



STRUCTURAL ENGINEERS OF COLORADO NEWSLETTER

**2022 FALL
SCHEDULE
SIGN UP FOR THESE
EVENTS AT
SEACOLORADO.ORG**

**SEAC September
General Meeting**

September 15, 2022
7:15 a.m. - 900 a.m.
PPA Event Center
2105 Decatur St.
Denver CO

SEAC Fall Seminar

October 13, 2022
7:00 a.m. - 12:30 p.m.
Doubletree Westminster
8773 Yates Dr.
Westminster, CO

SEAC Annual Meeting

November 10, 2022
4:30 p.m. - 8:00 p.m.
Urban Putt
1201 18th Street
Denver, CO 80202

President's Message

'Change is the only constant in life.' Heraclitus said this 2500 years ago and it couldn't be more true today.

Covid continuously changed our workplace over the last three years. Inflation has changed the price of construction, impacting our designs. The market has made structural engineers a very limited commodity, forcing us to change how we acquire new talent in our companies. Outside these seemingly 'new' changes, we have the more familiar code cycle changes; the changes in software; and the changes in theory/design that keep us on our toes. One can argue whether hybrid/remote work; new recruiting strategies; and BIM are positive or negative results of change! While it is easy to see those changes forced on us as negatives, they often lead to innovation and improvements in our processes and in our lives. There are also self-inflicted changes like accepting a promotion; taking on a new job type; and pursuing a new client. We take those on in hopes to grow and challenge ourselves.

Our personal lives are not immune to change either. We can all relate to housing; relationships; extended family; hobbies; and even traffic creating constant change. Personally, my husband and I recently added three young children to our household - apparently parenting is nothing BUT change! Most of us would agree that our personal lives would be boring and unfulfilling without at least some of these changes - though fewer changes might be welcome at times.

SEAC is not immune to change either. We have recently brought on a new administrator, Dawn Miller. A big thank you to our past administrator, Becky Roland! Dawn will hopefully bring quicker response times as well as new processes and ideas to help SEAC continue to grow and improve. I'm sure there will be some transition items that may not go as smoothly as we would like. The board asks for everyone's patience as Dawn gets fully up to speed on our operations.

Nationwide we're seeing changes in structural engineering in regard to licensure. Twenty-six states now have some form of Structural Engineering licensure. This varies from a simple title designation all the way to fully restricting Structural Engineering practice to SE's only. The board is planning to create an ad hoc committee to review what other states have done and to discuss what is best for Colorado moving forward. If you are interested in participating, please reach out to your board.

Change is also happening on our board. Every year we nominate members to be voted on to join our board of directors. We'll be coming up with those nominees very soon for the vote in November. If you want to know about possibly serving on the board, please reach out to the current board for more information.

Heraclitus also said, 'It is in changing that we find purpose'. I encourage us all to work to find the purpose in the change that is all around us.

SEPTEMBER GENERAL MEETING



Hybrid Steel Frames with Wood Floors

Presented By: John Hand, P.E., S.E.



September 15, 2022

PPA Event Center



7:15a.m. - 9:00 a.m.

NEW START TIME

2105 Decatur St., Denver CO

NEW LOCATION



About the Presentation

The design of hybrid steel-timber structures is a relatively new building typology that has multi-disciplinary considerations that affect the structural design and performance. It is important for the structural engineer to understand these considerations early in the design process to inform the structural design. This presentation focuses on the information in the new AISC Design Guide 37, Hybrid Steel Frames with Wood Floors, and aims to provide the audience with a broad understanding of the multi-disciplinary considerations including fire design, acoustics, sustainability, and structural design.



About the Speaker

John J. Hand, P.E., S.E., LEED AP, is an Associate with Arup with over 16 years experience and leads Arup's South Region Structural Discipline. His background includes the structural design of Arup's first steel and CLT project in the Americas. Since then, he has continued to work on numerous steel, mass timber, and hybrid mass timber building projects across the United States.

Registration Fees

In-Person (Includes Breakfast)

SEAC Member: FREE

RMSCA Member: FREE

Guest/Non-Member: \$30

Virtual Broadcast - Outside Denver/Boulder

*Link will be emailed to you the day before the presentation

SEAC Member: FREE

RMSCA Member: FREE

Guest/Non-Member: \$30

Schedule

7:15 a.m.

Registration/Breakfast

7:30 a.m. - 8:00 a.m

SEAC Announcements and presentation by NCSEA Board of Directors

8:00 a.m. - 9:00 a.m.

Presentation

Registration fee includes breakfast, presentation, free parking in the lot south of the event center, and a certificate for 1.0 Professional Development Hour (PDH) to be emailed to each attendee, if requested, after the presentation.

