1998 PCI COMMITTEE DAYS

PCI's 1998 Committee Days will be held April 30-May 4 at the Holiday Inn-Mart Plaza in Chicago. Meetings of the technical, marketing and administrative committees of PCI will be interspersed Thursday through Monday, as shown in the schedule below.

Committee Days is usually the most intensive and rewarding activity held each year for the industry's professionals, educators, producers, suppliers and associates. This year's full schedule offers something of interest for all attendees.

Among the highlights are the presentations of Certificate of Merit Awards at Saturday's Luncheon to two committees for the major publications they produced in 1997.

The Bridges Committee will receive a Certificate of Merit Award for the *PCI Bridge Design Manual,* the first phase of which was published in 1997. The second phase of this outstanding resource for the design and construction of prestressed concrete bridges will be released in 1999.

The Prestressed Concrete Poles Committee will receive a Certificate of Merit Award for the report "Guide for the Design of Prestressed Concrete Poles." This comprehensive document was published in the November-December 1997 PCI JOURNAL.

Cocktail receptions will be held in the evenings, providing an opportunity to relax and socialize.

To make room reservations, contact the Holiday Inn-Mart Plaza at (312) 836-5000.

THURSDAY **April 30**	**FRIDAY** **May 1**	**SATURDAY** **May 2**	**SUNDAY** **May 3**
a.m.	*a.m.*	*a.m.*	*all day*
Plant Safety	JOURNAL Advisory	Plant Certification	AASHTO T-10
Personnel Training and Certification	Durability	Bridges	Field Certification
Marketing	Plant Safety	Parking Structures — Technical Group	
	Bridge Producers	High Performance Concrete	
	Sandwich Wall Panels	Bridges — Subcommittees	
	Student Education	Public Affairs	
	Seismic	Industry Handbook	
	Multi-Family Housing	Productivity	
	Plant Certification	Connection Details	
	Erectors	Erectors	
Luncheon	**Luncheon**	**Luncheon**	**MONDAY** **May 4**
p.m.	*p.m.*	*p.m.*	*all day*
Plant Safety	Bridge Producers	Plant Certification	Certified Field Auditor
Personnel Training and Certification	Plant Certification	Bridges	
Marketing	Erectors	Productivity	
Tolerances	Justice Facilities	Connection Details	
Housing	Building Code	Erectors	
Allied Organizations	Computer Software	Poles	
	ATLSS/PRESSS	Research and Development	
	Prestressing Steel	Piling	
	Hollow-Core Slab Producers	Soundwalls	
	Industry Statistics	Contracts	
		Quality Control Performance Criteria	
Reception	**Reception**	**Reception**	

Members of the Technical Activities Council (TAC) met in Puerto Vallarta, Mexico, for TAC's Winter Meeting. Standing: **C. Douglas Sutton, Simon Harton, Greg Force, Michael G. Oliva, Andrew E. Osborn, Ned M. Cleland** (chairman), **Phillip J. Iverson,** and **Clark Weber.** Sitting: **Gerald E. Goettsche, Thomas J. D'Arcy, Guillermo Mecalco, Donald C. Raths** and **George D. Nasser.** Absent from picture: **Donald R. Logan, Frank Nadeau, Jagdish C. Nijhawan,** and **A. Fattah Shaikh.**

LETTERS

Just a note to tell you that the recent article in the January-February PCI JOURNAL on "Corrosion Resistance of Reinforcement in Architectural Precast Concrete" was really well done. Thanks for this outstanding contribution to our industry.

Charles E. "Budd" Hilgeman
Chairman and CEO
Concrete Technology, Inc.
Springboro, Ohio

TECHNICAL ACTIVITIES COUNCIL NEWS

The Technical Activities Council held their Winter Meeting February 14-16 in Puerto Vallarta, Mexico. The status of several publications was discussed as follows:

- PCI Manual for the Design of Hollow Core Slabs, Second Edition, MNL-126-98. This manual is now published and available from PCI.
- Parking Structures: Recommended Practice for Design and Construction, Second Edition, MNL-129-98. TAC finished its review of this publication and the Second Edition will be printed and available from PCI in April 1998.
- PCI Design Handbook, Fifth Edition, MNL-120-98. The Blue Ribbon review of this document was held in January. The recommendations of that group were discussed by the Industry Handbook Committee (**A. Fattah Shaikh,** chairman) and TAC. The Fifth Edition of the PCI Design Handbook is scheduled to be available by Committee Days.
- Tolerances for Precast and Prestressed Concrete Construction. This committee report is presently being reviewed and balloted by TAC. TAC comments will be turned over to the Tolerances Committee (**Kim Sorenson,** chairman) prior to Committee Days for consideration.

