



STRUCTURAL ENGINEERS OF COLORADO

NEWSLETTER

RSVP

July 20, 2017
Breakfast at 7:30 a.m.

Renaissance Hotel
3801 Quebec Street,
Denver, CO 80207

RSVP by 5pm
Monday, July 17
on the [SEAC website](#).

2017 SCHEDULE

Meetings

Renaissance Hotel
3801 Quebec St.
Denver, CO 80207
July 20
September 21

Annual Meeting:

Red Rocks Visitor Center
November 9
6pm

Fall Seminar:

Renaissance Hotel
October 20
7:30am—12pm

Golf Tournament:

August 17

Board of Directors:

Martin/Martin, Inc.
12499 W. Colfax Ave.
Lakewood, CO 80215
Time: 7:30am
August 3
October 5

Web-Based Board

Meetings

September 7
November 2

Business Management Committee

Martin/Martin, Inc.
12499 W. Colfax Ave.
Lakewood,
CO 80215
August 10
October 12



July 20, 2017

Modern Wood Building Systems: From Light-Framed Wood to Cross Laminated Timber

Wood has thousands of years of history as a building material but has also been restricted by building codes and regulations following the industrial revolution. Mass timber construction is a relatively new way of utilizing wood material for modern, high performance buildings at both large and small scales. It gives rise to the currently trending conception of wooden sky-scrapers. This presentation will provide a brief history of wood utilization as a building material, discuss the pros and cons of wood structural systems based on finding of past research efforts, and introduce the current trend of building with mass timber, including an ongoing effort to design and test a 10-story full scale resilient wood building at NHERI@ UCSD. The presentation will also address several design-office questions related to wood framing.



Bio: Shiling Pei, Ph.D., PE

Dr. Shiling Pei received his Ph.D. in Civil Engineering from Colorado State University in December 2007 and joined the faculty of Civil and Environmental Engineering at Colorado School of Mines in Fall 2013. Before that, he worked as an Assistant Professor at South Dakota State University from 2010 to 2013. Dr. Pei received the 2012 ASCE Raymond C. Reese Research Prize for his work on seismic performance of mid-rise wood frame building. He is the author of the Seismic Analysis Package for Woodframe Structures (SAPWood) as part of the NSF (NEESR) funded NEESWood project, and served as one of the lead researchers in shake table testing of a full-scale 7-story wood-steel hybrid building at Japan's E-defense shake table. He is currently leading an NSF funded six-university collaboration effort to develop seismic design methodology for resilient tall cross laminated timber (CLT) buildings. This project involves shake table testing of a 10-story full-scale tall wood building at NHERI@UCSD outdoor shake table planned in 2020. Dr. Pei currently serves as the Chair of the ASCE Wood Technical Administrative Committee overseeing four wood engineering related committees. Dr. Pei is a registered Professional Engineer in State of California.



BOARD OF DIRECTORS

Structural Engineers Association of Colorado



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We Want to Hear from YOU! The SEAC Board of Directors is interested in hearing your suggestions, comments, and ideas. Please feel free to contact a member of the BOD at any time.

Thank you to all of our members who continue to support SEAC!

PRESIDENT'S MESSAGE

Structural Engineers Association of Colorado

SEAC has a change that will affect all members. As I announced in our January meeting, Caryn Farrell has decided to leave SEAC. Effective July 1 we will have a new Executive Administrator, Becky Roland. Many, many thanks to Caryn for her service to SEAC. She has been a consistent contact for members for the last 16 years. Although the board changes each year, she has been the one person working to ensure the day-to-day work of the organization gets done.

Please welcome Becky and her daughter Kim. Their firm, Phoenix AMC, is a full-service association management company. They bring outstanding credentials to the position. Many of you know them from their work as Executive Administrator for CAGE and the Colorado section of ASCE. They are also the administrators for RMMI and the Professional Land Surveyors of Colorado. They bring experience working with engineering associations, knowledge of regulations affecting nonprofits, website experience, and financial knowledge working with our accounting software. They will be able to step in quickly and effectively for Caryn and Katharine.

