

STRUCTURAL ENGINEERS OF COLORADO NEWSLETTER

2018 SUMMER SCHEDULE SIGN UP FOR THESE EVENTS AT

<u>HTTPS://</u> SEACOLORADO.ORG/

SEAC Breakfast Meeting

September 20, 2018 Renaissance Denver Stapleton Hotel 3801 Quebec Street Denver, CO 80207 7:30am-9:00am Out-of-area may participate via WebEx

SEAC NoCo Meeting

September 20, 2018 CTL Thompson 400 North Link Lane Fort Collins, CO 80524 7:30am-9:00am

SEAC Fall Seminar

October 4, 2018 DoubleTree by Hilton Denver/Westminster 8773 Yates Drive Westminster, CO 80031 7:00am-12:00pm

Business Management Committee Meeting

October 10, 2018 Martin/Martin 12499 W Colfax Ave. Lakewood, CO 80215 7:30am-9:00am

SEAC Annual Dinner

November 8, 2018 Denver Museum of Nature and Science 2001 Colorado Blvd. Denver, Colorado 80205 6:00pm-9:00pm

September General Meeting

at the Renaissance Hotel Denver/Stapleton

The Top 10 Bad Steel Spec Items

(and What We Can Do About Them)

Presented by: Casey Brown



Casey Brown is the President of Zimkor and has been with the company since 1988. Casey begin his steel career at Zimmerman Metals in 1986, held the distinguished title of Zimkor's first Project Manager, and has spent his career on the operational side of Zimkor. Casey holds a BS in Geophysical Engineering from the Colorado School of Mines, has been involved with board leadership of the Rocky Mountain Steel Construction Association (RMSCA) since 2001, and currently serves as President of RMSCA.

The Top 10 Bad Steel Spec Items (and What We Can Do About Them) is a presentation prepared by Casey Brown on behalf of the RMSCA and is presented in the light of making steel construction a better place to work today and tomorrow - a principle the RMSCA embraces and works to make a reality daily. Specifications tend to be an afterthought on the design side and a tool of misapplication on the construction side; this presentation takes a critical look (from the vantage point of steel construction subcontractors and suppliers) at particularly troublesome misspecified items and what we, as builders and designers, can do better. Join us for a thought-provoking conversation and examination of these challenging issues.



Click here to register!



PRESIDENT'S MESSAGE

Structural Engineers Association of Colorado

Thanks to all of you who voted to update the SEAC Bylaws. I am pleased to announce that the proposed updates were approved by more than 2/3 of our voting members as required by the Bylaws. This ballot was an important reminder that every voice counts in our organization. We received 175 "YES" votes, which just put us over the required 171 "YES" votes.

You will have another opportunity to determine the direction of our organization at the September Breakfast Meeting. The Board of Directors is proposing a dues increase effective in 2019. A full description of the proposal can be found in this newsletter. All professional and life members are eligible to vote. You must attend the meeting either in person in Lakewood, Fort Collins, Glenwood Springs, or via WebEx in order to vote.

Make sure to save the date for the Fall Seminar October 4th and for the Annual Dinner November 8th. This year's Annual Dinner will be held at the Denver Museum of Nature and Science. We will be presenting the nominees for next year's Board of Directors, recognizing individual contributions to our organization, and hosting a dynamic presentation on service within our industry. Attendees will also have access to one of the museum exhibits and a cash bar. We had a record number of attendees last year at Red Rocks – let's make this year just as successful.

Jeannette Torrents

SEAC President

Proposed SEAC Dues Increase

Structural Engineers Association of Colorado

Thank you for your continued support of the SEAC. After careful evaluation, the Board has proposed a dues increase for 2019.

