

STRUCTURAL ENGINEERS OF COLORADO NEWSLETTER

2020 SUMMER SCHEDULE SIGN UP FOR THESE EVENTS AT <u>HTTPS://</u> <u>SEACOLORADO.ORG/</u>

SEAC July General Meeting 7/16/2020

Business Management Meeting 8/13/2020

NCSEA YMGSC Trivia Night 8/20/2020

SEAC August Project Presentation 8/27/2020

SEAC September General Meeting 9/17/2020

SEAC Fall Seminar 10/8/2020

July General Meeting

SEAC July Breakfast Meeting July 16, 2020 via Webex—7:45am-9:00am

PRESENTATION: *The Time is Right for Structural Engineers to Embrace Structural Fire Protection* For the past century, project stakeholders have tolerated a strikingly inefficient and amorphous system for protecting structures from uncontrolled fire. Also, structural engineers are often absent from the structural fire protection design process. However, due to recent advancements put forth by ASCE/SEI, now is a great time for structural engineers to get involved with structural fire protection, and lead its implementation in practice. Encouragingly, this area represents one of the most promising opportunities for structural engineers to add value to building design. Also, other AEC stakeholders including building officials, contractors, and architects stand to benefit from these new developments which promote more efficient, robust and economical structures as it applies to fire safety.

Traditionally, structural fire protection is prescribed for structures after they have been optimized for ambient design loads (e.g., gravity, wind, seismic, and others). This century-old prescriptive framework endeavors to reduce the heating of individual structural components with the intent of mitigating the risk of structural failure under fire exposure. Accordingly, the vulnerability of buildings to structural failure from uncontrolled fire varies across different jurisdictions - which have differing structural design requirements for ambient loads - and as a function of building system and component configuration.

ASCE/SEI 7-16 now permits designers to utilize structural fire engineering as an alternative to the code-default prescriptive method (standard fire resistance design). Specifically, Section 1.3.7 states that structural fire protection shall be provided per prescriptive requirements of the applicable building code, or by employing a performance-based approach in accordance with the new Appendix E section per building authority approval. Effectively, Appendix E brings structural engineers into the fold of structural fire protection design when alternatives to the prescriptive method are sought by project stakeholders. ASCE/SEI has also recently released the new ASCE/SEI Manual of Practice No. 138 (Structural Fire Engineering), which provides added guidance in support of ASCE/SEI 7-16.

New ASCE/SEI guidance should validate structural engineers who wish to engage and lead in the field of structural fire protection. Also, building officials now have tools to comprehensively evaluate structural fire protection variances. The future is bright in this space for structural engineers to impact the industry.

SPEAKER

Kevin J. LaMalva, P.E., M.ASCE is registered as both a fire protection engineer and civil engineer, and has worked at Simpson Gumpertz & Heger, Inc. since 2007. He is Past Chair of the ASCE/SEI Fire Protection Committee, and a member of numerous industry committees that conduct research and develop standards for structural fire safety. He served as co-author of ASCE/SEI 7 Appendix E and editor of ASCE/SEI Manual of Practice No. 138, and his work experience spans many areas of fire safety and structural engineering. He has recently been recognized as an ENR Newsmaker for serving the "best interests of the construction industry and the public".

PRESIDENT'S MESSAGE

Structural Engineers Association of Colorado

As I was writing last month's President's Message I was optimistic that we might be able to have our July General Meeting in person. I was looking forward to seeing everyone's smiling faces early in the morning the morning at Lakewood Country Club, almost as much as tasting the bacon. Though my cholesterol has improved over the past several months, it has been disheartening to not be able to be in your presence. The SEAC Board has been working towards a plan where we can meet in person again, but with distancing requirements and size restrictions for in person meetings set by local jurisdictions and health organizations, we have decided the July meeting, a joint meeting with Colorado Chapter of SEI, will follow the form of our May meeting and be a full webinar. At these unprecedented times, the health of our members is our priority.



As things seem to get more cloudy with the resurgence in COVID-19 around the country rather than clearer, we will remain focused on providing as much remote programing as we can. In June we co-hosted a webinar on the Code Changes in the ACI 318 with Rocky Mountain ACI. Both the joint RMACI and our May General meeting webinars were very well attended.

Due to these uncertainties, we will proceed as flexible as we can planning our of our upcoming programming. This includes our September General Meeting, Fall Seminar, and Annual meeting. In addition our Younger Member Group and Education Committee have been planning events for the end of summer and spring. If possible, these events will be in person. But if our reality at the time differs with our hopes, we will plan for remote versions where possible. Again the health and safety of our members and community are our highest priority.

I do not consider this the new normal. But accept it as a temporary normal. Things will be better. Until then take care of your-selves, your family, and in turn our community as a whole.

Charl S. Mitchell

SEAC President

Welcome to our Newest Members

Logan Shade KL&A, Inc. Professional Member

> Scott Luckiesh BKBM Engineers Affiliate Member

Shaun Franklin KL&A, Inc. Professional Member

SEAC Fall Seminar

Structural Engineers Association of Colorado

Save the date!

