

# CONSTRUCTION INNOVATOR

CONSTRUCTION MANAGEMENT DEPARTMENT  
COLLEGE OF ARCHITECTURE AND ENVIRONMENTAL DESIGN  
CAL POLY | SUMMER 2010





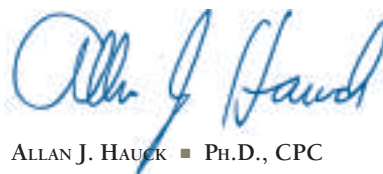
Department Head Al Hauck with MAGIC Camp participants (see pages 12-13)

service projects and expanding their opportunities to interact with alumni and other leaders in their chosen fields. They once again led the Reno Competition, winning the highest number of trophies compared to all other universities. The department also sponsored a MAGIC (Mentor a Girl in Construction) Camp this summer, introducing 24 high school girls to construction and to the CM curriculum. Finally, we celebrate the awards earned this year by our outstanding seniors and faculty. None of these would be possible without the dedicated efforts of the excellent, experienced teacher/scholars that we have been able to attract to the department.

It is hard to believe that this fall marks the start of the 41st year of instruction for the CM Department at Cal Poly. When Bill Brown and that small group of students started the Construction Engineering program in 1970, who knew where it would go from there? We are all in their debt. Most importantly, we see it as another chance to celebrate on campus!

We hope that you will join us October 22-23 to celebrate this milestone in our history. The activities will start on Friday afternoon with the official opening of the new Simpson Strong-Tie Materials Demonstration Lab – the interdisciplinary final component of the Construction Innovations Center. It is a beautiful addition and a welcome facility for the College. On Friday evening, we will celebrate CM's 40th anniversary with a special dinner at the Embassy Suites. Saturday will be committed to either golfing or wine tasting, providing you with plenty of opportunities to catch up with old friends and colleagues. Details on these events have been mailed to you and are listed on the back cover of this publication.

As always, if you have not been on campus in awhile, please make it a point to stop by for a personal tour and to update us on what you are doing. You are always welcome. Thank you for your ongoing support and commitment to construction education at Cal Poly. We hope to see you soon.



ALLAN J. HAUCK ■ PH.D., CPC

## An Innovative Focus

Celebrating CM milestones on campus and off

Welcome again to the *Construction Innovator*. We focus our attention this time on innovations that are taking place throughout our profession, not just those on campus. Many “veterans” of the construction industry have noted particular changes in those students now graduating from CM and other degree programs – sometimes enthusiastically and sometimes not so positively!

These more recent entrants into the profession are relying more heavily on newer forms of communications technology, they tend to be more family-oriented trying to get the work/home balance right, and they are committed to collaborative approaches to problem solving. While these generalizations may apply to graduates from nearly all university programs today, we focus here on the views and impacts of Cal Poly graduates from the past 10 years. They are an impressive group; I trust the industry will continue to be in good hands.

In addition to recent graduates, we also highlight current students in the program and even students who may one day come to Cal Poly. Our current students continue with their commitment to

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### On the Cover

The Millennials are proving to be a major influence on the world today. Read about their effect on construction curriculum and jobs (page 3).

BUILDING PHOTO: GETTY IMAGES; PORTRAITS: JOSEF KASPEROVICH; PHOTO ILLUSTRATION: SHIRLEY HOWELL



Cover Story

# The Millennials

A generation's attitudes influence CM – in the classroom and in the workplace

Inventing the Future from the Future: Transformation of an Industry. While this was the title of the conference hosted by the California Center for Construction Education (CCCE) in fall 2009, it is also a theme that Construction Management faculty members think about daily.

“Cal Poly CM is known for its strong connection with industry,” Al Hauck comments, “but this is only part of how we create the future.” The department has recently redesigned the curriculum to reflect the engagement with a dynamic interdisciplinary college, changes in student behavior and learning trends, and how industry operates. At the heart of all of these are changes in technology and people.

“Often we talk about the curriculum and how the Construction Innovations Center was designed to accommodate it; the rest of the story is that the curriculum was designed to accommodate the changing needs of society,” Al adds.

CONTINUED



Left: Nibbi Brothers employee Jill Brown (CM '07) founded Construction Millennials of America (CMA) in the Bay Area to connect with others in the industry.

Top: John Parnell (CM '06), left, and Matt Dahlberg (ARCH '04) make a presentation at last fall's CCCE conference.



One of the greatest influences on society today is the next generation, the one that follows Generation X: the Millennials.

### Who are the Millennials?

Characterized broadly by their use and familiarity with communications, media and digital technologies, the Millennials are loosely the generation born between 1980 and 2000 and who came of age after the celebration of the millennial year. A group with many names, they are also known as Generation Y and the Echo Boomers, the latter in reference

to the size of the group and their relationship to the Baby boomers.

Why three names? Maybe a character trait, for the independent Millennials coined their name to disassociate themselves from their predecessors. This is not a surprise to their employers and older colleagues.

Millennial Jordan Moffett (B. Arch '05), employed by The Haskell Company in Jacksonville, Fla., shared his thoughts as a panelist at the CCCE Conference. Enthusiastic about the industry and his firm, he is proud of his credentials, which include architecture,

Attendees of last fall's CCCE conference listened as panelists and CCCE Director Barb Jackson (above) discussed how Millennials are influencing trends in business, design and construction.

LEED accreditation and construction management. Referencing swiftly changing software designed to speed up processes, his frustration is that "experienced people want us to trust their expertise, but they need to trust our ideas."

Fellow panelist Matthew Dahlberg (B. Arch '04), also with The Haskell Company, adds that the industry remains too divided.

“Our daily activities are regimented based on the previous models, and we were supposed to fit in by title,” he says.

Matthew joined the company on the design side but wasn't getting the construction experience that he wanted. A switch to the construction side meant the company wasn't getting the benefit of his design background. “We all learned together with mechanical engineers and CMs at school, and we have a base knowledge that deals with every aspect of construction, but we're stuck in one part.”

### Influencing academia and industry

“As educators, we are always looking to the future,” says Barb Jackson, director of the California Center for Construction Education and moderator of the conference. “What is the next trend in business, in design, in construction? What skills will our students need to remain competitive for years after graduation? We only have a few years to prepare them for a lifetime of learning.”

Today a common theme among industry is a desire to hire leaders. David Crawford has been with Sundt Construction for more than 35 years, and currently serves as president and COO. He believes that Sundt is focused on leadership more than ever before. “We have always relied on solid leadership, but now, as a company, we are spending more time on a succession plan. This is big change.”

How do the Millennials fit this model of the future? Robin Tsuchida (B.Arch '81), business development manager with Sundt Construction, has high hopes for the group. “I think the Millennials have the potential to be a great generation.” She bases this on an evaluation of key traits: optimism, diversity, socialization, participation, and trust. “If you look at these traits, which have been markers for success, then this generation has the most.”

Use of the phrase “great generation” calls to mind Tom Brokaw's “Greatest Generation.” Is this setting the bar too high? The Greatest Generation was raised during the deprivation of the Great Depression, and then went on to fight in World War II and make a decisive material contribution to the war effort on the home front. The comparison makes some



Jordan Moffett  
(ARCH '05)

Millennials say, “Give us time.” The greatest generation wasn't born great; they evolved.

Older professionals with high hopes for the future note that this generation has been raised in the shadow of 9/11 and has experienced a deep recession in its formative years. It is undeniable that at over 50 million strong, the Millennials will have a profound influence on American society and, therefore, on the building industry for the next several decades.