The last dues increase for local members was in 2011. Out-of-area member dues have been the same since 2006. Over the past several years, SEAC has expanded programming for all members and has increased benefits for our out-of-area members by offering a WebEx option to attend breakfast meetings, project presentations, and the fall seminar. The Northern Colorado Committee has also provided their own bimonthly project presentations and site/plant tours. The number of SEAC sponsored events available to members in 2018 is more than double the number of events available to members in 2011. The cost of this expanded programming has been partially offset to date through a grant from NCSEA and donations from our generous sponsors. However, venue and A/V costs continue to rise. Our increase in membership has required a transition to a more robust website (to be complete in October), a transition to a new administrative support team (Phoenix AMC), and the acquisition of General Liability and Directors and Officers Liability Insurance to protect SEAC and its volunteers.

The Board has been working hard to continue to bring in sponsorships and reduce operating costs. Some of our cost-saving measures this year include:

- Changing to a venue with lower A/V costs
- Changing web providers
- Changing credit card processing providers
- Changing tax accountants
- Taking advantage of services provided to us at no cost by Phoenix AMC such as access to legal consultation and their SurveyMonkey account

The Board of Directors is proposing the following 2019 dues structure for 2019. Professional and life members must attend the September meeting in person or via WebEx in order to vote. Affiliate and student members are not eligible to vote.

Membership Type	2018 Dues	2019 Proposed Dues
Affiliate Outside	\$60.00	\$ 90.00
Affiliate Local	\$140.00	\$ 170.00
Professional Outside	\$60.00	\$ 90.00
Professional Local	\$140.00	\$ 170.00
Student	\$60.00	\$ 20.00
Business Practice	+\$50.00	+\$ 75.00

Up to \$1500 in Member Benefits includes:

- Access to bimonthly meetings including CEUs and complimentary breakfast**
- Access to PE/SE Exam Bridge Review Session
- Access to YMG Happy Hour and Trivia Night
- Access to Committee White Papers and other SEAC Member Online Resources
- Subscription to SEAC Newsletter
- Subscription to STRUCTURE magazine*
- Subscription to Structural Connection*

- \$200 Discount on NCSEA Structural Engineering Summit Registration*
- \$200 Discount on NSCSEA SE Exam Review Course*
- Discount on Fall Seminar Registration**
- Discount on Project Presentation & Plant/Site Tour Registrations**
- Opportunity to Join more than 20 Committees working to improve our profession
- \$50 Discount on all NCSEA Webinars*

^{*}These benefits do not apply to student members

^{**}WebEx Broadcast available for out-of-area members

SEAC Fall Seminar

Structural Engineers Association of Colorado

SEAC Fall Seminar

When: October 4th from 7:00am to 12:00pm

Where: DoubleTree by Hilton Hotel, Westminster (I-36 & Sheridan Blvd.)

Call for Sponsors

Would you like to become a SEAC Fall Seminar or Raffle Prize Sponsor?

Sponsorship benefits include an exhibit table at the Seminar, advertisements on the SEAC website and newsletters, exposure to close to 200 local structural engineers, and more.

Refer to the SEAC website for additional information: https://seacolorado.org/wp-content/

uploads/2016/02/2018 Advertising Sponsorship Opportunities.pdf

Contact us at: EducationSEAC@gmail.com



SEAC Fall Seminar

Structural Engineers Association of Colorado



The Rocky Mountain Masonry Institute

Build bold, build beautiful, build with the best.

686 Mariposa Street

Denver, CO 80204

303-331-3405

bret@rmmi.org

Welcome our newest members!

Brian Huston (professional member)
Austin Friday (Student Member)
Stephen Lehigh (Professional Member)
Andrew Stam (Professional Member)

SEAC Fall Seminar

Structural Engineers Association of Colorado

Meet the Presenters

Lateral Load Paths and Best Practices for Reinforced Masonry

Presenter: Gregory R. Kingsley, PhD, PE, Peng., KL&A Inc. Structural Engineers and Builders

Reinforced masonry shear walls systems are often constrained by the fact that the structural system configuration is established by nonstructural constraints like building envelope and program, so the structural engineer can be challenged to provide a ductile and code-compliant structural system within those constraints. Strategies for masonry structural system design will be presented, together with best practices for detailing and constructability.