WHEN: Thursday, October 8th @ 7:00 am-12:15 pm

WHERE: DoubleTree by Hilton in Westminster* or webinar option

Topic # 1: Vibration Design of Various Structural Floor Systems

- Review of Various Design Standards Addressing Vibrations
- Structural Vibration Criteria and Characteristics
- General Approaches for Vibration Design
- Design Examples to Illustrate the Design Methods
- Case Studies and Lessons Learned

Presenters: to be determined

Topic # 2: Existing Structures- It Is All about the Approach

The SEAC Existing Structures Committee is pleased to be a presenter for the Fall Seminar. The committee looks forward to providing the membership with information pertaining to their design work. For this presentation, we will talk about the International Existing Building Code and the applicable sections for modification to existing buildings, all the while keeping in mind the important aspects of communicating this to our clients and how these deliverables can vary from traditional new design work. We will also talk about how field work is an integral part of working with existing buildings by reviewing case studies on projects that have happened right here in Colorado. Finally, we will close with a review of testing techniques that will enhance your understanding of the existing conditions that will serve to provide a necessary understanding of the as-built construction.

* Based on COVID-19 situation, the 2020 SEAC Fall seminar may be changed from in-person to a webinar only setting. This decision will be made based on the most stringent guidelines based on local jurisdictions, CDC, and the Colorado State Governor at that time.

SILVER SPONSORS



SidePlate Systems, Inc. 25909 Pala, Ste. 200 Mission Viejo, CA 92691 949.238.8900



Steel Tube Institute 5447 S Iola Way Englewood, Colorado 80111 303.720.4076

BRONZE SPONSORS

Rosboro LLC PO Box 1782 Fraser, CO 80442 541.393.4097 SEAC is now accepting sponsorships for the Fall Seminar. If you would like to promote your company, click <u>here</u> to participate. If your company would like to become the Fall Seminar raffle prize sponsor, please contact the Education Committee directly at <u>education@seacolorado.org</u>.

August Project Presentation

Structural Engineers Association of Colorado

August 27, 2020

City Heights Residence Hall

(The event registration will open on the SEAC website in late July)





Photos Courtesy of Stantec Architecture and JE Dunn

The City Heights Residence Hall is an iconic new facility under construction on the University of Colorado Denver's downtown campus. The \$76 million, 182,000-sq-ft design-build project will consist of two residential wings, each several stories tall, as well as a dining hall and a three-story Learning Commons. Slated to open in late summer 2021, City Heights will be CU Denver's first residence hall dedicated to first-year students. This project presentation will focus on the unique design features, and design and construction challenges of the project.

PRESENTERS: Tim Hickisch, PE, with Jirsa Hedrick, Carl Hole, AIA with Stantec Architecture, Inc. and Adam Ritchey with JE Dunn Construction



Tim Hickisch is a principal with Jirsa Hedrick, a firm celebrating 30 years in business and providing structural engineering services in the Denver region as well as nationally. He has over 36 years of experience in the design of a wide range of structures across the country, focusing on multi-story residential buildings. Current local projects include Modera Cap Hill and Modera West Wash Park. One of his greatest strengths is big picture coordination with the design team, which might include exiting requirements or fire code issues.

* Based on COVID-19 situation, the 2020 SEAC August Project Presentation may be changed from in-person to a webinar only setting. This decision will be made based on the most stringent guidelines based on local jurisdictions, CDC, and the Colorado State Governor at that time.

Committee News

Structural Engineers Association of Colorado

SEAC Scholarship Committee

The SEAC Scholarship Fund awarded two \$3,000 scholarships this year to Aleesha Busch and Lauren Kercheval.

Aleesha is a PhD student at the Colorado School of Mines where her research focuses on seismic design provisions for mass timber rocking wall systems. In addition to her research, Aleesha helped to create the Structural Engineering Institute Graduate Club at Mines. She currently serves as the club's Vice President.

Lauren completed her undergraduate degree in civil engineering at the University of Colorado Boulder this spring and will be enrolling in Stanford's structural engineering master's program in the fall. During her time at CU, Lauren served as the captain of CU's Seismic Design Team and completed a minor in Leadership Studies.

Please consider making a donation to the scholarship fund to help us support the future of our industry. <u>Click here for</u> <u>a donation form</u>.

SEAC Young Member Group

SE/PE Study Group Kick-Off - Thursday, July 9th

- •Are you planning on taking the PE or SE exam this October or next April?
- •Want to increase your chances of passing?
- •Are you looking for a study group or a group to take a review course with?
- •Are you a PE or SE and interested in a refresher course or assisting with the study group?

The SEAC Young Member Group would like to invite you to a remote get-together on Thursday, July 9th, starting at 6:30 PM. This kick-off meeting is to assess the interest in possible study groups, review course options for both the PE and SE exams in October and to provide an opportunity for individuals to ask questions about preparing for exam day. It is our hope that we can facilitate self-organized study groups and/or identify individuals hoping to join a group to register for an online review course at a discounted rate. Webinar overviews and group discount options will be posted to this event page on the SEAC website.

