

CONSTRUCTION

INNOVATOR

CONSTRUCTION MANAGEMENT DEPARTMENT | COLLEGE OF ARCHITECTURE AND ENVIRONMENTAL DESIGN | FALL 2013



Ready → Set → Work!

CAL POLY
SAN LUIS OBISPO



Allan J. Hauck

Celebrating INDUSTRY PARTNERSHIPS

Welcome to another issue of Construction Innovator. As we start another year, I'm happy to say signs are promising. There are increased activity levels and more opportunities for both students and faculty. We welcomed more freshmen this year than we have in recent years. Company interest in interns and full-time hires has returned in nearly all markets. We start the year optimistic for freshmen and graduates who are entering a construction economy on the upswing.

In this issue, we celebrate the partnerships with industry that make this department stand out and helped us become a leader among the country's construction management departments. The cover photo demonstrates the physical appearance of those partnerships: a grant from the National Association of Home Builders helped purchase the tools needed for the hands-on learning conducted in the Simpson Strong-Tie Materials Demonstration Lab.

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On the Cover

Architecture senior Kelsy Westendorf, CM senior Thomas Sewell and CM senior Matt Ohlund show off the contents of their Knaack boxes in the Simpson Strong-Tie Materials Demonstration Lab.

Support from our partners goes way beyond campus. In this issue, we honor the Construction Employers' Association and its member companies that have, over the past 15 years, provided more than \$400,000 of support for off-campus activities for students and faculty, putting them in contact with industry professionals.

Individuals, companies and alumni provide more than \$75,000 a year in scholarships. Equally important as the financial support is the time our partners contribute to present in classrooms, guide field trips, and lead student tours of their office operations.

These interactions with industry professionals are reflected in student and faculty success – and we celebrate that success in this issue as well. Strong performances were turned in again by our student competition teams – from Reno to Chicago to New Orleans. Their success is directly tied to the hours and hours industry supporters volunteer helping prepare the teams for competitions.

Faculty accomplishments are also highlighted inside. Many of the accomplishments have been fueled by interactions with practicing professionals and by developing national reputations with industry associations. You will read about our connections with one of these groups, as we hosted the 49th annual conference of the Associated Schools of Construction.

Finally, we honor the five graduating seniors who were named Senior Award winners. As you read their stories, you will realize that the future of our profession is in good hands.

We look forward to seeing you on campus this year; please plan to be a part of what you helped create. Thank you for all that you do for construction education at Cal Poly and beyond. As we tried to illustrate in this issue, we can't do it without you!

ALLAN J. HAUCK ■ PH.D., CPC



Program Partnerships

STUDENTS THRIVE, THANKS TO DEPARTMENT'S 15-YEAR PARTNERSHIP WITH

CEA

The Construction Management Department owes a great debt to the Construction Employers' Association (CEA), which has generously supported CM students in a variety of ways over the years.

From union contract negotiation to safety training and promotion, the CEA represents the interests of about 100 premier commercial and industrial union contractors in Northern California. Its membership is responsible for more than \$10 billion of public and private work each year.

CM students visit the Transbay Transit Center Terminal jobsite during a field trip to the San Francisco Bay Area (above).

Fifteen years ago, the CEA created the Construction Management University Program, designed to review annual grant applications from CM programs in Northern California. Cal Poly has been on board from the beginning and has received a grant every year. To date, this partnership has benefited Cal Poly students with more than \$400,000

in support and has helped build lasting relationships with industry professionals.

The backbone of the support at Cal Poly is structured through the CEA Student University Resource Fund (CEA-SURF), which supports participation in student competitions, regional and national conferences, and jobsite field trips to CEA-member projects. Every year, this funding allows students to participate in activities outside their classes to broaden their education and professional preparation.

During the 2012-13 academic year, CEA-SURF sent a student team to compete against schools from across the country at the Associated Schools of Construction (ASC) competition in Chicago. This was the second time a Cal Poly team participated in an ASC competition outside the Reno competition, held for Regions 6 and 7 (Rocky Mountain and Far West regions, respectively). The result was the same the second time as it was the first – they took first place! Two teams –

Joining Department Head Al Hauck at the CEA Awards Dinner in Concord, Calif., are students (from left): Jim Roth, Camille Hardin, Carly Novoa, Spencer Stahl, Colin Leong and Enrique Ivers.

**“THE IMPACT OF CEA
FIRMS ON CONSTRUCTION
EDUCATION IS NOTHING
SHORT OF INCREDIBLE.”**

– AL HAUCK

Preconstruction and Electrical – are ready to go back to Chicago this coming year.

“We owe much of our success in Reno to CEA-SURF,” said Department Head Al Hauck. “It also funded the Cal Poly LEED Team’s attendance at the U.S. Green Building Council Conference in San Francisco, the Concrete Solutions Team’s participation at the World of Concrete Conference in Las Vegas, and the Building Information Modeling Team’s visits to a CEA member’s corporate office in Palo Alto, Calif. These events fulfill the core goal of the CEA Construction Management University Program to directly support CM students in their pursuit of professional opportunities outside the classroom.”

“Going to Green Build was a great team-building exercise,” said senior Katie Worden. “It allowed us to get to know each other better and work together better in the ‘war room.’ We also attended lectures and met people in all segments of our industry from all over the nation and the world.”

Some of the most exciting activities supported by CEA-SURF are the field trips, Hauck said. “The sites are generally four hours away, and this funding enables us to do a one-day trip to several Bay Area jobsites using a chartered bus rather than relying on multiple student drivers.”

Students recently visited the Transbay Transit Center Terminal, San Francisco 49ers’ Stadium, UC Berkeley Stadium, Foundry Square III, and the Santa Clara Valley Medical Center. CM senior Richie Farinha described the trips as unbelievable experiences.

“The hospital was very interesting in that it had a lot of mechanical and electrical systems coordination involved that helped me get a better understanding of my Specialties class,” Farinha said.

CEA-SURF is not the only initiative supported through this CEA program. An earlier grant funded Cal Poly’s CM internship program for academic credit through the CEA/ Cal Poly Co-Operative Education Partnership (CEP). The program is now self-sustaining.

The agency’s grants also supported the CEA Faculty Development Endowment. This perpetual endowment now has more than \$70,000 in invested funds generating more than \$3,000 annually to support faculty memberships in professional societies and to offset some travel costs to national educational conferences. The funding enables the faculty to stay current with developments in the field of construction and in education.

“Our partnership with the Construction Employers’ Association has been essential to our ability to help produce the next generation of leaders in the California construction profession,” Hauck said. “The CEA annual grant program has proven to be one of the most reliable and consistent sources of funding for extracurricular student education at Cal Poly and elsewhere. The impact of CEA firms on construction education is nothing short of incredible.”





VALUE-ADDED Learning

INDUSTRY SPEAKERS LEAD TO UNEXPECTED CM OPPORTUNITIES

Step into a construction management classroom, and you might see an industry professional leading a discussion on current projects or innovative trends. What you won't see is how these industry-academic relationships evolve to benefit students in unique and advantageous ways.