### 'Life balance' – the pros and cons

Mark Montoya (CM '84), vice president of Morley Builders, believes that “this generation has a real opportunity. Those that come of age during the current recession are part of the “reset to industry. With great challenges come great opportunities,” he says.

Mark isn't as interested in the label, whether it is Y, Echo Boomers or Millennials, as he is in the people. “The students I see – both in the CM Department and when they come to work for us – are bright, hard-working and energetic. They are passionate about construction. They have good work habits.”

After a moment of reflection, Mark adds that this has been true in past generations as well. He is, however, concerned that the technology boon may undercut the newest generation's interactive people skills. “Technology is a different kind of interaction, and maybe they are better multi-taskers, but that won't be a benefit if the people skills fall short.”

Mark and others in the industry agree that the Millennials are more aware of “life

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President and COO ■ Sundt Construction



“This generation has a real opportunity. Those who come of age during the current recession are part of the ‘reset’ to industry. With great challenges come great opportunities.”

MARK MONTOYA (CM '84)  
Vice President ■ Morley Builders



From left: Justin Russell of CMA chats with fellow millennials Eric Onick, Bobby Manente and Scott Onick at CMA's first social networking event.

balance.” This has been a point of concern, contention and, perhaps, jealousy between the youngest and other generations. Barbara Wagner, a senior vice president with Clark Construction, has seen a shift during her 25 years with the company.

“In the past it was ‘how to succeed to get ahead,’ which meant working 16-hour days. In the last five years the recruits say, ‘I have a life outside of work.’ They want to get their work done and be out the door.” She adds that a decade and a half ago there was more focus on individual accomplishment and progress, whereas “the Millennials are more social. They want to work together, and they also want a structure to their work environment.”

Millennials Jordon Moffett and Katie Hunter (CM '07) are confident about the contributions they can make to a company while maintaining shorter hours than their older, more traditional colleagues.

“Giving up all of Saturdays makes me an unhappy, unproductive person,” says Katie. “I can get done all the work I need to and don’t need to be in at six and leaving at eight. When I’m happier in my personal life, I’m making more of a contribution at work.”

Jordon Moffett echoes, “I work eight-hour days and get everything done – and more.”

Barbara Wagner wonders about the long-term implications of the group’s focus on work/life balance. “My generation, and that of my parents, was focused on retirement. We worked hard for that goal. This generation

will take two weeks off to work on a charity project, and I’m afraid they are living paycheck to paycheck.”

Others agree that this is also a remarkably well-traveled group; they’ve been to Europe, hiked famous peaks, and worked in New Orleans after Hurricane Katrina. Employers are still waiting to see how this translates into a work ethic that historically depended on long hours and the ups and downs of a business cycle.

Recent alumna Jill Brown (CM '07) has embraced the notion of Generation Y. She was a founder of Construction Millennials of America (CMA), a group created to assist construction industry workers in the Bay Area. The group’s kick-off event was in June.

“As a group, we Millennials like to ask ‘Why?’ and we hope to provide interactive experiences where we can grow our experiences and career networks with others of the same industry,” says Jill.

Working for Nibbi Brothers in San Francisco, she admits that “class time can’t fully prepare you for the work environment,” adding that what was learned in the classroom becomes common sense and background.

Jennifer Davlin (CM' 00) sees other differences between the Millennials and earlier generations. “This generation tends to have formal construction education. Far fewer



managers today learn their skills in the field, and instead are classroom-educated.” She adds that women have a large presence in upper management roles, and she sees that only increasing.

### **The technology factor**

“The Millennials have access to more methods of instant communications than those before us did,” says Jennifer. “I think that makes us a little less ‘hands on.’ Technology has advanced so much that the option of working remotely becomes possible.”

She agrees that there are pros and cons associated with technology, adding that her generation would argue for working remotely rather than relocating. This is a common thread viewed with concern by employers.

“Historically it was expected that employees would move to new job sites, or even new offices,” says Barbara Wagner. “Today, young

hires aren’t willing to move. They want to stay within their network of family and friends.”

She adds that the current economy may change some of this. “Choices are shrinking, and the demands of graduates five and 10 years ago – demands we met as recruiters to get the best and brightest – are no longer on the table.” She pauses, then adds, “This may be for the best, for everyone. Readjustments can be good.”

Almost any discussion of Millennials will involve technology and then return to technology. In a recent conversation about the current recruits to Morley Builders, Mark Montoya brought the conversation through this full circle.

Representing the younger generation, Jennifer Davlin admits it may be a problem. “We are sacrificing people skills and networking for just using technology to get the job done. For example, sending an email to a

Jared Mettee (CM ’05), of Sundt Construction in San Diego, notices a generational gap in his interactions with subcontractors.

subcontractor is perceived as easier than picking up the phone, and it can be done at any hour. That personal connection tends to get lost, which could be a slippery slope.”

Jared Mettee (CM ’05) works for Sundt Construction in San Diego. For him the biggest generational difference is in the use of technology and, while he acknowledged that they sometimes sacrifice the personal touch for efficiency, he also believes that Sundt is so forward thinking in terms of technology that there is less of a gap between the ‘older generation’ and his own. He sees a larger gap outside the office, in interaction with subcontractors.

“We want a paperless jobsite and some of the subcontractors don’t have access to email

“In the past it was ‘how to succeed to get ahead,’ which meant working 16-hour days. In the last five years the recruits say, ‘I have a life outside of work.’ They want to get their work done and be out the door.”

**BARBARA WAGNER**  
Senior Vice President ■ Clark Construction



A new crop of Millennials: CM's Class of 2010

and they like to fax documents,” says Jared. “They also want to see a hard copy of the plans. Sometimes I get the sense that unless they see the hard copy of the project, they think it doesn’t exist.”

#### Questions and collaboration

Another shift from the past is collaboration. Jared is emphatic that his generation expects this.

“I think that some coming out of school don’t want to work on design-bid-build because there is no collaboration. That’s a big difference from some of the older generation who are used to being told what to do by the architect from the years of hard bid.”

This may get to the core of the difference between Generation Y and those who came before. They like to ask questions and want to propose solutions.

“Just because we are confident and ask questions doesn’t mean we doubt how our bosses are doing things,” says Katie Hunter. “We were just raised to be curious. We are looking for someone to lead us.”

Jordan Moffett agrees. “We may approach the issue from a different perspective, but when we say, ‘save time,’ that will also translate to saving money.”

Stacy Kolegraff (CM '02) has remained engaged with the Construction Management Department on campus, teaching courses in construction accounting and assisting with the organization of Boot Camps and other CCCE activities, including the Invent-

ing the Future from the Future Conference. Although a Millennial, Stacy is decidedly not part of the technology generation, preferring to use email sparingly and resisting texting and social networking sites.

“In a school where design-build has become the desired result, where collaboration is paramount, it is a little frightening to me to see that students don’t actually talk to each other and would rather rely on electronic communication instead of face-to-face interaction,” says Stacy.

She adds that the department has changed significantly since she was a student. “With the new integrated curriculum, students gain more experience about each specific sector of the industry in one class and are able to apply it almost immediately in the working world.” This is one of Stacy’s biggest hopes for the rising generation: re-engaging in field work. “The office environment is based on email communication, but it is in the field where the relationships are formed. And relationships are huge in the business.”

The construction industry has been upended in the past two years, and across generations that is something that everyone can agree on: good relationships mean good buildings. Old-fashioned, yet the wave of the future.



For more information, visit the website <http://constructionmillennials.com>.



