

Furlan new manager of sales, member development

Jean Furlan started as PCI's new manager of sales and member development in February. In this role, she is primarily responsible for developing and managing relationships with advertisers, sponsors, and premier partners. She also creates, manages, and executes membership drives and campaigns aimed at increasing membership in all member categories.



Jean Furlan

Previously, Furlan was the corporate relations manager for the American Association of Hip and Knee Surgeons in Rosemont, Ill., and is involved with both the Association Forum and the American Society of Association Executives.

She holds a bachelor's degree in political science from Northern Illinois University in DeKalb, Ill.

McDermott receives first Alan Mattock Scholarship

Matthew McDermott of the University of Minnesota Duluth is the first recipient of the Alan Mattock Graduate Scholarship. This award will aid him as he completes his Daniel P. Jenny Fellowship research, "Shear Capacity of Hollow-Core Slabs with Concrete Filled Cores." The research will include a minimum of 12 shear tests conducted on six hollow-core specimens to categorize the shear capacity of the slab with variations in the type of core-fill concrete, the time elapsed between hollow-core fabrication and core fill, and the core-wall surface friction.



Matthew
McDermott

Alan Mattock was a professor at the University of Washington and was a driving force in the precast/prestressed concrete industry, particularly in the area of research and on the PCI Research and Development Council.

"I believe Dr. Alan Mattock would find this project valuable," McDermott says. "While Dr. Mattock was involved in a variety of concrete specialties, he spent a significant portion of his career investigating the shear capacity of many types of sections. In addition, Dr. Mattock lived through many advancements of the industry and consequently had a very holistic understanding of concrete design and applications in general."

Lehmann takes over as PCI West executive director

Ruth Lehmann has been named the new executive director of PCI West, which serves California and Nevada. In her new role, she will represent the precast/prestressed concrete industry in the PCI West states and act as a liaison to construction managers, architects, transportation department officials, engineers, general contractors, and academics.



Ruth Lehmann

Lehmann has more than 20 years of experience as a professional engineer and manager with expertise in transportation and materials engineering and most recently served as senior construction support manager at DR Consultants & Designers Inc. in Los Angeles, Calif., delivering two bridge-widening projects for the Port of Los Angeles.

During her professional career, Lehmann has served as a board member for several organizations, including the Womens Transportation Seminar (WTS), the WTS Foundation, the American Council of Engineering Companies, and the American Public Works Association and has served on committees for the American Society of Civil Engineers and the Project Management Institute (PMI). Lehmann has extensive experience as a trainer and public speaker and has developed several training programs for organizations including PMI and the National Highway Institute, the training arm of the Federal Highway Administration.

Lehmann received her bachelor of science degree in architectural studies and master of science degree in civil engineering, transportation facilities/materials, from the University of Illinois at Urbana-Champaign. She also holds a bachelor of science degree in civil engineering from the Illinois Institute of Technology in Chicago. Lehmann is a licensed professional engineer in California and Illinois, and a LEED Green Associate and is certified as a Project Management Professional through PMI.

Michigan students produce precast concrete pieces for capstone project

The PCI Foundation–sponsored program at the University of Michigan Taubman College of Architecture and Urban Planning is part of the studio’s capstone in digital technologies. Students in the program use state-of-the-art equipment to take on new ways to fabricate precast concrete pieces. By the end of the semester, they produce pieces and explain their process during a final review. Greg Kerkstra of Kerkstra Precast in Grandville, Mich., was among the jurors who reviewed the students’ work.

“Understanding and implementing fabrication techniques and production methods in the development of the precast elements is key to each studio,” says Glenn Wilcox, the professor who led the studio in its second year. “One of the intriguing potentials of the studio is the fact that precast touches upon a breadth of technologies and fabrication methods.”



Drew Bradford, Che Yang, and Wenhao Wang developed a project they called thermoSKIN as part of the Capstone in Digital Technologies at University of Michigan. Their full-scale model was on display during the program’s final review in April. Courtesy of PCI Foundation.

As with all of the PCI Foundation programs, the integration of a partner or partners from the local industry is a key component to the success of the program. Students have a chance not only to meet precasters during the studio but also to go on plant tours and meet industry leaders.