The Deadline to Register is September 9, 2022

COMMITTEE NEWS

Structural Engineers Association of Colorado

SEAC August Project Presentation and Job Site Tour of Alloy Sunnyside Project



On Thursday, August 25th the SEAC Education Committee hosted a presentation and hard hat tour of the Alloy Sunnyside project in Northwest Denver. The presentation at Diebolt Brewing featured lead structural engineer Lauren Grenz of IMEG Corp., architect Eric Doner of RATIO, and project engineer Rodrigo Pereira with Catamount Constructors. This event was attended by 33 participants.



Alloy Sunnyside is an eight-story, multi-family, multi-use structure rising in northwest Denver's Sunnyside Neighborhood that features a cast-in-place concrete garage on drilled piers with upper levels that utilize "Infinity"-style composite floor slabs on metal stud bearing walls. Presenters discussed some of the unique challenges of the project, which included height limits due to zoning; a high water table and sloping bedrock below grade; and the need to protect electric conduits within the parking garage. After touring the construction site, attendees returned to Diebolt for a happy hour with SEAC colleagues. SEAC would like to offer a special thanks to our presenters!



2023 SEAC Education Committee Planning

The SEAC Education Committee is looking for new 2023 Project Presentations, Job Sites or Manufacturing Tours ideas. If your company is interested in participating, please contact us at education@seacolorado.org



2023 SEAC Education Committee is looking for New Members

The SEAC Education Committee is looking for new excited and motivated members. This is a great time to join and learn more about the various educational events which we organize - including the SEAC Fall Seminar, Project Presentations, Job Site Tours and PE/SE Review Webinars and the Bridge Review session. If you are interested in attending the meeting, please RSVP at education@seacolorado.org

SE3 Committee

The SE3 committee wants to hear from you! Please respond to our 5-minute [survey](#) about our membership's interests and goals.

Your responses will be used to plan for and prioritize upcoming events and activities. Look for event announcements starting next month!

Contact se3@seacolorado.org with questions, comments, or feedback.



2022 FALL SEMINAR

Thursday, October 13

7:00 a.m. – 12:30 p.m. (4.0 PDH)

Doubletree by Hilton Denver

8773 Yates Drive, Westminster, CO 80031

PRESENTATIONS

Structural Sustainability: The SE's Role in Getting to Net Zero

Presented By: Megan Stringer, S.E., LEED AP BD+C

Associate Principal – Holmes Structures, San Francisco CA

Embodied carbon has become a major topic of conversation within the AEC industry. Low-carbon construction is entering our design conversations and building codes with structural engineers being asked to reduce their project's embodied carbon. Additionally, through the Structural Engineers 2050 Commitment Program (SE 2050), the only national embodied carbon tracking and reduction program focused on structural framing systems, structural engineering firms are committing to reach net zero embodied carbon structures by 2050. With the push for lower embodied carbon structures, structural engineers play a vital role in getting to net zero.

This presentation will explore advances the structural engineering profession is making toward net-zero embodied carbon structures, discuss the top actions structural engineers can take to reduce the embodied carbon in their projects, discuss how structural engineers can make wiser design choices to reduce emissions, and educate the attendees about the SE 2050 commitment program and the resources and tools available to reduce embodied carbon. The presentation will introduce the SE 2050 database, which will be used to track embodied carbon, and explain how structural-engineer-supplied embodied carbon impacts can be entered into the database to establish benchmarks or target values for various structural materials and systems.

Everything Wind: FAQ, Wind Code Evolution, and ASCE 7-22 Updates

Presented By: Emily Guglielmo, S.E., P.E., F.SEI

Principal – Martin/Martin Inc., San Francisco CA

Focusing on answering all of your wind design questions, the session will begin with a review of the most frequently asked wind related questions as collected by the NCSEA Wind Engineering Committee. Topics include:

- Analysis Methods
- Wind loads on balcony handrails, rooftop screen walls, and temporary structures
- Drift limits and serviceability under wind loads and effective wind area
- Canopies and Corner Zones

Following the FAQs, the session will include a look to the newly adopted ASCE 7-22 wind provisions. Highlights include new wind provisions for MWFRS and C&C of elevated buildings, new chapter of tornado provisions, new long return period hazard maps, and new Pre-standard for Performance Based Wind Design. This seminar will conclude with an insider's perspective on ASCE 7 code development process specific to wind loads, including the future of wind design.