TAC setup an Ad Hoc Task Group or "fast team" to support and monitor the research on the subject of Delayed Ettringite Formation (DEF) that Wiss, Janney, Elstner Associates Inc. will be undertaking on behalf of PCI. The research project will focus on curing temperatures and cement characteristics that may or may not affect the maximum curing temperature above which DEF would be a concern. (For more information on DEF, refer to the Problems & Solutions section in this issue of the PCI JOURNAL.)

The members of TAC on this Ad Hoc Group are **Thomas J. D'Arcy, Greg Force, Jagdish C. Nijhawan** and **Phillip J. Iverson.**

New Appointment to a PCI Committee

The following individual has recently accepted an appointment to a PCI committee. We appreciate his interest and voluntary participation.

- *PCI Committee on Parking Structures*

  Nabil El-Khazen
  El-Khazen Consulting Ltd.
  Downsview, Ontario, Canada

Bridge Manual and Poles Report to Receive Certificate of Merit Awards

TAC voted unanimously at its Winter Meeting that both the *PCI Bridge Design Manual* and the joint ASCE-PCI Committee Report "Guide for the Design of Prestressed Concrete Poles" should receive the Certificate of Merit Award. The award is given for PCI Committee reports judged to be technically outstanding. The authors of these reports will be recognized and receive the award at the luncheon on Saturday, May 2, during Committee Days.

TAC Forms Professional Members Committee

The PCI Board of Directors approved the formation of a Professional Members Committee at their January Board Meeting. The approved mission of this new committee is as follows:

To increase PCI professional membership by making membership a recognizable asset to design professionals and educators. To develop activities and membership benefits that serve

the needs and interests of professional members, especially continuing education regarding precast/prestressed concrete design and construction.

During the Winter TAC Meeting, **Thomas J. D'Arcy** and **Donald C. Raths,** were appointed as Co-Chairmen to organize and get this important committee active. Some of the programs being discussed are:

- Increase the meaningfulness and impact of the Professional Member Directors Report to the PCI Board of Directors by coordinating this report with TAC and the Professional Members Committee.
- Provide a liaison member of the Student Education Committee.
- Develop an ongoing Continuing Education Program.
- Develop Professional Member activities for Committee Days and the Convention that will be visible, valuable, and well attended.
- Study the issue of creating local chapters so Professional Members can be involved with PCI at a local level, thereby saving travel budget and time.

The next step will be to fill out the roster of the committee. A meeting will be held during Committee Days.

CALL FOR PAPERS — SEISMIC SESSIONS AT PCI ANNUAL CONVENTION

The Technical Activities Council and the Research & Development Council are soliciting papers on the subjects of Seismic Design Recommendations for Precast Concrete, Seismic Research on Precast Concrete Systems and Practical Seismic Solutions for Precast Concrete to be presented at the 1998 PCI Annual Convention in Atlanta, Georgia, October 18-21.

One-page abstracts should be submitted to **Phillip J. Iverson** at PCI headquarters by May 22, 1998. Written papers will be considered for publication in a special issue of the PCI JOURNAL.

R&D COUNCIL NEWS

Double Tee Flange Program Nearing Completion at University of Wisconsin

Researchers at the University of Wisconsin, Madison, Wisconsin, have been investigating the behavior of double tee flange connectors for over two years. The project is being funded by the National Science Foundation (NSF) and PCI as part of the PRESSS (Precast Seismic Structural Systems) Phase IIC research program and a PCI research fellowship. Seventy-one flange connectors have been tested so far. Approximately 34 additional tests will be performed during the next four months.

The objective of this research program is to evaluate experimentally the capacities of connectors between double tee flanges and to de-

velop improved connections and diaphragm design methods. Experimental and analytical investigations are being made to determine whether or not cast-in-place toppings are needed in special situations. The program includes various types of flange connectors used in 2 and 4 in. (51 and 102 mm) thick double tee flanges.

A paper has been submitted to PCI on connectors consisting of a steel plate and two fillet-welded No. 3 reinforcing bars embedded in 2 in. (51 mm) thick concrete slabs. The connectors were subjected to monotonic and reversed loading in shear or tension/compression, or a combination of shear and tension/compression. Test results indicated that the connectors had a dependable and predictable strength under both monotonic and cyclic loading.

The project, being carried out under the direction of **Professors Michael G. Oliva** and **Jose A. Pincheira,** is in the final phase of the experimental program with the report to be completed by the end

Challenges for Concrete in the Next Millennium XIIIth FIP World Congress

May 23-29, Amsterdam

The XIIIth World Congress of the Fédération Internationale de la Précontrainte (FIP) in Amsterdam will focus on the latest international developments in the field of structural concrete and the merger of two important international organizations: Comité Euro International du Béton (CEB) and FIP. The Congress will take place at the RAI Complex in Amsterdam, May 23-29, 1998. Over 1600 participants are expected to attend the Congress and large exhibition.