For instance, when Mitchel Whitson (B.S., Construction Management, 1989) spoke, Professor Phil Barlow had no idea it would lead to a program that allows students to earn the CESSWI IT (certified erosion, sediment and storm water inspector in-training) designation.

Whitson, president of Whitson CM, knows the value this certification has to employers. These professionals provide assessments of erosion, sediment, and storm water management practices to comply with local, state and federal laws.

"This pilot program is not available on any other university campus," Barlow said. "We are the first college department allowed to sit for the exam without having the more traditional field experience. It's one of many amazing outcomes that result from our guest speaker program."

Another speaking engagement evolved into the Construction Service Learning course developed by Barlow five years ago. "The class provides tangible benefits to local nonprofits

Felipe Alfaro works on a project at Growing Grounds, a local nonprofit member of Transitions-Mental Health Association.

and others while giving students the Learn by Doing experience Cal Poly is known for.

“We’ve completed projects for the Prado Day Center, low-income families, and disabled citizens,” Barlow said. “It’s possible because some guest speakers from large construction companies donate money that goes to the direct purchase of building materials.”

Another outgrowth of the speaker program has led DPR Construction to send a large contingent of employees to campus each year to help student teams prepare for the Associated Schools of Construction competition in Reno in February.

And still more opportunities were made possible by Rod Hammett, a speaker from Hensel Phelps Construction. He was the catalyst that led to Barlow’s virtual construction learning module.

Cal Poly’s Central Coast location does not provide students much experience with

“WE TALKED ABOUT PROBLEMS, SOLUTIONS AND OPPORTUNITIES; WE TALKED ABOUT THE SITE FOR 10 WEEKS. IT GAVE THE PROJECT A DEPTH NOT OBTAINABLE BY A SIMPLE TWO-HOUR JOB WALK.”

– PHIL BARLOW

large-scale construction projects. Hammett invited students to tour a hospital project in downtown Los Angeles at the beginning of the quarter and subsequently held weekly Skype discussions with them as the project progressed. “We talked about problems, solutions and opportunities; we talked about the site for 10 weeks,” Barlow said. “It gave the project a depth not obtainable by a simple two-hour job walk.

“Brett Thompson with DPR has picked up the torch and is taking the lead on our virtual construction tours,” Barlow said.

These student experiences are examples of what has transpired in just Barlow’s classes, but he is not the only one to nurture such academic-industry relationships.

“These partnerships have become an integral component of the department and of Learn by Doing,” said CM Department Head Al Hauck. “Industry professionals bring not only a wealth of knowledge and experiences to the classroom, they also open doors that we in academia never could.”

DPR’s Brett Thompson takes the CM 413 Virtual Construction class on an actual field trip (below).



A Change in Leadership

BARB JACKSON BIDS ADIEU TO CAL POLY

I have enjoyed a fulfilling and productive career at Cal Poly since 1998, serving as a professor and interim department head in the Construction Management Department and director of the California Center for Construction Education (CCCE).

Recently I accepted a new position as director of the Burns School of Real Estate and Construction Management in the Daniels College of Business at the University of Denver in Colorado.

Although I will miss Cal Poly immensely, I will continue my work to prepare the next generation of leadership to engage in highly collaborative, integrated problem-solving to leverage the collective intelligence of the entire team – including the owners. My new position will provide me the opportunity to connect with both the project developer/owner side and project delivery side within the same school – an opportunity not available within a single discipline program.

I am confident, however, that I have left the CCCE in good hands. Professor Scott Kelting is the right person at the right time to direct and manage the center's next efforts.

The CCCE's focus over the years has been on developing advanced graduate certificate



Barb Jackson conducts a CCCE "boot camp."

education to serve working professionals in architecture, engineering and construction.

Scott's extensive training, knowledge and ability to design and deliver high-quality online education make him the perfect leader of the CCCE.

I offer my sincere appreciation, gratitude and best wishes to the many students, alumni, industry collaborators, recruiters, and advisory board members whom I have had the privilege of working with over the years. Cheers!

– Barb Jackson

KELTING TO INTRODUCE FMO GRADUATE CERTIFICATE

Under Professor Scott Kelting's leadership, the Facilities Management and Operations (FMO) Graduate Certificate will first be offered in winter 2014, thanks to a close association with the International Facilities Management Association (IFMA), the major sponsor of the FMO program.

"One goal of the program is to fill the gaps in facility managers' expertise," Kelting said. "For instance, the program covers a full range of financial risks and management strategies associated with facilities, a topic that some facilities professionals may not

have mastered. For those without a degree, successful completion of this course will add another level of credibility to their resume."

The graduate certificate addresses the core competencies associated with facility management and operations, including communication, emergency preparedness and business continuity, environmental stewardship and sustainability, finance and business, human factors, leadership and strategy, operations and maintenance, project management, quality, real estate and property management, and technology.

Events

2013

October 25-26
Cal Poly Parents and Family Weekend

November 4-6
Design Build Institute of America Annual Conference & Expo, Las Vegas, Nev.
www.dbia.org/conferences

November 20-22
U.S. Green Building Council International Conference, Philadelphia, Penn.
greenbuildexpo.org

December 3-7
Ecobuild America Conference, Washington, D.C.
www.aececobuild.com

December 14
Fall Commencement

2014

February 4-6
National Association of Home Builders Competition, Las Vegas, Nev.
buildersshow.com

February 5-8
Associated Schools of Construction Competition, Reno, Nev.

March 26-28
Associated Schools of Construction International Faculty Conference, Washington, D.C.

April 10-12
Cal Poly Open House

May (TBA)
CM Scholarship and Awards Reception

June (TBA)
CM Senior Banquet
CM Golf Tournament

June 14
Spring Commencement



Visit www.construction.calpoly.edu for the latest news, alumni gatherings and events.

Poised to play at CM's annual golf tournament (below)





Cal Poly bids a fond farewell to Dr. Barbara Jackson.

Barbara Jackson Leaves Cal Poly for University of Denver

It is with great mixed emotion that we announce **Dr. Barbara Jackson's** departure from the CM Department and from Cal Poly.

On the one hand, we congratulate her on being appointed the new director of the Burns School of Real Estate and Construction Management at the University of Denver. This new position uniquely enables her to continue to influence how construction projects are delivered by applying the principles of integrated project delivery and will allow her to broaden that influence to include owners and real estate developers. The University of Denver will benefit from her expertise in education and training, her passion for the built environment, and her network of professionals from both design and construction.

On the other hand, Cal Poly loses the influence and impact she has had on this department for the past 15 years. During that time, Dr. Jackson set the standard for quality teaching as she guided a generation of students making the

transition from education to the profession. Faculty have also benefited from her mentorship and her example as they matured into successful professors.

Her leadership of the California Center for Construction Education and as interim department head resulted in lasting accomplishments that will affect this department for years to come. Dr. Jackson's balanced approach to teaching, making contributions to professional development, writing signature books influencing our field, and providing service to DBIA and numerous other venues is a model for university faculty. It is an example that cannot be readily replaced at Cal Poly.

At her farewell party in June, Dr. Jackson was congratulated on her new position and praised for her accomplishments. But it was also noted that the CM Department will not be the same – nor would it have accomplished so much in the past 15 years – without her. We are looking forward to staying in touch!