The duties of our Executive Administrator are surprising lengthy. The board compiled a list of duties that contains 43 items! We were all amazed. Becky and Kim have experience with all these duties. I feel confident the organization is in very good hands moving forward.

Starting July 1 members should contact Becky instead of Caryn. Her contact information is:

Becky Roland

SEAC

PO Box 441069

Aurora, CO 80044

(303) 551-3266

administrator@seacolorado.org. Correspondence sent to Caryn will be forwarded.

I hope you attended the May General Meeting. We heard a very informative presentation from the Existing Structures Committee on the IEBC. Thank you to Gene Stevens, Jerry Maly, Donald Harvey, and Dale Statler. Kudos to the ESC for a great presentation! The presentation will be posted on the website.

Our July presentation promises to be informative as well. We'll hear from Professor Ling about his research on full-scale testing of a CLT panel structure at UCSD. Professor Ling will also address several practical questions on wood design that we've posed to him. I hope you can attend.

Lastly, I'm pleased to tell you about our Annual Meeting this year. It will be at the Rock Room at Red Rocks Amphitheater on Thursday evening November 9. In addition to an opportunity to socialize, we will have Tom "Dr. Colorado" Noel, give us a presentation on historic structures in Colorado—including the stories behind Red Rocks. We've also arranged to have back-stage tours of Red Rocks. Come and stand where your favorite performer stood, and hear some behind-the-scenes stories from our knowledgeable guides. It promises to be an enjoyable evening for you and your guest. Please put the date on your calendars and sign up via the website.





2017 SEAC PROJECT PRESENTATION

Tuesday, August 22nd



The SEAC Education Committee would like to invite you to the SEAC New Programming Series **2nd Project Presentation** sponsored by SEAC and the NCSEA Grant. 1.5PDH certificate will be provided.

PRESENTER: Dwight Gilbert, PE, SE with Martin/Martin, Myron Chase, AIA with Populous and Dave Richardson MBA, PMP with Mortenson Construction

TOPIC: Colorado State University's New On-Campus Stadium

WHEN: Tuesday, August 22nd at 5:30pm (networking), 6:00pm (presentation)

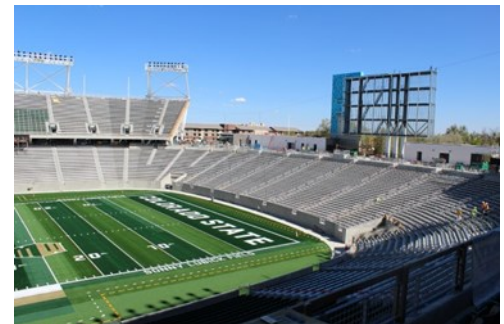
LOCATION: Martin/Martin Inc., 12499 West Colfax Avenue, Lakewood

Registration on SEAC website will open after SEAC July General Breakfast Meeting

Free admission for SEAC members, non-members and students.

Learning objectives:

This presentation and panel discussion on Colorado State University's new Multi-purpose On-Campus Stadium will provide an overview of the facility followed by a discussion of the design and construction challenges faced by the project team from the perspectives of the architect, contractor, and structural engineer.





MEET THE PRESENTERS



Dwight Gilbert, PE, SE - Martin/Martin, Inc.

Dwight, an associate and seasoned structural engineer with Martin/Martin, has 22 years of engineering experience. He has been project manager or lead structural engineer for a variety of challenging structures such as the Coors Field Rooftop and CU Folsom Field Athletics Complex—both with Populous and Mortenson, National Renewable Energy Laboratory (NREL) campus projects including Energy Systems Integration Facility (ESIF), and National Institute of Standards and Technology (NIST) Building B1R and Wing 6 renovations.

Dwight is the project manager and Engineer of Record for the CSU Stadium project, for which Martin/Martin is providing both structural and civil engineering services. He oversaw a design process that balanced changing architectural design with needs for early structural construction packages. The stadium includes elements of structural steel, concrete, precast, masonry, and light gauge. Dwight holds a BS degree in Civil Engineering from the Colorado School of Mines in Golden, Colorado.