During the Congress, the forthcoming merger of CEB and FIP into the new organization FIB (Fédération Internationale de la Béton) will be officially announced along with the action program. The Congress program also features an extensive partner program, the Concrete Canoe Regatta on the Amstel River, the 200th anniversary of the Rijkswaterstaat in the Netherlands, customs and culture of the Netherlands, four technical study visits to current civil works under construction and a number of post-Congress tours to different destinations in Europe. The closing Congress gala dinner, including the presentation of the FIP awards and FIP medals, will be held in the Beurs van Berlage in Amsterdam.

The technical program consists of 33 sessions during 4 days. The Bridges and Special Construction sessions have traditionally been highlights of the Congress. A number of relatively new sessions have also been included in the technical program, such as CAE applications, financing of major civil projects, progress in structural design, risk analysis and new automated production techniques and data exchange systems.

If you are interested in participating in the Congress, please contact PCI headquarters for further information. The program can also be accessed at the Congress website at: http://www.betonvereniging.nl.

of this year. For additional information on this project and other PRESSS research programs, contact PCI's Research Director, **Paul Johal.**

PCI Midwestern Educator Conference Scheduled

The Student Education Committee (**Alvin C. Ericson,** chairman), in collaboration with PCI's Central Region (Indiana/Ohio/Kentucky), is planning to co-sponsor a two-day PCI Midwestern Educator/Practitioner Conference this year. The conference, to be held at Purdue University on September 22 and 23, is being coordinated by **Professor C. Douglas Sutton.**

The objective of the conference is to provide educators with information on current technology, enhancing instruction and research opportunities related to precast/prestressed concrete. The design professionals and practitioners will have an opportunity to obtain state-of-the-art information on the design and construction of precast/prestressed concrete. The conference will provide a unique opportunity for educators, design professionals, and precast/prestressed concrete producers to interact in a common setting. Outlines of the program can be made available to other regions who might want to offer similar events locally.

First Channel Bridge Opens to Traffic in New York State

The first of two Channel Bridges under evaluation by the Highway Innovative Technology Evaluation Center (HITEC) was opened to traffic on December 22, 1997, by the New York State Department of Transportation (NYSDOT).

The Channel Bridge is an innovative precast concrete segmental bridge project designed to meet the highway community's needs for rehabilitation of the United States' deteriorating overpass structures. It was originally introduced through the French Highway Administration and offers a unique shallow profile, which increases the under-clearance for overpass bridges.

J. Muller International (JMI) submitted the patented Channel Bridge technology for evaluation to HITEC, a service center of the Civil Engineering Research Foundation (CERF). HITEC, which was established through a cooperative agreement with the Federal Highway Administration (FHWA), plans and conducts national performance benchmark evaluations for the federal, state and local highway communities. Subsequently, NYSDOT agreed to construct two Channel Bridges as an integral part of HITEC's evaluation of this technology.

A report documenting the results of the HITEC Channel Bridge evaluation will be published and widely disseminated throughout the highway community following the completion of the second Channel Bridge. JMI and NYSDOT plan to erect the second bridge in the spring of 1998.

The three winners of the Student Design Awards Competition, **Donald A. Schumacher** (first place), **Christopher M. Hoyt** (third place) and **William G. Turoczy** (second place), with **Charles E. Hilgeman.**

Professor Paul E. Young (far left) and **Professor Yousef Marzeki** (far right) with the student winners.

PCI Presents 1997 Student Design Awards

During the first meeting of the American Institute of Architects (Columbus, Ohio, Chapter), **Charles E. Hilgeman,** past chairman of the PCI Student Education Committee, presented PCI's Student Design Awards to three students from Ohio State University. The students, belonging to the Knowlton School of Architecture, planned and designed their projects under the direction of **Professors Yousef Marzeki** and **Paul E. Young.** The competition was held at the national level, open to upper level and graduate students of all accredited schools of architecture and engineering. The competition was judged at PCI headquarters in Chicago by a jury consisting of **Stephen J. Carter, AIA** and **John C. Fabelo, AIA** from the architectural firm of Lorenz + Williams, Inc., Dayton, Ohio.

The following three students placed first, second, and third in the competition:

- First Place: **Donald A. Schumacher** ($1500)
- Second Place: **William G. Turoczy** ($1000)
- Third Place: **Christopher M. Hoyt** ($500)

In addition to the student awards indicated above, the Knowlton School of Architecture (KSA) received $500 each for the first and second place and $250 for the third place finish for a total of $1250.