Malcolm named certification programs specialist at PCI

Denise Malcolm has joined PCI staff as certification programs specialist. Malcolm is managing PCI’s Plant Certification Program.

With more than 15 years of experience in association and certification services, Malcolm was most recently employed in accreditation services at the Higher Learning Commission, where she was responsible for processing, document archiving,

and decision making. She has managed the growth and development of four certification programs serving more than 24,000 applicants and certified nurses per year.

Malcolm recently completed the Institute for Credentialing Excellence’s assessment-based Certificate Program for the Credentialing Specialist and earned a certificate as a Credentialing Specialist.

STUDENT CALL FOR PAPERS

The PCI Student Education Committee is issuing a call for student research papers for a special student research education session at the PCI Convention and National Bridge Conference, February 20–24, 2018, in Denver, Colo.

This is different from PCI’s yearly call for papers for the peer-reviewed track at PCI’s convention. For the student research sessions, the Student Education Committee requires the student to present and be listed as the primary author of the paper. All abstracts and papers should relate to the design, analysis, materials, production, erection, sustainable benefits, or maintenance and/or repair of precast/prestressed concrete. Case studies, research, and project profiles are all welcome. To be considered, papers must present research contributions from projects that are complete or nearly complete. Accepted final papers will be peer reviewed and published in the 2018 PCI Convention and National Bridge Conference proceedings.

Abstracts are due August 1, 2017. They should be no more than 200 words and should adequately describe the topic. Abstracts must be submitted via email to education@pci.org with the subject line “Student Papers.”

R&D Committee announces 2017/2018 Jenny Fellowships

The PCI Research and Development Council continues to support a strong fellowship program with the announcement of four Daniel P. Jenny Research Fellowship awards for the 2017/2018 academic year. The program connects professors and students with industry experts to advance research in precast concrete. It is a unique experience in which both industry and academics benefit from the interaction. We especially thank all of the producers who support universities proposing research ideas. The following four students were awarded fellowships.

Performance Based Design Recommendations for the Design of Precast Concrete Connections Exposed to Fire: Jonathan Blackstone

University: University of North Carolina at Charlotte

Faculty advisors: Nicole Braxton, Brett Tempest, and Aixi Zhou

Supporting producer: Metromont

In his fellowship application, Blackstone writes, "The opportunity to work with a multidisciplinary team focused on structures in fire will be beneficial as I begin my master's studies in civil engineering with a structures concentration."



Jonathan
Blackstone

Examination of Shear Friction Design Provisions: Nikkolas Edmond

University: Missouri University of Science and Technology in Rolla

Faculty advisors: Lesley Sneed and Dimitri Feys

Supporting producers: Metromont and Coreslab Structures (MISSOURI) Inc.

In his fellowship application, Edmond writes, "The proposed research would help develop more economical and practical designs that would help impact the future of concrete bridge design."



Nikkolas
Edmond

Eliminating Rebar Splicing in Transverse Joints of Precast Full Depth Bridge Deck Panels: David Gee

University: University of Nebraska-Lincoln

Faculty advisor: Chungwook Sim

Supporting producers: Concrete Industries Inc. and Coreslab Structures (OMAHA) Inc.

Associate support: e.Construct.USA

In his fellowship application, Gee writes, "I believe this research can help to improve the community and the constructability of highway bridges."



David Gee

Shear Capacity of Hollow-Core Slabs with Concrete Filled Cores: Matthew McDermott

University: University of Minnesota Duluth

Faculty advisor: Benjamin Dymond

Supporting producer: Molin

In his fellowship application, McDermott writes, "Through preparing this application, I am convinced the proposed work will be personally fulfilling and truly serve to improve web shear strength characterization."

McDermott was also selected to receive the Alan Mattock Graduate Scholarship through the PCI Foundation.