# Industry Education

## CCCE initiative delivers with three new workshops

There has been a great deal of buzz about collaborative design-build and integrated project delivery in the last year. The words “collaboration” and “integration” are showing up in just about every project solicitation.

Barbara Jackson, director of the California Center for Construction Education (CCCE), is recognized nationally as a leading authority on these two alternative project delivery approaches. In early 2010, at the urging of its Industry Advisory Board, the CCCE launched an industry education initiative focused on the toughest aspects of any integrated design and construction approach – design management and integrated team dynamics. The result is three new educational programs: Managing Design in an Integrated Process; Integrated Project Delivery – Making the Mental Shift; and What Contractors Need to Know About Working With Architects.

Industry professionals take advantage of a CCCE seminar led by Director Barbara Jackson.

### Managing Design in an Integrated Process

Over 115 contractors, architects and engineers in the U.S. have received certificates of completion for this intensive two-day workshop, which has been offered to the public and in companies.

The course focuses on managing the typical independent functions of design and construction as an integrated process. The “design phase” management task is broken into four distinct integration interfaces: the design-value interface; design-construct interface; design-cost interface; and the design-performance interface.

“The fact is that you can’t manage something you can’t see,” says Barbara. “By clearly identifying specific accountabilities at each of these interfaces, the team can apply specific

### CCCE workshop registration

Because seats are limited, we suggest early registration at <http://ccce.calpoly.edu/ipd.html>.

The CCCE is a self-sustaining educational outreach unit operating out of Cal Poly’s Construction Management Department. The CCCE, its staff, programs and initiatives are funded through program revenues and generous contributions by CCCE Partners. CCCE Partners are eligible for discounted registration fees for all CCCE programs.

For more information about CCCE programs, please contact Director Barbara Jackson at (805) 756-1723 or [bjackson@calpoly.edu](mailto:bjackson@calpoly.edu).

## CCCE Activities

techniques and tools to better analyze and manage the process and control the project outcomes, thereby increasing efficiencies, reducing risks and improving profitability and owner satisfaction.”

The next workshop is set for Sept. 29-30 in Costa Mesa, with others to come in 2011.

### Integrated Project Delivery: Making the Mental Shift

Set to debut publicly on Aug. 27 in San Jose, this course focuses on helping people “make the mental shift” from a segregated services mentality to an integrated services mentality in order to optimize the benefits and intent of design-build or IPD.

“Transforming a group of individuals with differing viewpoints and often conflicting agendas who are accustomed to working in a fragmented, often adversarial, low-bid environment into an integrated, highly collaborative, seamless team is no easy task, and it certainly isn’t going to happen by accident,” says Barbara. “Without an integrated services mind-set, the operational behavior of the project team won’t necessarily look any different than design-bid-build.”

### What Contractors Need to Know About Working With Architects

With a majority of all integrated projects being led by contractors, it seemed logical to focus attention on a series of new “cross-disciplinary awareness” seminars on the critical relationship between contractors and architects. This is a full-day seminar that will better prepare contractors to be effective leaders of integrated teams by providing insight into what architects do, how they think, and what motivates them.

“To minimize risks and optimize project results on integrated projects, contractors must learn how to leverage the talents, skills and contributions their architects bring to the team,” says Barbara. “Understanding the value that good design brings to the project and its importance in terms of overall owner satisfaction is the first step in successful management an integrated project.”

This seminar, jointly taught by a licensed “design-build” architect and construction professional, is set for Oct. 28 in San Jose.





**Service Learning students serve up community projects, such as pizza ovens, kitchens**

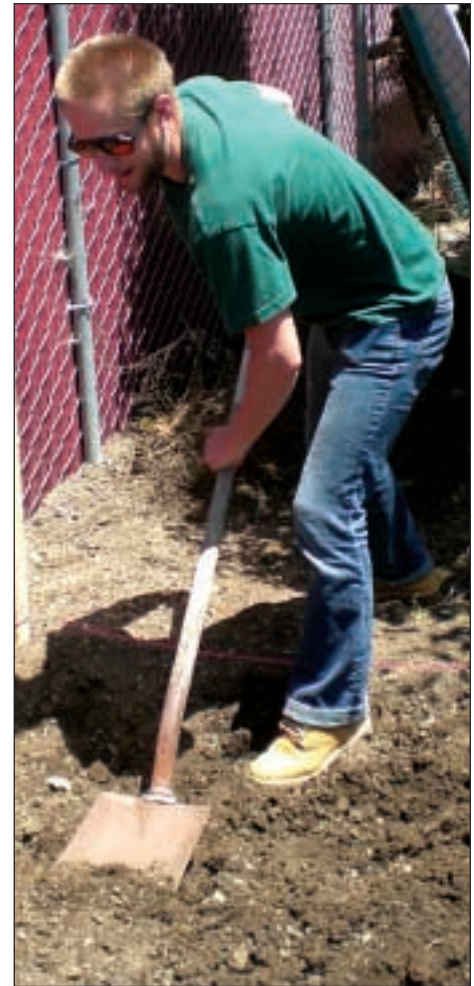
Cal Poly's tradition of learn by doing has found a new mode of expression in the Construction Management Department through the Construction Service Learning Class. This past spring quarter marked the third year that Professor Phil Barlow has taught the two-unit technical elective, and it has clearly hit its stride. The 31 students

successfully engaged in scoping, planning, estimating, scheduling, procuring, building, tracking, job costing and closing-out six significant community construction projects.

This year's wide variety of projects included a handicap wheelchair lift, two kitchen remodels, and more unusually, a pizza-oven for the Growing Grounds Farm & Nursery. In addition, two projects took place at the Prado Day Center-Homeless Shelter, where a canopy was remodeled and several dog kennels were built.

**2010 Construction Service Learning by the numbers:**

6 Central Coast community Service-Learning projects : 31 Cal Poly student participants : 10,000 dollars spent on construction materials



Adam Yeo works on a dog run project (above).

The Prado Overhang Project team (left) included (from left): Sam Marquez, Chris Owens, Elle Navarro, Adam Nash and Nick Anzalone.

Students (above) collaborate on a wheelchair lift. From left: Leyla Naimi, Aleeta Dene, Kevin Handeland, Kyle Wideman and Ryan Wenig



Opposite: The pizza oven team (clockwise, from center): Adam Martin, Joe Bell, Kelly Keefe, Tim Dieu and Reid Etchevery

John Billings works on a kitchen renovation project (below, opposite).

Phil Barlow notes that student comments at the end of the quarter show the variety of ways they connect and benefit.

“These are motivated students, and they like giving back to the community,” he says. “At the same time, they feel that they have taken construction management skills to another level.”

Service Learning is a partnership, says Phil. “We have the faculty and student commitment, but we couldn’t do it without our sponsors.” Despite the difficult economic

times, sponsors understand the merits of the work that the class does and have continued their support.

Construction management junior Kelly Keefe is particularly impressed with how the class allowed him to see all the elements of the construction process and work through real-life construction challenges.

“Our group constructed the pizza oven for Growing Grounds and learned a great deal from the challenging project,” he says. “This class was rewarding for both the students

involved and the community that benefited from our work.”

Special thanks to all sponsors of the 2010 class. Clark, Kitchell, DPR and Sundt each sponsored a team with a \$2,000 cash donation, which was spent on construction materials. The final two teams were sponsored through gifts to the department from numerous alumni and supporters.