The awarded design entries were also exhibited at the 1997 PCI Annual Convention held last October in New Orleans, Louisiana. Each year, the PCI Convention draws the most active and important participants of the PCI membership, including designers in engineering and architecture as well as producers and builders. During the convention, most PCI committees, including the Student Education Committee, meet to make reports on their activities and to plan their policies and agenda for the following year. Thus, in this convention setting, the KSA students' work received considerable exposure.

PCI Central Region Director **Edward Tumulty** with Professors Young and Marzeki and Charles E. Hilgeman.

For these projects, Professors Young and Marzeki had chosen different sites and programs but elected to investigate design concepts that coincided with characteristics of precast/prestressed systems, both in terms of architectural precast concrete for facades and standard engineered components for spans and supports. For this specialized area of construction, a linkage with the precast concrete industry was established through liaison with **Edward Tumulty,** Regional Marketing Director for PCI's Central Region (Indiana/Ohio/Kentucky), who organized lectures and distributed PCI literature to students. He also brought representatives of several Ohio producers of architectural and structural precast concrete to visit the studios and provide on-the-board construction and design advice.

PCI's Student Design Awards Program is directed to both schools of architecture and engineering. Full-time senior undergraduate and graduate students are eligible to participate. The primary objective is to encourage, recognize, and reward excellence in architectural and precast, prestressed concrete engineering design. For information on submission of entries for the 1998 competition, contact **Paul Johal** at PCI headquarters.

Artist's rendering of the Oracle Corporation office building in Reston, Virginia.

High Tech Firms Choose Shockey Group for New Building Projects

The Shockey Precast Group is supplying structural and architectural precast concrete components for the new Virginia campus of Oracle Corporation, a high tech computer firm, in Reston, Virginia. Architectural precast concrete cladding for the new office building is being fabricated at Shockey's Fredericksburg, Virginia, plant while precast columns, beams, wall panels, stairs and double tees for the new parking structure are being manufactured at Shockey's Winchester, Virginia, plant. The Shockey Precast Group recently completed a similar project for America Online, the Internet serve provider.

Fiber Optic Sensors Workshop

The International Workshop on Fiber Optic Sensors for Construction Materials and Bridges will be held May 3-6, 1998, at the New Jersey Institute of Technology in Newark, New Jersey. The principal objective of the workshop is the formulation of a five-year sequential research and development program for implementation of fiber optic sensor technology in applications pertaining to structures. The results of the workshop will be synthesized into a report that will be used to establish the layout of a coordinated civil engineering related research implementation plan.

For more information on the workshop, contact: Fiber Optic Sensors Workshop, **Professor Farhad Ansari,** Smart Sensors & NDT Laboratory, Department of Civil and Environmental Engineering, New Jersey Institute of Technology, Newark, New Jersey 07102-1982.

Mixer Systems Offers New Batch Plant Control Systems

Mixer Systems, Inc., Pewaukee, Wisconsin, has introduced a family of control systems to meet a wide range of needs among concrete product producers. Three different series — the E-100, E-200 and E-300 — allows users to select the degree of automation they need to match specific production requirements.

The E-100 provides an affordable way for producers to gain the advantages of plant automation. With a one button start, it can batch cement, water and up to six aggregates to process up to 25 different mix designs.

The E-200 adds the benefit of a Programmable Logic Controller (PLC). It also offers additional options such as a Travelkrete logic control and Mixer Systems' moisture system interface.

The top of the line E-300 offers the highest level of automation, enough to manage virtually all aspects of a production plant. Controls in the E-300 series are currently installed in plants where they control batching, mixing, moisture content and automated concrete delivery of different mix designs to multiple locations on demand. All controls offer


Bruce Blackett


Gerry Rattai


Tony Walton


John Sheriff


Raymond Blockinger

intuitive command sequences that reduce training time and make day-to-day operation simple.

For more information, contact Mixer Systems at (414) 691-0010.

Reorganization at Con-Force Structures Ltd.

Con-Force Structures Limited recently underwent a corporate reorganization with the goal of providing better service to its customers across the entire marketplace. Con-Force has four facilities in western Canada located in Winnipeg, Regina, Calgary and Vancouver.

Bruce Blackett has been appointed vice president with responsibility for initiating research and development activities and product and process improvements. Mr. Blackett has been with Con-Force for 28 years and will work in Calgary.

Gerry Rattai has been appointed vice president of sales and business development and has sales staff located in each of Con-Force's facilities. Mr. Rattai has been with Con-Force for 23 years and will also work in Calgary.

