

LETTERS TO THE EDITOR

Remembering Art Anderson and Gustave Magnel

I found it coincidental and quite fascinating that the article by Art Anderson and the piece on Gustave Magnel would be next to each other in the same issue (see July-August 2004 PCI JOURNAL) because these two gentlemen were close friends and had deep respect for each other's achievements. During Magnel's "missionary" journeys across North America (late forties and early fifties) in which he spread the "gospel" of prestressed concrete, he made it a particular priority to visit Anderson's precast plant in Tacoma, Washington (the first such plant on the West Coast and one of the first in the United States). Anderson was, as is well known, an early advocate of high strength concrete and put that belief into practice in his precast, prestressed concrete operations. Using no-slump concrete, Anderson could produce strengths ranging up to 10,000 psi. Of course, it must be appreciated that concrete strengths much beyond 3000 psi were a rarity in those days. Anderson would often recount a story in which he said Magnel praised the Tacoma plant as being the only place in the United States he visited which produced quality concrete. Everywhere else, he said, the freshly mixed concrete looked like "soup!"

Tom Watson
New York City, New York

Reading your article on Gustave Magnel (see July-August 2004 PCI JOURNAL) brought back happy memories of the time I spent in Belgium at the University of Ghent. It happened to be one of the privileged students to have attended Professor Magnel's lectures on prestressed concrete. Without a doubt, he was the best and most loved teacher I ever had, and all my classmates felt the same way.

NEW PCI JOURNAL SUBSCRIPTION RATES

Due to rising publication costs, the subscription rates of the PCI JOURNAL have been increased and will become effective January 1, 2005:

United States	\$64 per year, 3-year rate \$149
Foreign	\$94 per year, 3-year rate \$239
Air Mail (additional)	\$55 per year
Single/back issue	\$12

Being a multilingual university, Professor Magnel would give the same lecture in both English and French. Incredibly, some students would attend both lectures.

Pierre Laval
Montreal, Quebec
Canada

I thoroughly enjoyed reading the article on Gustave Magnel (see July-August 2004 PCI JOURNAL). Magnel was not only the consummate teacher but also a great communicator. At his lectures, he would say "Why are we here together? It is to learn something from one another. If I say 'yes' to everything you believe, then there is no reason for my being here." Although Magnel was a strong advocate of prestressed concrete, he never left the impression that every structure in the world should be made of prestressed concrete. As he often said, "If you cannot design a prestressed concrete structure on a sound and economical basis, don't build it! Above all, be an engineer with a professional conscience. Make the structure right!"

Louis Bernard
Toronto, Ontario
Canada

School of Architecture Florida International University

I enjoyed reading your cover article on the new School of Architecture, Florida International University, in Miami (see July-August PCI JOURNAL). The fact that precast concrete was chosen as the principal building

material for this prestigious school speaks volumes for the industry. What better way to market precast concrete to future architects than with this signature building. Congratulations to the authors on a magnificent article.

Ralph Brown
Dallas, Texas

New Appointments to PCI Committees

The following individuals have recently accepted appointments to PCI committees. We appreciate their interest and voluntary participation.

- *Prestressing Steel Committee*
A. S. (Gus) Sason
Atlantic & Pacific Technology
Jacksonville, Florida
- *Prestressed Concrete Piling Committee*
Louis Klusmeyer
BERGER/ABAM Engineers, Inc.
Seattle, Washington
- *Student Education Committee*
Neil M. Hawkins
Professor Emeritus
University of Illinois
@ Urbana-Champaign
Urbana, Illinois

Robert J. Peterman
Kansas State University
Department of Civil Engineering
Manhattan, Kansas

William C. Richardson
Richardson Consulting Services LLC
Colorado Springs, Colorado

Paul Zia
North Carolina State University
Civil Engineering Department
Raleigh, North Carolina

- **TAC Committee**
Larbi Sennour
Consulting Engineers Group
San Antonio, Texas

TECHNICAL ACTIVITIES

The following technical committees have been active this past summer:

- The Prestressed Concrete Poles Committee (**Fouad H. Fouad**, chair) met August 10-11 in Anniston, Alabama, principally to review preliminary drafts of three committee reports:
 - "Recommended Practice for Prestressed Concrete Electric Utility Poles."
 - "Recommended Practice for Prestressed Concrete Sports Lighting and Communication Poles."
 - "Recommended Practice for Prestressed Concrete Streetlighting Poles."

The Poles Committee also met in Atlanta, Georgia, at the PCI Convention to continue their development work on the three documents.

- The Connection Details Committee (**Larbi Sennour**, chair) devoted a full-day meeting on the status of the "PCI Connections Manual" at PCI Headquarters in Chicago on August 5. The principal reason for scheduling this meeting was to make certain that the

numerical design examples in the Connections Manual will conform with Chapter 6 of the forthcoming Sixth Edition of the PCI Design Handbook. This chapter has changed significantly principally as a result of a recent PCI-sponsored research program on headed studs carried out by Wiss, Janney, Elstner Associates. Further, that the design examples will follow these rules:

- Welds should conform to the elastic vector method.
- The order of checking the connection member should follow the load path. For example, the double tee-to-wall panel connection should start with the double tee plate, then the jumper plate, followed by the weld, and finally the wall plate.
- The capacity of connection members should be determined in all directions that apply. In the case of a double tee plate, the capacity should be calculated in both shear and tension directions simultaneously rather than separately.

The other major decision reached by the committee was that PCI Headquarters will now provide editing and graphics support for the committee in producing the Connections Manual.

- During the past four months, the Industry Handbook Committee (**Kim Seeber**, chairman), **Les Martin** (editor-in-chief) and PCI staff have been giving the new Sixth Edition of the PCI Design Handbook a very comprehensive technical and editorial review.

The reason for this special scrutiny is that the new edition contains substantive new material which will be outlined below. Also, it was felt that a thorough editorial review was necessary not only for aesthetic reasons but also to eliminate typographical errors and other inconsistencies in the text. The Sixth Edition contains 150 pages more than the Fifth Edition and is now about 750 pages long. The Handbook will be printed at the end of this year. For ordering this publication, see the advertisement on p. 114.

The following chapters summarize the major new features of the Sixth Edition:

Chapter 1. Precast and Prestressed Concrete: Applications and Materials – Photographs of recent projects have been added and the section on materials has been updated to include durability issues and how precast products are made.

Chapter 2. Preliminary Design of Precast, Prestressed Concrete Structures – All of the load tables and interaction curves have been upgraded. This edition also includes 15-ft wide double tees mainly for pretopped decks in parking structures.

Chapter 3. Analysis and Design of Precast, Prestressed Concrete Structures – This chapter has been completely rewritten to conform with ACI 318-02, the International Building Code and new loading regulations in ASCE 7. For the first time, detailed seismic design provisions are included together with in-depth design ideas on handling diaphragms.

Chapter 4. Design of Precast and Prestressed Concrete Components – This is probably the most detailed

PSBeam

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Geometry

- Bearing pad offsets
- Skew angle
- Interior or exterior
- Composite or not

Section Properties

- Transform strands
- Deck/haunch regions
- Supplemental

Beam No.	Area (sq ft)	Perimeter (ft)	Volume (cu ft)
1	10.000	10.000	10.000
2	10.000	10.000	10.000
3	10.000	10.000	10.000
4	10.000	10.000	10.000

Beam No.	Area (sq ft)	Perimeter (ft)	Volume (cu ft)
1	10.000	10.000	10.000
2	10.000	10.000	10.000
3	10.000	10.000	10.000
4	10.000	10.000	10.000

System Libraries

- Girder sections
- Strands & rebar
- Live load vehicles

Load Types

- Dead load (all)
- Auto live load:
 - Standard
 - User-defined
- Time-dependent effects (SH & CR)

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- Optimized patterns
- Debonding

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Individuals interested in joining these committees should contact **Jason Krohn** at PCI Headquarters.

chapter in the Handbook. Torsion and shear are now based on the method by Zia and Hsu. There is a new procedure for strength design and other changes to conform with ACI 318-02. The section on thermal bowing is now included in this chapter. Strain compatibility analysis is now applied in the design examples. All numerical examples have been updated to reflect the new ACI load and resistance factors.