Phil Barlow was named 2013 Educator of the Year and is the newly elected director of ASC Region 7.

Phil Barlow's Big Year

Phil Barlow was unanimously selected as the 2013 Educator of the Year by the Construction Management Association of America.

The award is "bestowed on faculty advisors to CMAA student chapters as acknowledgement of exceptional accomplishment during the past year as advisors, educators and mentors."

The CMAA specifically recognized Barlow for "networking with leading industry firms to keep students apprised of current industry trends," for being "committed to helping all students find internship and career

opportunities," and for "promoting the value of, and helping students achieve, construction managers-in-training certification."

Barlow is the newly elected director of the Associated Schools of Construction (ASC), Region 7. He is working on getting the new Construction Management Graduate Certificate Program approved by the Academic Senate in the fall.

On a personal note, Barlow and his wife, Jenny, bought a new home in Arroyo Grande. Their daughter, Brielle, turns two in December.

Scott Kelting Promoted

Scott Kelting was awarded tenure and was promoted to associate professor in spring 2013. He has been a member of the Construction Management Department faculty since 2007. He teaches Residential Construction and several courses in sustainability.

Kelting coaches the NAHB (National Association of Home Builders) student team and the Residential Team for ASC (Associated Schools of Construction) Region 6 and 7 competition in Reno, Nev.

He is the first faculty member to teach a CM course 100 percent online.

Associate Professor
Scott Kelting





Joshua Chao's Jackpot

Joshua Chao (B.S., Construction Management, 2005) earned an MBA from San Diego State University in summer 2013 and was promoted to project manager at Rudolph and Sletten, where he has been working since he graduated. He is currently working on the Graton Casino project in Rohnert Park, Calif.

Joshua Chao and the Graton Casino jobsite



Thai Nguyen

Thai Nguyen, Exemplary Mentor

Thai Nguyen (B.S., Construction Management, 2008) was featured in the July 2013 edition of Engineering News-Record (ENR) as a 2013 ENR/McGraw Hill-ACE (architecture, construction, engineering) Exemplary Mentor.

ACE's mission is to engage, excite and enlighten high school students to pursue careers in architecture, engineering and construction via mentoring and to support their advancement in the industry. Mentors are selected for their contributions to their students, fellow mentors and affiliates and epitomize the dedication and effectiveness of ACE's thousands of mentors. To honor this year's mentors, their affiliates received \$2,500 to establish a student scholarship named for the mentor.

Nguyen himself was mentored while a student at John Marshall High School in Los Angeles; he now leads the ACE team there. He works as a project engineer with PCL Construction.

Adam Freeman's Firm Aids Industry

Adam Freeman (B.S., Construction Management, 2006) is chief operating officer of privately held software company 383 Studio Inc., which created a unique construction-industry-specific app called Threshold. The app allows contractors and clients to easily keep track of their job progress, and it allows engineers, architects, subcontractors, tradesmen and superintendents to take pictures of their progress to share with team members and clients. The increased transparency keeps clients in the loop and holds contractors accountable.

Before founding 383 Studio Inc., Freeman spent five years working in residential and commercial construction project management. It was then he realized that one of the shortcomings of many project managers was their inability to give clients accurate, up-to-the-minute progress reports.

Threshold has recently partnered with ConstructionConnection.com., a networking and hiring firm. Together the companies help small and mid-sized construction companies use technology to streamline business.

Not So Slow at SLO's Ferreira Inc.

Dan Ferreira (B.S., Construction Management, 2007) and Matt Ens (B.S., Construction Management, 2003) have founded and are running Ferreira Inc., a design build firm in San Luis Obispo serving the entire Central Coast. With 12 employees, the company has grown into a multimillion dollar operation.



Shawn and Brian Kelly

Brian Kelly Finds His Soul Mate

Brian Kelly (B.S., Construction Management, 2007) writes: "I am very happy and excited about getting married last year. My wedding was one of my favorite moments of my life, and I couldn't have asked for a better celebration."

Brian and his wife, Shawn, have been together since February 2009. They met through mutual friends. "We hit it off right away," he said.

A Tradition is Born

The Construction Management Department held its first Scholarship and Awards Recognition Ceremony in June to honor student success.

Held in the mezzanine in the Simpson Strong-Tie Building on a sunny afternoon the week before finals, the ceremony feted members of award-winning teams, scholarship recipients, and the Outstanding Senior Award winners. (See pages 18-21.)

Department Head Al Hauck and College of Architecture and Environmental Design Dean Christine Theodoropoulos welcomed and congratulated the roomful of happy – and hopeful – students, who enjoyed a buffet of appetizers.

In opening remarks, Hauck called the inaugural ceremony “a great opportunity to get everyone together to recognize this year’s student success.”

Al Hauck and Jes Frazier honor ASC Conference student volunteers at CM’s 2013 Scholarship and Awards Recognition Ceremony (below).

AWARDS CEREMONY RECOGNIZES CM STUDENTS’ SUCCESS

Dean Theodoropoulos also addressed the crowd. “Words cannot convey how proud the college is of the students coming out of this department, and we know you are going to do good work,” she said.

The students have actually been doing good work for some time, as evidenced by the impressive number of teams that win at regional and national competitions.

“We send the most students, the most buses, the most faculty -- and we take away the most trophies,” said Hauck. “What do the students get?” he asked. “Course credit? No. Money? No. They do this for the education.”

This year five teams brought home trophies from ASC’s (Associated Schools of Construction) Region 6 and 7 annual competition in Reno. The Marine, Preconstruction and Risk Management teams

won first place; the Electrical and Mechanical teams each won third place.

A Cal Poly Preconstruction Team also took first in the ASC Region 3 competition held in Chicago.

Continuing that winning streak, students took second at the National Association of Home Builders Student Competition and the Design Build Institute of America Student Competition. (See pages 15-17.)

Scholarship Recipients Recognized

The most anticipated portion of the event was the announcement of the 2013-14 scholarship recipients. The department’s nearly \$1 million in endowments generates \$40,000 annually toward support of departmental activity, trips to competitions, and some scholarships. The remaining scholarship funds are donated on an annual basis by friends and alumni of the CM Department. In announcing the scholarship recipients, Hauck noted that the department awards more than \$75,000 in scholarship funds annually.





Herbert E. Collins Scholarship recipient
Jocelyn Kenmotsu

2013-14 Scholarships

Scholarships are listed in descending order of value; students are listed alphabetically.

Construction Management Scholarships

Allen and Nancy Minton Scholarship
\$22,000 – Rhett Snell

Don Tanklage Scholarship
\$5,000 – Damien Arredondo and Kent Beecham

Beavers Heavy Construction Scholarship
\$3,000 – Tanner Blumenfeld, Enrique Ivers and Colin Leong

Don Chapin Co. Scholarship
\$3,000 – Peer Giudici III and Thomas Sewell Jr.