If you or your company would like to be a sponsor for this amazing learning experience, contact Phil Barlow at [plbarlow@calpoly.edu](mailto:plbarlow@calpoly.edu).

640 Classroom planning, learning, & reflecting hours

: 1,300 community service student hours volunteered

: 1 great learn-by-doing experience

## Teen Outreach

Cal Poly instructor Doug Allan discusses safety during class (right).

Kate Stovicek gets hands-on experience cutting sheet metal for the tool box project (below).



# MAGIC camp

## Summer program introduces teen girls to construction industry

It was a magic week in both senses of the word. The 22 girls who participated in the program designed to Mentor a Girl in Construction (MAGIC) discovered new skills, were exposed to the benefits of choosing a trade or profession related to construction, and had a great time on Cal Poly's campus. The event was organized by the National Association of Women in Construction (NAWIC) Central Coast Chapter with assistance from Cal Poly's Construction Management Department.

"Eighteen months ago we learned about the program and decided it was something we wanted to bring to this region," says Denise Riegel, chair of the local NAWIC mentoring committee. Other California chapters have

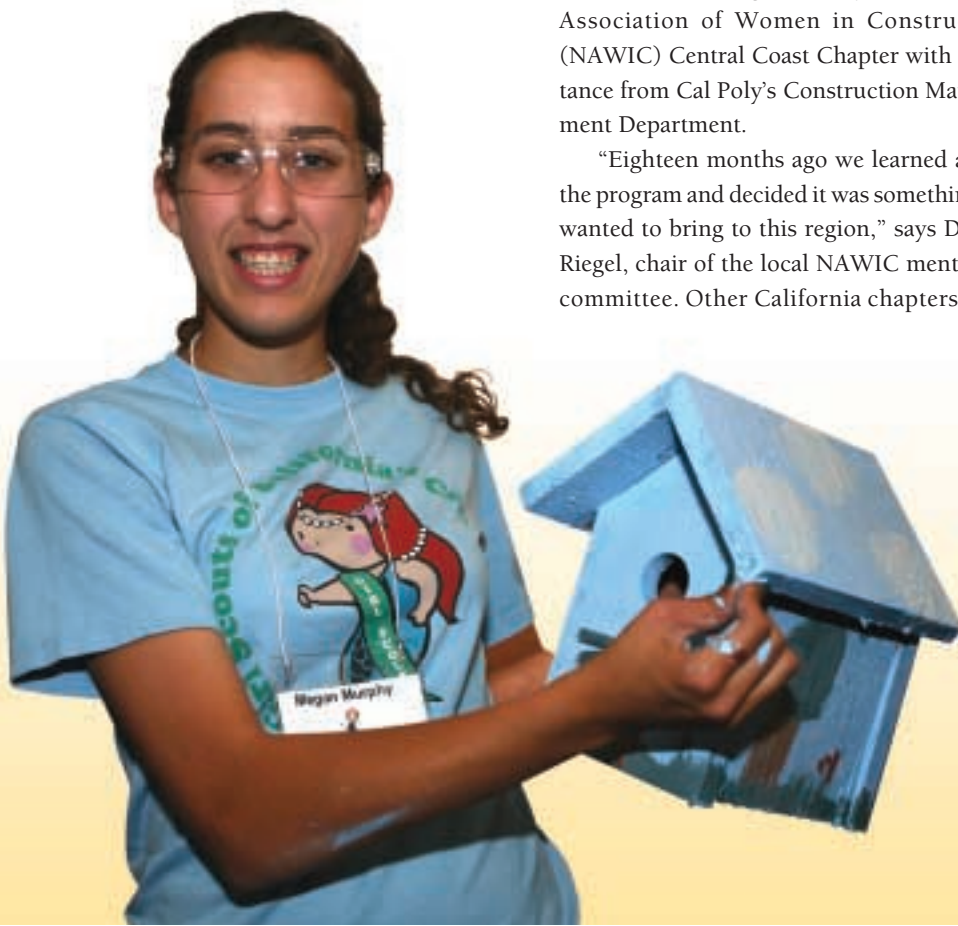
held camps in San Diego, Orange County and Ventura.

"Our chapter covers most of Santa Barbara and San Luis Obispo counties," says president Joan Hertel, "so we had to plan recruitment differently from groups working with one or two big high schools."

In the end, the committee is more than pleased with the results. "We had a three-year goal," says Denise. "We wanted a positive experience for the girls from day one, but we knew there were details that would strengthen the program and we planned to add those the second time." By Friday of the first MAGIC camp, the group's goals had changed as they felt they had reached their three-year goal the first time out.

Among the goals was bringing together a diverse group of young women in terms of background and life goals. "There are as many reasons for participating in the program as there are people," says Audrey Schultz, a NAWIC member and Construction Management faculty member at Cal Poly.

Certainly some of the young women in attendance were already interested in a career associated with construction. Others signed up to have an experience outside their



Megan Murphy proudly displays her handiwork.



Leticia Guterrez looks on as Doug Allen shows Cassie Turner how to cut sheet metal (above).



In a surveying exercise, Monica Diaz learns how to operate a construction level (above).

Student Jesal Panchal (in front) with NAWIC members and camp staff (from left): Denise Riegel, Roni Abeytia, Joan Hertel and Audrey Schultz

comfort zone. For NAWIC and the camp organizers, the central goal is to offer high school girls the opportunity to learn about the variety of trades and professions in the construction industry. Lori Kruger, with NAWIC, adds, “Many girls think of the construction industry as hammers and nails. We want them to get a broader concept of the opportunities available. Ultimately, we want the girls to find satisfying careers that offer them financial stability.”

The five days of MAGIC camp were organized around the building of basic skills

coupled with exposure to other aspects of construction. “Perfect for this campus,” says Audrey Schultz. “We have a long tradition of learn by doing, and this couldn’t have been a better fit.”

After a few days of building bird houses in the wood shop, wiring lamps under the supervision of a licensed electrician, and learning how to work with sheet metal and mix concrete, Al Hauck led the group in a morning of surveying. “These young women were 100 percent committed,” he adds. “It was remarkable how focused they were. I’m

sure several will eventually find their way to our campus or to program or elsewhere.”

One young participant says that she does hope to attend Cal Poly. While she will not graduate high school until 2012, this is already her second summer on campus. Vela Bair lives in Colorado and visits her grandparents in San Luis Obispo every summer. Last year she attended the College of Engineering’s EPIC program and admits that a degree in engineering is her ultimate goal.

“This year opened new doors for me,” Vela says, before adding that she has always loved tearing things up and rebuilding them. “I’m just curious about things and how they go together. Learning how to wire a lamp was great.”

Audrey Schultz was delighted that Cal Poly could host the camp. “The girls learn skills and at the same time see another alternative, a place at a university designed to lead them to a position within the construction industry.” An added benefit this year was the active construction sites on campus: the Simpson Strong-Tie Materials Demonstration Lab and the Cal Poly Recreation Center Expansion. Both provided opportunities for observation and tours.

NAWIC committee members are already planning next year’s success. At the end of the week, they said it really came down to great girls, a great facility and, of course, the tremendous support from the industry!

### High on retirement

**Dean Gelvin** ('73) and his wife, Lori – shown at Hanging Rock in Australia – are enjoying his retirement from the Bechtel Group. They are busy with home remodeling, family, golf outings, and occasional international trips, particularly to New Zealand and Australia. Their upcoming plans include fly fishing in Montana, golfing in St. George, Utah, and a trip to Carmel to celebrate their 35th wedding anniversary.