Chapter 5. Product Handling and Erection Bracing – New material gives guidance for the design of precast products (mostly wall panels) for the forces that act on them prior to their final positioning in the structure.

Chapter 6. Design of Connections – This chapter has been substantially changed as a result of recent PCI-sponsored research on headed studs. Several new design examples are now included.

Chapter 7. Selected Topics for Architectural Precast Concrete – This chapter presents a basic primer for structural engineers on how architectural precast concrete fits into the overall scheme of the structure.

Chapter 8. Tolerances for Precast and Prestressed Concrete – This chapter basically gives an overview of the subject of tolerances and relies on existing PCI documents.

Chapter 9. Thermal, Acoustical, Fire and Other Considerations – This chapter provides information on a number of supplementary topics that may be useful to a designer of precast concrete structures. There is new material on sandwich wall panels, fire resistance and vibration issues. Also, the section on cracking repair and maintenance has been completely rewritten.

Chapter 10. Specifications and Standard Practices – Particular emphasis has been placed on the relationship between the engineer of record and the precast specialty engineer. The "PCI Standard Design Practice" has been updated. Note that the Guide Specifications for both Structural and Architectural Precast Concrete will now only be available on compact disc.

Chapter 11. General Design Information – This chapter is a compendium of information from various other sources that the structural engineer can find in a convenient place.

STUDENT EDUCATION

PCI Announces 2004 Engineering Design Awards (Big Beam Contest)

At their meeting on August 3, 2004, the Student Education Judging Committee selected the Engineering Student Design Award (Big Beam Contest) winners. First place winners from each of the six PCI Zones, along with the International entries considered as Zone 7, competed for the Overall Championship. The Overall winners and Zonal winners, along with the associated PCI and CPCI Producers, are listed as follows:

• Overall Championship

First Place: Oregon State University (Team # 3), Corvallis, Oregon (Zone 1)

Faculty Advisor: Keith Kaufman
Student Team: Zach Beget, Nolen Lee, Ben Oltmann and Josh Parker
PCI Producer: Morse Bros., Inc., Prestress, Harrisburg, Oregon (Pat Hynes)

Award: \$2000 along with other prizes (to be honored at the PCI Convention in Atlanta)

Second Place: University of Texas at Austin, Austin, Texas (Zone 2)

Faculty Advisor: Oguzhan Bayrak
Student Team: Justin Norvell, Vanna Oberholz, Andrew Maas, Nathan Dickerson, Brandon McBee, Peter Ruth and Jeff Carlson
PCI Producer: Coreslab Structures (Texas), Inc., Cedar Park,

Texas (Byron Freeby)

Award: \$1750 along with other prizes

Third Place: University of Calgary, Calgary, Alberta, Canada (Zone 7)

Faculty Advisor: M. M. El-Badry
Student Team: Rainer Herzinger and Mark Ritchie

PCI Producer: Lafarge Canada Inc., Calgary, Alberta, Canada (Don Zakariasen)

Award: \$1500 along with other prizes

Fourth Place: University of Nebraska, (Team # 1) Lincoln, Nebraska (Zone 3)

Faculty Advisor: Maher K. Tadros
Student Team: Tony Burke, David Knoepke and Mark Otte

PCI Producer: Concrete Industries, Inc., Lincoln, Nebraska (Mark Lafferty)

Award: \$1250 along with other prizes

Fifth Place: University of Illinois at Urbana-Champaign, Urbana, Illinois (Zone 4)

Faculty Advisor: Daniel A. Kuchma

Student Team: Joni Ranchero, Joe Wilkey, Sang-Hokim and Will Bane

PCI Producer: Illinois Concrete Company, Inc., Champaign, Illinois (Michael Johnson)

Award: \$1000 along with other prizes

Sixth Place: Tulane University, New Orleans, Louisiana (Zone 6)

Faculty Advisor: Paul H. Ziehl
Student Team: David Birrcher, Herman Alb, Jerrod Egley, Jeremy Martin and Nick Mannix

PCI Producer: Gulf Coast Pre-



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Stress, Inc., Pass Christian, Mississippi (Don Theobald)

Award: \$1000 along with other prizes

Seventh Place: Virginia Polytechnic Institute, Blacksburg, Virginia (Zone 5)

Faculty Advisors: Carin Roberts-Wollman and Tommy Cousins

Student Team: Rodolfo Bonetti, Kim Phillips, Devin Harris and Jeremy Lucas

PCI Producer: Tindall Corporation, Petersburg, Virginia (Andrew Wise)

Award: \$1000 along with other prizes

• Zonal Winners

• **Zone 1 Second Place:** Oregon State University, Corvallis, Oregon (Team #2)

Faculty Advisor: Keith Kaufman

Student Team: Travis Williams, Chris Makuakane and Travis Sanders

PCI Producer: Morse Bros., Inc., Prestress, Harrisburg, Oregon (Pat Hynes)

Award: \$750 along with other prizes

• **Zone 1 Third Place:** Oregon State University, Corvallis, Oregon (Team #5)

Faculty Advisor: Keith Kaufman

Student Team: Joe Bachmeier, Craig Basta, Michael Miotke and Sol Pastor

PCI Producer: Morse Bros., Inc., Prestress, Harrisburg, Oregon (Pat Hynes)

Award: \$500 along with other prizes

• **Zone 1 Fourth Place:** Oregon State University, Corvallis, Oregon (Team #4)

Faculty Advisor: Keith Kaufman

Student Team: Brad Fisher, Andrew Enriquez, Ronald Lalangan and Mark Smith

PCI Producer: Morse Bros., Inc.,

Prestress, Harrisburg, Oregon (Pat Hynes)

Award: \$250 along with other prizes

• **Zone 2 Second Place:** University of Utah, Salt Lake City, Utah (Team #1)

Faculty Advisor: Chris Pantelides

Student Team: Kendric Wait, Matt Cook and Lamont Squires (Mike Sotuyo)

PCI Producer: Eagle Precast Company, Salt Lake City, Utah

Award: \$750 along with other prizes

• **Zone 2 Third Place:** University of Utah, Salt Lake City, Utah (Team #2)

Faculty Advisor: Chris Pantelides

Student Team: Joseph Emerson, Travis Ackermann and Beau Uriona

PCI Producer: Eagle Precast Company, Salt Lake City, Utah

Award: \$500 along with other prizes

• **Zone 2 Fourth Place:** Texas A&M University, College Station, Texas

Faculty Advisor: Mary Beth Hueste

Student Team: Pranab Agarwal, Radhakrishna Pillai and Hemal Modi

PCI Producer: Heldenfels Enterprises, Inc., San Marcos, Texas (Fred Heldenfels)

Award: \$250 along with other prizes

• **Zone 3 Second Place:** University of Missouri-Rolla, Rolla, Missouri

Faculty Advisor: John J. Myers

Student Team: Jared Brewere, Gary Greene, Sean Huang, Jason Jeffries and Wesley Merkle

PCI Producer: Rinker Materials Corporation, Marshall, Missouri (Jim Myers)

Award: \$750 along with other prizes

• **Zone 3 Third Place:**

Co-Winner #1: University of Nebraska, Omaha, Nebraska (Team #1)

Faculty Advisor: Maher K. Tadros

Student Team: Nancy McCormick,

Ryan Pelster, Brandon Kreiling and Ning Wang

PCI Producer: Rinker Materials Corporation, LaPlatte, Nebraska (Todd Kulp)

Award: \$200 along with other prizes

Co-Winner #2: University of Nebraska, Omaha, Nebraska (Team #2)

Faculty Advisor: Maher K. Tadros

Student Team: Jeremy Bowers, Josh Dahlbeck, Matt Leaper, Steve Nass and Andres Torres

PCI Producer: Rinker Materials Corporation, LaPlatte, Nebraska (Todd Kulp)

Award: \$200 along with other prizes

Co-Winner #3: Iowa State University, Ames, Iowa

Faculty Advisor: Sri Sritharan

Student Team: Brian Degan, Jon Waugh, Sriram Aaleti and Yared Bayleyegn

PCI Producer: Iowa Prestressed Concrete, Inc., Iowa Falls, Iowa (John Doering)

