



# STRUCTURAL ENGINEERS OF COLORADO NEWSLETTER

2020 WINTER SCHEDULE  
SIGN UP FOR THESE EVENTS  
AT  
[HTTPS://  
SEACOLORADO.ORG/](https://seacolorado.org/)

[SEAC Virtual Town  
Hall](#)  
11/12/2020  
12-1PM

[SEAC Education  
Committee Virtual  
Lunch](#)  
11/19/2020  
12-1PM

## SEAC Virtual Town Hall

November 12, 2020

Via webinar

12-1PM

This year's Annual Meeting has been cancelled due to COVID restrictions. We do, however, have some business to attend to. Please join us for our first SEAC Virtual Town Hall. Topics will include:

- Review of 2020
  - COVID Limitations (including outlook for start of 2021)
  - Financial update
  - Committees
- Scholarship Fund push
  - Option to give small amounts during Renewal
- Elections
  - Announce Candidates for Secretary and Director
  - Open floor for nominations
- 2021 Fee discount
- SEAC Social Media Presence
- Open Forum

Click [here](#) to RSVP for this free event.

Thank you to all our members and sponsors this year. We are grateful to be a part of such a great profession, and we appreciate your continued support of SEAC.

*- The 2020 SEAC Board of Directors*

# PRESIDENT'S MESSAGE

Structural Engineers Association of Colorado

It is strange to think this is my final newsletter as the president of SEAC. But it has truly been a strange year. It started normal enough with leading my first board of director meeting the first week of the new year. Followed shortly by our January joint meeting with CAGE. Things took a left turn in March as we were forced to cancel our March general meeting as COVID-19 started its disruption of all things normal. As with the entire profession, SEAC pivoted to remote with the health of our members in mind with our general meetings and programming from the younger member and education committees. I have been extremely happy with the attendance to these virtual events. I guess bacon was not as important to our attendance than I originally thought.



It was not the year I had expected, but we have adapted to the challenges before us. After all, as engineers we are problem solvers. As we move closer to 2021, I am hopeful things will return to a place where we can meet in person. Until then SEAC will continue to provide general meetings and other enrichment programs to our membership virtually.

As I mentioned in my last President's Message, we have canceled the Annual Meeting this year. In its place, we will be having a SEAC Virtual Town Hall on November 12 from 12pm to 1pm. We will be handling some of the typical business that would occur during the Annual Meeting, such as introducing the candidates for Secretary and Director. Elections will be held over the weeks following the Town Hall.

Also during the Town Hall there will be a discussion and vote on a proposed discount for 2021 fees for SEAC members that will be renewing their 2020 membership. This is to show appreciation to our 2020 members and to make up for the lack of in person General Meetings breakfast. Watch your e-mail inbox for additional information.

Also watch your inbox for announcements for social media presence for SEAC. This will include a new YouTube Channel and LinkedIn/Twitter pages. The former to provide our members on demand videos from our enrichment programs for those not able to attend. This will not include items such as general meetings or Fall Seminars. LinkedIn and Twitter will be used to promote SEAC and to provide a forum for announcements.

As strange as this year was, I am thankful I was able to be the SEAC president. I am proud of how we adapted and know we will continue to do so to provide the education and enrichment to our membership. I wish our membership health as we finish up 2020.

Forever Grateful,

*Charles S. Mitchell*

## Welcome to our Newest Members

**Scott Albertoni**  
Student Member

**Connor Lewer**  
Professional Engineering Consultants PA  
Affiliate Member

**Nick Dufresne**  
Kleinfelder  
Affiliate Member

**Jennifer Goupil**  
SEI of ASCE  
Professional Member

**Taylor Knickerbocker**  
Amentum  
Affiliate Member

# Committee News

Structural Engineers Association of Colorado

## 2020 SEAC Fall Seminar

On October 7th and 8th, SEAC conducted our Fall Seminar. To go along with the changes and adventures of 2020, the Fall Seminar was moved to a webinar only format and split over two days. While we were not able to meet and share the event in-person, the SEAC Educational Committee (EC) was pleased to present three seminars for a total of 4 PDFs. The presentations included David A. Fanella, who provided two concrete focused seminars titled How to Select a Reinforced Concrete Floor System for Vibration and Overview of CRSI's Design Guide on the ACI 318 Building Code Requirements for Structural Concrete, and with local contribution from Peter Marxhausen, Gene Stevens, and Evan Hammel, who provided a seminar focused on existing buildings titled Existing Structures - It Is All about the Approach.