### Skybound at work & play

**Peter Loeb** ('92), director of operations with Cyrcon Builders, was senior project manager with Webcor Builders during the construction of the Ritz-Carlton in Los Angeles. In addition to his continued delight at working in an industry that he loves, Peter, his wife and their two children enjoy backpacking and photography. Last September, Peter signed the book at the top of Mt. Whitney for the second time. He tries to make at least one big trip annually with friends and co-workers.

**Jerod Creese** ('10) is working for XL Construction as a project engineer.

**Fernando Larios** ('07) opened a Mexican restaurant in Prague, Czech Republic, in 2009, and has plans for a second location in another city. His journey to Europe started in summer 2006, when he traveled extensively and decided that was where he wanted to live. Fernando sends a special thanks to Cal Poly professors Mike Montoya and Hal Johnston for helping him along at Cal Poly and abroad.

**Paul Leep** ('00) has plans to join the U.S. Navy Reserve.

**Jane Luckhardt** ('86) continued her education after Cal Poly, graduating from Stanford Law School in 1989. Since then she has represented developers of power plants. After working on a number of natural gas-fired and geothermal projects over the years, Jane is now also working on solar, wind and biomass structures. She has been with Downey Brand in Sacramento since 1998. With her husband, Scott Flake (ME '90), she has a six-year-old daughter.

**Joey Mackey** is working for his family's construction company, Forcum/Mackey Construction, in Ivanhoe. He finished his final CM classes in 2004 at Sussex University as part of the Construction Management overseas program with Professor Barry Jones.

### Happy Truckee trio

Since graduation, **Christian Edwards** ('05) has married and now has a young son. He and his family live in Truckee. For the past three years, he has owned and operated his own company, Timberline Construction, building, remodeling and serving as a project manager for other builders in his area.





**CM alum incognito**

**Paul Acosta** ('08), hanging out here on an HMMVW, recently returned from several months in southern Afghanistan with the U.S. Marines. He served with the 4th Light Armored Reconnaissance Battalion as a vehicle commander.

**Alumni – visit our job board**

Does your firm have an available job, or are you looking for work? Visit CM's job board at: <http://www.construction.calpoly.edu/opportunities/job-board.html>. The site is not limited to student use; it's a valuable alumni resource as well.

Email your available job posting to Tana Anastasia at [ganastas@calpoly.edu](mailto:ganastas@calpoly.edu) or submit it at the web address above. Questions? Email Tana or call her at (805) 756-6381.

**'77 classmates reunite**

**Charlie Mallers** ('77), a senior project manager with MATT Construction in Westlake Village, was among 13 alumni from the class of '77 who reunited at an Industry Educational Forum in April at the Construction Innovations Center. The alumni spoke to students, faculty and parents about their work and celebrated their 20th reunion in 33 years. Charlie and colleagues encourage other classes to plan reunions that include conducting CCCE seminars.



**Wedded bliss**

**Geoff Acosta** ('08), a field/office engineer with Granite Construction, recently married Lisa Smelser. The couple began dating in high school, and both planned to attend college in San Luis Obispo.



**2010**

**September 13-17**  
WOW Week

**September 29-30**  
Managing Design in an Integrated Process Workshop, Costa Mesa – [www.ccce.calpoly.edu/Education.html](http://www.ccce.calpoly.edu/Education.html)

**October 2**  
CAED Scholarship and Awards Reception

**October 4-5**  
National Electrical Contractors Association Convention, Boston, Mass.

**October 7-9**  
Mechanical Contractors Association of America Student Summit, Chicago, Ill.

**October 18-20**  
Design Build Institute of America Conference & Expo, Las Vegas, Nev. – [www.dbia.org/conferences](http://www.dbia.org/conferences)

**October 22**  
CM Industry Advisory Committee Meeting  
Simpson Strong-Tie Lab Ribbon Cutting  
CM 40th Anniversary Dinner & Dance

**October 23**  
CM 40th Anniversary Golf Tournament  
CM 40th Anniversary Wine Tasting

**October 28**  
What Contractors Need to Know About Working with Architects, San Jose  
[www.ccce.calpoly.edu/Education.html](http://www.ccce.calpoly.edu/Education.html)

**November 17-19**  
US Green Building Council International Conference, Chicago, Ill.

**December 11**  
Fall Commencement

**2011**

**January 12-15**  
National Association of Home Builders Competition, Orlando, Fla.

**February 16-19**  
Associated Schools of Construction Competition, Reno, Nev.

**March 6-10**  
Mechanical Contractors Association of America Annual Convention, Maui, Hawaii

**March 21-25**  
Associated General Contractors of America Convention, Las Vegas, Nev.

**April 6-9**  
National Associated Schools of Construction Faculty Conference, Omaha, Neb.

**April 11-14**  
Associated Builders and Contractors Competition, San Antonio, Texas

**April 15-16**  
CM Open House for new students

**June 4**  
CM Senior Banquet

**June 11**  
Spring Commencement



Please visit [www.construction.calpoly.edu](http://www.construction.calpoly.edu) for the latest news, alumni gatherings and events.

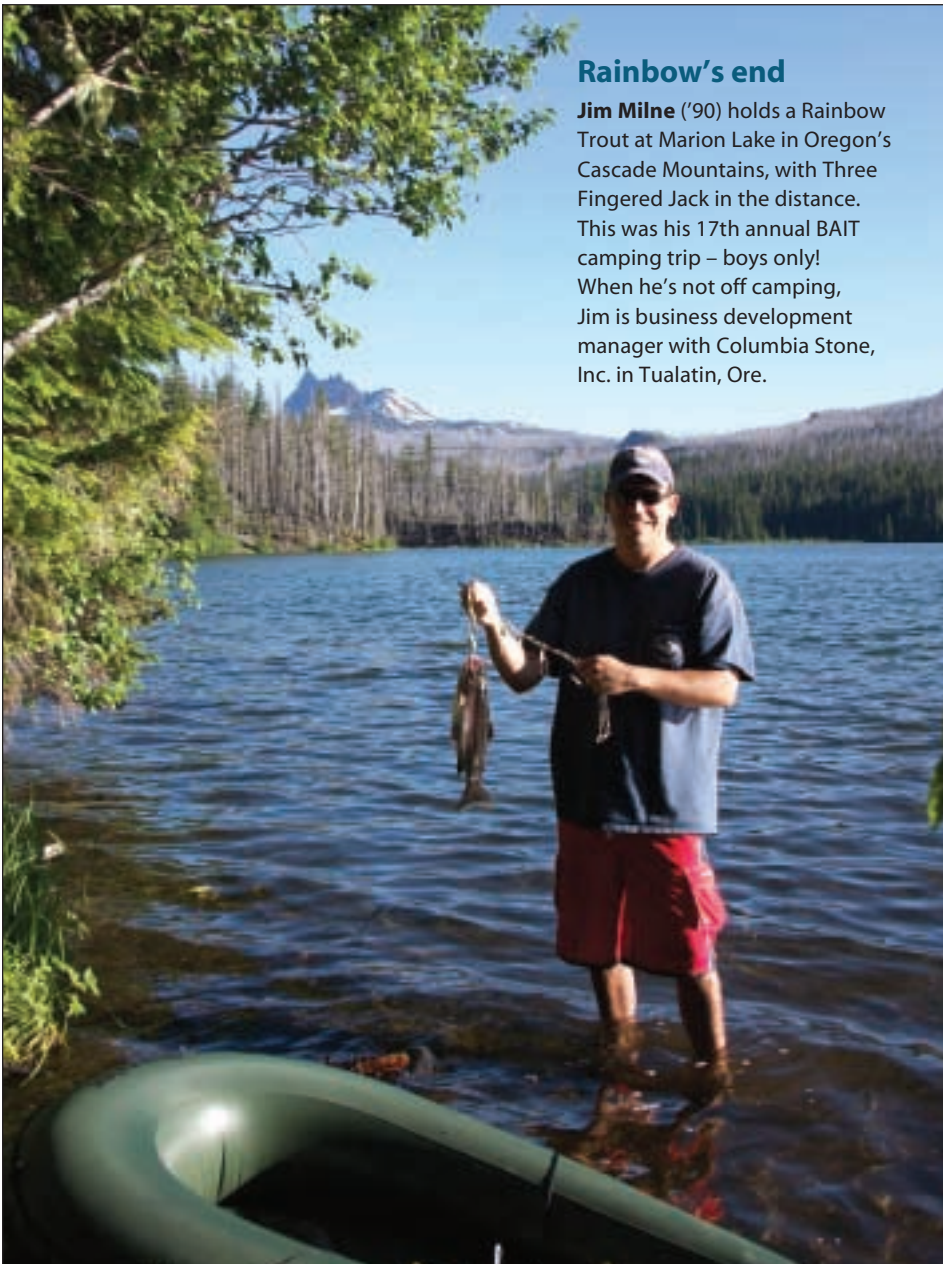
## Pankow team revitalizes Richmond Civic Center