Award: \$200 along with other prizes

Co-Winner #4: University of Minnesota, Minneapolis, Minnesota (Team #1)

Faculty Advisor: Catherine E. W. French

Student Team: Bulent Erkmen, Krzysztof J. Krol and Timothy Miller

PCI Producer: Elk River Concrete Products, Maple Grove, Minnesota (Mike Dorval)

Award: \$200 along with other prizes

• **Zone 4 Second Place:** Milwaukee School of Engineering, Milwaukee, Wisconsin

Faculty Advisor: John Zachar

Student Team: Anthony Radtke, Bob Sliwinski and Ross Huntley

PCI Producer: Spancrete Industries, Inc., Waukesha, Wisconsin (Vern Coenen)

Award: \$750 along with other prizes

• **Zone 4 Third Place:** Ohio University, Athens, Ohio

Faculty Advisor: Eric P. Steinberg

Student Team: Chad Falco, Matt Hunkler, Eric Reed and Zach Jaksetic

PCI Producer: Carr Concrete Corp.,



Sidley Precast Group, Waverly, West Virginia (David Dunbarger)

Award: \$500 along with other prizes

- **Zone 5 Second Place:** Villanova University, Villanova, Pennsylvania
Faculty Advisor: Shawn Gross
Student Team: Jonathan Crawford, Bradley Degnan, Elizabeth Gaynor and Joseph Ricker
PCI Producer: High Concrete Structures, Inc., Denver, Pennsylvania (Ken Baur)
Award: \$750 along with other prizes

- **Zone 5 Third Place:** State University of New York, Canton, New York
Faculty Advisor: Anne Clarkson
Student Team: Ken Planty, Mike Martin and Sarah Killeen
PCI Producer: Jefferson Concrete Corporation, Watertown, New York (Tim Queior)
Award: \$500 along with other prizes

- **Zone 5 Fourth Place:** Clarkson University, Potsdam, New York
Faculty Advisor: Jubum Kim
Student Team: Scot Butler, Michael Fuchs, Dave Grey, Kevin Haskins and Allison Russell
PCI Producer: Jefferson Concrete Corporation, Watertown, New York (Charlie Hubbell)
Award: \$250 along with other prizes

- **Zone 6 Second Place:** Vanderbilt University, Nashville, Tennessee
Faculty Advisor: P. K. Basu
Student Team: Kris Bomar, Warren Goodrich, Charles Haynes, Katie Whipp and Joe Turk
PCI Producer: Metromont Prestress Company, LaVergne, Tennessee (Henry Scott Boling)
Award: \$750 along with other prizes

- **Zone 7 Second Place:** University of Toronto, Toronto, Ontario, Canada
Faculty Advisor: Paul Gauvreau
Student Team: Jeff Erochko, Luka Matutinovic and Graham Potter
CPCI Producer: Coreslab Structures (ONT) Inc., West Dundas, Ontario, Canada (Shahid Shaikh)
Award: \$750 along with other prizes

- **Zone 7 Third Place:** University of Windsor, Windsor, Ontario, Canada
Faculty Advisor: Ram Balachandar

CALL FOR NOMINATIONS — DISTINGUISHED EDUCATOR AWARD

The PCI Student Education Committee (**Pat Hynes**, chair) invites nominations from PCI members for PCI's 2005 Distinguished Educator Award. The objective is to recognize distinguished educators in the fields of engineering, architecture and construction technology who have made significant contributions to the precast/prestressed concrete industry. Nominations must be received at PCI headquarters by **March 1, 2005**. For nomination forms and additional information, contact PCI Research Director **Paul Johal**: (312) 360-3213, e-mail: pjohal@pci.org.

CALL FOR NOMINATIONS — YOUNG EDUCATOR ACHIEVEMENT AWARD

The PCI Student Education Committee (**Pat Hynes**, chair) invites nominations from PCI members for PCI's 2005 Young Educator Achievement Award. The objective is to recognize distinguished educators in the fields of engineering, architecture and construction technology who have made significant contributions in their early careers to the precast/prestressed concrete industry. Nominations must be received at PCI headquarters by **March 1, 2005**. For nomination forms and additional information, contact PCI Research Director **Paul Johal**: (312) 360-3213, e-mail: pjohal@pci.org.

CALL FOR ENTRIES — ENGINEERING STUDENT DESIGN COMPETITION BIG BEAM CONTEST

The PCI Student Education Committee (**Pat Hynes**, chair) is inviting entries from engineering students to participate in PCI's Engineering Student Design Competition for the year 2005. With the help of local PCI Producer Members, students will construct and test 16-ft (4.9 m) span precast, prestressed inverted tee concrete beams. The awards program, sponsored by Sika Corporation, will include cash prizes for the most efficient design, highest load capacity, best report, and other categories. Applications are due at PCI headquarters by **March 15, 2005** and reports by **June 15, 2005**. PCI Producer Members are urged to encourage their local engineering schools to participate in this program. For more information on official rules and application forms, go to PCI's Web site at www.pci.org (education) or contact PCI Research Director **Paul Johal** at (312) 360-3213, e-mail: pjohal@pci.org.

Student Team: Piero Aleo, Donato Digiovanni, Kyle Edmunds, Leo Ferriera and Gregg Kopesser
CPCI Producer: Prestressed Systems Inc., Windsor, Ontario, Canada (Paul Phillips)
Award: \$500 along with other prizes

- **Zone 7 Fourth Place:** Queen's University, Kingston, Ontario, Canada

Faculty Advisor: John Pelow
Student Team: Suzanne Charbonneau, Sarah Howard, Jason Fitzwilliam, Robert Hsu, Kevin MacLean, Matthew Makarenko, Jennifer Watson, and Trevor Skutezky
CPCI Producer: Pre-Con Inc., Brampton, Ontario, Canada (Janet Raiber)
Award: \$250 along with other prizes

Best Report Winner: University of Nebraska, Omaha, Nebraska (Team # 2)

Faculty Advisor: Maher K. Tadros

Student Team: Jeremy Bowers, Josh Dahlbeck, Matt Leaper, Steve Nass and Andres Torres

PCI Producer: Rinker Materials Corporation, LaPlatte, Nebraska (Todd Culp)

Award: \$500 along with other prizes

The Big Beam Contest is organized by PCI's Student Education Committee (**Pat Hynes**, chair) and sponsored by Sika Corporation. The objective is for teams of students to fabricate and test a precast, prestressed concrete beam with the help of local PCI producer members. Prizes are awarded for the most efficient design, highest load capacity, best report, and other categories.

Applications for the 2005 Big Beam Contest are due at PCI by **March 15, 2005**, and test reports by **June 15, 2005**.

For additional information on this program, go to PCI's Web site at www.pci.org (education), or contact PCI Research Director **Paul Johal** at (312) 360-3213; e-mail: pjohal@pci.org.

INDUSTRY PEOPLE

PCI Announces New Appointments

PCI President **James G. Toscas** recently announced two staff appointments. **James Schneider** has joined



James Schneider



Rebecca Coleman



Mark T. Taylor

PCI as Editorial Director of ASCENT Magazine. Mr. Schneider will guide the quarterly magazine and work with Marketing Director **Brian D. Goodmiller** on other editorial projects to enhance communication with PCI's members and the building community at large.

Prior to joining PCI, Mr. Schneider coordinated the production of middle-school science and social studies titles for Harcourt Global Library, an international publisher of nonfiction library books. He oversaw the development of book series on topics ranging from colonial history to physical science and served as managing editor of T.H.E. (Technological Horizons in Education) Journal, an educational technology publication for school administrators and teachers nationwide. Mr. Schneider created a number of new print and online initiatives and also developed marketing and course materials for continuing medical education (CME) credit seminars. He holds a bachelor's degree in english from the University of Wisconsin, Green Bay.

Rebecca (Becki) Coleman has

joined the PCI staff as Executive Assistant, reporting to President **James G. Toscas**. Ms. Coleman is responsible for coordinating all correspondence, schedules, travel, meetings, records, and overall administration relating to the President's office.