We had a large turnout of 122 participants including 4 sponsored college students. The seminar included great sponsors including Castconnex, Lam-Wood Systems, Sideplate, and Simpson Strong-tie that truly helped bring the seminar together. Their contact information can be found on the SEAC website. (<https://www.seacolorado.org/>)

While it was disappointing not to share this event in-person it was still great to gather with the SEAC community all be it from afar. The SEAC EC looks forward to next year and hopefully being able to see everyone in person. If you have any further feedback on the event or topic suggestions for next year's Fall Seminar, please email the SEAC EC at [EducationSEAC@gmail.com](mailto:EducationSEAC@gmail.com).

## SEAC Education Committee Virtual Luncheon

Thursday, November 19th at 12-1pm

Please join us for a virtual Education Committee end of year lunch meeting. We will review the Fall Seminar survey results and discuss 2021 event planning.

The committee is looking for excited and motivated members to join the committee. This is a great time to join and learn more. If you are interested in attending the meeting (with lunch provided), please RSVP at [EducationSEAC@gmail.com](mailto:EducationSEAC@gmail.com).



Thank you to 2020 SEAC Fall Seminar Sponsors

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# Committee News (continued)

Structural Engineers Association of Colorado

## SEAC YouTube Channel

SEAC now has a YouTube channel. The 2020 SEAC August Project Presentation Virtual Tour Video on the UC-Denver City Heights Residence Hall is now available to view. [Click here](#), or click on the link to the YouTube channel off the SEAC homepage at [www.seacolorado.org](http://www.seacolorado.org) (bottom right corner).



## 2021 SEAC Project Presentation or Manufacturing Tour

The SEAC Education Committee is looking for companies interested in sharing their projects or facilities for the 2021 SEAC Project Presentation or Manufacturing Tour events. If interested, please contact us at [EducationSEAC@gmail.com](mailto:EducationSEAC@gmail.com).



## 2021 SEAC April Project Presentation 1.5PDH

### The Many Glacier Hotel Critical Life Safety Upgrades, Glacier National Park, MT



- **Historic Lodge - 136 000 square foot/ 4 story building**
- **Strengthening the significant deficiencies in the roof framing and building lateral force resisting system**
- **Various design challenges and accelerated construction schedules**

## Upcoming Webinars:

- November 12th [Warning Flags For Structural Engineers - Hidden Contractual Risk](#)
- November 19th [Fundamentals of Structural Planning](#)
- December 3rd [Structural Planning of Gravity and Lateral Load Resisting Systems](#)
- December 10th [Retrofitting of Existing Buildings with Steel Joists](#)
- December 15th [Sustainable Structural Design: Strategies That Can Make a Big Impact](#)

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## How prepared are college grads, to work in your firm?

You are invited to participate in the [2020 NCSEA Structural Engineering Practitioner Survey](#). Your survey responses will assist [NCSEA's Basic Education Committee](#) (BEC) in communicating with universities, current students, and rising professionals about the attributes sought in new hires by the structural engineering community as well as look for opportunities to supplement education where needed.

The BEC advocates an academic curriculum which prepares students for practice in the structural engineering profession. Additionally, the committee is looking to supplement educational curriculum for structural engineering students by engaging with educational professionals, NCSEA committees, and member organizations, and assisting with activities that promote the knowledge and skills the engineering community views as necessary when entering the profession. **The BEC seeks your input to identify the courses and technical skills required of individuals entering the structural engineering workforce**, as well as, the preparedness of today's graduates.

The information gathered will be compared with that from surveys completed in 2016 and the 2019 Curriculum Survey completed by accredited ABET institutions, then shared with the structural engineering community.