**Bret Firebaugh** ('91), **Toby Lee** ('05), **Tim Caulfield** ('07) and **Justin Cook** ('08) – all employees at Pankow (Oakland) – played a part in the successful delivery of the Richmond Civic Center Revitalization project (right). The project received numerous awards, including a 2010 AIA San Francisco Honor Award and California Construction, Best of California 2009 Overall Top Project as well as Winner - Government/Public. Two of the buildings are LEED Gold Certified.



## Rainbow's end

**Jim Milne** ('90) holds a Rainbow Trout at Marion Lake in Oregon's Cascade Mountains, with Three Fingered Jack in the distance. This was his 17th annual BAIT camping trip – boys only! When he's not off camping, Jim is business development manager with Columbia Stone, Inc. in Tualatin, Ore.



**Stephen Newburn** ('81) is vice president with Webcor Builders in San Francisco.

**Drew Wesling** ('95) is a senior project manager in Southern California with MATT Construction, which is working on the Natural History Museum of Los Angeles County. The project team has won the California Preservation Foundation Award as well as the Los Angeles Business Council Architectural Award for Historic Preservation. Team members are embarking on the next phase of construction to create a new north campus, which will serve as outdoor program space and a connection to the museum entrance from a new parking garage.

**Daniel Wiens** ('10) missed "walking" at graduation to continue his work on the dental clinic for Global Outreach Mission in Belize, Central America. He started work on the project while in school, partnering with Cal Poly architecture classmate Steve Shimmin. Video of the project is available on YouTube: [www.youtube.com/watch?v=Xpv3X5uiBHM](http://www.youtube.com/watch?v=Xpv3X5uiBHM).

**Cliff Young** ('85) continues to practice architecture and manage projects in Kailua, Hawaii.



**SEND NEWS** of your personal and professional life to Tana Anastasia at [ganastas@calpoly.edu](mailto:ganastas@calpoly.edu). High-resolution photos are also welcome.



## Liking that job

**John Rottman** ('80) celebrated his 30th anniversary with Hathaway Dinwiddie Construction Company, where he is a superintendent.





# A Dream Fulfilled

Detour to raise a family didn't diminish Paula Ozar's determination to earn a CM degree

Graduating with the highest GPA in the CM Department earned Paula Ozar the Outstanding Senior Award.

Paula Ozar came to the Construction Management Department with three goals: to do her personal best, be a good teammate and prepare for the next steps in her career in the construction industry.

Graduation marked a goal long in Paula's sights, one interrupted by what she terms "life": marriage and raising two children. "I was attending Cuesta while simultaneously helping my daughters make sure their homework was done right. One evening I felt it necessary to choose to commit to them and put my own dreams on hold."

With her children grown, Paula first returned to Cuesta for classes in trades and other technology: plumbing, electrical, wood-working and electro-mechanical tech. "We had purchased a home which needed several changes in these areas, and I wanted to do the work myself."

It was her woodworking professor at Cuesta, Bill Wilson, who encouraged Paula to transfer to Cal Poly and earn her degree in construction management. For Paula the program was a perfect fit: "I didn't want to end

up working at a desk all day, at the same time I didn't want to be on my feet all day either." Construction management was a good fit to balance her interest in architecture, engineering and the trades associated with building.

She also felt it would allow her to jump right into the work force after graduation.

Paula says that she couldn't have asked for better colleagues during her time on campus. "When you return to college later in life, you worry that you won't fit in." Now officially a graduate, Paula says she was embraced by her classmates and that it was one of the most rewarding experiences in her life. That means a lot given her 10 years as a volunteer firefighter and 15 years as an EMT.

Preparing to step out in the job market, Paula intends to remain in San Luis Obispo County, where she and her husband of 35 years live. She plans to get involved with the National Association of Women in Construction (NAWIC).

Reflecting on her school experience, she says it was like being in a cotton candy machine: "Long hours keeping up with all assignments and studying, yet sweetness abounding with regards to my teachers and classmates." Graduating with the highest GPA in the CM class of 2010, the cotton candy was clearly well made.

## Shining Stars

Since its inception 40 years ago, Cal Poly's CM program has enjoyed a national reputation for turning out exceptional students. On pages 17-21, we proudly profile five of our best and brightest students who were recognized this year by the department for their extraordinary achievements.

# At Your Service

Leyla Naimi is passionate about community construction projects

Leyla Naimi is a longtime Los Angelian, having moved to the city from Montreal when she was two years old. Her Canadian and Persian background gave her an appreciation for the multicultural city; however, she says the Cal Poly community quickly became her new home.

Leyla's interest in the building industry started early, and in 10th grade she wanted to make a decision about attending Cal Poly and what career path she would take.

"I was interested in architecture and engineering because they were more familiar professions," she says. While design was at the heart of her interests, she was passionate

about design-build. A school counselor suggested construction management at Cal Poly. This was further solidified when her parents renovated their house: "Seeing how a building went together firsthand made me want to be part of it even more."

Service to community and literally building the community are common threads of Leyla's interests. As a student she took advantage of the many Cal Poly and CAED opportunities to get involved in projects directly impacting the community.

"Learning in the classroom is one thing," she says when asked about Construction Management's Service Learning Class, "but working with tools hands-on in the community really put things into perspective. Cal Poly and CM are great at providing these opportunities."

She also took part in the university course "Appropriate Technology for the World's People." The class solves real problems by working with real nonprofits and integrates all majors. Leyla's group worked with Working Village International to tackle the problem of cooking in the Congo.

"They use a Mayon Turbo Stove but it produces too much smoke and burns people. Plus they can't use it indoors." The stove runs on rice husks and hulls, a good fit for this rice producing region, but the other problems almost overwhelm the positives. "We had to use problem-solving skills to work around these constraints and meet client needs just like in construction. Plus we worked with people of different backgrounds, something I am very passionate about."

While at Cal Poly, Leyla worked as the CAED dean's intern and served as his teaching assistant.

"Leyla is one of the quiet leaders of the department dedicated to finding ways that construction can serve the wider community," says Department Head Al Hauck.