Matthew
McDermott

MARIO J. BERTOLINI LEADERSHIP AND INNOVATION AWARD CALL FOR NOMINATIONS

To honor the legacy of Mario J. Bertolini, an icon of the precast/prestressed concrete industry, PCI established the Mario J. Bertolini Leadership and Innovation Award. Bertolini was president of a major precast concrete manufacturer for many years and chairman of PCI in 1989. The award will be presented next at the 2018 PCI Convention and National Bridge Conference at The Precast Show, February 20-24, 2018, in Denver, Colo. Nominations are being accepted through August 1, 2017. Nominations for this award should include a letter identifying the specific characteristics and qualifications of the candidate, including examples that meet the award criteria. The official nomination form must be completed and included with this letter. A nomination form is available at https://www.pci.org/Publications/Submissions_Center/. For more information, contact Megan Lanning, PCI's events and member services senior manager, at mlanning@pci.org.



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BUILDING TRUST



Washington University prepares house for Solar Decathlon

During the summer of 2017, the PCI Foundation studio at Washington University in St. Louis, Mo., will be building a trial of its entry in the 2017 Solar Decathlon.

“Team Wash U is committed to providing the most attractive, comfortable, sustainable, and energy-efficient home design as a participant in the 2017 Solar Decathlon,” says Adam Goldberg, a team member who has degrees in both architecture and construction management. “The home will be a demonstration of how prefabricated, self-sustaining, and resilient homes can mitigate climate change.”

The team has chosen a collaborative living scenario for two young research professionals. The house was designed with a focus on self-sufficiency, versatility, and visual appeal. In addition to the research and development that has gone into the house during the design, construction, and operation phases, the structure will be used as a test bed for further research and education.

This house uses durable, insulated, robust precast concrete panels that are factory produced and assembled on-site. Specially designed dry connection methods using bolts rather than traditional field welds make field assembly much easier than traditional methods, significantly reducing field labor and material waste. The team’s design consists of a single precast concrete structure intended as a demonstration of



This digital rendering shows how Washington University’s 2017 Solar Decathlon project will look when complete. Courtesy of Washington University Solar Decathlon Team.

integrated advanced building technology and an alternative to traditional wood, light-frame construction.

After the house is assembled and tested, it will be disassembled and shipped to Denver, Colo., where it will be part of the Solar Decathlon village and competition from October 5 to 15, 2017. Houses are open to the public free of charge. For more information on the Solar Decathlon, visit <https://www.solardecathlon.gov/>.

PCI FELLOWS CALL FOR NOMINATIONS

>> PCI Fellows are individuals who have been recognized as embracing PCI’s values, providing continuous outstanding contributions to the U.S. precast/prestressed concrete industry, and demonstrating exceptional service to PCI. Service to the industry may be considered in the areas of education, research, design, and/or production. PCI is accepting nominations for PCI Fellows, to be awarded during the 2018 PCI Convention and National Bridge Conference at The Precast Show, February 20–24, 2018, in Denver, Colo. The nomination form is available online at https://www.pci.org/Publications/Submissions_Center/. For more information, contact Megan Lanning, PCI’s events and member services senior manager, at mlanning@pci.org. Nominations are being accepted through August 1, 2017.

NORMAN L. SCOTT PROFESSIONAL ENGINEER AWARD CALL FOR NOMINATIONS

>> In 2013, Norm Scott died unexpectedly. He was an icon of the precast/prestressed concrete industry. To honor his legacy, PCI has established the Norman L. Scott Professional Engineer Award. The next award will be presented at the 2018 PCI Convention and National Bridge Conference at The Precast Show, February 20–24, 2018, in Denver, Colo. Nominations should be submitted via mail by August 17, 2017, to PCI Headquarters, Attn: President’s Office, 200 W. Adams Street, Suite 2100, Chicago, IL 60606 or by email to Laura Bedolla, PCI’s technical services administrative assistant, at lbedolla@pci.org. An official application form is available online at https://www.pci.org/Publications/Submissions_Center/.

PLANNED GIVING: CREATING YOUR INDUSTRY LEGACY



Marty McIntyre
PCI Foundation
Executive Director

During the 2017 PCI Committee Days and Membership Conference in October, the PCI Foundation will recognize the first members in the PCI Foundation Legacy Society: those donors who have expressed their intent to make a lasting contribution to our work by including the PCI Foundation in their estate plans.