Myron Chase, AIA - Populous

Since joining Populous in 2000, Myron has worked on a variety of projects in the collegiate and professional markets. His work in those markets includes athletic facilities for football, soccer, baseball, and basketball. Typically, he leads a team through the complete design process, from pre-design to construction and project close-out. Myron's responsibilities include architectural design, building programming, detailing, document coordination, document production, consultant coordination, and construction administration. He received his Bachelors in Architecture from Kansas State University, is a principal in the firm, and is a licensed architect in multiple states.

Myron's project experience includes PETCO Park, Round Rock Athletic Complex, Capelli Sport Stadium (Rochester Rhinos), Mizzou Arena, University of Phoenix Stadium, TCF Bank Stadium (Minnesota Gophers), Children's Mercy Park (Sporting KC), Missouri Football East Side Addition, and Colorado State University Football Stadium.



MEET THE PRESENTERS



Dave Richardson, MBA, PMP - Mortenson Construction

Dave is a senior project manager with Mortenson Construction. He has more than 22 years of experience and has worked on a number of high profile and challenging projects for Mortenson throughout his career. Dave is the senior project manager in charge of the Mortenson team delivering the new On-Campus Stadium at Colorado State University, which will hold more than 41,000 people. His previous projects include the new Charles Schwab campus in Lone Tree along with several projects as part of Mortenson's Wind Division. Dave holds a BS degree in Business Administration from the University of Phoenix and a Master of Business Administration degree in Operational and Project Management from the University of Phoenix.



EMPLOYMENT OPPORTUNITIES

Structural Engineers Association of Colorado



Tech for WebEx Broadcasting:

SEAC is looking for a 2nd qualified person to support the organization as a backup WebEx broadcasting technician. This person would step-in and run the broadcast if the first technician is not available. The job activities could include:

- Coordinating with the hotels A/V personnel on equipment and services that SEAC has contracted for.
- Setting up SEAC equipment, running and monitoring the WebEx broadcast throughout the event, trouble shooting and breaking down the equipment at the conclusion.
- Time commitment could be from 6:30 to 9:30 am for any of the five general meetings per year, or from 6:00 am to 1:00 pm for the annual fall seminar.

If the backup person takes responsible charge of the broadcast the compensation will be \$250 for a full general meeting, and \$500 for a full fall seminar. Partial backup periods will receive partial compensation.

If you are interested, or if you know someone who might be, please contact any Board member for further details.

EMPLOYMENT OPPORTUNITIES

Structural Engineers Association of Colorado



Professional Engineer/Project Manager

Martin/Martin, Inc. is looking for experienced structural engineers to join our architectural engineering design groups in the Lakewood, Colorado office. The positions will provide opportunities to design structures throughout the Front Range of Colorado and national locations in markets such as healthcare, commercial office, sports and entertainment, and education. Martin/Martin is the leading civil/structural engineering consulting firm in the region. We are client focused and employee centered.

Required Qualifications:

- 2-8 years progressive structural engineering design experience
- Strong knowledge of building and design codes
- Demonstrated ability to design, detail, coordinate, and model projects
- Self-motivated and able to work independently for extended periods of time
- Bachelor's degree in Civil or Architectural Engineering, with an emphasis on structures
- Committed to client service and a team-based approach

Desired Qualifications:

- Experience modeling buildings and producing documents using Revit Structure
- Master's degree in Civil or Architectural Engineering, with an emphasis on structures
- Experience analyzing structures using SAP, ETABS, Tekla or RISA
- Project management experience including managing budgets and staff
- Has a PE license in the State of Colorado or can obtain within one year of hiring



CONSULTING ENGINEERS

Open Position Available

STRUCTURAL PROJECT ENGINEER BOULDER, COLORADO

Designing buildings is an important job that takes great skill and responsibility. Involvement at every stage, working closely with trusted architects, and developing refined solutions for complex structural challenges is our business.