It was for this, and much more, that she was honored this year by CM as a recipient of the Service to the Department Award.

Next on the horizon: Leyla starts a six-month internship with Morley Builders.

Leyla Naimi says she especially enjoys community work involving people of different backgrounds.



Kitrick Ahler always knew he wanted a career that would keep him engaged with people.

Born in Santa Barbara, he grew up at Lake Oswego, Oregon, near Portland. Following high school, he attended Santa Barbara City College, still looking for the perfect career path. Advice from the Career Center helped steer him to construction management.

“Basically, I was pursuing a degree in psychology, but I knew that wasn’t exactly right,” says Kit. “I didn’t have a feel for how I would apply it.” Taking a career counselor’s advice, he applied to Cal Poly Construction Management. “It was the perfect fit, working with people, the business end, and construction.”

While Kit received the Face of Construction Management senior class “gag” award, he also received the much more serious Service to the Department Award at CM’s 2010 Senior Banquet. Department Head Al Hauck says that Kit was the natural choice, for he “epitomizes the leadership and engagement we want to see in our students when they go into the real world.”

For Kit, service to the department started nearly on his first day on campus. It was nearing time for the Construction Innovations Center dedication, and he asked what he could do to help. Next, he worked on assembling plotter boxes for the Reno competition, and the job list kept growing. Two years later, the staff in the CM Department office says they will miss him.

Kit also served as president of the Cal Poly student chapter of the Mechanical Contractors Association of America (MCAA), an experience that introduced him to the field of specialty contracting. During his term as president, he coordinated the team for the Associated Schools of Construction (ASC) competition.

Looking back on his experiences, Kit says that he enjoyed the team projects most. “They tend to be the ones that let you dig deeper into a problem or work out a solution.”

Diploma in hand, Kit starts an internship with Cupertino Electric in the company’s new Santa Fe Springs office.

“This is such a great opportunity. I love the idea of specialty contracting and the expertise that comes with it.” Clearly a young man with his eye firmly fixed on the future.

# Team Player

Need a hand? Kitrick Ahler is eager, ready and willing



Kitrick Ahler found Cal Poly’s CM studies to be “the perfect fit, working with people, the business end, and construction.”

# Taking Charge

Leadership role suits  
Lauren Bumgardner

Lauren Bumgardner was recently named the recipient of the Outstanding Leadership Award at the 2010 Construction Management Senior Banquet. Many alumni will remember Lauren as the eloquent student speaker at the 2008 dedication of the Construction Innovations Center.

“I was asked because I was president of ASCM that year,” she says before adding, “My parents couldn’t believe that I was speaking in front of such a big crowd! I was always the shy one growing up.”

She credits her time at Cal Poly with this evolution. “I worked as a grader for Phil Barlow, Hal Johnston and Scott Kelting, and the experience of working closely with the faculty really gave me the initial confidence.”

Her work with the Associated Students of Construction Management (ASCM) is a testament to her other skills as a leader. “ASCM is the umbrella club for the others in the department,” she says. The list of activities is long: wine tastings, open house, softball, weekly information session, and finally, Senior Banquet.

Lauren also graduated with a minor in psychology, the result of her interest in “how to get a group together and make something happen.”

Not limited to goals in the academic setting, Lauren has her first half marathon planned for August and is already thinking about triathlons down the road. On the precipice between college and career, Lauren is also thinking about the future in holistic terms: job, health and family. While a student, she became interested in the impact of the meat industry on the environment and is now a committed vegan with a self-professed “love of cooking.”

Although a California native from Vista, Lauren’s family has roots in Texas, where her parents earned their degrees. She also has roots in the building industry. Lauren’s mother has a degree in architecture and is an environmental city planner, while her father’s degree is in architectural engineering followed by a career in construction management.

Asked to reflect on her time at Cal Poly in the Construction Management Department, Lauren says that three things stand out: the business side of the curriculum, team building, and the people.

Diploma in hand, Lauren is heading to work for her father at his new company, Expera Group, where she will certainly be able to use all three parts of her education.



With her CM degree, Lauren Bumgardner is following in the footsteps of her parents, who work in the building industry.

Interdisciplinarity has become a touchstone of education in the College of Architecture and Environmental Design. Ryan Swenson is an outstanding example of this focus, with a degree in Architectural Engineering and a minor in Construction Management.

The decision to attend Cal Poly was an early one for Ryan; so early he doesn't remember it. "I found a journal we had to keep for school – elementary school – and in it I wrote that I 'want to go to community college, then transfer to Cal Poly ARCE.'" Perhaps this was natural, with a father, uncle and grandfather in the construction business. Added to that, his father and uncle are both Cal Poly Civil Engineering graduates, and his sister was a 2009 Architecture graduate.

"My uncle designs roller coasters, so I think that pulled me into engineering as a profession, then I designed a guest house my senior year in high school," says Ryan. The next part is what sets him apart: After graduation, he built the house, and now it is rented to pay for his housing in San Luis Obispo.

Reflecting on the range of coursework between ARCE and CM, Ryan laughs and says he understands why people think engineering classes are "gruesome." He also thinks that a strength of the Construction Management curriculum is the emphasis on presentation skills. He was able to see this difference first hand in the Integrated Interdisciplinary Class. "I was the ARCE student on our team, but I was also doing CM assignments because of how our team worked. It was a real chance to see a cross section of the school altogether."

Construction Management Department Head Al Hauck says that "Ryan became so involved with CM, and he has such an amazing skill set that we really wanted to acknowledge his contributions to our department even though he is graduating from ARCE." To do this, they created a special departmental award this year: Renaissance Man.

Ryan is not quite finished assembling the tools he needs to reach his goals. He will continue at Cal Poly in the fall enrolled in the Masters of Business Administration program in the Orfalea College of Business. And after that? "A position in senior management," said Ryan, adding, "Eventually, I would like to run my own construction company."

# Renaissance Man

Ryan Swenson's dual studies earn him the new title



With a degree in ARCE and a minor in CM, Ryan Swenson is headed across campus for a master's in business administration.

## National recognition for three CM educators

Two Cal Poly Construction Management faculty members were honored by the Associated Schools of Construction (ASC) at the group's annual convention in Boston, Mass. Phil Barlow received the ASC National Teaching Award for Region VII. Barry Jones was awarded the ASC Outstanding Educator Award, also for Region VII.

Faculty member Scott Kelting accompanied the CM student team to the International Builders Show in Las Vegas, Nev., where he was recognized by the National Association of Home Builders (NAHB) as Outstanding Junior Faculty of the Year.

CM's award-winning educators (clockwise from top left): Barry Jones, Phil Barlow and Scott Kelting



## CM Students Shine

Poly teams garner kudos at regional, national competitions

Cal Poly Construction Management student teams continued to build on their reputation for excellence this year. For the last three years, they have received more trophies overall than any other school during the Associated Schools of Construction (ASC) National and Regional Student Competitions held in Reno, Nev.

CM sent 11 teams to the competition, and they placed in multiple categories at the national competition, garnering a first in marine, second in risk management and third in both electrical and building information modeling (BIM). They also earned first places in both the heavy/civil category and the multi-family division at the regional level.

"The students work hard all year preparing, and you want them to succeed, but such a strong outcome is always a bit of a shock," says Elbert Speidel, one of the many faculty coaches who assist the teams. "The competition continues to grow, with more schools participating, and we know that there are strong contenders out there."

This year 1,200 students competed from 41 universities across the country. Award criteria included estimating, bidding, planning, scheduling, presentation skills, creativity, understanding of sound construction techniques and thoughtful methodologies.