This year, as the PCI Foundation celebrates its 10th anniversary of sponsoring programs, we will recognize, more than ever, the need to ensure that our programs will continue. The line of schools that are interested in constructing a program that works for their curriculum and the local industry continues to grow. We are doing something right and hope to continue our programs for many years.

By becoming a member of the PCI Foundation Legacy Society, you can make yourself part of that future and make a lasting impact on our industry. Gifts from generous supporters not only help the PCI Foundation's day-to-day operations, they are the very basis of the PCI Foundation's future.

Your charitable contributions have shaped our past and will help determine our future. With your support, we can make our vision a reality for generations to come.

A legacy gift—funded not through money you

send today but through a gift that continues after your lifetime—will ensure that the PCI Foundation's work lasts generations. There are a number of advantages to you, too:

- It costs nothing now.
- It can reduce taxes on your estate.
- You can provide for both the PCI Foundation and your loved ones.
- You can change beneficiaries at any time.
- Regardless of size, your gift will make a huge difference for PCI Foundation programs.

Following are some examples of how to become a member of our Legacy Society by including the PCI Foundation in your estate plans:

- Bequest: remember the PCI Foundation in your will.
- Charitable trust: create income for yourself and transfer assets to us later or specify a time period to give income to the PCI Foundation, after which the assets are given back to your family.
- Retirement plans: name the PCI Foundation as a beneficiary.
- Life insurance: transfer ownership of a policy or make us a beneficiary.

To become a member of the PCI Foundation Legacy Society and be recognized at 2017 PCI Committee Days and Membership Conference and beyond, contact me at (708) 997-7465 or info@pci-foundation.org.

2018 PCI DESIGN AWARDS CALL FOR ENTRIES

The PCI Design Awards program recognizes design excellence and construction quality using precast concrete. Be a part of the search for excellence and submit your project today.

PCI's 2018 Design Awards submission site is open. Visit http://www.pci.org/About_PCI/Awards/PCI_Design_Awards/ for complete information, including this year's categories and submission guidelines, or to make a submission.

Entries are accepted in two primary categories: buildings and transportation structures. In addition to buildings and transportation, there are special award categories: the Harry H. Edwards Industry Advancement Award, the All-Precast Concrete Solution Award, Sustainable Design Award, and Building Information Modeling (BIM) Award.

September 18, 2017, is the submission deadline, and winners will be announced in December.

All winning projects will be showcased in February 2018 at the PCI Convention and National Bridge Conference at The Precast Show in Denver, Colo., and will be included in a supplement to *PCI Journal* and in articles in *Aspire* and *Ascent*.

For more information, contact Becky King, PCI's marketing assistant, at (312) 360-3201 or bking@pci.org or Brenda Banks, PCI's communications manager, at (312) 428-4945 or bbanks@pci.org.

PRECAST CONCRETE ARCHITECTURE FOR JOSHUA TREE NATIONAL PARK: STUDENT DESIGN EXPLORATIONS OF PRECAST FOR AN EXTREME CLIMATE



University of Southern California student Isha Khan presents a Spring 2017 PCI Foundation studio project. Students were asked to design an entrance gate to Joshua Tree National Park in California.

Courtesy of Doug Noble.

In Spring 2017, the PCI Foundation studio in the School of Architecture at the University of Southern California (USC) in Los Angeles, Calif., continued the tradition of examining precast concrete in the context of Joshua Tree National Park.

Fourth-year undergraduate architecture students were asked to design an entrance gate to the national park along with a restroom facility and small exhibition spaces. Joshua Tree National Park is about a two-hour drive from downtown Los Angeles, and the location presents the students with special opportunities to take advantage of precast concrete.

Students were challenged to design for the extreme climate, the distant construction location, the fragile condition of the natural landscape, a high-risk seismic zone, and the lack of easy access to normal utilities, such as water and power. Students were forbidden to respond to the difficult climate with standard mechanical equipment.