Gregory R. Kingsley, Ph.D., P.E., PEng is the President and CEO of KL&A Inc., Structural Engineers and Builders in Golden, Colorado. Dr. Kingsley participated extensively in the TCCMaR masonry research program from 1985 to 1994, including full-scale masonry building tests at the University of California, San Diego. He has served on the TMS Technical Activities Committee and has worked with the Applied Technology Council on multiple projects, including the development of FEMA 306 and 307 on the Evaluation of Earthquake Damaged Concrete and Masonry Wall Buildings.

Lessons Learned Sharing Claims Experiences for Better Engineering

Presenter: John G.Tawresey, SE, F.TMS, F.SEI, Dist. M. ASCE KPFF Consulting Engineers - Retired

Among all engineering disciplines, the structural engineer, in private practice working as a consultant, enjoys the highest probability of being sued for negligence. Why? And, more important, how can we reduce the probability of being accused of negligence. There are no simple answers, but this session will present what I have learned, mostly the hard way, from 40 years of experience. Lessons learned from actual occurrences will be presented, along with simple things that can be done by engineers of all levels within a company to reduce the risk of a claim.



John G.Tawresey, SE, F.TMS, F.SEI, Dist. M. ASCE has over 40 years of experience as a structural engineer. He was the Chief Financial Officer at KPFF Consulting Engineers for 35 years and has extensive experience defending claims. He is a past president of The Masonry Society, past editor of the Masonry Society Journal, past president of the Structural Engineers Risk Management Council (SERMC), past chair of the SERMC Claims Committee, past president of the Structural Engineering Institute of ASCE, current member of the TMS 402/602 Main Committee, and is a member of the National Technical Programs Committee for SEI. He is an adjunct professor at the University of Washington where he has taught a senior level masonry design course for 30 years.

SEAC Education Committee News

Structural Engineers Association of Colorado

Doors Open Denver Opportunity

<u>Doors Open Denver (DOD), hosted by the Denver Architecture Foundation, is coming up on</u>
<u>Saturday Sept. 22 and Sunday Sept. 23.</u>

This is the Denver Architecture Foundation's premier program that showcases our city's great architecture, history and development.

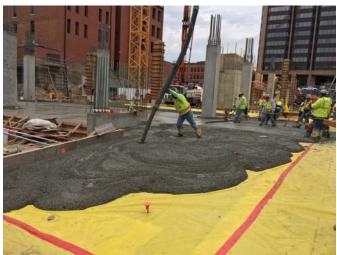
Volunteering during DOD is a fun and exciting way to learn about our city. Take in and share the beauty and history of Denver's built environment, meet new people and help fellow adventurers enjoy the event during four hour shifts throughout the weekend.

Sign up to volunteer HERE and email Kyle (kyle@denverarchitecture.org) with any questions.



SEAC Education Committee News

Structural Engineers Association of Colorado



The SEAC Education Committee hosted a **Project Presentation and Hard Hat Tour** on August 22nd of Market Station at the Alliance Center in Downtown, Denver.

Jeff D'Andrea, PE, SE, LEED AP with Thornton Tomasetti and Dennis Gulseth, AIA with BOKA Powell acquainted us with the project drivers, synergy between the different stakeholders, structural challenges and innovations that converged to the mixed-use development that is under construction on the block bounded by 16th and 17thstreets and Market and Blake streets.

During the hard hat tour, D'Andrea, Gulseth and Kiewit's construction team guided us through the site. The foundations were mostly complete, and the concrete cores were up to level two. One of the architectural highlights was the brick façade mockups that provided the attendees a preview of the exciting new skin of the city block.

Our last Project Presentation was at the beginning of May and this series of events were kick-started last year with the NCSEA Grant that was awarded to the SEAC Education Committee in 2016.