Tony Walton has been appointed vice president of production and is responsible for production at all locations. A production manager at each location will report directly to him. Mr. Walton has been with the company for 18 years and will work in Vancouver.

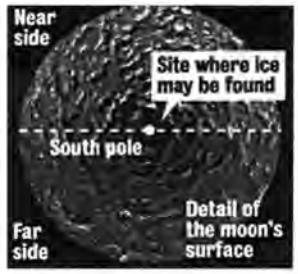
John Sheriff has been appointed vice president of project solutions. The project solutions team will be responsible for project management, construction, engineering and drafting. Mr. Sheriff will work in Calgary.

Blockinger Named Outside Sales Representative for ASW

Raymond Blockinger has been named outside sales representative for American Spring Wire Corporation, Bedford Heights, Ohio. He will be responsible for sales coverage of the midwestern United States, including the Chicago spring manufacturing market. His experience includes more than 20 years in the steel and steel wire industries.

FROZEN WATER ON MOON SURFACE CONFIRMED BY NASA

The confirmation on March 5, 1998, by the National Aeronautics and Space Administration (NASA) that there are indeed frozen pockets of water just below the surface of the moon is good news for everyone if and when NASA decides to establish a permanent base on earth's closest neighbor. Concrete is being considered by NASA as a possible material in building a moon base structure and obviously water would be a very necessary ingredient.



The finding by Lunar Prospector, a $65 million robot craft, confirms a preliminary announcement made last year that there was a strong possibility of the existence of ice water on the moon. The ice water is concentrated in the bottoms of craters near the north and south lunar poles. It is estimated that there might be as much as 10 to 100 million tons of water frozen in those polar regions. Although the water is probably mixed with shaded soil, the presence of this natural resource is considered very significant. It would be relatively easy to convert this "dirty" frozen water into liquid water that could be used as a rocket propellant, drinking water and even separated into breathing oxygen. This water, of course, could also be used to produce concrete.

The notion that construction materials could be transported to the moon is economically prohibitive given the extremely high cost of space transportation (about $50,000 per 10 lbs). On the other hand, lunar cement is readily accessible on the moon. In fact, concrete samples made from lunar materials have been tested in laboratories and have attained strengths of about 10,000 psi (69 MPa).

Recently, remote controlled robotic methods for mixing and manufacturing concrete have been developed that could lessen the need for astronauts to be present during construction. In reality, this would be a super-sophisticated precasting operation.

For more information on prospects for a moon base structure made from lunar concrete, see the article by **T. D. Lin** on "Concrete in Space," published in the January-February 1997 PCI JOURNAL, pp. 128-129. [GDN]

Col. Tom A. Thomas, Jr.

Mid-America Air Museum

Tom A. Thomas, Jr. Donates Airplane Collection to Establish Flying Museum

In wartime and in peace, aircraft and flight have greatly influenced the course of history in the 20th century.

With this in mind, long-time PCI Member **Col. Tom A. Thomas, Jr.** recently donated 80 airplanes and helicopters from his private collection to establish the Mid-America Air Museum in Liberal, Kansas. Featuring more than 100 aircraft, the museum will preserve the history of air travel for generations to come.

Col. Thomas has spent a lifetime around airplanes. Originally commissioned into the Army Air Corps in 1942, he amassed an impressive record of service and valor in World War II.

He was the second pilot to land in Casablanca during the North African invasion of 1942. While stationed there, he shot down one of the first German aircraft destroyed during the North African campaign. For this he was awarded France's Croix de Guerre, becoming the first American to receive this medal during the war.

In 1982, Col. Thomas celebrated the 40th anniversary of his duty in North Africa with a globehopping flight from his home in Oklahoma City to Casablanca and back.

In all, Col. Thomas flew 77 missions in the war and shot down five enemy aircraft. On his 70th mission, he was shot down by ground fire and taken prisoner in Sicily, later escaping with the help of Italian partisans. For his service in the war, he was awarded the Silver Star, the Purple Heart and numerous other medals.

Many of the aircraft donated to the Mid-America Air Museum are World War II era war planes. In addition, the museum features Korean War and Vietnam era war planes as well as one of the largest collections of home-built aircraft in the United States. A virtually complete series of World War II trainers, light liaison aircraft and an extraordinary display of antique and classic planes from the 1920s, 1930s, and 1940s round out the collection.

In addition to flying, Col. Thomas has been very active in the precast concrete industry. He was the owner and CEO of Thomas Concrete Products for 38 years, where he developed the Total Cast System for multistory buildings constructed completely from precast and prestressed concrete members. A charter member of PCI, he served as a Zone Director or officer on the PCI Board for 10 years and as PCI President in 1983. He holds the Medal of Honor, PCI's highest award, and was conferred a PCI Fellow in 1994.