She most recently worked as executive assistant at the Builders Group of Companies, Addison, Illinois, serving the firm's top executives. Ms. Coleman received her bachelor's degree in sociology (*cum laude*) from Oklahoma Baptist University, Shawnee, Oklahoma.

Taylor Promoted to VP/COO at Nitterhouse

President and chief executive officer, **William K. Nitterhouse** of Nitterhouse Concrete Products, Inc., Chambersburg, Pennsylvania, has announced the promotion of **Mark T. Taylor** to vice president, chief operating officer. Mr. Taylor began his career with Nitterhouse in 1992 as a project engineer. During his employment, he received his professional engineer license in seven states and the District

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Joseph Valancius



Thomas J. Gibson



Rich Shadle

of Columbia. He was promoted in 1997 to plant engineer, and in 1998, to director of engineering. Most recently, he was vice president of sales and marketing.

In his new position, Mr. Taylor will be responsible for all company operations, including production, engineering, sales, marketing, estimating, and field services. Mr. Taylor is a graduate of Pennsylvania State University with a bachelor's degree in architectural engineering, and is a member of the American Concrete Institute.

Valancius Opens WJE Office in Los Angeles, California

Wiss, Janney, Elstner Associates, Inc. (WJE), headquartered in Northbrook, Illinois, has opened an office in Los Angeles, California. Leading the seven-person staff is **Joseph Valancius**, a former senior partner with the structural engineering firm of Karagozian & Case for 20 years.

The Los Angeles office expertise includes conventional structural analysis and building design, risk assessment, and mitigation for hazards such as terrorist attacks and earthquakes. The staff is also experienced with design of hospitals in California and the design and analysis of structures for blast and weapons effects.

Mr. Valancius' experience includes projects in structural design, seismic analysis and seismic upgrade design, damage studies and investigations and blast analysis and design for blast loads. He earned his bachelor's degree in civil engineering from the University of Illinois and his master's degree in structural engineering and structural mechanics from the University of California at Berkeley.

PCA Names Gibson Senior Vice President of Government Affairs

The Portland Cement Association (PCA), headquartered in Skokie, Illinois, named **Thomas J. Gibson** as senior vice president, government affairs. He will head PCA's Washington, D.C. office and represent the Association and its member companies before Congress, the Administration and The White House.

Mr. Gibson comes to PCA with a wealth of experience in politics and environmental affairs, including roles with government agencies, on Capitol Hill, the armed forces, and as an advisor to and within the private sector. Most recently he served as chief of staff for the United States Environmental Protection Agency (EPA).

Previously, Mr. Gibson was the associate administrator for the EPA's Office of Policy, Economic and Innovation. Additionally, he worked as majority deputy staff director and majority counsel from 1995-2001 for the United States Senate Committee on Environment and Public Works. From 1993-1995, he served private-sector clients in judicial, regulatory, and legislative affairs. He was with the EPA as a congressional liaison specialist and the Raytheon Company after service in the United States Navy from 1979-1985.

Mr. Gibson graduated *magna cum laude* from Georgetown University, Washington, D.C., where he received his Doctor of Law degree (J.D.). He holds a master's degree in marine affairs from the University of Rhode Island, Kingston, Rhode Island, and a bachelor's degree in naval architecture from the United States Naval Academy, Annapolis, Maryland.

Sika Appoints Shadle as Regional Manager New Construction

Sika Corporation, Lyndhurst, New Jersey, announced the appointment of **Rich Shadle** to the position of new construction regional manager for the North-Central United States. He will focus on introducing Sika's advanced admixture technology and technical support to the ready-mixed concrete and precast and prestressed concrete industries. Mr. Shadle brings more than 25 years of experience in the admixture, fly ash and concrete industries.

He comes to Sika from Separation Technologies (STI), Needham, Massachusetts, where he served as vice president of sales and marketing. Prior to working at STI, he spent 15 years with W. R. Grace Construction Products. He served as president of two American Concrete Institute (ACI) chapters (Arizona and Colorado) and is an active member of PCI and the National Ready Mixed Concrete Association (NRMCA).

Metromont Announces Knight and Wenkel for Key Management Positions

Metromont Corporation, Greenville, South Carolina, has promoted **James**



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H. Knight to vice president/general manager for sales and operations in the Carolinas and appointed **John Wenkel** as vice president/general manager of its precast/prestressed concrete plant in Hiram, Georgia.

Mr. Knight has held various management positions within Metromont for two decades. His new responsibilities will include overseeing plant operations, project management, and sales for Metromont's precast/prestressed concrete plants in Greenville, South Carolina and Charlotte, North Carolina.

Mr. Wenkel brings 25 years of precast/prestressed concrete experience to Metromont and will be responsible for sales, plant operations, and project management of the Hiram, Georgia plant.

SEAOI Grants Rosenstern Life Membership Status

The Structural Engineers Association of Illinois (SEAOI), headquartered in Chicago, Illinois, has granted life membership status to **Klaus Rosenstern**. Mr. Rosenstern has been a member of SEAOI almost since its inception in 1965. He served on PCI's Board of Directors from 1982-1983.



Klaus Rosenstern



Mike Shydowski

He was an intelligence officer in World War II, and after the war, he worked for various firms before starting his own company. He subsequently joined Material Service Corporation, from which he retired as vice president of Concrete Products, Engineering and Construction Division.

Mr. Rosenstern is past president of the Counter Intelligence Corps Association, the Society of Military Engineers, Chicago Chapter and various other organizations. He received a Certificate of Honor from SEAOI in 1982.

Master Builders Adopts Degussa Name

Master Builders, Inc., Cleveland, Ohio, has adopted Degussa Admix-

tures, Inc. as the company name and has designed the organization to more closely align company resources and services with the changing needs of customers, and address the on-going evolution of the concrete construction marketplace.

Mike Shydowski, president and chief executive officer, commented, "Our transition to the Degussa Admixtures, Inc. name signifies our alignment and synergy with the strengths and commitment of our parent organization, and promotes the Master Builders brand as a strategic part of the global Degussa Construction Chemicals organization." Mr. Shydowski is functioning in a dual role as the interim head of sales.

Degussa Admixtures, Inc. continues to offer the complete line of Master Builders admixture solutions with a sales and support staff of nearly 500. Four geographical sales divisions have been established, layers of management have been compressed, and six key senior management positions have been created for strategic business development.

Ray Minnillo will continue to direct the sales efforts in the Western United States as sales director, West. **John Brooks** has accepted the position of sales director, Central. **John Malcolm** will take on the role of sales director, East.

A Canadian sales team has been formed and **Mike Rispin** has been appointed sales director, Canada. He will continue to lead the company's underground construction efforts.

Matt McGlone will transition from Eastern business group manager to the role of sales director, strategic accounts.

David Henson will become sales director of business services for the United States and Canada.

A new functional group has been created for the development and introduction of admixture technologies. A new performance management group will measure the organization's performance and facilitate training and outreach efforts. A technology innovation and sustainability group will combine research and development and marketing functions to launch new products into the marketplace.

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Three key management positions have been announced in the technology innovation and sustainability group, led by **Chuck Soeder**, vice president.

Brad Violetta, former executive director of marketing, and **Kenneth Kruse**, most recently central business group manager, have been appointed directors responsible for leading the development and marketing of the company's products to the ready-mixed concrete, precast, manufactured concrete products and paving markets.

Tate Coverdale has been appointed technology director, and will guide product development and ensure rapid acceptance of new technologies.

COMPANY NEWS

Degussa Admixtures Augment Cement Shortage

Degussa Admixtures, Inc., Cleveland, Ohio, provider of Master Builders brand of chemical admixtures, has created a special task force to assist concrete producers facing cement shortages. "The cement shortage is an industry-wide problem that is not going away any time soon," said **Brad Violetta**, industry director for Degussa Admixtures, Inc. "We are making sure that concrete producers have tools and products to extend their cement supply, and maintain concrete production and profitably during this crisis."

A team of sales, research and development, marketing, and technical personnel are working to provide analysis, testing, data and tools to help concrete producers identify ways to extend concrete production from a given amount of cement.

Research has shown that cement replacement, with slag cement, fly ash and other pozzolans, can be accomplished easily and economically. With the addition of admixtures, plastic and hardened concrete performance can be maintained or customized to meet application requirements.

