December 20, 2016

**UA Construction Engineering Management**

*Connecting industry with students and students with industry.*

Construction Engineering Management (CEM) at U of A is gaining tremendous momentum this year. Our vision is: *connecting industry with students and students with industry*. Evidence of the impact CEM is having can be seen in the stories below from two young alum using what they learned in CEM and two current students with professional development opportunities at the Women’s Construction Leadership Seminar. Add to this the Tangerine Road Corridor team partnership with CE381 and the launching of a Design-Build student chapter and competition, and it easy to see that is has been a great year.

All of this was made possible by working together and the generous support of many. While industry and alumni support is currently covering annual expenses, we are reaching out to contractors, consultants, alumni, and friends of the Department to help with creating a $5 million endowment to establish sustainable funding for the CEM emphasis. For more information about the CEM emphasis, you can visit:

[http://civil.arizona.edu/cem](http://civil.arizona.edu/cem)

Thank you for your interest, support, and enthusiasm for CEM at U of A.

Sincerely,

*Dean Papajohn*

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YOUNG CONSTRUCTION ALUMNI SPEAK UP

Alina Vo: I am currently working as a field engineer for Hensel Phelps on the preconstruction phase of my project in Phoenix. To prepare for mobilization, I have created site plans, reviewed drawings, and performed surveying and layout. In addition to this, I have had the opportunity to help in the estimating department where Prof. Papajohn’s cost estimating class helped prepare me for a real life bid situation - calling subcontractors, performing takeoff, receiving bids, and working under a strict deadline. I couldn’t be more thankful for my experience at the U of A!

Katie Wood: When I was in university, I envisioned the potential career paths of a civil engineering student all leading to design. I had long accepted this path for myself, but—out of curiosity—I enrolled in Construction Management during my senior year at U of A. I discovered that I wanted to be involved in real-world, tangible applications of engineering design. Thanks to this course, I opened myself up to a lot more industry opportunities. Now, I am happily working on a high-profile job exceeding $1 billion in project volume with Turner, one of the largest general contractors in the world. I couldn’t picture myself doing anything else!
WOMEN IN CONSTRUCTION
Two UA construction students, Lissette Flores and Rosa Juvera received scholarships from Kiewit to attend the Women’s Construction Leadership Seminar held in Omaha, on September 29-30, 2016. They were joined by 50 other college women interested in construction and engineering. They went on a construction site visit, collaborated in teams, and heard from some amazing women leaders in the construction industry. Also, this past summer, Abby Davidson attended ASCE’s Construction Institute Career Days to network with colleagues and learn more about construction.

NEW DBIA CHAPTER AT UA
We launched a Design-Build Institute of American-University of Arizona Chapter (DBIA-UA) this fall. Two teams composed of civil engineering and architecture students competed in the 2016 National DBIA Student Competition. One of these teams became a regional finalist - a big accomplishment for our first year in the competition. These student teams had 11 days to respond to an RFQ for a parking garage, recreational field, and classroom space on a small liberal arts college in TN. Teams in the regional finals were given 11 days to respond to an RFP. Students prepared well-researched and professional looking proposals. They received industry feedback on all their work and learned a ton in the process.

TANGERINE ROAD CORRIDOR PARTNERSHIP WITH CE381
To provide students with a realistic context for the concepts and skills they are learning in CE381-Construction Engineering Management, Borderland, Granite and the Tangerine Road Corridor Project team partnered with our class this fall. Through this partnership, our class learned about the project plans and special provisions, CMAR
procurement and delivery, QA/QC, utility coordination, VDC, and scheduling. Our students also went on two site visits to Tangerine Road.

INDUSTRY INVOLVEMENT IN CE381

CE381 was full of interesting industry speakers this fall, including:

- Sean Samsul (Psomas) – plan reading
- Andrew Rogers (Granite), Tony Schiovone (Pima County), Patrick O’Kane (Town of Marana, and Ralph Banks (UA) – procurement panel
- Chris Kmetty (Markham) – value engineering
- Bob Martinez, Jesse Espinoza, and the Granite team – quantity takeoff and cost estimating
- Ray McCoy (Hensel Phelps) – virtual design and construction
- Kevin Boesch (Logan Simpson) – construction activity storm water regulation
- Joel Harris and John Sweeney (Borderland) – QA/QC
- Joel Harris (Borderland) and Andrew Rogers (Granite) – utility coordination and scheduling
- Joe Ornelas (ADOSH) – construction site safety
- Josh Marks (Rider, Levett, and Bucknall) – project risk

Our class got out to multiple construction sites this fall, including:

- Sunset Road Bridge – Borderland and Pima County
- Bioscience Research Lab – DPR and UA
- Mock bid – Granite
- CEMEX – Marana facilities
- Tangerine Road Corridor (Granite, Borderland, Marana)
- Arizona Cancer Center (Hensel Phelps and Banner)

Additionally, students made bi-weekly site observations at local construction sites throughout Tucson and presented their selected project to the class. Students also researched and wrote a report on a construction innovation of their own choosing. Student reports covered topics like: drones, 3-D printing, DB, and accelerated bridge construction. As technologies develop and innovations arise, students need to be ready for life-long learning throughout their careers.

At the annual Civil Engineering Career Fair held by the Department every October, the number of construction firms jumped from four to twelve. Over the last few months there has been a stream of students coming to my office telling me about multiple internship and full-time job offers. It is exciting to see the opportunities these students have as industry recognizes the great preparation they are receiving to enter the construction industry.
Site visit to Arizona Cancer Center construction site.

Site visit to CEMEX (Marana) pit and lab.

Mock bid competition at Granite.
Construction site visit to the Biosciences Research Lab.

Construction site visit to Sunset Road Bridge at the Santa Cruz River.

CEM students helping at Southern Arizona Construction Career Days.