For more information on the Mid-America Air Museum, contact the museum office: Tel.: (316) 624-5263; fax: (316) 624-0304. [JH]

Second Lieutenant Thomas posing with his plane in Casablanca, North Africa, November 1942.

Col. Thomas flew this 1943 C-47/DC-3 to Amsterdam in 1985 to celebrate the 50th anniversary of the first flight of the DC-3.

CSR Quinn Lands Sprint Headquarters Project

CSR Quinn, Marshall, Missouri, has received a letter of intent to contract for the supply of prestressed and precast concrete products for eleven new parking garages at the Sprint World Headquarters in Overland Park, Kansas.

The Sprint project calls for the design, production and transportation of more than 9000 prestressed and precast column, beam, floor and wall sections over the next 3 years. The individual concrete components, many exceeding 40,000 lbs (18140 kg) each, will be designed and manufactured to be erected similar to a large "Lego" assembly.

ASBI Convention to be Held in Boston in November

The American Segmental Bridge Institute (ASBI) will hold its convention November 15-16, 1998, at the Westin Copley Place Hotel in Boston, Massachusetts. The convention will feature presentations on current segmental projects and issues of interest with respect to the design and construction of segmental concrete bridges. For more information, contact: American Segmental Bridge Institute, 9201 N. 25th Avenue, Suite 150B, Phoenix, Arizona 85021. Tel.: (602) 997-9964; fax: (602) 997-9965.

ACI Appoints Director of Engineering

The American Concrete Institute (ACI) has named **Daniel W. Falconer** as its new managing director of engineering. Mr. Falconer will organize and develop new technical efforts and will represent ACI's interests both nationally and internationally. He will manage the activities of ACI's engineering department, build liaisons with other technical societies, governmental agencies and private sector organizations, and coordinate outside research efforts.

Formerly, Mr. Falconer was a vice president with the VSL Corporation in Pennsylvania. He holds a BS degree from the University of Buffalo and an MS degree from Lehigh University.

Ghosh Forms Consulting Firm

Dr. S. K. Ghosh has formed the consulting firm S. K. Ghosh Associates Inc., Mt. Prospect, Illinois, offering design, analysis and code-related consulting services. Previously, Dr. Ghosh had served as Director of Engineering Services/Codes and Standards for the Portland Cement Association (PCA). He is an international expert in the structural design of concrete and a leading authority on seismic design. He has also been influential in the building codes and standards arena and has served as a spokesman for the cement and concrete industries. A prolific author, Dr. Ghosh has published numerous papers in a variety of technical publications, including the PCI JOURNAL. He will also serve as a consultant to PCA and PCI.


Jerry Stockbridge


William J. Nugent


Gary J. Klein


Robert Nevins


Donald Ashton


Michael Zett

Management Changes at WJE

Jerry G. Stockbridge, president, chairman and CEO of Wiss, Janney, Elstner Associates, Inc. (WJE), announced his retirement effective December 31, 1997. Under his leadership, WJE has experienced significant growth in the last five years, including the opening of three new offices in Memphis, Tennessee, Detroit, Michigan, and Houston, Texas.

Mr. Stockbridge has served as president, chairman and CEO of WJE for the last five years. He has been with WJE for the last 24 years, joining the firm originally as an architect. He holds a BS degree in architectural engineering from the University of Illinois at Urbana-Champaign and an MS degree from the University of Edinburgh, Scotland.

Over the years, Mr. Stockbridge has garnered numerous awards and honors, including the Structural Engineer Association of Illinois' Most Innovative Award in 1983, the 1987 Harley J. McKee Award for outstanding contributions to the field of preservation technology and a state-of-the-art Civil Engineering Award from ASCE in 1988.

Mr. Stockbridge will continue to provide architectural and engineering consulting services on a part-time basis as an affiliated consultant for WJE's architectural group.

William J. Nugent has replaced Mr. Stockbridge as president and CEO of WJE. Mr. Nugent, a senior consultant and unit manager, joined WJE in 1976 as a structural engineer. He played a key role in opening WJE's Denver, Colorado, office and has recently been involved in projects including the reconstruction of the wreckage of TWA Flight 800, the investigation of water leakage problems at the James R. Thompson Center in Chicago, and the repair of several structures damaged in the 1994 Northridge earthquake.

Gary J. Klein has been named chairman of the board of WJE. Mr. Klein joined WJE in 1979 after six years of bridge engineering experience with two Chicago area consulting firms. During his 18-year career with WJE, he has been responsible for a number of notable collapse investigations, including the 1996 collapse during re-mining of the Los Angeles Metro Red Line Tunnel, and several historic renovation projects, including Soldier Field in Chicago and the Ford and Mendota Bridges near Minneapolis.