Vinnell Foundation Scholarships
\$1,000-per-quarter (for up to three quarters)
– Tyler Caglia, Mingzhe Chen, Vladimir Corona, Richard Farinha, Kegan Haerr, Joshua King, Tyler Menard, Darrin Schultz, Kevin Williams and Gregory Wilson

Blair Tulloch Memorial Scholarship
\$2,100 – Charles Andrews III, Pedro Ruiz and Gregory Wilson

Kris Cello Scholarship
\$2,000 – Adrian Godby

Skanska Scholarship
\$1,500 – Damien Arredondo

College of Architecture and Environmental Design Scholarships

Jamba Juice Scholarship
\$4,000 – Enrique Ivers

Herbert E. Collins Scholarship
\$1,200 – Jocelyn Kenmotsu and Darrin Schultz

The scholarships are a welcome gift to students, who often juggle part-time jobs with their curricular and extra-curricular activities.

Damien Arredondo, who won both the \$1,500 Skanska Scholarship and the \$5,000 Don Tanklage Scholarship, was surprised when his name was announced not just once, but twice. “I applied for the scholarships in the spring, but I thought since I was only a sophomore, I would be overlooked,” Arredondo said.

The Skanska Scholarship is awarded annually to a construction management student who maintains a 3.0 grade point average and comes from a Cal Poly “partner” school. Their families must earn less than \$80,000 a year and/or they must be first-generation students.

The Don Tanklage Scholarship is awarded to full-time students going into their junior or senior year who have a minimum 3.0 grade point average.

Arredondo, who hails from Clovis, Calif., previously was awarded an athletic scholarship for wrestling. He credits his “tenacity to learn” as the reason he was chosen. “I am able to balance school, wrestling, and a social life – all while getting good grades,” he said.

And he continues that cycle year-round, even in the summer. Arredondo took an

online summer school class and is completing an internship with MG Constructors and Engineers in Morgan Hill, Calif.

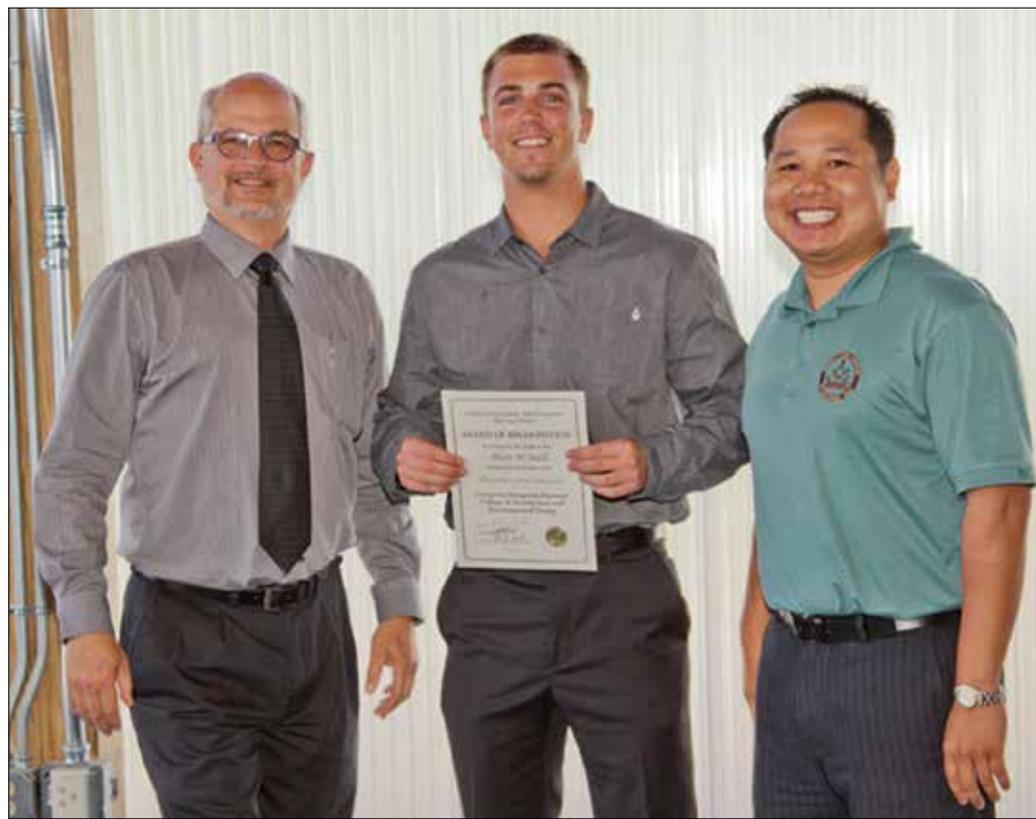
He is grateful for the help. “The scholarships will mostly contribute to tuition and will help in student loans for the year,” Arredondo said. “I would like to thank my donors for their generous gifts, which will help me greatly. I also want to thank Paul Weber for being one of the best professors I have had at Cal Poly.”

Special Thanks to the Mintons

The CM Department gives special thanks to Allen and Nancy Minton, who have graciously sponsored the scholarship bearing their name for seven years.

“We were especially pleased to welcome Nancy at this year’s celebration,” Hauck said. “The Minton’s goal has been to provide a CM student with enough funds to support him or her for the entire academic year. This year senior Rhett Snell received \$22,000 to cover all tuition, fees and books. Their generous pledge has positively affected several students, and we are thankful for their continuing support.”

Al Hauck (left) and Huy Nguyen with Rhett Snell, the Allen and Nancy Minton Scholarship recipient



CM HOSTS ASSOCIATED SCHOOLS OF CONSTRUCTION CONFERENCE

CENTRAL COAST

“Riding the Wave: Embracing Virtual Design and Construction” was the theme of the 2013 Associated Schools of Construction (ASC) International Conference, hosted by Cal Poly’s Construction Management Department.

The 49th annual conference, held at the beachfront Cliffs Hotel in Shell Beach and in the Construction Innovations Center on the Cal Poly campus, was intended to give the approximately 200 participants an experience to remember, both intellectually and experientially.

One conference attendee thinks it hit the mark. “Thank you for the great conference; it will be a hard act to follow!” said Eric J. Olsen, vice president for partner support and university relations director at Synchro Software Ltd.

Highlights included keynote presentations by Kimon Onuma, president and founder of Onuma Inc., and Rex Miller, futurist and consultant at TAG Consulting. Also on tap were workshops, including one by conference sponsor DPR, more than 70 peer-reviewed papers, software demonstrations, exhibits, tours, an awards ceremony, and business meeting.

Several new components were added to the event. Attendees could download an app for mobile devices, giving them a quick and easy way to refer to the schedule and events. Also new this year, a hospitality and “presenter prep” room equipped with a copier/printer and a projector for presenters to “test-run” their presentations.

As in past years, students were on hand throughout the conference to assist.

The awards ceremony and dinner were held at the Cliffs Hotel, along with a wine tasting featuring award-winning Central Coast wines from J Lohr Vineyards, Edna Valley Vineyards, and Opolo Vineyards.

continued on page 14



STYLE



Clockwise, from top left:

Attendees enjoy the afternoon at the Cliffs Hotel in Shell Beach.

Convention-goers dine at the Construction Innovations Center on campus.

Keynote speaker Kimon Onuma

ASC President Jay Christofferson presents the ASC Lifetime Achievement Award to Eugene Rebholz.