As part of JVA's Structural Engineering team you will work with mindful, experienced engineers who are devoted to sensible and conscientious problem solving for Colorado and the rest of the country's most important built environments. Our portfolio includes K-12 and higher education facilities, government and municipal buildings, resort facilities, parks, recreation, and camp facilities, healthcare, commercial and industrial buildings, single-family residential, senior and multi-family housing.

We are seeking a like-minded professional to join our team. Flexibility and desire to work on multiple projects is essential.

Responsibilities

- Plan, schedule, and coordinate small to large-sized projects
- Design and detail structural elements from main building frame to support of architectural features
- Provide construction administration services such as shop drawing review, RFI responses, and site observation.

Minimum Qualifications

- 5 years minimum experience in multiple building types and systems
- Licensed Professional Engineer preferred
- RAM and/or RISA and REVIT

Additional Information

- Visit www.jvajva.com/careers.php for information on our team, culture, and open positions available in our Boulder, Winter Park, and Glenwood Springs offices.

POSITION
Full Time

TRAVEL AREA
Local/regional, Colorado and western states

MATERIAL/MEDIUMS
Steel, concrete, wood, masonry



DINOSAUR NATIONAL MONUMENT, Vernal, UT



CU EKELEY, Boulder, CO



ANG WINDSOR READINESS CENTER, Windsor, CO (LEED Platinum)



MUSEUM OF DISCOVERY, Fort Collins, CO



STRUCTURAL



CIVIL



ENVIRONMENTAL

Founded in 1956, JVA, Inc. is a 100+ person firm with offices in Boulder, Fort Collins, Winter Park, Glenwood Springs, and Denver, Colorado. We specialize in structural, historic preservation, civil, infrastructure, environmental, and water/wastewater engineering for public and private entities across Colorado. We are employee-owned, offer a competitive benefits package, advocate professional growth, and have long-standing relationships with contractors, architects, builders groups, professional organizations, and community outreach programs.

TO APPLY SEND YOUR COVER LETTER AND RESUME TO CAREERS@JVAJVA.COM

JVA, Inc. 1319 Spruce Street, Boulder, CO 80302 303.444.1951
WWW.JVAJVA.COM

ANNOUNCEMENTS

Structural Engineers Association of Colorado

Welcome to our Newest Members!

Steed Lopez (Affiliate Member)
Restruction Corporation

Jason Gardner (Affiliate Member)
Restruction Corporation

Zachary Forster (Professional Member)
DH Glabe & Associates

James Romeo (Professional Member)

Jeremy Tuck (Professional Member)
Elevation Structural Design, LLC

Maito Okamoto (Student Member)

Jeremiah Willis (Professional Member)
Graf Engineering Services, LLC

Brad Petersen (Professional Member)
Raker Rhodes Engineering

Tyler Leigh (Affiliate Member)
JVA, Inc.

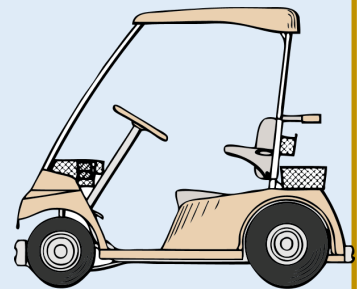
Young Member Group

The SEAC Young Member Group has been selected as a finalist for the NCSEA Young Member Group of the Year Award. The winner will be announced at the NCSEA Conference in October. Congratulations to the entire committee for this well-deserved recognition.

To participate in the fun and educational events that the committee hosts or to become involved in the Young Member Group, e-mail them at YEG.SEAC@gmail.com. We are currently seeking members to be active on the committee to assist in future events.

GOLF!

Please see the flyer attached to the back of this newsletter for information!



IS YOUR COMPANY HIRING?