Sirko Appoints Senior Project Managers

Sirko Associates, Inc., Denver, Colorado, recently announced the appointment of several staff members to the position of senior project manager. **Robert Nevins** has more than 25 years of experience in the precast concrete industry with specialized experience in project management and coordination in engineering departments. **Donald Ashton** is a new Sirko staff member with considerable experience as a lead draftsman, project manager and training manager. He holds patents for a number of forming products. **Michael Zett** recently rejoined Sirko and has a strong background in heavy construction, nuclear power facilities and post-tensioned bridges and structures.

VOLUNTEER LANDING

KNOXVILLE, TENNESSEE

Providing a fishing pier, boat docks, a pavilion and a mile-long boardwalk along the Tennessee River in Knoxville, Tennessee, Volunteer Landing serves as a distinctive landmark that furnishes extensive public access to the river by both foot and boat. The innovative use of a wide assortment of precast concrete components proved vital in the timely and economical completion of this elegant structure.

Precast concrete double tees, flat slabs, bleacher seats, rectangular beams, raker beams, and inverted tee beams were among the components used in various combinations to construct this integrated recreational area that flawlessly blends with the existing waterfront architecture. In addition to access to the waterfront, the landing also provides boaters with access, via bridge, to the downtown area and the University of Tennessee football stadium.

The cantilevered walkways leading out onto the river from the landing were constructed with precast double tees. Some members cantilever as much as 15 ft (4.6 m), and because the supports are set at an angle to the shoreline, the two stems of a double tee may vary in projection by as much as 6 ft (1.8 m).

Precast concrete flat slabs placed on top of cast-in-place retaining walls were used to form the mile-long boardwalk. The precast flat slabs were particularly suited to this application because the boardwalk is located too close to the waterline to consider pouring a cast-in-place sidewalk. A precast spandrel was used on the end of the boardwalk with attached handrails to create a uniform, consistent look from the water.

Quantity and dimensions of precast concrete components.

Precast concrete product	Quantity	Number of components
12 ft x 4 in. flat slabs	5654 sq ft	56
12 ft x 6 in. flat slabs	4980 sq ft	35
12 ft x 8 in. flat slabs	1287 sq ft	4
1 ft 6 in. x 4 in. edge trim pieces	1251 ft	127
1 ft 9 in. x 3 ft bleacher seats	320 ft	16
1 ft 9 in. x 4 ft bleacher seats	80 ft	4
3 ft x 5 ft 6 in. bleacher seats	98 ft	4
Stair and ramp with integral rectangular beams at pier	65 ft	1
16 x 24 in. rectangular beams	339 ft	13
16 x 36 in. rectangular beams	222 ft	6
16 x 40 in. rectangular beams	86 ft	2
24 x 48 in. rectangular beams	98 ft	2
16 x 24 in. raker beams	95 ft	5
24 x 60 in. inverted tee beams	107 ft	2
10 ft x 4 in. double tees	9700 sq ft	23
Total components: 301		

Note: 1 in. = 25.4 mm; 1 ft = 0.3048 m; 1 sq ft = 0.0929 m^2.

Stair and ramp sections used on the central pier consist of single precast units 32 ft (9.7 m) in length cast in formwork up to 7½ ft (2.3 m) tall.

The boat landing comprises precast concrete double tees, flat slabs, bleacher seats, rectangular beams, raker beams, and inverted tee beams.

Another innovative use of precast concrete was the staircase and ramp sections of the central pier. The stair and ramp sections required special forming, as tall as 7½ ft (2.3 m), in order to fabricate the monolithic 32 ft (9.7 m) long sections. The sheer size of the stair and ramp sections imparts a striking appearance to the central pier.

Two major considerations in the design and erection of the landing project were the durability issues related to the marine location and the constraints of the limited site space.

The use of high quality, high strength precast concrete components, plant-produced under strict quality controls, eliminated many of the durability concerns arising from the rugged marine environment.

The difficulties of storage space at the construction site and limited accessibility were also solved by use of a precast concrete system. Completed components were trucked to the site and erected by barge from the river and by crane from the shore, eliminating the need to reroute river traffic.

Construction of Volunteer Landing began in December 1995 and was completed by October 1996. The landing has already become a central gathering place for the city, bringing in scores of University of Tennessee football fans who boat to the landing and then walk to the stadium. The rugged construction of this new recreation area ensures that it will serve as a city landmark for a long time to come.