Joshua Tree National Park is a hot, dry, extreme climate. Wild temperature swings occur within the same day. Daytime temperatures routinely exceed 100°F (40°C), while nighttime temperatures regularly fall below freezing. The park is very large, and has different climate zones, all hot and dry. Rainfall is typically less than 5 in. (127 mm) a year, but sudden rainfall and flash flooding also occur. The high-mass properties of precast concrete can be carefully designed to take advantage the tempera-

ture swings to store thermal energy. High-mass concrete walls and roof elements left exposed to cold temperatures at night can be designed to give that cooling back to the interior spaces during the heat of the day. Similarly, precast concrete exposed to high daytime temperatures can help keep a building warm at night.

The natural landscape is slow to recover from damage. Areas in the park that were affected by construction more than 50 years ago still show the signs of this impact. Students were charged with absolutely minimizing construction yard work areas, and the possibilities for plant-produced precast concrete were emphasized as a solution.

Joshua Tree National Park is a very high seismic zone because of the San Andreas fault and many similar geologic conditions. Students needed to understand how precast concrete assemblies can be tuned for movement and how high mass and high seismicity are not always natural enemies.

The PCI Foundation studio at USC is supported locally by Clark Pacific and PCI West. Students toured Clark Pacific precasting plants in Fontana and Irwindale, Calif. One plant visit was to learn about structural concrete: columns, beams, double tees, and hollow-core. The other plant visit was for building envelopes. For students who had not previously heard of precast concrete, the tours were eye openers. Doug Mooradian, former PCI West executive director, and Ruth Lehmann, current PCI West executive director, also supported the studio with lectures, desk critiques, and studio reviews.



Ruth Lehman (left), PCI West executive director, and Joseph Chang, a University of Southern California student, meet during the Spring 2017 PCI Foundation studio review. Courtesy of Doug Noble.

This year we went beyond the standard walking tour and PowerPoint presentations of precasting plants and precast concrete building case studies. For the first time, our students got directly involved in physically making precast concrete, including using glass-fiber-reinforced concrete (GFRC). Led by Brad Williams and Sal Cruz from Clark Pacific, the USC architecture students received safety training followed by full, direct exposure to all of the steps for making precast concrete and GFRC. Clark Pacific went beyond expectations and dedicated considerable staff resources. Sal Cruz taught the students to wire tie reinforcing bar, and Robert Villa added expert advice and demonstrated additional advanced wire-tie techniques. Villa's patiently slowed down his demonstration until the students could repeat it successfully using a training reinforcing bar frame. Leni Garcia and his GFRC team demonstrated the technique, and then had each student do the work themselves. Rich Hundall and Alfred Toves were instrumental throughout the day, as Williams kept up constant communication with his team by radio, always advising the Clark Pacific team on what the USC group was doing and what was coming next. The students moved from station to station always just in time for the next step, and the students learned that timing is important when spraying up the next GFRC layer or working quickly with the concrete in the mold.

The students were pleased and excited to get the hands-on experience, and we plan to do this again for each semester in the future.

This work was valuable as an educational exercise, but there is also a research component to our work with the PCI Foundation Studio. We are working toward building a full-sized and fully functional thermal battery as a demonstration display for the visitors center at Joshua Tree National Park. The precast concrete elements we created this semester were cast in a very dark black, and we will be conducting tests regarding thermal capacity, absorption pace, thermal expansion, and other characteristics as we prepare to make the real thing. We plan for the thermal battery to complement the visitors'-center experience as a demonstration to park visitors of how this kind of

system can function. Joshua Tree National Park has millions of visitors each year, and we plan for the PCI Foundation and Clark Pacific thermal battery to be functioning in place and on display for decades.

The semester ended with a competition-style jury review, and several projects were selected by juror teams to receive PCI Foundation scholarships as prizes. Competitions often encourage students to work harder, and they also function as methods for making others aware of the work we are doing. A side benefit is that several students will include words such as "precast," "PCI Foundation," and "Clark Pacific" on their resumes for years to come.

The USC School of Architecture is grateful for the opportunity to participate in the PCI Foundation studio, and we thank Clark Pacific for their generous gifts of time, materials, and expertise.