SEAC Business Management Committee News

Structural Engineers Association of Colorado

New this year, the SEAC Business Management Committee is conducting two surveys—the traditional company-focused Business Practice Survey and a new Individual Compensation Survey.

Business Practice Survey

Since 1982 SEAC has been conducting a survey of companies with members of the organization regarding Colorado structural engineering business practices. The survey covers several topics, including staff demographics, salaries by grade, benefits provided, P&L insurance, contract and accounting practices, among others. Historically dissemination of the results has been limited to the company representative respondents, to incentivize participation. This practice along with processing by an independent third party has been used to maintain the confidentiality of the information provided.

The Business Practice survey is offered again this year, and will be issued in early September. If you participated last year you will get an email with a link to the survey. If you would like the link, please email Paul Hause of SCI at paul@sci-denver.com. Again this year, in keeping with steps taken last year to improve organizational fiscal responsibility, we will be requesting a small stipend of \$50 from respondents to cover the cost of processing by an independent firm. In addition, the survey results will be available to other interested non-responding firms for a fee of \$500, provided a minimum of 25 firms provide complete responses.

We encourage you to participate in the Business Practices Survey. Over the past five years an average of 25 companies have participated, representing an average of 366 staff members. This survey information is unique to the practice of structural engineering businesses in Colorado, and provides a valuable tool to keep structural engineering firms up to date with evolving trends and recruit and maintain high caliber engineers to serve our market.

Individual Compensation Survey

The survey mentioned above is for engineering businesses. New this year is a compensation survey of individual SEAC members. Look for an email soon with instructions and a link. You must participate in this survey to see the results.

SEAC Business Management Committee News

Structural Engineers Association of Colorado

October Meeting

Martin & Martin 7:30am-9:00am

October 11, 2018

Review of results from Business Practices Survey and Member Compensation Survey

Participation in the Business Management Committee is open to all SEAC members who have paid the additional \$50 dues for the committee.

To add the Business Management Committee to your SEAC membership:

Visit https://seacolorado.org/purchase-a-membership/

Enter the password: SEACMembership 31

Select Business Practice Member & Sign Up Now



Learn about recent changes -- and how they could save you time and money. Understand "green roof" requirements, ask code questions, and more.

ICC and AIA (HSW) credit provided.

Please RSVP to CPDCommunications@denvergov.org by Friday, September 14.







September 20, 2018 5 p.m. - 7 p.m. Denver Post Building Auditorium 101 W. Colfax Ave. Denver, CO 80202

Meet-and-greet in lobby @ 4:30 p.m. Presentation/Q&A to follow at 5 p.m.

Young Members Group

Structural Engineers Association of Colorado

The National Council of Structural Engineers Association's Young Member Group Support Committee hosted a trivia night for teams across the U.S. to compete. The Structural Engineers Association of Colorado Young Member Group had two teams participate this year, one hosted in Denver at Anchor Engineering and one hosted in Boulder at JVA Consulting Engineers. Six participants in Denver and eight in Boulder competed against teams from Utah, Arizona, and California on July 18th. Here's some trivia from the evening to challenge you:

- Which city has a full-size replica of the Parthenon?
- What is a double-headed nail called?
- What country has the fewest number of Olympic medalists per capita?

While neither team brought home the gold this year, the evening was full of laughter, entertaining answers, food and drinks, and plenty of networking with fellow structural engineers. We hope you can join us next time.



Young Members Group

Structural Engineers Association of Colorado

FALL 2017 PE/SE EXAM BRIDGE REVIEW SESSION

SEAC Members and non-Members:

The SEAC YMG and Education Committee would like to invite you to the PE/SE Exam Bridge Review Session. Come join us on **Wednesday, October 3**rd **at 6pm at the Jacobs office in the DTC*** (previously CH2M Hill Headquarters) for a review session on bridge design, including a review of the AASHTO code and exam tips.