Keynote speaker Rex Miller

Background: A sunset view of Shell Beach from the Cliffs Hotel.

THANKS TO OUR SPONSORS

Companies are listed by level of sponsorship.



THANKS TO OUR EXHIBITORS

Exhibitors are listed in alphabetical order. ProCore, SketchUp Pro and Synchro (shown above) also exhibited.



continued from page 12

During the awards ceremony, F. Eugene Rebholz was honored with a ASC Lifetime Achievement Award. Rebholz's teaching career spanned almost four decades, from 1969 to 2008. A registered engineer in Illinois, he worked as an estimator, superintendent, engineer and structural designer and as a consultant to a number of insurance companies, firms and individuals. Rebholz served the ASC as president, vice president, secretary, treasurer and regional director.

Recognizing that spouses and other guests might enjoy a special outing, conference organizers created a unique program for them. Activities included tours of famed Hearst Castle; a look at the region's "Nine Sisters," a chain of ancient volcanic peaks extending

from San Luis Obispo to Morro Bay; and a mini wine tour of vineyards in the coveted Paso Robles appellation.

"There were two key elements to the incredible success of this conference," notes CM Department Head Al Hauck. "First were the tireless efforts by the department's faculty and staff planning the event, most notably Barb Jackson, who served as conference director, and staff coordinators Jes Frazier and Jenay Reynolds-Sibbach.

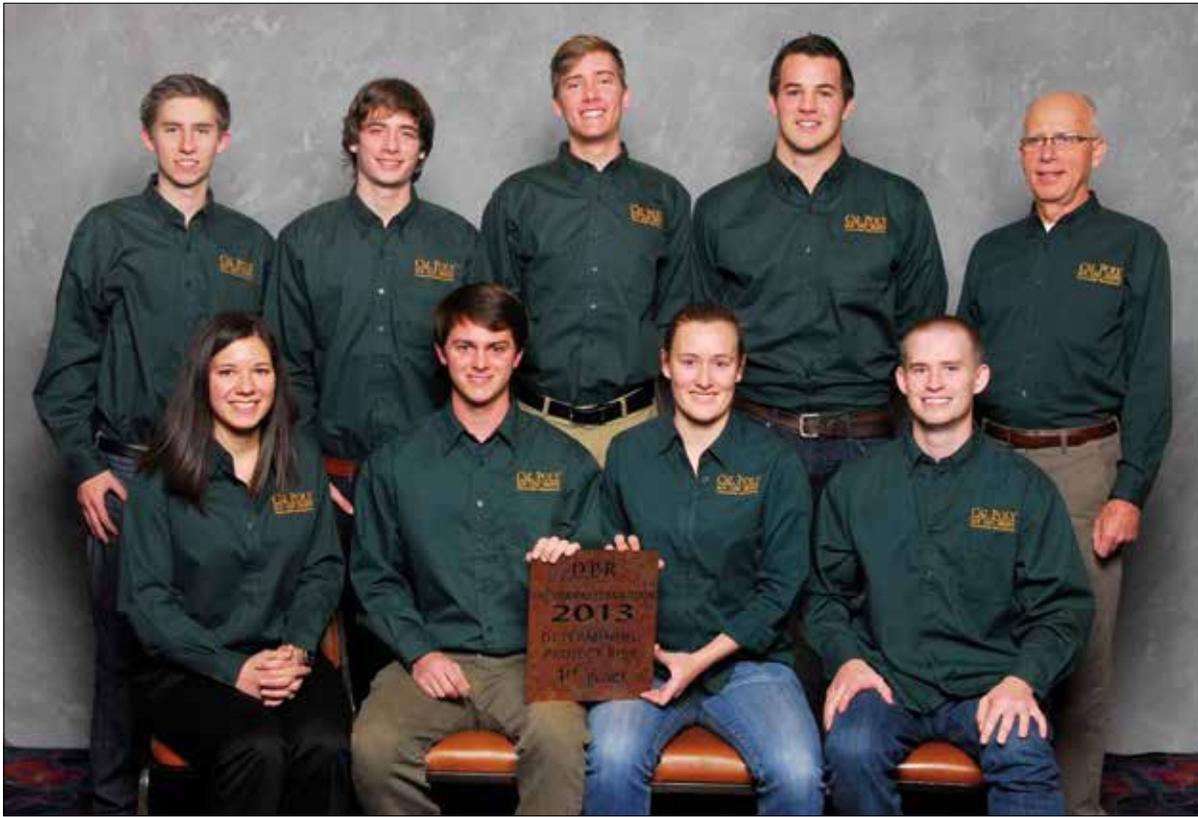
"Secondly, we owe a debt to the conference sponsors and exhibitors whose financial support made it possible to keep registration fees low and whose participation enriched the quality of learning at the events. The department thanks both these groups of dedicated individuals."



Conference participants were invited to exhibit projects (above).

Mingling (from left) are CAED Associate Dean Dick Zweifel, Professor Phil Barlow, Pam Zweifel, and conference director Barb Jackson.





Winning Streak

STUDENTS TAKE HONORS NATIONWIDE FOR THEIR CM PROWESS

Once again, Cal Poly construction management teams dominated in regional and national competitions, demonstrating that Learn by Doing works in developing the skills and knowledge needed to succeed.

Construction Management Wins First in ASC Region 3 Competition

The academic year got off to a great start when a team of students took first place in the Preconstruction division of the Associated Schools of Construction (ASC) Region 3 (Great Lakes) competition.

The competition was announced during the first week of fall quarter 2012, giving students less than two months to assemble a team and start practicing. The team was charged with developing a preconstruction proposal for adding a fifth story onto an existing hospital.

The team produced a general conditions budget, critical path method schedule, site logistics and safety plan, and project quality plan. “The owners of the hospital

CM’s Risk Management Team (above) placed first at the 2013 ASC Region 6 and 7 competition, as did Marine and Preconstruction teams. (See details of the event and team members’ names in the sidebar on page 16.)

would not allow it to be shut down for any construction,” team member Matt Ohland said. “We developed our safety plan and schedule to minimize the risks associated with building above patient rooms.”