Consider placing an ad in the bi-monthly SEAC newsletter to reach over 300 members, including professional engineers, suppliers, and vendors. To learn more, contact Becky Roland at (administrator@seacolorado.com)



SEAC

Structural Engineers Association of Colorado

FAREWELL :

Working for SEAC the past 16 years has been a true honor and privilege. I am continuously amazed at the dedication and commitment of the Board of Directors and the many members who volunteer their time to make SEAC an OUTSTANDING organization. I am humbled by the many emails of “Thanks” I have received over the years. Thank you for allowing me to be a part of this great organization.

I am very excited for the new Executive Directors, Becky Roland and Kim Roland. SEAC will be in great hands and I know they will provide great customer service to all Members.

Regards,

Caryn Farrell



Your Logo Could Go Here!

Do you know someone that would be interested in sponsoring a SEAC Meeting? Please contact:

Ben Cook,
Past-President, 303.914.4300, BCook@wie.com

Please see
attachments for
additional
information and
upcoming events!

SEAC SPONSORS



**Innovative glulam products manufactured to fit today's structural systems without field assembly or a steep price tag.
Specify the beam that fits on your next project.**

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Mobile: 541-393-4097
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Structural Design Optimization

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Structural Engineers Association of Colorado

SEAC Steel Fabrication Facility



The SEAC Education Committee and Drake-Williams Steel hosted the Steel Fabrication Facility Tour in Aurora, on June 23rd. Over thirty people attended the event.

Thank you to Maryann Davis, the Drake-Williams management team, and all their employees for providing this learning opportunity.

The introduction presentation shared the secrets of steel fabrication industry, the D-W facility used technology, material cost history, lateral systems cost comparison, and information about the detailing process. It was followed by the tour of the facility and seeing the different phases of the steel members' production. We all enjoyed it!

2017 SEAC Fall Seminar Topic Outlines

Save the Date: Friday, October 20th

Foundation Design in Colorado

Presented by: Alan Lisowy, PE
CTL/Thompson, Inc.

The goal of this presentation is to provide participants with guidance regarding the design and installation of deep foundations with specific emphasis on the issues related to the geology of Denver, the Front Range area, and Colorado.

The presentation will include a general review of geologic/geotechnical conditions across the state, components and requirements of a good geotechnical report, types of deep foundations commonly used in Colorado, advantages and disadvantages of different deep foundations, construction methods and limitations.

The presentation will include a review of the historical development of geotechnical drilled shaft design criteria used in Colorado related to expansive soils and current design criteria and methodology.

The presentation will also include the "Top Ten Questions from Structural Engineers" that geotechnical engineers receive during the design and construction phase of deep foundation projects.

Steel Lateral Systems and Connection Design

Presented by: Patrick McManus, PhD, PE, SE
Martin/Martin, Inc.

This session will provide practical advice to help engineers in their decision making process when selecting appropriate steel lateral systems. The pros and cons of different solutions will be discussed and highlight the following topics:

- Review the basics of steel lateral braced frame and moment frame systems
- Cost implications, lateral load path and design considerations
- Overview and case study on steel lateral system selection in Colorado
- Overview and case study on steel lateral system selection in high seismic zones
- Selected lateral system connections/detailing

SEAC COMMITTEES... WE NEED YOU!

Structural Engineers Association of Colorado

Have you considered joining a committee?

Your participation is what makes our organization so successful.