- · Session led by Taylor Johnson
 - · Licensed P.E. and bridge engineer for Jacobs
 - 12 years design experience
 - · Adjunct professor at the Colorado School of Mines
- Bring your AASHTO code and come prepared with questions.
- Submit practice problems and/or topics that you are struggling by emailing ymg@seacolorado.org by 5pm on Wednesday, September 26nd to allow the presenter adequate time to review the topics that require special attention. Submitted practice problems will be added to the review packet so that we can work through the problems as a group.
- · Estimated 1.5 hour session duration.

Wednesday, Oct. 3rd at 6pm

Jacobs Engineering* 9191 S Jamaica St. Englewood, CO. 80112 * Start time and location are subject to change. Registered attendees will be notified if any changes are made to start time or location of review session.

Please RSVP by 5:00pm on Friday, September 28th using the link below:

AASHTO Review Session Sign-up



SEAC YOUNG MEMBER GROUP

ymg@seacolorado.org

SEAC Annual Meeting

Click here to register

Come join us for a fun-filled evening at the Denver Museum of Nature and Science!

When:

November 8, 2018 from 6pm-9pm

Where:

Denver Museum of Nature and Science

What:

Nomination of Directors & Officers for 2019

Service Award Presentations

Multiple Speakers on Service in our Industry

Dinner

Cash Bar

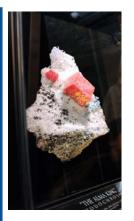
Access to the Gems & Minerals Exhibit

Guests are Welcome!

\$75 Members and Guests

\$50 Students

\$50 Early Bird Registration by 9/30









Support Students!

Structural Engineers Association of Colorado

SEAC encourages involvement and opportunity for students who will become the next generation of structural engineers in Colorado. *The current student rate is \$60* which be a financial obstacle for student participation.

SEAC in Northern Colorado has already instituted a successful sponsorship program to encourage student participation; we are extending this program state-wide. **Sponsorship is \$40 per student**; (the student will pay the remaining \$20 portion of the fee). If you are interested in sponsoring one or more student memberships, send a check to SEAC with "Student Sponsorship" in the memo line to

SEAC

PO Box 441069

Aurora, Co 80044

These sponsorships will go to students pursuing their Master's Degree and seeking a career as a structural engineer.



Please include a name and email address for the students to contact you. Thank you for your participation!

Each year, the SEAC Scholarship Fund, Inc. awards two \$3,000 scholarships to students studying structural engineering. Over the last ten years, we are grateful to have had the support of 48 separate firms and individuals with cumulative contributions ranging from \$20 to over \$20,000.

Engineering tuition at Colorado's universities has increased by 75% since the Scholarship Fund was founded in 2007. With your help and support, we can increase the number of recipients or the dollar amount for each scholarship to continue to grow the strong engineering community we enjoy in Colorado.

Additional information such as past winners, our donor list, and a pledge form can be downloaded from https://seacolorado.org/scholarship

EMPLOYMENT OPPORTUNITIES

Structural Engineers Association of Colorado



Design Engineer

Boulder, Colo.

Are you a recent grad or entry-level engineer looking to hit the ground running? Forget the ground! Are you ready to fly? Our team of structural, mechanical, and electrical engineers designs everything from aerial ropeway transportation systems to amuse-

CONSULTING SERVICES

ments rides, and they want to hear from you.

Who we are

With great projects and a fun-loving team, SCJ was named as both one of the nation's fastest growing and best places to work last year. We specialize in civil engineering, transportation planning & design, environmental & urban planning, landscape architecture & design, specialty engineering, and public outreach. Our mantra "Anticipate. Envision. Create" captures our work environment and project approach.

What you'll be doing

- Bringing engineers and project managers to new heights. From the bottom of the Grand Canyon to the skies over NYC, our specialty engineering projects typically include aerial ropeway transportation systems, automated people movers, specialty structures, amusement rides, and communication towers.
- Managing drawings and providing calculations. You'll work independently to prepare drawings, provide calculations, and recommend design solutions to the project manager.
- Site visits and observations.
- Learning from some of the best! We're proud to have some of the top specialty engineering professionals in the country right here at SCJ. They've earned their reputation for being able to build anything anywhere.