ABOUT THE SPEAKERS



Megan Stringer, S.E., LEED AP BD+C

Associate Principal – Holmes Structures, San Francisco CA

Megan Stringer is an Associate Principal with Holmes in their San Francisco office. Motivated by our impact on the built environment, Megan is at the forefront of reducing embodied carbon. She champions Holmes' commitment to SE 2050 and gets sustainable structures built at impressive scales. Megan has overseen mass timber construction for a high-tech client, low-carbon concrete pours at Intuit, and many life cycle assessments. Megan is versed in working with large design

teams and has led the structural design for the largest mass timber project in North America amassing ~350,000 SF of Cross-Laminated Timber. Megan also serves as President of SEAONC and is the past chair of the SEI Sustainability Committee.

Emily Guglielmo, S.E., P.E., F.SEI

Principal – Martin/Martin Inc., San Francisco CA

Emily Guglielmo earned her bachelor's degree in Civil Engineering from UCLA, and her master's degree in Structural Engineering from UC Berkeley. She has nearly two decades of structural engineering experience, all with Martin/Martin, Inc. She began her career in their Denver, CO area office, and is currently a Principal with the firm, managing their San Francisco Bay Area office. She has lectured on wind load provisions nationally and internationally and is the Chair of the NCSEA Wind

Engineering Committee and a voting member of the ASCE 7 Wind Loads Subcommittee. A licensed SE, Emily has received a number of awards, including an SEI Fellow and the Susan M. Frey NCSEA Educator Award, for effective instruction for practicing structural engineers.



SCHEDULE

7:00 a.m. - 7:45 a.m.	Check In Breakfast Networking with Sponsors
7:45 a.m. - 9:45 a.m.	Megan Stringer, S.E., LEED AP BD+C Raffle #1
9:45 a.m. - 10:00 a.m.	Break Networking with Sponsors
10:00 a.m. - 12:30 p.m.	Emily Guglielmo, S.E., P.E., F.SEI Raffle #2 Announcements

Bring your business cards to participate in the raffle.

WEBINAR LINK

If you register for the webinar, the webx unique access password for the SEAC Fall Seminar will be emailed to you a day prior to the seminar.

REGISTRATION FEES

Registration fee includes breakfast (for in person attendees only), presentations, and a certificate for 4.0 Professional Development Hours (PDH). FREE PARKING is available next to the hotel.

Early registration ends September 23. Registration Deadline is October 6.

EARLY REGISTRATION	Member	Non-Member	Student
In Person	\$145	\$180	\$25
Webinar	\$145	\$180	\$25
AFTER SEPTEMBER 23	Member	Non-Member	Student
In Person	\$165	\$200	\$30
Webinar	\$165	\$200	\$30

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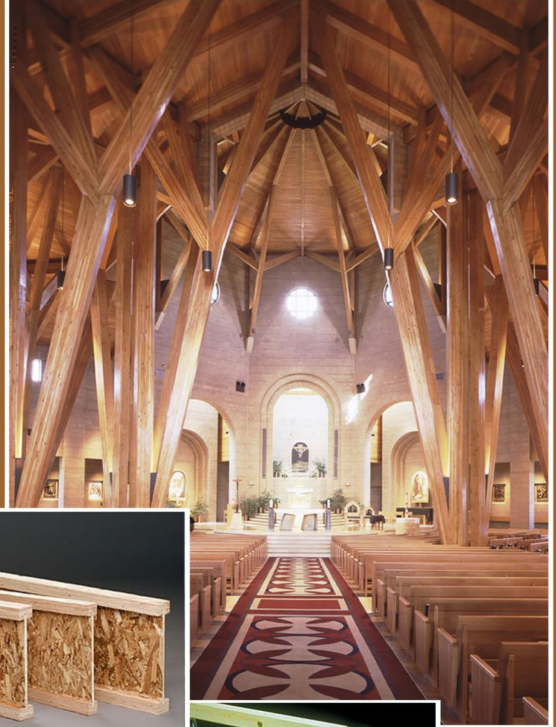
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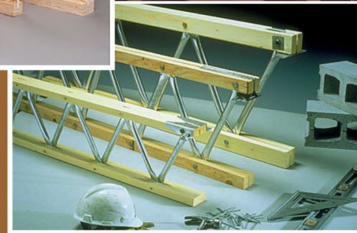


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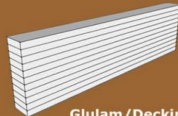


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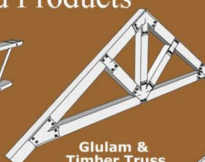
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JOB OPENINGS

Structural Engineers Association of Colorado



Some of the world's most pressing problems – from climate change to sustainable development, to critical infrastructure and the future of our energy supply – need our brightest and diverse minds working together to create safer, more resilient communities for tomorrow. GEI is currently seeking Project Professionals to help expand its growing business in the Rocky Mountain Region.