"With today's innovative admixture technology, we can push cement contents lower while minimizing any negative effect on strength development, setting time, durability or finishability," remarked **Tate Coverdale**, technology

director from the company's concrete laboratory.

SCA and ASBI Award Figg Projects

The Slag Cement Association (SCA), Sugar Land, Texas, presented an award that recognizes innovation in design and construction to projects using slag cement at its annual meeting in Chicago this past spring.

AirTrain JFK was awarded "The Most Innovative Use of Slag Cement in Concrete." Designed by Figg Engineering Group, Tallahassee, Florida, this project was created by the Port Authority of New York and New Jersey. This transit system links New York's John F. Kennedy International Airport with Long Island Rail Road trains, New York City Transit subways and local buses.

Approximately 200,000 cu yd (152,920 m³) of concrete was used to create the system, which includes 482 cast-in-place columns with 20 and 30 percent slag cement replacement rates, and 5000 precast, post-tensioned segments incorporating 40 percent slag cement replacement.

The elevated guideway portion, stretching more than eight miles in length, is the longest segmental precast bridge in the United States (see January-February 2004 PCI JOURNAL).

The American Segmental Bridge Institute (ASBI) awarded the 2003 Bridge Award of Excellence to Broadway Bridge, Daytona, Florida. Designed by Figg Engineering and owned by Florida Department of Transportation, District No. 5, this 3008 ft (917 m) precast segmental concrete structure carries Route U.S. 92, International Speedway Boulevard, over the Intracoastal Waterway.

Comprised of twin parallel structures, the Broadway Bridge has a total deck area of 260,152 sq ft (24,170 m²). The precast segments were transported by barge 20 miles (32 km) down the Intracoastal Waterway. The precaster, Misener Marine, Inc., Tampa, Florida, used three machines and the short-line casting method to fabricate the project's 352 segments, which are 48 ft wide (15 m) and vary in depth from 13 ft to 7 ft 9 in. (4 m to

2.36 m) The maximum segment weight is 120 tons (see November-December 2003 PCI JOURNAL, p. 151).

Grace Acquires European Concrete Admixture Businesses

Grace Construction Products, a subsidiary of W. R. Grace, Cambridge, Massachusetts, announced that two of their subsidiaries have made recent acquisitions. Grace's Belgian subsidiary, Grace NV, has acquired Pieri Benelux NV, located in Izezem, Belgium. Pieri Benelux has been the exclusive distributor of Grace's Line of Pieri® products for architectural concrete since the early 1980s. Terms of the acquisition were not disclosed. Pieri Benelux NV distributes Grace's Pieri products including surface retarders, release agents, pigments, form liners, and concrete admixtures to ready mix and precast concrete producers in Belgium, the Netherlands, and Luxembourg. The name of the company has been changed to Grace Construction Products NV.

Grace's Polish subsidiary, Grace Sp. z o.o., has acquired assets relating to the concrete admixture business of Tricosal Polska Sp. z o.o., a supplier of specialty chemicals and materials. Tricosal Polska's concrete admixtures are sold to ready mix and precast concrete producers and contractors in Poland.

Editorial-Technical MANAGING EDITOR

The Precast/Prestressed Concrete Institute (PCI) seeks a managing editor for its technical publication, The PCI JOURNAL. A minimum of BS degree in civil engineering with emphasis on concrete structures is required in addition to writing and computer skills. Experience in the precast/prestressed concrete industry is an asset. Excellent salary based on experience and attractive fringe benefits. Respond in writing with professional resumé to PCI, 209 W. Jackson Blvd., Ste. 500, Chicago, IL 60606. Attn: President. PCI is an Equal Opportunity Employer.

J. W. Peters Introduces 15-ft Double Tee to Midwest Market

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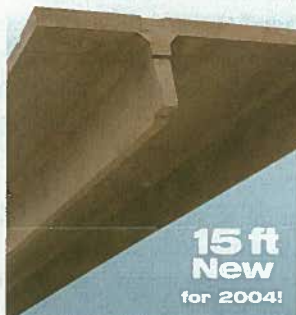
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**15 ft
New
for 2004!**



**10 ft
Introduced 1970**



**12 ft
Introduced 1981**

J. W. Peters, headquartered in Burlington, Wisconsin, continuing its pioneering tradition, has developed a 15-ft (4.57 m) wide double tee for the midwest market. The double tee has long been considered as one of the building industry's most important and versatile products. It is expected that this new giant tee will find immediate application in office buildings, parking structures, industrial buildings and other structures.

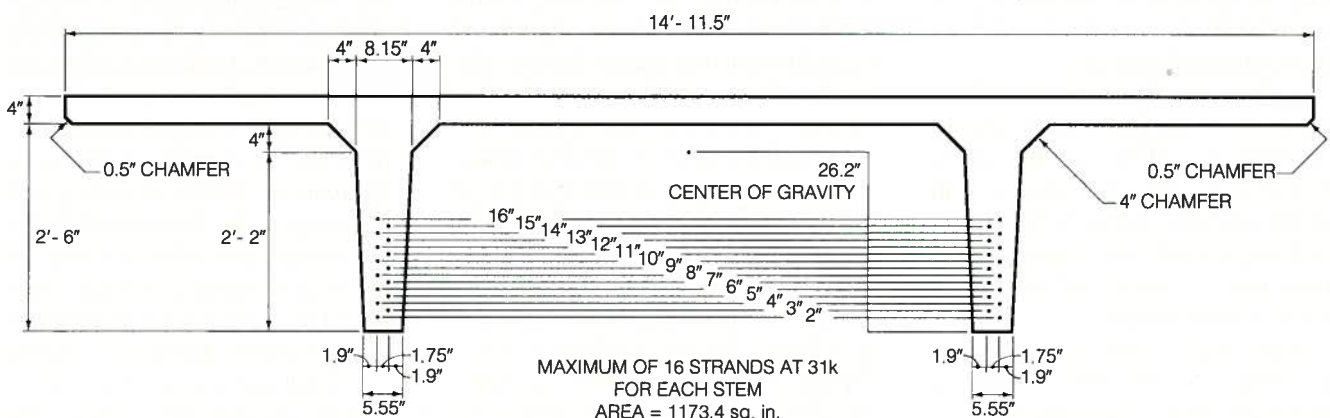
J. W. Peters has had a long history in innovation. In the 1970s, they were among the first to develop a 10-ft (3.05 m) wide double tee and in 1981, they developed a 12-ft (3.66 m) wide double tee.

The new *EternaTEE™* double tee has been carefully researched using the latest vibration and form technology. By doing so, manufacturing time has been reduced by nearly 30 percent and because fewer members are needed per structure, production, transportation and erection have been speeded up. This means significantly less construction time and lower cost per project. To meet state regulations, J. W. Peters has developed a special system to transport the oversized tees in a tilted position. This ensures complete safety on the highway.

In addition, the new double tee has the following features:

- Greater span lengths
- Enhanced appearance, density and uniformity
- Greater compressive strength and durability
- Enhanced bond between concrete and reinforcement
- Lower permeability with less chance for corrosion

For more information on the 15-ft (4.57 m) wide double tee, contact J. W. Peters at (800) 877-9040 or log onto their Web site at jwpeters.com.



Drawing of J. W. Peters 15 ft (4.57 m) wide *EternaTEE™* double tee.

TADIUS (TED) GUTT

(1925 – 2004)

Tadius (Ted) Gutt, PCI's first Chairman of the Board (formerly President) of PCI and PCI Medal of Honor recipient, passed away on August 5, 2004, at the age of 78, at his home in Phoenix, Arizona.

Ted had the distinction of having worked on the first two major prestressed concrete structures in the United States – the Walnut Lane Bridge in Philadelphia, Pennsylvania (1949-1950) and the Arroyo Seco Pedestrian Overpass in Pasadena, California (1951).

On the Walnut Lane Bridge, he drafted the engineering drawings of the bridge under the supervision of Charles Zollman; on the Arroyo Seco Bridge, he was responsible for the post-tensioning operations. It is interesting to note that Professor T. Y. Lin installed the instrumentation for monitoring the structural behavior of this landmark bridge.

