test results, flooring adhesive failures, joint curling, excessive cracking, delaminations or blisters, birdbaths or other drainage problems; and disputes about interpretation of flatness/levelness requirements. This seminar is worth 7.5 PDHs or 0.75 CEUs. **Free industry-related documents are included.**

Denver, CO	COF	October 9, 2003
Miami, FL	FLF	October 21, 2003
Pittsburgh, PA	PAF	October 29, 2003
Phoenix, AZ	AZF	November 5, 2003
Milwaukee, WI	WIF	November 6, 2003
Los Angeles, CA	CAF	November 19, 2003
Baltimore, MD	MDF	December 3, 2003
Texarkana, TX	TXF	December 10, 2003

NEW—SEISMIC AND WIND DESIGN CONSIDERATIONS FOR CONCRETE BUILDINGS

One-day seminar for structural engineers and designers. This seminar will cover earthquake- and wind-resistant design, response of concrete buildings to earthquake and wind forces, seismic and wind design requirements in the 2000 IBC and the impact of those provisions, comparisons to previous editions of the model building codes, and applications of the seismic and wind provisions will be illustrated by designing and detailing typical structural members in areas of low, moderate, and high seismic risk on different types of soil. Complimentary publications include: 2000 IBC and Reference Manual. This seminar is worth 7.5 PDHs or 0.75 CEUs.

Free publications, a \$110.00 value, are included.

Atlanta, GA	GAF	October 23, 2003
Kansas City, MO	MOF	December 10, 2003

Educational Seminars

REINFORCED CONCRETE DESIGN

Two-day seminar for designers and engineers. This unique seminar will cover the basic assumptions in design of reinforced concrete, how to design efficient and safe reinforced concrete structures, new design aids to increase your design efficiency, how to make profitable design decisions, practical applications of the ACI 318-02 Building Code, and how to avoid common design errors. Complimentary publications include: ACI 318-02, PCA EB0709, and Course Notes. This seminar is worth 15 PDHs or 1.5 CEUs.

Free publications, a \$294.50 value, are included.

Philadelphia, PA	PAF	October 9 & 10, 2003
Las Vegas, NV	NVF	October 16 & 17, 2003
Cincinnati, OH	OHF	October 23 & 24, 2003
Dallas, TX	TXF	October 30 & 31, 2003
Portland, OR	ORF	November 6 & 7, 2003
Tampa, FL	FLF	November 13 & 14, 2003
Minneapolis, MN	MNF	December 4 & 5, 2003

Repair of Concrete Workshop

Two-day workshop for owners and facility managers, concrete specialists and general contractors, civil and structural engineers, material suppliers, and architects. An in-depth "how-to" on ways to do reliable concrete repairs: determine causes of concrete deterioration, prepare for concrete repair, concrete repair techniques, review research advancements, and actual case histories. Complimentary publications include: ACI 201.1R-92(97), ACI 224.1R-93(98), ACI 503.1-92/503.4-92, ACI 506.R4-94, and ACI 546R-96(01). This seminar is worth 15 PDHs or 1.5 CEUs.

Free publications, a \$166.50 value, are included.

Detroit, MI	MIF	October 14 & 15, 2003
Albany, NY	NYF	October 29 & 30, 2003
Atlanta, GA	GAF	December 2 & 3, 2003

Educational Seminars

NEW—FRP COMPOSITES FOR REINFORCED CONCRETE CONSTRUCTION

One-day seminar for engineers, designers, and contractors.

Attendees will learn why the use of FRP for concrete structures has grown so rapidly in recent years. The seminar will include an introduction to FRP materials; fundamentals of FRP bars including mechanical properties; flexural design and, shear design; development, hooks, and splices; strengthening or retrofitting concrete structures with externally bonded FRP systems including construction methods, design, and detailing methods; and actual case studies. Complimentary publications include: ACI 440.1R-03, ACI 440.2R-02, and Course Notes.

This seminar is worth 7.5 PDHs or 0.75 CEUs.

Free publications, a \$191.00 value, are included.

Chicago, IL	ILF	October 16, 2003
New Brunswick, NJ	NJF	November 4, 2003
Seattle, WA	WAF	December 3, 2003

Notes

Notes

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Future ACI Conventions

Spring 2004

March 14-18, 2004

Concrete—A Century of Innovation
Washington Hilton & Towers
Washington D.C.

Fall 2004

October 24-28, 2004

Concrete—A Century of Innovation
San Francisco Hilton & Towers
San Francisco, CA

Spring 2005

April 17-20, 2005

*Concrete Soars, Spans and
Supports New York & New Jersey*
Hilton New York
New York, NY



Concrete — A Century of Innovation

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Fax: 248-848-3701

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Thank you for attending the ACI
Fall 2003 Convention.
See you in Washington D.C.
for the Centennial celebration!