Double tees, cantilevering by as much as 15 ft (4.6 m), form the walkway of the central landing area.

Volunteer Landing was opened to the public in October 1996.

CREDITS

Owner: City of Knoxville, Knoxville, Tennessee

Architect: McCarty Holsaple McCarty, Knoxville, Tennessee

Engineer: Steven Hamvas/Stanley D. Lindsey and Associates Ltd., Atlanta, Georgia

Contractor: Johnson & Galyon Inc., Knoxville, Tennessee

Precast Concrete Manufacturer: Tindall Corporation, Spartanburg, South Carolina

PSI Builds New Manufacturing Facility in Detroit's Renaissance Zone

Prestressed Systems Incorporated (PSI), Windsor, Ontario, Canada, is investing more than $1 million to build manufacturing facilities located in the Renaissance Zone of Detroit, Michigan. The new plant announcement was driven by PSI's increasing construction activity in Michigan and the encouraging prospects for the future of Detroit, which is currently experiencing a $10 billion economic boom.

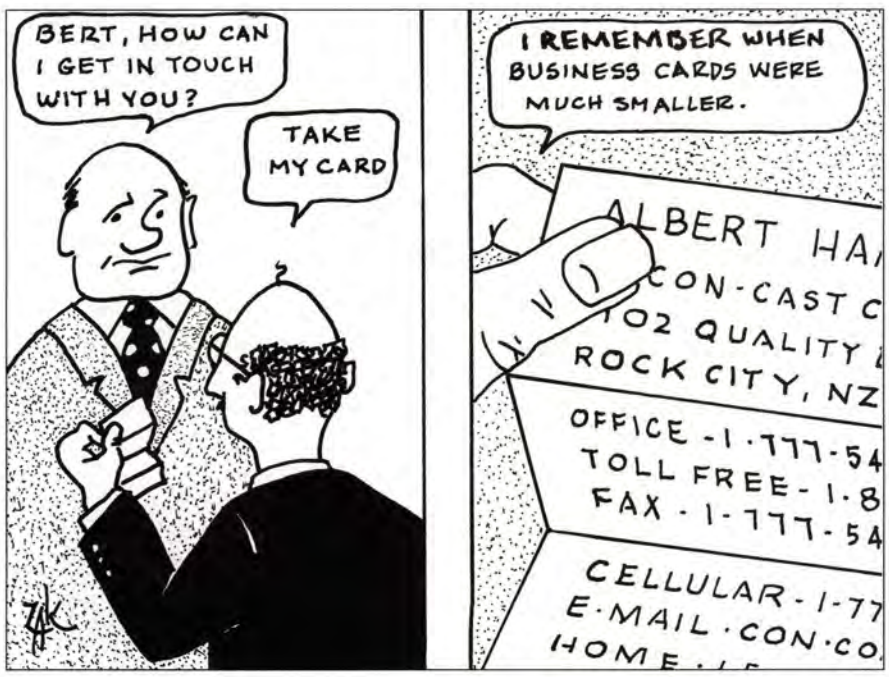
PSI has more than 20 years of experience in structural precast concrete manufacturing and installation in Michigan, Ohio, and Ontario. Products are manufactured for commercial, industrial and residential applications ranging from parking garages to hollow-core floor slabs.

Construction of PSI's new prestressed/hollow-core facility is already in progress with completion expected by April 1998.

Nitterhouse Completes ETS Operations Service Center

Several of the unique characteristics and capabilities of precast concrete played a key role in the selection of precast concrete for the 300,000 sq ft (27870 m^2) Operations Service Center of Educational Testing Service (ETS) in Princeton, New Jersey.

Nitterhouse Concrete Products,



Inc. of Chambersburg, Pennsylvania, provided 51 insulated vertical panels, 354 architectural spandrels and 77 column covers for this three-story structure that includes a data center, offices, high-bay warehouse, print shop and 500-space parking area.

High Concrete Adds New Wall Panel Bed

High Concrete Structures, Inc., Denver, Pennsylvania, recently acquired a wall panel bed for its new production facility. With the new bed, High Concrete can produce 13 ft 4 in. (4.1 m) wide precast concrete wall panels up to 12 in. (305 mm) thick. Output capacity can be as high as 3800 sq ft (353 m^2) daily with an annual output potential of 800,000 sq ft (74320 m^2).

High Concrete installed the wall panel bed to meet an increasing demand for the industrial building market for the 13 ft 4 in. (4.1 m) size. Historically, building specifications have called for a 40 ft (12.2 m) wide bay, so using the 13 ft 4 in. (4.1 m) size only requires three panels. Decreasing the number of panels reduces the number of joints while also allowing bay openings to be cast as a single precast member.