Born and raised in Cleveland, Ohio, Ted served in the U.S. Navy during World War II and was honorably discharged with the rank of Lieutenant. After the war, he attended the University of Rochester, where he graduated in 1947 with a bachelor's degree in chemical engineering.

Shortly afterwards, he joined the Preload Corporation of New York City, where he worked as a design engineer and field superintendent. It was at this company that he met his life-long friend Charles Zollman, which led to their collaboration on the Walnut Lane Bridge.

In 1950, Ted joined the Prestressed Concrete Corporation of Kansas City. Here, his first assignment was to perform the post-tensioning work on the 110-ft Arroyo Seco Bridge.

During the Korean War, he was assigned to the Special Structures Section of the Civil Engineers Corps where he worked under Arsham Amerikian, chief design engineer at



the Bureau of Yards and Docks in Washington, D.C.

Upon his discharge from the U.S. Navy in 1953, he became vice president of the Texas Stressed Concrete Corporation, where he participated in the design and construction of many of the unusual precast, prestressed concrete structures in that state until 1956.

After 1956, Ted served first as vice president of the George Rackle & Sons Company, a precast/prestressed firm in his home town of Cleveland, Ohio, and then as manager of the Cleveland Precast Concrete Division of the Cleveland Builders' Supply Company. In these positions, he helped introduce many new concepts and products to the precast, prestressed concrete industry. Some of these accomplishments are summarized in his article "Prestressed Concrete Developments in the Western United States," which appears in the Reflections Volume.

Ted's service to PCI began in the early seventies. He served on more than ten committees, completed seven years on the board of direction (including a term as PCI President and Chairman of the Board in 1987), and has received seven testimonials, two Certificates of Merit and several other awards for his extensive PCI

committee activities. He was the first chairman of the Quality Control Performance Criteria Committee and served as chairman of the Ad Hoc Committee for Revision of PCI's By-Laws and Policies and Procedures Committee. Importantly, he was instrumental in advocating mandatory Plant Certification for every PCI Producer Member. During the past ten years, he also served on the Journal Advisory Committee.

In recognition of Ted's many contributions to the industry and Institute, he was named PCI's ninth Medal of Honor winner (1989), a PCI Fellow (1994), and a Titan of the Industry (2004). The Titan of the Industry Award was awarded to him posthumously at PCI's 50th Anniversary Convention in Atlanta, Georgia.

He was a member of American Concrete Institute's ACI Committee 323 (now 423) on Prestressed Concrete, where he served on the task group that developed the first "Recommendations for Prestressed Concrete." He helped establish the Ohio Prestressed Concrete Association (and became its first president). He was a member of the American Society of Civil Engineers (ASCE) since 1952, and a Fellow of ACI.

Following a long, notable career as a pioneer in the precast, prestressed concrete industry, he retired in 1988 as a senior vice president of engineering for the TPAC Division of the Tanner Companies. Ted remained active after retirement through his consulting work. He served his community as an Exchange Club member for more than 50 years.

Ted is survived by his wife, Barbara, of 53 years, their three sons, and three granddaughters. Memorial contributions may be made to Hospice of the Valley, 1510 E. Flower St., Phoenix, AZ 85014.

[EK & GDN]

PCA Awards CEG and High Concrete Structures

Concrete in Transit Award for 2004



Above: With more than a million square feet of elevated parking and an imaginative design, more than 3000 precast pieces were fabricated for the Liberty International Airport Terminal C parking structure in Newark, New Jersey.

To the right: One of the glass enclosed stairwells.



The Portland Cement Association (PCA), Skokie, Illinois, awarded the Liberty International Airport Terminal C [Continental] Parking Structure located in Newark, New Jersey, with the Concrete in Transit Award for 2004. The award is based on creativity, transferability, aesthetics, economics, and functionality.

The 3400-space parking structure, funded by the Port Authority of New York and New Jersey, was part of a major expansion initiative at Liberty International Airport, which included renovation and expansion of Continental Airlines' hub at Terminal C. The Consulting Engineers Group, Mt. Prospect, Illinois, structurally designed the terminal and High Concrete Structures, Inc., Denver, Pennsylvania, was the precaster. A one-page story on this project was published in the July-August 2003 PCI JOURNAL, p. 164.

George M. Hibbs, partner with the project's architect Clark Caton Hintz, said that innovative solutions were devised to prevent the sheer mass of the project from overwhelming users. "The enormity of scale of this facility was broken down in several ways, including the exterior façade detailing. Precast spandrel panels were accented by an aluminum railing to decrease their visual impact. Other design contributions included round columns at the structure's perimeter and the use of two 40 x 150 ft (12 x 46 m) light wells, which were created within the floor plates to introduce daylight into the lower floors. Glass-enclosed stairwells illuminate the structure at night, to enhance safety and security," he added. These features attracted the attention of the PCA judges who noted, "The project architects found the right elements to fit together for this economic solution."

Fabcon Introduces VersaCore Plus™

Fabcon of Savage, Minnesota, has created a precast concrete wall panel capable of delivering higher thermal efficiency in three sizes to meet customer demand for high R-Values, structural integrity, and design flexibility.

According to the 2003 International Energy Conservation Code, in the Central to Southern United States, the VersaCore Plus R-Values range up to 10 for the 8 in. (203 mm) panel, an R-Value of 12 for the 10 in. (254 mm)

panel, and an R-Value of 14 for the 12 in. (305 mm) panel. "R-Value" is a term used to describe a material's insulating ability: higher R-Value equals more energy-efficient material.

Standard precast concrete sandwich panels are comprised of 3 in. (76 mm) of concrete, 2 in. (51 mm) of foam and another 3 in. (76 mm) of concrete.

The VersaCore Plus manufacturing process uses more insulation without affecting the panel's structural integrity. Steel spacers are replaced with expanded polystyrene spacers, thus in-

creasing the surface area that is insulated.

The new VersaCore Plus production process accommodates structural design requests, including recessed connections and the ability to cast-in door and window openings.

Fabcon satisfies design needs in the initial stage of panel creation, versus on the job site, which saves time in the construction process, helps contractors control costs, and provides architects and engineers with a flexible range of design options and tools.

Molin Creates Forms for Water Treatment Plant

Precast concrete was chosen by architect/engineer Bonestroo, Rosene, Anderlik and Associates for the Chaska Water Treatment Plant in Chaska, Minnesota, due to its strength, durability, and versatility. Molin Concrete Products Company, Lino Lakes, Minnesota, was the precaster on the project.

One reason precast concrete worked well was because of its creative design possibilities. It is also a quality product produced in a controlled environment and results in minimal surface air bubbles and blemishes, and can be manufactured throughout the sub-freezing Minnesota winter.

Originally, the beams and columns were designed to be cast in place, but due to the unique design challenge, the beams were changed to precast concrete for ease and speed of construction. Three different size precast arches were merged with an intersecting gable roof design. The roof was made entirely from hollow-core slabs that rest against canted spandrel beams.



Wooden forms were designed and fabricated at Molin's plant to produce the arches and beams. Challenges included devising a form that would produce smooth arches and beams with accurate angles to ensure that the arches, precast beams, and cast-in-place columns would match. The finished product was then delivered

to the site where Molin's installation crew met the challenge of putting all the pieces of the puzzle together.

The mainly all-precast concrete project included 20,400 sq ft (1900 m²) of hollow-core slabs, 550 lineal ft (170 m) of beams, and 18 pieces of solid concrete arched trusses.

University of Wisconsin Offers "Fundamentals of Structural Design" Course

The University of Wisconsin-Madison, Department of Engineering Professional Development is offering a course, Fundamentals of Structural Design for Architects, Builders & Technicians, November 15-19, 2004, in Madison, Wisconsin. This course will benefit technical support staff in design/construction, who want to learn how to solve routine building structural problems.

Attendees will increase their understanding of forces and how to solve simple beam, column, truss and frame problems; learn how to estimate dead, live and other loads and where to find load information; construct free-body, shear and moment diagrams and learn how to use them to size and select members; study the basics of strength of materials; and learn about centroids, moment of inertia, section modulus and radius of gyration and find out why these properties are important in beam and column selection.