CM Team Takes Second at DBIA Event

In November, a team of four CM students took second place in the inaugural national student competition held at the Design Build Institute of America (DBIA) Conference and Expo. The project included performance

The 2012-13 winning teams

ASC Preconstruction Team (Region 3): First Place

CM students Shelby Borg, Tyler Caglia, Jeff Caruso, Josh King, Matt Ohlund and Logan Williams. Coach: Paul Weber

DBIA Competition: Second Place

CM students Hilary Thomas, Josh King and David Warneke, and architecture major Kelsy Westendorf. Coach: Barbara Jackson

ASC Preconstruction Team (Region 6 & 7) Open Competition: First Place

CM students Joanna Bolaños, Tyler Caglia, Rich Farinha, Josh King and Nick Roland, and civil engineering student Marcos Sanchez. CM students Talia Eschenbach and Jena Begley were alternates. Coach: Greg Starzyk

ASC Risk Management Team (Region 6 & 7) Open Competition: First Place

CM students Deanna Alexander, Jamie Gretz, Kegan Haerr, Camille Hardin, Kyle Ross and Kyle Stelter. CM students Eric Ross and Cole Reichenbach were alternates. Coach: Greg Starzyk

ASC Marine Team (Region 6 & 7) Open Competition: First Place

CM students Mike Constable, Kelly Hillman, Danielle Molyneux, Matt Ohlund, Daniel Twomey and Matt Van Wagenen. CM students Cory Babinski and Rhett Snell were alternates. Coach: Paul Weber

ASC Mechanical Team (Region 6 & 7) Open Competition: Third Place

CM students Nick Gibson, Chris Haemmerling, Kyle Marrs, Marcus Pippin, Sean Ratekin and Jeff Schieman. Mechanical engineering students A.J. Chamorro and Jessica Caine were alternates. Coach: Greg Starzyk

ASC Electrical Team (Region 6 & 7) Open Competition: Third Place

CM students Samuel Almaraz, Dominic Lombardi, Wesley McGuire, Anthony Paterno and Thomas Sewell, and business major Mark Loftus. CM students Ethan Boolean and Chris Rudolph were alternates. Coach: Lonny Simonian

NAHB Competition: Second Place

CM students Emily Carver, Jennifer Gallegos, Nicholas Gibson, Adrian Godby, Nicholas Northrop and Jacob Williams. Coach: Scott Kelting

and office spaces, screening rooms, lecture areas and classrooms. Cal Poly's team, one of three finalists chosen to present, described their proposed design and construction solutions – including budget and schedule – and answered a battery of questions from the jury, who tested the students' knowledge of DBIA best practices and their ability to respond to potential changes in budget, scope and schedule.

Students are Superstars at ASC Region 6 and 7 Competition

Cal Poly CM teams won five awards at the 2013 ASC Region 6 and 7 competition held in February in Reno, Nev. The Marine, Preconstruction and Risk Management teams won first-place honors, and the Electrical and Mechanical teams took third.

Regional category competing teams from universities in Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, and Utah, Washington and Wyoming, and open category competing teams from around the country, have 16 hours to develop and submit written proposals to a problem related to either a construction project or a design-and-construct project. Students also give an oral presentation to a panel of industry judges.

The preconstruction project, located at the base of a federally operated dam, consisted of a state-of-the-art fish hatchery, acclimation ponds, water supply systems, and new housing. "Our statement of qualifications included staffing, an organizational chart, relevant experience, and project risk analysis," said teammate Josh King.

On competition day, the team put together a schedule for the construction of a temporary

cofferdam, planning and safety analysis for a crane pad, bid analysis, and review of specifications. The team then presented its solutions to a panel of judges. "The team combined their work and Cal Poly experiences to arrive at a creative proposal that ultimately won us the competition," King said.

Professor Greg Starzyk, coach of the Preconstruction, Risk Management and Mechanical teams, said the preconstruction competition presents students unique, hands-on opportunities to gain knowledge, skill and proficiency. "Construction managers today frequently participate in preconstruction – the early stages of a project – and collaborate with designers in unique business organizations. To succeed, they must understand management practices, and they must exhibit leadership."

Students participating in the risk challenge had to walk through several stages of the risk process while completing a job. Steps included conducting contract and subcontractor negotiations, completing a push-pull planning exercise with a selected subcontractor, solving various problems, conducting a mock walk-through with the owners, and conducting a go/no-go scenario for an add-on to the project.

"Risk competition is an invaluable extension of Cal Poly's Learn by Doing philosophy," Starzyk said. "Construction management is largely perceived as a technical skill. While there is no substitute for technical skill, the types of problems it can solve are limited. More complex problems involving human behavior and uncertainty – often the most important problems – look to the law for solutions," Starzyk continued. "Project risk is important because it helps students

Thank you, ASC Region 6 and 7 sponsors

CM extends a heartfelt thanks to the following companies, whose logos below are placed alphabetically. Your generous support made Cal Poly's 2012-13 participation at Reno possible.



understand how construction law addresses the most complex and important problems.”

The mechanical project involved a seven-story school of dentistry building in downtown San Francisco. Floors one through five were for the school itself, floors six and seven were going to be leased as office space. The challenge for the project was to determine how dense the building’s piping systems should be.

“Teams were asked to perform a take-off of one of the floors and then apply a unit rate to come up with our bid number,” team member Marcus Pippin said. “We were asked

to create a full schedule that met desired milestones of the project.”

The team put together proposal binders that included a request for information, addendums, schedule of values, and value engineering approaches. “One of the most heavily looked at components of the project was the execution plan,” Pippin said.

Judges complimented Cal Poly’s Mechanical Team on being integrated and

cohesive. “All the team members were crucial to our victory,” Pippin said, “however, without Construction Management Department staff and everyone involved from Cal Poly, we would not have been able to do any of this.”

Students Finish Strong at NAHB

The Cal Poly CM team won second place at the 2013 International Builders Show (IBS) and National Association of Home Builders (NAHB) Competition, and senior Jennifer Gallegos won three individual awards. This marks the third year Cal Poly’s team has placed in the top three.

More than 50 teams from across the U.S. participated in the competition, held in Las Vegas, Nev. Students solved real-life construction management problems and presented their solutions to a panel of experts.

Gallegos won the NAHB Student Chapters Outstanding Senior Award, Capturing the Best Moment Through a Photo Award, and Staying Connected through Twitter Award. “Last year I was an alternate on the NAHB team, and this year I had the pleasure of being captain,” Gallegos said. “It was such a valuable experience that some team members and I are considering competing again next year, and we are determined to win first.”

Jennifer Gallegos displays two of her three awards.



Outstanding Seniors

CM recognized five Outstanding Seniors at the 2013 Scholarship and Awards Recognition Ceremony. (See pages 10-11.) Deanna Alexander and Matthew Ohlund received the Service to the Department Award; Kegan Haer was recognized as the Outstanding Senior; and David Sharkey and Stephen Stone were each selected Outstanding Leadership Award winners. Meet them here, in alphabetical order.

Deanna Alexander At Your Service

Deanna Alexander admits to being a “control freak” who leaves nothing to chance and is rarely surprised. But she was surprised – and honored – when she heard she won the Service to the Department Award. “I didn’t even contemplate that I might be on the shortlist of students they were considering,” Alexander said.

She thinks her willingness to lend a hand when needed gave her an edge. “Once the faculty and staff realized I was happy to help, they began to seek my assistance with different tasks and events,” Alexander said. “Because I was involved with student activities and clubs, I was able to serve as a liaison between the department and the different groups.”



Alexander originally thought she would study architecture, but while researching various positions within the industry, she discovered construction management. And family friend Greg Amon (B.S., Construction Management, 2011), who was studying construction management at Cal Poly at the time, helped sway her decision to switch.

She was active in clubs and competitions, including the annual Associated Schools of Construction (ASC) competitions in Reno, Nev. Her sophomore year she was a shadow

As a CM major, Deanna Alexander enjoyed helping with the department’s activities and events.

on the Determining Project Risk Team. “In my junior year, I became captain of the team and held that position until graduation,” Alexander said.