This was not the only competitive success for CM students this year. At the National Association of Home Builders (NAHB) Residential Construction Management Competition in Las Vegas, Cal Poly placed sixth out of 39 four-year university teams.

"The NAHB competition gives students the opportunity to apply what they have learned in the classroom to a real-world construction management project," says team advisor and professor Scott Kelting.

The annual competition gives student teams the opportunity to demonstrate their ability to address construction-related problems by working to resolve a construction issue and come up with a workable plan of action to present to a panel of expert judges. This was the 10th year that a team from Cal Poly participated in the competition.

"WE KNOW THAT INDUSTRY WANTS GRADUATES WHO HAVE A COMBINATION OF SKILLS AND LEADERSHIP QUALITIES, AND COMPETITIONS ARE A GOOD WAY TO BRING THESE TRAITS TOGETHER."

– AL HAUCK

"We know that industry wants graduates who have a combination of skills and leadership qualities, and competitions are a good way to bring these traits together," says Department Head Al Hauck. He adds that while teamwork and presentation skills are incorporated into the curriculum, the pressure of a competition is invaluable. A final, critical component is industry's role. "Without the financial support of our industry partners, we couldn't field these incredible teams."

CM students also competed in the Associated Builders and Contractors (ABC) competition held in San Diego. Professor Phil Barlow says the team owes a debt of thanks to the ABC Golden Gate Chapter, which partnered with them as a partial sponsor.

"This competition is different from ASC Reno where the students receive the project at the event," says Phil. With ABC, the team is given the project two months before, and the students put a lot of up-front effort into the competition prior to presentations." Cal Poly is relatively new to the competition, and Phil is enthusiastic about next year's event in San Antonio, Texas.

Faculty member Thomas Korman served as advisor to the 2010 CM student team at the Mechanical Contractors Association of America (MCAA) competition in San Francisco. The problem is based on an actual project performed by Braconier Plumbing and Heating Company of Englewood, Colo.

"This year's project was a five-phased renovation of a 42,000 square-foot cafeteria serving the Denver Health Medical Center," says Thomas. "A real-world project that fits the Cal Poly learn-by-doing model perfectly."

# The Academic-Professional Connection

Industry Advisory Committee members provide valuable link between education and industry

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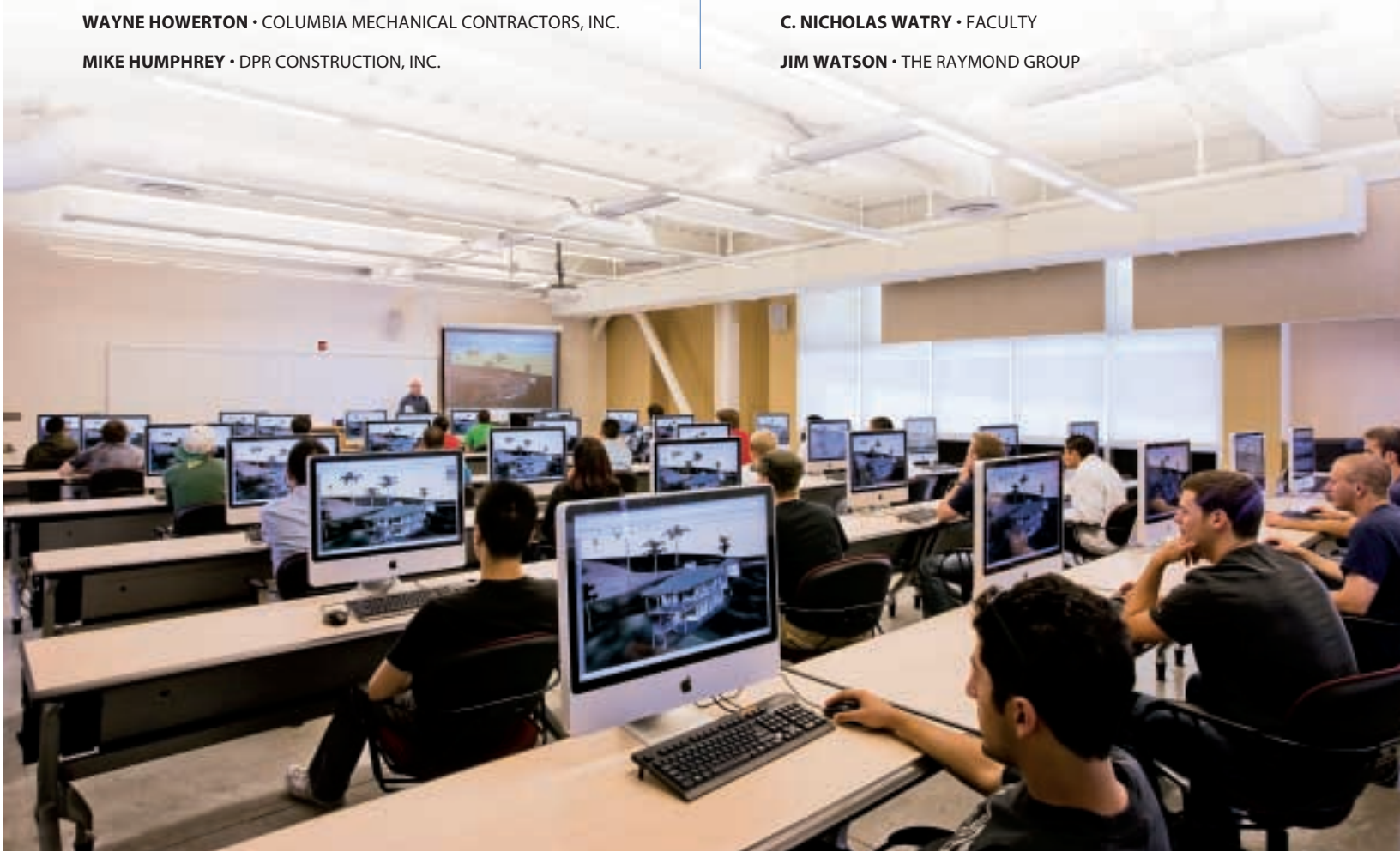
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# 40<sup>TH</sup> ANNIVERSARY CELEBRATION

INCLUDING THE SIMPSON STRONG-TIE  
MATERIALS DEMONSTRATION LAB RIBBON CUTTING

OCTOBER 22-23, 2010

## FRIDAY, OCTOBER 22

- 3-4:30 p.m.** Construction Innovations Center and Simpson Strong-Tie Lab tours
- 4:30-5:15 p.m.** Ribbon Cutting, Simpson Strong-Tie Materials Demonstration Lab – CIC Courtyard
- 5:15-6:30 p.m.** Reception with current students
- 6:30-7:30 p.m.** Cocktail hour – Embassy Suites
- 7:30-11 p.m.** Dinner and dancing – Embassy Suites

## SATURDAY, OCTOBER 23

- 7-8 a.m.** Registration for students, alumni and guests for Golf Tournament and continental breakfast – Avila Beach Golf Resort
- 8 a.m.-2 p.m.** Golf Tournament
- 11 a.m.-3 p.m.** Wine tasting and lunch in Edna Valley
- 2-3 p.m.** Golf Tournament awards and lunch

*Your RSVP by **October 7** will allow us to plan for your attendance. For registration details, please contact Tana Anastasia at (805) 756-6381 or [ganastas@calpoly.edu](mailto:ganastas@calpoly.edu).*