For more information, contact Bruce D. Kieffer, tel: (608) 262-2624, e-mail: kieffer@epd.engr.wisc.edu; Web site: epdweb.engr.wisc.edu/WEBF30.

Fourth International CPI Congress and Expo "Innovations in Concrete"

Concrete Plant International (CPI) magazine has extended an invitation to join them in Bonn, Germany on October 26-27, 2004, at their annual Congress and Expo, "Innovations in Concrete." This international event encompasses precast products and markets and emphasizes the marketing and technical innovations required to reshape the future of building. Registrants from more than 30 countries are expected to attend.

Additionally, CPI has planned an optional Post-Congress Tour to Berlin on October 28-30 exclusively for PCI members to visit nearby plants and projects and sample the cultural venues in Berlin and Potsdam.

For details on the program, pricing and registration for the Congress

and/or Berlin Tour, visit CPI's Web site at: www.cpi-congress.de, or e-mail **Stefan Rath** at: rath-pressedienst@t-online.de. Feel free to contact **Tom Battles**, tel: (773) 761-4264; e-mail: chicagobattles@comcast.net.

PCI Education Foundation

Securing the future of the precast/prestressed concrete industry

The PCI Education Foundation is a non-profit organization that aims to promote and expand knowledge of the precast, prestressed concrete industry within the academic community; to help attract and develop the next generation of industry leaders; and to nurture and support the future success of the industry.



Plant The Seed!

www.pcied.org

STRUCTURAL ENGINEER

Florence Concrete Products, Inc., a leading manufacturer of precast and prestressed concrete, is seeking applications for the following position:

Structural Engineer - Successful applicant(s) will be responsible for design of precast concrete building and bridge structures using state-of-the-art computer and software technology.

Preferred Qualifications are:

Master of Science in Civil Engineering with specialization in Structural Engineering.

Graduate level coursework in prestressed concrete design and analysis.

0 to 4+ years of experience.

Professional Engineering Registration in South Carolina or ability to obtain registration within 6 months of employment.

Minimum Qualifications are:

Bachelor of Science in Civil Engineering with specialization in Structural Engineering.

4+ years of experience in design of prestressed concrete bridge and building structures.

Registration as an Engineer Intern (EIT).

Florence Concrete Products, Inc. is a small but growing company and offers unique challenges and rewards for engineers and drafting professionals. Florence Concrete Products, Inc. offers competitive salaries based on qualifications and experience. Our benefits include health, life, dental, disability insurance, paid vacation, paid holidays, relocation assistance, and a 401K retirement savings plan.

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John R. Beck, PE

Vice President, Engineering
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Voice: 803-775-4372

Fax: 803-775-8569

E-mail:

JRBeck@florenceconcrete.com

Florence Concrete Products, Inc. is an equal opportunity employer.

Grace Celebrates 150th Anniversary

W. R. Grace & Co., Cambridge, Massachusetts, held a worldwide celebration of its 150th Anniversary in the spring of 2004. The company hosted events at 128 worldwide locations to recognize its heritage, examine its current role as an innovator in the industries it serves, and share its vision for the future.

Paul N. Norris, chairman and chief executive officer rang the closing bell at the New York Stock Exchange on May 10 in honor of the company's anniversary. Cambridge Mayor Mike Sullivan was one of several civic and business leaders attending the event at Grace's headquarters. Grace was also recognized by Massachusetts Governor Romney's office and by the American Cancer Society for its generous support and its role as a community leader.

Grace was founded by William Russell Grace, who became Mayor of New York City in 1880. It was he who formally accepted the Statue of Liberty from the people of France in 1885. The company's original business was a merchant steamship line to serve the Americas and in fact, Grace sent the first commercial vessel through the newly constructed Panama Canal in 1914.

Grace is now a leading global supplier of catalysts and silica products, specialty construction chemicals, building materials, and sealants and coatings.

High Concrete Structures Acquires Concrete Technology

High Concrete Structures, Inc. of Denver, Pennsylvania, and Concrete Technology Inc. of Springboro, Ohio, announced today that they have signed a Letter of Intent for the acquisition of Concrete Technology Inc. The acquisition, which is subject to normal due diligence and final approvals, is scheduled to close before the end of the year. The proposed combination will create one of the nation's largest structural and architectural precasting entities.

High Concrete Structures, Inc., with production facilities in Denver and Williamsport, Pennsylvania, is one of the nation's largest producers of precast parking structures, and serves the Mid-Atlantic market. Concrete Technology Inc., with production facilities in Springboro, Ohio and Paxton, Illinois, is a leading producer of architectural precast products in the Mid-West. Both companies are privately owned.

Heldenfels Awarded Contract for Sports Facility

Heldenfels Enterprises, Inc., San Marcos, Texas, will provide all the precast/prestressed concrete structural components for the new home of the Ryan family's AA team, The Corpus Christi Hooks. Hunt Construction Group and Fulton-Coastcon are working with Heldenfels to construct this new sports facility, located in Corpus Christi, Texas.

Fred W. Heldenfels IV, President, says, "Whataburger Field may not be the largest sports facility we have helped construct, but it is certainly one of those of which we are most proud." Heldenfels Enterprises' project manager **Jim Barberi** and vice president, **Kurt Shriefer**, will be the primary principals on this project.

INDUSTRY PRODUCTS

AltusGroup Formed to Market CarbonCast™

AltusGroup, a national partnership of leading precast concrete manufacturers, has been formed to market CarbonCast™ products to the precast, prestressed concrete industry. These products use conventional steel reinforcing bar or strand for primary reinforcing and 1 mm (40 mils) C-GRID™, a resin-bonded carbon fiber grid, for secondary reinforcing and shear transfer.

Founding members of the AltusGroup include High Concrete Structures, Inc., J. W. Peters and Iowa Prestress of the Cretex Companies, Metromont Prestress Co., Oldcastle Precast Inc., and Rocky Mountain Prestress. For details, log onto their Web site at www.altusprecast.com.

Fabcon's VersaCore Precast Concrete Panels Withstand Tornado's Fury

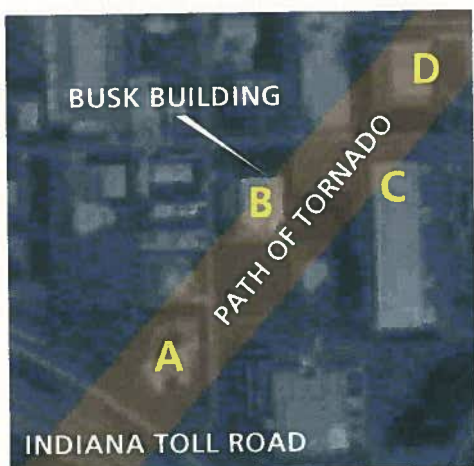


Fig. 1. Path of Tornado.



Fig. 4. Building C.



Fig. 3. Busk Brothers Building (Building B).



Fig. 2. Building A.

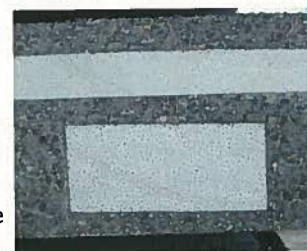


Fig. 5. Fabcon's VersaCore Panel End Cut.

Fabcon, Savage, Minnesota, manufactured the precast concrete panels that resisted structural damage to the Busk Brothers Furniture facility located at the Toll Road Industrial Park, South Bend, Indiana (Fig. 3). As shown in Fig. 1, Busk Brothers' building was in the direct path of this F3 tornado, which packed winds up to 206 mph and ripped through Northern Indiana in 2001. But Busk Brothers sustained minor damage to a section of the sheet metal roof, compared to the pre-engineered steel and masonry buildings on both sides (see Figs. 2 and 4).

When designing the structure, Panzica Building Corporation, South Bend, Indiana, chose Fabcon's VersaCore™ precast concrete panels. The panels were the key element in the building that minimized loss and damage from the tornado's effects.

The panels provide exceptional structural integrity and durability, and continue to protect building occupants and

material assets from the demanding conditions created by the tornado, such as wind and force.

The non-combustible concrete material inherent in VersaCore precast concrete panels enables them to serve as structural fire protection barriers. Unlike buildings constructed with wood, VersaCore panels guard against fire without an additional sprinkler system.