During her first three years on the team, the team won second. This year, they broke the pattern and scored a first-place win. “It was something I had been striving to achieve, and reaching my goal with a fantastic team

of close friends was more than I could have asked for,” she said.

As a board member for the Associated Students of Construction Management Club (ASCM), she helped with quarterly barbecues, an Open House booth, senior banquet, and spring golf tournament.

Entering competitions and being active in clubs help students get hands-on experience beyond the classroom. In the classroom, Learn by Doing bridges the gap between the theoretical and the actual.

“After being at Cal Poly for even just a year, students already have the upper hand in getting internships and jobs,” Alexander said.

After graduation, Alexander traveled to Europe and “crashed our department’s study abroad trip in Prague,” she said. In September she began work with DPR Construction in Redwood City.

Kegan Haerr A-OK Aspirations

It is not out of character that Outstanding Senior Award winner Kegan Haerr hopes in 10 years to be one of the most prominent, up-and-coming project managers in the Bay Area. After all, the hard-working, almost straight-A student made the Dean’s List every quarter he was at Cal Poly except his first. And even then, he came close.

“I live under the assumption that I don’t have to plan that far ahead if I try my best at everything,” Haerr said. “I had no idea I was going to be where I am today when I started college four years ago, but I’m pleased with the results.”

He started Cal Poly as an architecture major, but after two quarters realized it wasn’t for him. “I still liked the built environment, so I looked into transferring into other majors within the college,” Haerr said. “Construction management came out with the highest job placement after graduation and with the highest starting salaries. Other than that, I didn’t know much about it.”

Although the decision to change majors turned out to be a positive one, Haerr struggled with it. “I had been convinced of



my future for years; then within six months, I had a fierce change of heart. I was venturing toward a totally unknown future with only hiring statistics and a bitter taste in my mouth to support my decision. It wasn’t easy.”

But three years later he admits the transfer was one of the best decisions he’s made. “I love the students, the faculty, the work – this major is awesome.”

Haerr served on the board of the ASCM Club for two years and competed twice in the Determining Project Risk category at the ASC

Kegan Haerr had the highest grade point average in the department – an impressive 3.83.

competitions in Reno, Nev., winning second place the first year and first in the nation the following year.

Over the summer Haerr worked for a general contractor in San Francisco before embarking on a 200-mile trek along the John Muir trail in the Sierra Nevada.

He is now back at Cal Poly to complete his final quarter.



Matthew Ohlund His CM Roots Run Deep

Matthew Ohlund never had a choice. “I’ve wanted to be in construction management for as long as I can remember,” he said. “My father is a foundation and framing contractor, building the ‘bones of homes.’

“On my father’s side, I am a fourth-generation builder. On my mother’s side, there are four generations of civil engineers. Building is what I am supposed to do; it’s in my blood.”

As the student assistant in the Simpson Strong-Tie Materials Demonstration Lab, Ohlund earned the respect of students and faculty alike, and in the process, picked up the Service to the Department Award. “I guess

I was around enough and did little things here and there to help out,” he said.

This year Ohlund was fortunate to be on two first-place teams: the Marine Team at the ASC Reno competition and the Pre-Construction Team that went to the ASC Region 3 competition in Chicago.

Ohlund also served as the unofficial head chef for the ASCM Club this year, “doing a lot of barbecuing.”

And yet he still found time for the things he loves to do: hiking, camping, fishing and ... oh, yes, barbecuing.

Ohlund said Learn by Doing gave him an appreciation for what the tradespeople do

“Building is in my blood,” says Matthew Ohlund, who enjoys a good hike when he’s not working.

and how much work they put into their jobs. “If we are going to be effective managers, we need to understand how things work in the field,” he said.

In July he also hiked the rugged John Muir Trail, and in September he headed to Seattle to begin work with Manson Construction, the company he interned with last summer.

He especially enjoyed getting to know the faculty, staff and students in the department. “That’s what made it fun,” he said, “We all got along, had fun, and got our work done.”

David Sharkey III Leading the Way

David Sharkey III, one of two Outstanding Leadership Award winners, developed an early appreciation for construction, thanks to his father, a superintendent for a residential home builder.

He chose Cal Poly because of the location and because “the Construction Management Department is one of the best in the nation,” Sharkey said. “I was stoked to come here.”

This isn’t the first recognition Sharkey has gotten from the department. At the end of his second year, he was awarded the Allen and Nancy Minton Scholarship for \$18,000. “The money basically paid for all of my costs associated with attending school my third year,” Sharkey said. “I was on financial aid, so it really helped.” The scholarship is awarded to students who exhibit leadership, maintain good grades, and demonstrate a willingness to help out and be involved in the department.

He served as vice president of the ASCM Club; as treasurer of Sigma Lambda Chi, an international honor society for outstanding construction management students; and was a member of Phi Kappa Psi fraternity.

Sharkey thinks the leadership award was given to him because of his work with the ASCM Club. He helped out around the department, assisting anyone in need. He was especially willing to help younger students, serving as a mentor to them.

“A lot of students are doing good things,” Sharkey said, “so it was an honor to be singled out with this award. It was cool.”

Sharkey also competed in the annual ASC Reno competitions. For two years he was on the Concrete Solutions Team, which finished first and fourth, respectively.

He is the first in his family to go to college. As the oldest of six children, he feels he needs to set an example for his siblings. “I have lived my life making sure that I’m a good role model for my brothers and sisters,” Sharkey said.

In September he started work as a project engineer with Skanska in the Bay Area.

Active in the ASCM Club, David Sharkey especially enjoyed helping younger students.





Steve Stone He Can Manage Just Fine

Steve Stone, the other Outstanding Leadership Award winner, has been fascinated with construction sites and big equipment since he was 5 years old. But it wasn't until his senior year in high school that he got to get his hands dirty working with Habitat for Humanity.

When it came time to pick a college, he chose Cal Poly because of its reputation and location, which uniquely suits this avid outdoorsman who spends his free time wake boarding and mountain biking. The Central Coast is a virtual playground for sports enthusiasts like Stone.

Cal Poly's Learn by Doing philosophy was another plus. "I am a visual learner, so being able to use my hands helped me understand everything that was going on,"

Stone said. "And it will continue to help me after I graduate because I'm better able to manage people and projects."

Stone was involved in departmental activities, serving as ASCM Club president in his final year. He enjoyed all the club had to offer – the golf tournaments, spring banquets, Open House activities, and barbecues.

He was excited he won the award, "But at the same time, I felt it came with the job of being president of ASCM – being a leader."

Stone said he takes advantage of every opportunity, and he advises others to do the same. "I competed in three ASC Reno competitions, attended conferences, and landed internships. The competitions teach the value of teamwork and camaraderie," Stone said. "And they prepare you to

As a CM major, Steve Stone enjoyed participating in competitions and club activities.

perform basic construction 'take-off' under strict time constraints."

Stone completed his final quarter over the summer in Prague as part of the department's study abroad program. At the conclusion of the five-week program, he traveled around Europe, then headed to the Los Angeles area to begin work as a field engineer with Kiewit Infrastructure West Co.