On a personal note, we would like to thank Doug Mooradian for his years of dedication to the PCI Foundation studio at USC. There is no good way to express the high level of support that happens out of sight of the PCI Foundation. Mooradian meets with us many times each semester. He is here at USC giving lectures and providing input on projects all semester. He tailors his standard lunch-and-learn presentations for the students. We understand that he is especially dedicated to our studio because he is an alumnus of the USC School of Architecture, but we also recognize that he has been contributing this level of support at other programs. Mooradian has served the industry well as a fierce champion of precast concrete and a dedicated supporter of the PCI Foundation studio. We know we are getting a strong new champion in Ruth Lehman—she has already been to USC to help the students and to serve on the jury. We know that we will have the continued powerful support of Clark and Williams and their team at Clark Pacific, but we will miss Mooradian and we thank him for his years of help in the USC PCI Foundation studio.

Karen M. Kensek, associate professor of the Practice of Architecture at USC

Douglas E. Noble, director of the graduate building science and PhD programs at USC Architecture

PCI Foundation to host third annual barbecue competition

The third annual PCI Foundation Barbecue Competition will take place during September 2017. Each year, PCI member plants and associates are invited to celebrate education and raise money for the PCI Foundation in a competition. To compete, plant or company locations sign up through the PCI Foundation for a \$25 entry fee. The PCI Foundation sends a banner and information about our programs to the plants. After hosting a barbecue, each plant sends pictures, fills out a form, and makes a donation based on its event proceeds.

The grand prize goes to the location that raises the most money for the PCI Foundation. Other prizes may be given in categories such as most unusual menu item, family and friends award, student attendees award, most meat grilled, most creative fundraiser, or best event photo.

Plants participating in the program register at <http://pci-foundation.org>. Any company or organization interested in the work of the PCI Foundation can participate, including precast concrete fabricators, erectors, suppliers, regional organizations, or other groups. Two or more companies can team up to enter the competition as a single entry.

The grand prize is a stainless steel industrial grill valued at \$2500.



The Gate plant in Hillsboro, Tex., took home the 2016 prize in the PCI Foundation Barbecue Competition for the “most unique” item served with its grilled alligator. Courtesy Gate Hillsboro.

SIDNEY FREEDMAN CRAFTSMANSHIP CALL FOR ENTRIES

PCI is accepting entries for the Sidney Freedman Craftsmanship Award. Launched in 2012, the award recognizes PCI-certified plants for excellence in manufacturing and craftsmanship of architectural precast or glass-fiber-reinforced concrete structures and individual components. Any kind, size, or type of structure and/or element may be entered.

Judging is based on success in overcoming obstacles to production, solutions to formwork or finishing challenges, and quality of individual units. For more information, go to http://www.pci.org/About_PCI/Awards/Sidney_Freedman_Craftsmanship_Awards_Program/ or contact Jim Lewis, architectural services manager, at jlewis@pci.org. The deadline for all entries is August 15, 2017.

PCI MEDAL OF HONOR CALL FOR NOMINATIONS

The PCI Medal of Honor award was established to honor a person who has made extraordinary contributions to PCI and the precast/prestressed concrete industry. The nominees for the Medal of Honor shall have made a highly significant contribution to the precast concrete structures industry and shall have demonstrated a sincere, continuing interest in the institute. The award will be presented at the 2018 PCI Convention and National Bridge Conference, February 20–24, 2018, in Denver, Colo. Visit https://www.pci.org/Publications/Submissions_Center/ for more information and nomination criteria. Nominations will be accepted through August 1, 2017, and should be sent to Megan Lanning, PCI’s events and member services senior manager, at mlanning@pci.org.

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Professors Roundtable gives insights on successful studios

Professors from around the United States and Canada came together in a roundtable discussion during the PCI Convention and National Bridge Conference in Cleveland, Ohio, to discuss what makes precast concrete programs successful. A few themes emerged from the professors who shared some of their experiences: program creep, the importance of tour and hands-on work, reviews and desk critiques, and integration with other departments.

With program creep, once the program at the school begins, it often extends into other parts of the curriculum. This may be because students will need an introduction to precast concrete topics prior to getting into an intensive program and because faculty becomes more aware of what the precast concrete industry can offer a school. Typically, instead of learning about precast concrete in just one class, students will begin to learn about it in other introductory classes. Students also hear about the program's trips and projects through word of mouth, which often leads to the studio becoming more popular.