VersaCore's design helps resist structural damage because each panel continuously bonds together the tensile strength of steel and the compressive strength of concrete to deliver superior structural strength and protection against fire, wind, and a host of other potentially damaging environmental conditions. "The high-density foam-core construction of VersaCore precast panels (see Fig. 5) make them an ideal choice over other building material options, such as wood or metal," said Mike Le Jeune, president and chief executive officer of Fabcon.

Hollow-Core Slabs Used for Residential Garage

Premier Construction Group, Inc., Dillsburg, Pennsylvania, was contacted by a Dillsburg, Pennsylvania resident who was interested in building a three-level, three-car detached garage on his property (see Fig. 1).

After consulting with Ken Marsh, project manager and chief designer for Premier, it was decided that the best building material to use for the garage flooring would be hollow-core slabs produced by Nitterhouse Concrete Products, Inc., Chambersburg, Pennsylvania. Mr. Marsh said, "This was a unique and challenging project. Using Nitterhouse's hollow-core slabs enabled us to achieve the clear spans the owner needed and keep the construction moving along quickly."

Nitterhouse fabricated 1000 sq ft (93 m²) of 8 in. (203 mm) hollow-core slabs to construct a full basement below the three-car garage that now



Fig. 1. Front view of three-level, three-car residential garage.



Fig. 2. Back view of garage.

holds an automobile, a truck, and a tractor. A custom-built steel door, fabricated to look like a wooden cross-buck door, was installed on the lower level to facilitate moving large vehicles in and out (see Fig. 2).

The exterior of the third level was finished to tie in with the main home with the use of 4 ft (1.2 m) walkout dormers and 12 ft (3.7 m) Fypon molding, which also gave the structure a Victorian look.

Australian Brick Selected for Precast Cladding of Pennsylvania Hospital Parking Structure

Architect Robert M. R. Mainwaring, vice president of Robert D. Lynn Associates (RDLA), Philadelphia, Pennsylvania, selected Australian brick called Ironspot, for the brick-faced precast concrete panels on the new Abington Memorial Hospital Parking Structure in Abington, Pennsylvania.

The distinctive thin brick matches the hospital's existing buildings. Nitterhouse Concrete Products, Chambersburg, Pennsylvania, fabricated the thin bricks, which were reinforced with slotted details on their backs.

The panels were enhanced with a light-to-medium sandblast to create multiple-finish spandrels, thus complementing the sandblasted columns and stair panels on the project.

In addition to the use of thin-brick panels, the speed of erection allowed the building to be enclosed quickly. This gave interior trades an early start



on installing wiring, plumbing, HVAC and other equipment.

Mr. Mainwaring further commented that involving the precaster during the

design development stage enabled RDLA to analyze the finish options and to choose the one that achieved the brick finish they were striving for.

Precast Parking Structure Complements MedImmune Research Center

MedImmune, Inc., a world-renowned biotechnology research firm, broke ground on its global headquarters located on a 25-acre (11 ha) lot in Gaithersburg, Maryland.

Phase I of the three-phase project provides about 218,000 sq ft (20,252 m²) of office space as a research and development facility together with administrative departments, and an architecturally compatible covered parking structure.

The complex facility was designed by the architectural firm Hellmuth, Obata and Kassabaum (HOK), Washington, D.C., and is being constructed by HITT Contracting, Inc., Fairfax, Virginia, the general contractor for the facility's core and shell.

Nitterhouse Concrete Products, Chambersburg, Pennsylvania, was chosen as the precaster for the 502-space, three-level parking structure, designed to accommodate future expansion. The structure will function as the company's primary employee parking area. Three roads lead into three vehicle entrances to the garage on two different levels.

Architectural and structural precast/prestressed concrete was selected as the material for this project. Construction time and cost savings for the



Closeup of parking structure showing the architectural precast, spandrel panels with a light sand-blast finish. Recessed areas and reveals provide relief and interest to the panels that wrap the massive structure.

owner were the main reasons why precast concrete was chosen.

The new 170,000 sq ft (15,790 m²), parking structure was built using 131,86 sq ft (1220 m²) of spandrel panels, 98,400 sq ft (9150 m²) of dou-

ble tees, 7340 sq ft (682 m²) of lite-walls, 3423 sq ft (318 m²) of stair panels, plus prestressed concrete columns, beams, slabs, and shear walls. Erection of the precast components was completed within five weeks.



Overview of new parking structure in front and the medical facility in back.

Blakeslee Provides Precast Products for Total Precast Concrete Parking Structure

Blakeslee Prestress Inc., Branford, Connecticut, is supplying all of the precast concrete for Target Corp.'s total-precast concrete 573-car parking structure located in Stamford, Connecticut. Target's six-level facility will include a two-story retail center atop four levels of parking.

Designed by Street-Works, White Plains, New York, the project encompasses a total of 1205 pieces [220,543 sq ft (20,500 m²)] of precast concrete girders, columns, shear walls, span-drels, stairs, stair walls, solid slabs and

bollard. Precast concrete was chosen due to the site limitations. It was bounded by existing buildings and a busy street adjacent to the project.

The precast concrete frame on the lower levels provides gravity support for vertical loads and lateral bracing for the two steel-framed retail levels above. Precast shear walls extend up through the steel-framed Target store levels in the stair towers. Placement of lateral-bracing elements eliminated the need for expansion joints through the middle of the structure.



A two-hour fire rating was achieved between the parking and retail levels by using double tees.

IMMEDIATE CAREER OPPORTUNITIES

United Employment Associates Nationwide Recruiting

United Employment Associates, LLC is searching for qualified industry professionals to fill immediate career opportunities in the precast/prestress industry.

Partial Listing of (Available) Positions

Prestress general manager (2) to \$150k +
Prestress plant manager (2) ...to \$90k +
Arch. precast plant manager (4) to \$90k +
Plant superintendent (3)to \$70k +
Plant supervisor (8)to \$55k +
QC manager (4)to \$65k +
Engineer manager (2)to \$100k +
Design engineer (12)to \$75k +
Project manager (4)to \$65k +
CAD operator/detailer (8)to \$20/hr +
Sales manager/rep (7)to \$???

**** All Fees Company Paid ****

Reply in confidence to:

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Sika Releases Total Corrosion Management Brochure

Sika Corporation, Lyndhurst, New Jersey, has released a 12-page a brochure entitled "Total Corrosion Management." Corrosion of reinforcing steel in concrete is the biggest cause of repair damage in reinforced concrete structures. Billions of dollars are spent yearly repairing the damages.

This brochure includes a description of Sika's capabilities and products as well as information required to select the best repair approach. Details and case studies of problems and solutions are presented. A list of the products, best use, target situation, and initial costs are summarized. An electronic file is available on request by contacting Sika at www.sikausa.com.

ACI Launches Three New Publications

The American Concrete Institute (ACI), Farmington Hills, Michigan, announces the availability of three new publications.

ACI Building Code Requirements of the 20th Century CD-ROM – This compilation CD-ROM contains every ACI 318 building code requirement, commentary and supplement published between 1908 and the end of the 20th century. Serving as a resource to engineers, architects, legal profes-

sionals, and others involved with the building code, this reference tool will assist in tracing the evolution of reinforced and structural concrete, and details the proper design and construction of buildings made with structural concrete.

ACI 446.4R-04: Report on Dynamic Fracture of Concrete summarizes information for analyzing concrete systems subjected to rapid loading. An overview with recommended approaches for analysis and selection of material properties is included, as well as information from leading research authorities who are applying these concepts in practice. The report also describes the strength of concrete under tension and compression, pre-peak crack growth, and ductile behavior.

ACI 549.2R-04: Report on Thin Reinforced Cementitious Products summarizes information on reinforcement, manufacturing methods, engineering properties, and applications of thin reinforced cementitious products. Special emphasis is placed on durability and fire resistance of thin reinforced cementitious products, in addition to other properties such as strength, moisture resistance, dimensional stability, aesthetics, and ease of handling and installation.

For more information about these publications, contact the American Concrete Institute at (248) 848-3800 or download them from ACI's bookstore at www.concrete.org.

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