All five student award winners followed individual paths to success, yet they all seem to subscribe to the theory that participating in clubs and competitions gives them a leg up.

"Get involved early," David Sharkey said. "Do more; go beyond what's expected."



Christine Theodoropoulos

“OUR SUSTAINED,
NATIONAL RECORD OF
STUDENT ACHIEVEMENT
IS A CREDIT TO OUR
FACULTY’S PASSION AND
PERSONAL INVESTMENT.
THERE ARE FACULTY
MENTORS BEHIND EVERY
STUDENT SUCCESS
STORY ... AND A FACULTY
SUCCESS STORY BEHIND
EVERY STUDENT WHO
SUCCEEDS.”

STUDENTS + FACULTY + FRIENDS = CM's Success

Cal Poly's construction management graduates are in high demand, thanks to our inspiring and productive partnerships with alumni and industry experts. In the Construction Management Department, our Learn by Doing approach develops leaders, leaders who communicate project goals so that every team member and stakeholder cares about what needs to be done and joins forces to do it.

Students learn to engage materials specialists, suppliers, fabricators, erectors, and the diverse trades and professions that work together to transform society's aspirations, ideas, plans and technologies into improved, more sustainable environments. We are proud of their achievements and look forward to their contributions to California, the international realm, and to the College of Architecture and Environmental Design.

Our faculty's dedication is unsurpassed. Through teaching innovation and scholarly inquiry they advance the field of construction management and infuse all of the college's programs with new learning opportunities and innovative perspectives. Our sustained, national record of student achievement is a credit to our faculty's passion and personal investment. There are faculty mentors behind every student success story featured in this issue of Construction Innovator and a faculty success story behind every student who succeeds.

I am delighted to join my colleagues in congratulating Phil Barlow, the 2013 Construction Management Association of America Educator of the Year, and Scott Kelting for his promotion to the rank of associate professor with tenure and appointment as director of the California Center of Construction Education.

Thank you to our readers who have made contributions that enhance student experience and provide our recent graduates with rewarding transitions from school to professional practice. You are very important to the college's ongoing success and future promise. Your support transforms every day – through scholarships and mentoring, or a special internship that ignites a student's passion, or time spent bringing classroom learning alive, or guiding our student organizations, or your sponsorship of the buses that bring Cal Poly student competitors to ASC-Reno. (I had the pleasure of joining them for the ride last year. What extraordinary creativity and professionalism, cooperative spirit and humor!) Your support makes all the difference.

This coming year we are planning for future investments to support the shared mission that unites the college's programs. There is great interest in expanding interdisciplinary and international study opportunities, deepening our commitment to graduate programs, and upgrading the shared facilities and services that promote hands-on learning and faculty success. I invite your participation and welcome your suggestions for future partnerships.

A handwritten signature in black ink, appearing to read 'Christ Theodoropoulos'.

CHRISTINE THEODOROPoulos ■ AIA, PE

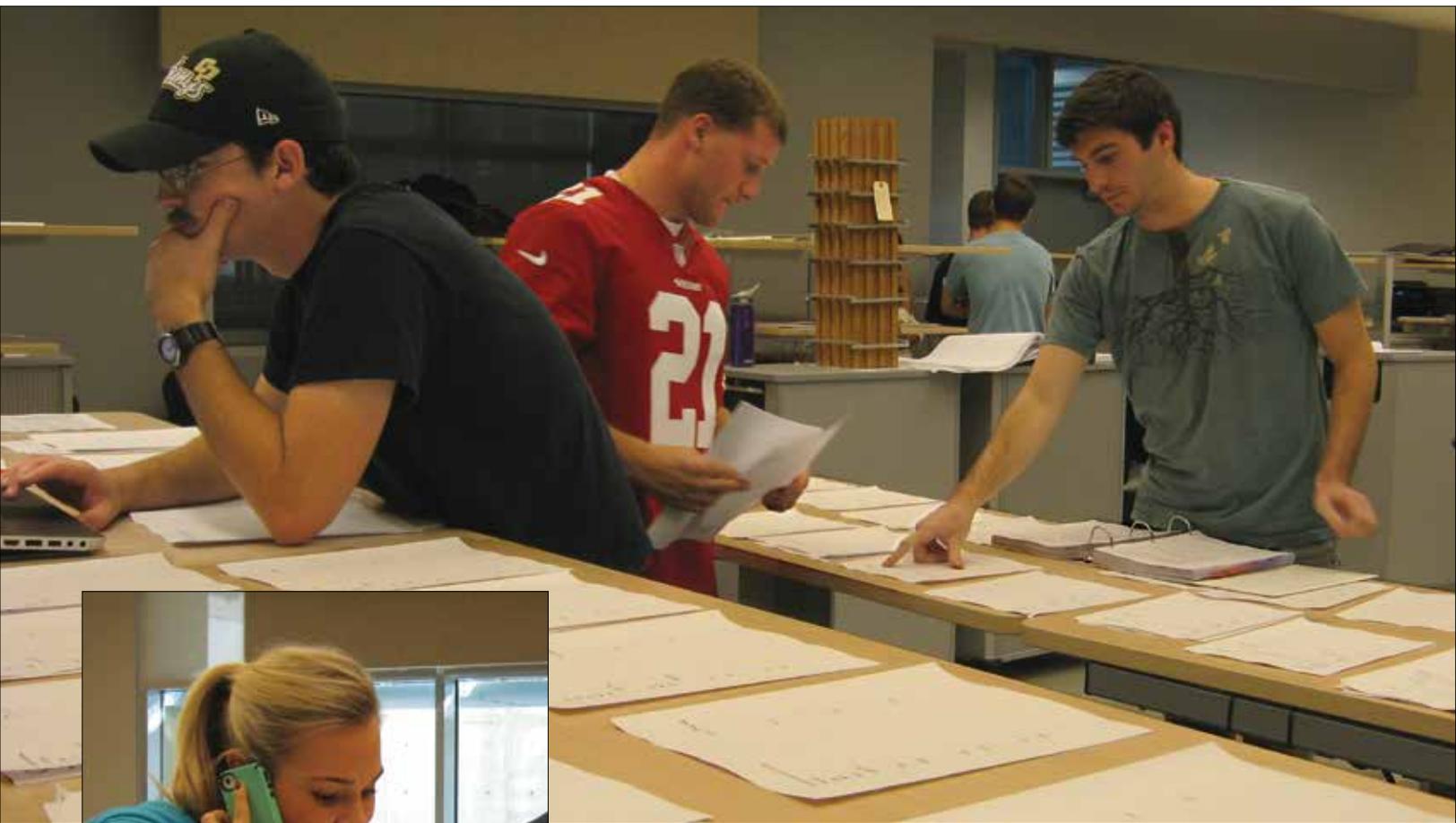
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Test Run

Students participate in a mock bid day exercise in the Commercial Building class located in the Webcor Lab. The exercise requires them to collect and tabulate numerous subcontractor quotes in a limited time frame to assemble a \$70 million dollar general contractor's bid.

Assembling the bids are (above, from left) Darrin Schultz, Richard Farinha and Connor Burke. Kelly Hillman (left) takes in a phone bid from a subcontractor.