Project Manager Structural/Geotechnical Engineer

GEI's Denver office is looking for a motivated, structural engineer to assist with complex and challenging structural/geostructural projects as a design lead and project manager in a multi-disciplinary, multi-office team environment.

- 15+ years of related experience; significant hydraulic structures experience is a plus.
- 10+ years' experience using Revit and/or CAD.
- M.S. in Structural, Geotechnical, or Civil Engineering. P.E. certification in Colorado or ability to acquire within 6 months. P.E. certification in California is a plus.
- Familiarity with analysis and design software (i.e., SAP2000, STAAD, Risa, Wallap, MathCad, etc.); a strong proficiency in the development and use of advanced FEA methods and software.
- Salary range \$120k - \$140K, dependent on experience.

See our website for more details: geiconsultantsinc.ourcareerpages.com

Structural/Geostructural Engineer

Structural/geostructural candidates interested in providing engineering services for a variety of project types, including commercial and public building design and renovations, building foundations, dams and hydraulic structures, levees, bridges, tunnels, ground treatment, and excavation support systems.

- 5-8 years of related experience. 5-8 years of experience using Revit and/or CAD.
- M.S. in Structural, Geotechnical, or Civil Engineering; P.E. certification in Colorado or ability to acquire within 6 months.
- Familiarity with analysis and design software (i.e., SAP2000, STAAD, Risa, Wallap, MathCad, etc.).
- Willingness to work in the field.
- Salary range \$76k - \$90k, dependent on experience..

See our website for more details: geiconsultantsinc.ourcareerpages.com

Staff Civil Engineer

Seeking candidates interested in bringing design concepts to life while collaborating with a multi-disciplinary team of structural, geotechnical water resource, and environmental engineers to develop projects from idea through construction.

- 0-2 years of experience with a B.S. or M.S. in Civil Engineering, E.I.T. is desirable with a goal of future professional registration, the ability to successfully formulate and execute technical assignments with minimal oversight and direction, excellent computer skills with technical analysis software, CAD, GIS and MS Office applications.
- Willingness to work in the field.
- Salary range \$62k - \$74K, dependent upon experience.

See our website for more details: geiconsultantsinc.ourcareerpages.com

JOB OPENINGS

Structural Engineers Association of Colorado

STRUCTURAL SENIOR PROJECT ENGINEER

- Licensed in good standing in the state of CO
- 6 to 10 years' experience in consulting structural engineering for commercial institutional & multi-family residential projects
- Demonstrate experience in independently managing and executing projects including interaction with project owners, architects, other consultants, regulatory agencies and contractors
- Experience in supervising, developing & mentoring design engineers a must
- Knowledgeable in scheduling & budgeting engineering projects is considered an advantage
- Experience with computer software including Revit Structure, Ram Structural System & RISA is a plus

Salary Range: \$85,000- \$100,000

STRUCTURAL PROJECT ENGINEER

- Licensed in good standing in the state of CO
- 5+ years' experience in structural engineering design for commercial projects
- Experience in office, institutional, multi-family, parking structures, retail, health care, & mixed-use projects preferred.
- Work experience includes assuming responsibility for independently carrying out project assignments including preparation of project documents, engineering calculations & supervision of engineering & CAD staff
- Capable of making independent engineering decisions using mature judgement & effectively communicating with clients, other consultants, contractors & agencies
- Experience in using Revit Structure, RISA, Bentley and CSI Software is a plus

Salary Range: \$75,000 - \$90,000

STRUCTURAL DESIGNER/REVIT MODELER

- A two year technical degree or equivalent certified technical training in the use of Autodesk Revit Software
- An interest in the application of Revit modeling in the field of structural engineering
- The capability of working in a collaborative environment with a team of professional engineers and Revit modelers
- Ability to interpret and follow discretion from engineering and Revit modeling staff development including plans, sections, details, schedules, notes and all forms of document annotation
- Ability to work in a professional consulting engineering design office and become knowledgeable of the aspects of the structural engineering field related to building construction

Salary Range: \$60,000 - \$65,000



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JOB OPENINGS

Structural Engineers Association of Colorado



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The City and County of Denver's Community Planning and Development Department (CPD) is seeking a highly motivated Structural Plans Review Engineer (PRE) to join our Development Services Division. This crucial role will have an impact throughout Denver by reviewing and evaluating construction documents to ensure compliance to Building Codes and structural engineering standards for various buildings and structures throughout the City and County of Denver.

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Starting Pay - \$92,000-120,000 (based on years of experience and education)

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Structural Engineers Association of Colorado

Have you considered joining a committee?

Your participation is what makes our organization so successful.

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Wood	Jeremy Crandall	(303) 458-1736	Sara Mickus
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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.