Thank you,  
NCSEA Basic Education Committee

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## NCSEA Structural Engineering Summit Exhibit Hall Open

As part of this year's Virtual Summit, NCSEA has opened the Exhibit Hall AND the Exhibitor Zone to EVERYONE, not just those registered for the Summit. The enhanced [Virtual NCSEA Structural Engineering Summit](#) experience offers opportunities to visit, learn, and engage with the companies and resources needed by you, practicing structural engineers. Visit the [Exhibit Hall](#) to be entered into bi-weekly raffles with amazing prizes, along with opportunities to engage with exhibitor representatives. And be sure to register for as many [Exhibitor Zone](#) events as you want to attend; many are offering special promos to their attendees

# Post-Disaster Safety Evaluation of Buildings & Infrastructure

ATC-20, ATC-45, and Cal OES SAP Training

Now by webinar

Sunday

February 7, 2021

8:00 AM–4:30 PM



## Webinar training session

Colorado experiences earthquakes, floods, tornadoes, and other natural disasters that damage infrastructure and threaten people's safety. The 2013 Colorado floods damaged or destroyed 20,000 homes and 50 highway bridges. Colorado has experienced 7 damaging earthquakes since 1944 with magnitudes of 5.2 to 5.5, and in 1882 experienced a magnitude-6.6 earthquake near Estes Park. Damage from such events can overburden building safety officials and lifeline operators. Colorado is training a corps of volunteers to rapidly assess the safety of buildings and critical infrastructure, speed recovery, and help people quickly and safely return to their homes, offices, and public spaces. The training uses the de facto international standards for post-disaster safety evaluation procedures called Post-Earthquake, Windstorm and Flood Safety Evaluation of Buildings (ATC-20 and ATC-45).

The University of Colorado Boulder is providing training on ATC-20 and ATC-45 to prepare you to assess building and lifeline safety following a disaster. Taught by a University of Colorado structural engineer and certified California Office of Emergency Services Safety Assessment Program (Cal OES SAP) trainer with experience in U.S. and international disasters, you will learn basic engineering principles and standard procedures for post-disaster safety evaluation. You will participate in exercises using real-life examples of earthquake, hurricane, and flood damage from U.S. and abroad.

## Webinar training topics

- ATC-20/45 building safety evaluation procedures.
- Cal OES SAP certification for qualified professionals. Attendance is open to all but certification is limited to licensed engineers, architects, engineering geologists, building inspectors, and public-works inspectors; list at <https://goo.gl/H2HahX>.
- Training examples of damaged buildings from disasters in the U.S. and abroad.
- How do buildings and other infrastructure structurally react to extreme loads?
- Procedures and exercises for wood, masonry, concrete, and steel buildings.
- GREEN, YELLOW, and RED placards, what are they and how do we use them?
- When and how do you perform a safety assessment and post a building?

## Training logistics

WHERE: Online via Zoom webinar. Register to get URL & certification procedures.  
COST & CLASS SIZE: \$20 covers postage for field manuals and donation to ASCE and EERI student chapters. Manuals provided free by FEMA. Limited to 30 people. Course provides optional continuing education units (0.8 CEUs from CU Boulder, \$20 added fee to CU; payment and documentation details provided during class).

TO REGISTER: visit <https://sap-cu-feb2021.eventbrite.com>

## Instructor

Keith Porter, P.E., PhD., M.ASCE, F.SEI



Dr. Porter is a licensed California and Colorado professional engineer, a research professor at the University of Colorado Boulder, and principal of the consulting company SPA Risk LLC. He has 30 years of experience in structural engineering practice and university research addressing natural disasters. He led the new *Natural Hazard Mitigation Saves* study for the National Institute of Building Sciences, updating the groundbreaking, Congressionally-mandated 2005 benefit-cost analysis of natural hazard mitigation for 3 federal agencies and 4 private-sector sponsors. He helped to lead the US Geological Survey's ShakeOut, ARkStorm, Tsunami, and HayWired disaster planning scenarios. He has performed post-disaster reconnaissance and data collection after several natural disasters in the U.S. and abroad. He is a certified Cal OES SAP trainer and holds engineering degrees

from UC Davis, UC Berkeley, and Stanford University.

## Schedule

8:00-9:30 AM	Program overview, process & procedures
10:00-11:30 AM	Non-earthquake hazards, building evaluations
1:00-2:30 PM	Building evaluations cont., exercises
3:00-4:30 PM	Lifelines, field safety



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Structural Engineer
- Structural Engineer

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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!**

# 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](mailto:administrator@seacolorado.org) or go online to <https://seacolorado.org/seac-shop/>.

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