Tours and hands-on work are key. Several professors said that shrinking university budgets have made it more difficult to support tours and off-campus trips, and not all tours are created equal. If a hands-on portion can be included in a tour, students tend to find it the most memorable. In many cases, students get to create small pours that they then come the next day to strip and finish. If casting isn't possible, allowing students to see drawings of the pieces in the plant and helping them understand how the pieces fit within the overall scheme of the structure is also helpful. One plant gave students a building information modeling demonstration in order to show students how the precast concrete industry is incorporating that technology. Students can also see inserts, connections, insulation, aggregate, formliners, and other materials from PCI suppliers, who are usually willing to send them to schools for students to see and feel in person. In addition, some plants allow for open hours during which students can come and visit the plants and have their questions answered by engineering or plant personnel.

"We have an especially strong relationship with Metromont because they worked with us on the solar decathlon," says Brett Tempest, associate professor at University of North Carolina at Charlotte. "Our students know their way around that plant like they work there. Those relationships remain critical to our other classes."

Reviews and "desk crits" (one-on-one time with students in a development phase) are helpful for everyone involved with the program. Dealing with the industry is a learning experience for the faculty and students, and the same can be said for industry personnel dealing with academia. Most of the professors who attended the roundtable stressed that having desk crits has been the most productive way for industry



Professors Pablo Moyano Fernandez and Hongxi Yin of Washington University in St. Louis, Mo.; Greg Lucier, assistant research professor at North Carolina State in Raleigh; Matt Shea, assistant professor at University of Colorado Denver; and Tyler Sprague, assistant professor at University of Washington in Seattle, take part in the first Professors Roundtable during the 2017 PCI Convention and National Bridge Conference in Cleveland, Ohio. Courtesy of PCI Foundation.

professionals to spend time with students. This allows them to understand the development of the students' ideas and to point them in the right direction early on in the process.

"It was a learning experience on both sides. I figured out the students want to learn about precast, to know the material and understand what it can do. They also want to push boundaries," says Matt Shea, assistant professor at the University of Washington in Seattle. "Students want to try things that haven't been done before, which is part of the innovative side of what we foster in the studio environment. There is a level of discomfort on both sides while you are setting that up. The review format was too formal. This year, we've gone to desk crits and using them as a consultant, sitting with the students for an hour at a time at their desk, with the drawings, working through these ideas. That has been more productive."

It is possible to integrate precast concrete teaching into multiple departments. Several schools working with the PCI Foundation have used an integrated approach to teaching precast concrete. The approach varies with each school and depends on the curriculum needs of the school, the interest of the professors, and the support of the administration.

"Start the relationship with the deans and the chairs, especially when we have both departments," says Peter Finsen, executive director and CEO of Georgia/Carolinas PCI. "They may have met each other, but they don't always know each other. Get them together to work those relationships."

Tempest says, "I think that one of the most beneficial things in this program for engineering students is seeing a design starting from a blank slate. We never do that in our classes. We start by putting a 30 ft beam on the board with a triangle on one end and a circle on the other end. They are not used to the idea of starting from nothing. Students learn that there is actually a different starting point for design that we haven't had a chance to show them yet."

PCI West says goodbye to Mooradian after 26 years

Doug Mooradian retired as executive director of PCI West on June 2. He started there 26 years ago, on March 1, 1991, when he was contacted to head up the essentially dormant Precast/Prestressed Concrete Manufacturers Association of California (PCMAC), which was renamed PCI West about five years ago.

Mooradian is a licensed architect, with a degree from the University of Southern California (USC) in Los Angeles, and is National Council of Architectural Registration Boards certified. He started his career in private practice before being hired as chief architect for Security Pacific Bank in California, where he stayed for 10 years. “I was involved with a lot of precast concrete . . . particularly on our administrative-type buildings in high-profile areas,” Mooradian says. After Security Pacific Bank, he went into private practice again until he was contacted by a headhunter about the PCMAC position.

During his time at PCI West, Mooradian was heavily involved in seismic research that helped bring about structural acceptance of precast concrete on the West Coast. “Everyone knew what precast was, but no one in California wanted to talk about it because of its perceived vulnerability to seismic forces,” Mooradian says. “We had to do a lot of research, which was a lot of fun, and in the process we found we had a lot of added benefits over cast-in-place concrete and other structural materials.”