What you bring

- A passion for serving others, communication, creativity, and a commitment to high-quality work.
- A bachelor's degree in a related engineering field.
- 0 to 3 years of progressively responsible drafting and design experience.
- AutoCAD experience preferred.

What we bring

An unbeatable <u>culture</u>! Fantasy football, <u>mugshots</u>, gold-medal <u>costume competitions</u>... you'll love coming to work. <u>Quality projects</u>. We pursue work that improves communities, challenges us, and makes a difference. <u>Community involvement</u> opportunities and a charitable matching program. Paid time off, 401(k) matching, Insurance plans tailored to your needs. Visit <u>scjalliance.com/careers</u> to apply.

EMPLOYMENT OPPORTUNITIES

Structural Engineers Association of Colorado



Senior Engineer and Junior Engineer

Do you want to work for Studio NYL on some of the most exciting, cutting-edge design projects in Colorado, the USA and the World? Our headquarters is located in Boulder, Colorado, one of the most desirable places to live in America. We also serve Colorado through our RiNo neighborhood Denver office. Our team of structural engineers, architects and façade designers offer great learning opportunities to advance your career in a mentoring, open design studio.

Our Studio is currently seeking outstanding candidates for the position of Senior Engineer, Junior Engineer/REVIT Modeler (primarily in Boulder, but in Denver too). If you don't like challenges please don't apply. Our team wants highly motivated people who care about producing great work. We look for energetic and enthusiastic people who have sound judgement and decision making. You must have superior analytical skills and an attention to detail. You must be able to operate efficiently in a multi-tasking environment and have a commitment to outstanding customer service.

Studio NYL offers a generous salary plus medical, dental, vision and disability insurance. We also offer a company match to a Simple IRA retirement fund. We have flexible working hours and offer a generous vacation allowance. Work hard, play hard.

Please e-mail your resume, cover letter, plus a list of three of your favorite building structures in the world and a short description of why they make your list to Julian Lineham (Founding Principal) at ilineham@studionyl.com.

Senior Engineer (full time)

- · 7-10 years of practical experience as a structural engineer specializing in buildings. · Bachelors or Masters in Structural, Civil or Architectural Engineering.
- · Experience in steel, concrete, timber, and masonry design is essential.
- · We will teach you how to design with aluminum, stainless steel, cables, glass, carbon fiber, plastic composites, and other non-traditional materials.
- Applicants with experience managing projects and in-house teams of engineers and REVIT modelers teams is a benefit
- · Applicants with a passion for architecture and design are preferred the desire to be part of a creative team is a must.
- · Revit experience is essential

Junior Engineer/Revit Modeler (full time)

- 2-5 years of practical experience as a structural engineer specializing in buildings is preferred, but recent graduates are welcome to apply too.
- · Bachelors or Masters in Structural, Civil or Architectural Engineering.
- · Experience in steel, concrete, timber, and masonry design is essential.
- · We will teach you how to design with aluminum, stainless steel, cables, glass, carbon fiber, plastic composites, and other non-traditional materials.
- · Applicants with a passion for architecture and design are preferred the desire to be part of a creative team is a must.
- · Revit experience is essential

Newsletter Ads

Structural Engineers Association of Colorado



YOUR ADVERTISEMENT HERE

Consider placing an ad in the bi-monthly SEAC newsletter to reach over 300 members, including professional engineers, suppliers, and vendors.

Contact Kim Wyatt at administrator@seacolorado.org or go online to https://seacolorado.org/seac-shop/.

Full Page Employment Ad: \$250 Half Page Employment Ad: \$150 Quarter Page Employment Ad: \$100

> Full Page Ad: \$350 Half Page Ad: \$250 Quarter Page Ad: \$200

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!