If you are interested in joining, please click on the hyperlink name to contact

Committee	Chairperson	Contact Phone	Board Liason
BIM	Desiree Mackey	303.431.6100	Jeremy Crandall
Building Dept. Liason	DORMANT		Rob Jackson
Business Management	Paul Hause	303.399.5154	Paul Doak
Construction Industry	DORMATN		Paul Doak
Denver Building Dept.	Jerry Maly	303.914.4300	Rob Jackson
Education	Irena Kahanek Matt Hardman	720.296.7595 303.876.5700	Jeanette Torrents
Ethics	Peter Marxhausen	303.947.5375	Donald Harvey
Existing Structures	Gene Stevens	303.860.9021	Donald Harvey
Membership	Jerry Maly	303.914.4300	Ben Cook
Nominating	Jerry Maly	303.914.4300	Paul Doak
Northern Colorado	Greg Black	970.619.8986	Greg Black
Precast Concrete	Trevor Kirkley	303.298.1900	Paul Doak
Scholarship	Jeannette Torrents	303.444.1951	Jeanette Torrents
SEER	Brent Norris Mike Piper	303.860.9021 303.431.6100	Rob Jackson
Seismic Standards	Rob Jackson	303.843.2850	Rob Jackson
Snow Loads	Jeanette Torrents	303.444.1951	Jeanette Torrents
Standard of Practice	Jim Ness	303.623.4927	Paul Doak
Steel Materials	Ben Cook	303.914.4300	Ben Cook
Wind Loads	Dale Jones	303.444.1951	Jeanette Torrents
Young Member Group	Jeremy Crandall Katie Courtright	303.399.5154	Jeremy Crandall



COLORADO ASSOCIATION OF
GEOTECHNICAL ENGINEERS

ASCE[®]
American Society of Civil Engineers



2017 GOLF TOURNAMENT





**Colorado Association of Geotechnical Engineers,
Structural Engineers Association of Colorado,
American Society of Civil Engineers &
ADSC Rocky Mountain Chapter
~ 2017 Golf Tournament ~
August 17th, 2017**



Where:

**Fossil Trace Golf Club
3050 Illinois Street
Golden, Colorado 80401
303-277-8750
www.fossiltrace.com**



Schedule of events:

- Practice Range from Noon to 1:15 p.m.
- Shotgun Start at 1:30 p.m.
- Dinner/Awards/Raffle immediately following Play



Fossil Trace Golf Club is one of Colorado's most popular and premier golf courses. Located in Golden, Colorado - Fossil Trace Golf Club is nestled adjacent to the foothills of the Front Range and only 20-minutes from downtown Denver and in close proximity to other suburban areas including Littleton, Lakewood, Arvada and Boulder.

Golf Tournament Prizes include 1st Place Team, 2nd Place Team, 3rd Place Team, Mens/Womens Longest Drive, Mens/Womens Closest to the Pin, Mens/Womens Longest Put, as well as giveaways.

****SPONSORSHIPS NEEDED** See following page for registration.
Fossil Trace Golf Club Map - <https://goo.gl/maps/yyBDY5zz2J42>**

**CAGE/SEAC/ASCE/ADSC
2017 Golf Tournament
Fossil Trace Golf Course
August 17, 2017
1:30 p.m. Shotgun Start**

Name: _____

Company: _____

Address: _____

City/State/Zip: _____

Phone: _____ Email: _____

\$155 per Golfer ** \$580 per Foursome ** Non-Members Welcome

of Players: _____

Player Names: _____

Note: Mulligans will be available for purchase the day of the tournament. Bring a credit card, check, or cash to participate.

Available Sponsorships:

- ☐ \$250 Hole Sponsorships
- ☐ \$350 Hole Sponsorship and Staff the Tee Box
- ☐ \$250 Mens/Womens Longest Drive Sponsorship
- ☐ \$250 Mens/Womens Closest to the Pin Sponsorship
- ☐ \$500 Beverage Cart Sponsorship
- ☐ \$500 Dinner Sponsorship
- ☐ \$500 Awards Sponsorship
- ☐ \$750 Cocktail/Social Sponsorship

Payment Option: **Note Please remit payment by July 21st, 2017**

☐ Total \$ Amount to be charged to Card _____

Card Holders Name: _____

Card Type _____ Card # _____

Expiration Date _____ 3 Digit Security Code _____

Signature _____

☐ Will be paying via Check. Please make checks payable to CAGE and send payment to Becky Roland, CAGE PO Box 460311 Denver, CO 80246.

Please send my receipt via email to _____

Please Send Registration Form to Becky Roland w/ CAGE via Fax (720) 230-4846 or Email - broland@cagecolorado.org

Note: You may also register online at www.cagecolorado.org