PCI West initiated and helped coordinate seismic research, including the PRESSS (Precast Seismic Structural Systems) Program, related to buildings and new, continuous longer-span bridge girders for high seismic areas. PCMAC and PCI West developed and expanded the California precast concrete bridge market by working with the California Department of Transportation (Caltrans) to develop new bridge girder sections and connection details that are still being used today, though expanded with longer-spanning and more-lightweight sections. The group also developed the precast concrete pavement slab and the precast, prestressed concrete pavement slab, with the first demonstration project in 2004 on Interstate 10 in El Monte, Calif.

Mooradian says he is also proud of the development of the two California PCI Foundation precast studios at California State Polytechnic University, Pomona, and USC. Both studios continue to operate through the support of PCI West and its members, with two more precast studios in development within the state.



Doug Mooradian (left) and student Angela Sniezynski discuss the spring 2017 precast studio project, a visitor center for Joshua Tree National Park, at the University of Southern California in Los Angeles. Mooradian, who retired June 2, says that one of the highlights of his time with PCI West was working with students as part of the precast studios. Courtesy of Doug Noble.

Mooradian is a Life Member of PCI West, is the past president of his local American Institute of Architects (AIA) chapter, and was on the board of the California Council of AIA. At PCI, he served on the Board of Directors from 2002 to 2003 and participated on the Education, Marketing, Seismic, Award and Exhibits, Marketing Magazine, Student Education, Membership, Emerging Markets, Building Code, Industry Statistics, Housing Marketing, Market Statistics, PCI Headquarters, and Journal Advisory Committees and the Market Plans Team, AOM Council, and Budget Planning and Review Team.

Ruth Lehmann has taken over for Mooradian at PCI West. “We’ve had a good transition,” Mooradian says. “We’ve been able to overlap a little bit so she can hit the ground running.” Mooradian plans to be available for the PCI Foundation precast studios at USC and Cal Poly and the potential studios in development.

“It’s just been a great 26 years with an industry and people I believe in,” Mooradian says of his time at PCI West. “I don’t consider it work. It’s been a lot of fun. Most of the people I deal with, I consider as much friends as I do business associates. The fact that it’s been a success has made it that much sweeter.”

PCI CALENDAR

Events

For the most current information on PCI events, visit <http://www.pci.org/events>. For industry events, visit <http://www.pci.org/news/events>.

PCI Quality Summit
Atlanta, Ga.

September 11, 2017

The Tour
Atlanta, Ga.

September 12-15, 2017

PCI Northeast Annual Meeting
Saybrook Point Inn, Old Saybrook, Conn.

September 13-14, 2017

2017 PCI Committee Days and Membership Conference
Loews Chicago O'Hare, Rosemont, Ill.

October 4-7, 2017

**2018 PCI Convention and National Bridge Conference
in partnership with The Precast Show**
Hyatt Regency Denver, Denver, Colo.

February 20-24, 2018

2018 PCI Committee Days and Membership Conference
Loews Chicago O'Hare, Rosemont, Ill.

October 10-13, 2018

**2019 PCI Convention and National Bridge Conference
in partnership with The Precast Show**
Louisville, Ky.

February 26-March 2, 2019

PCI personnel training and certification schools

If you have any questions about the Quality Control School schedule or need help completing a registration form, please contact PCI's education manager, Sherrie Nauden, at snauden@pci.org or (312) 360-3215. Registration forms are available at <http://www.pci.org/schools>.

Level I/II	August 30-September 1, 2017	Chicago, Ill.
	December 5-7, 2017	Nashville, Tenn.
	January 22-24, 2018	Las Vegas, Nev.
Level III	August 29-September 1, 2017	Chicago, Ill.
	December 7-10, 2017	Nashville, Tenn.
CFA	April 10-12, 2017	Austin, Tex.
	December 5-7, 2017	Nashville, Tenn.
	January 22-24, 2018	Las Vegas, Nev.
CCA	December 8, 2017	Nashville, Tenn.

Compiled by K. Michelle Burgess (mburgess@pci.org)