If you are interested in increasing your chances of passing your upcoming professional licensing exam, please join us! This opportunity is being extended to SEAC members and non-members so please feel free to distribute this to your colleagues and encourage them to join. If you have any questions, please contact the SEAC YMG Committee at <u>ymg@seacolorado.org</u>.

See next page for registration information.



Committee News continued

Structural Engineers Association of Colorado

SE/PE Study Group Kick-Off - Thursday, July 9th

Please RSVP by end of day Tuesday, July 7th by clicking here.

Review Course Options: Please click <u>here</u> for a list of commonly used SE and PE Review Courses. Please note this list is not exhaustive.

Meeting Call-in Information: Join Zoom Meeting - <u>https://dlrgroup.zoom.us/i/93075455053</u> Meeting ID: 930 7545 5053 Dial by your location 877 369 0926 US Toll-free 855 880 1246 US Toll-free Meeting ID: 930 7545 5053

NCSEA YMGSC Trivia Night - Thursday, Aug. 20th

Share your trivia knowledge with the SEAC YMG as we compete against young member groups from across the Western half of the US in the 6th Annual NCSEA Young Member Group Trivia Night on Thursday, August 20th at 6:45pm! The winning YMG receives a \$100 gift card to help fund future YMG social events. We are still evaluating whether this event should be held in person or remotely. Please revisit <u>Event page</u> periodically for updates. To participate, please register <u>here</u> by the end of day on Monday, August 17th.

Virtual Speed Mentoring - Thursday, Sept. 10th

Save the date for the SEAC YMG Virtual Speed Mentoring event. Mentors and mentees wanted. Registration coming soon through the Events page of the SEAC website.



2019 CALENDAR OF EVENTS

Structural Engineers Association of Colorado

SEAC Calendar

2020

-	
1	Important Dates
	BOD Meetings - 7:30am at S.A. Miro
	Thursday January 9, 2020
	Thursday February 6, 2020*
	Volunteer Training with Leo Baran, NCSEA - Feb. 28, 2020
	Thursday March 5, 2020
	Thursday April 2, 2020*
	Thursday May 7, 2020
	Thursday June 4, 2020*
8	Thursday July 2, 2020
	Thursday August 6, 2020*
	Thursday September 3, 2020
	Thursday October 1, 2020*
-	Thursday November 5, 2020
	Thursday December 3, 2020*
	* notes conference call only
	Business Management - 7:30am at Martin Martin
	Thursday February 13, 2020
	Thursday April 9, 2020
1	Thursday June 11, 2020
	Thursday August 13, 2020
	Thursday October 8, 2020

General/Annual Meetings - 7:30am
Thursday January 16, 2020 at Lakewood Country Club
Thusday March 19, 2020 at Lakewood Country Club
Thursday May 21, 2020 at Lakewood Country Club
Thursday July 16, 2020 at Lakewood Country Club
Thursday September 17, 2020 at Lakewood Country Club
Fall Conference TBD
Annual Meeting November 5 at Space Gallery
SEAC Newsletter Deadlines
January issue - January 3rd
March issue - February 21st
May issue - April 24th
July issue - June 26th
September issue - August 21st
November issue - October 23rd
SEAC ENews Deadlines
February issue - January 31st
April issue - March 27th
June issue - May 29th
August issue - July 31st
October issue - September 25th
December issue - November 27th

January									
S	Μ	Т	W	Т	F	S			
			1	2	3	4			
5	6	7	8	9	10	11			
12	13	14	15	16	17	18			
19	20	21	22	23	24	25			
26	27	28	29	30	31				

Мау									
S	M	Т	W	Т	F	S			
					1	_			
3	4	5	6	7	8	9			
10	11	12	13	14	15	16			
17	18	19	20	21	22	23			
24	25	26	27	28	29	30			
31									

September									
S	Μ	Т	W	Т	F	S			
		1	2	3	4	5			
6	7	8	9	10	11	12			
13	14	15	16	17	18	19			

 S
 S
 S
 S
 S

 S
 M
 T
 W
 T
 F
 1

 2
 3
 4
 5
 6
 7
 15

 9
 10
 11
 12
 13
 14
 22

 16
 17
 18
 19
 20
 21
 29

 23
 24
 25
 26
 27
 28

June							
S	Μ	Т	W	Т	F	6	
	1	2	3	4	5	13	
7	8	9	10	11	12	20	
14	15	16	17	18	19	27	
21	22	23	24	25	26		
28	29	30					

	0 c	S						
	S	Μ	Т	W	Т	F	3	
					1	2		
	4	5	6	7	8	9	17	
	11	12	13	14	15	16	24	

March									
S	Μ	Т	W	Т	F	S			
1	2	3	4	5	6	7			
8	9	10	11	12	13	14			
15	16	17	18	19	20	21			
22	23	24	25	26	27	28			
29	30	31							

S M T W T F S 1 2 3 4

5 6 7 8 9 10 11

12 13 14 15 16 17 18

19 20 21 22 23 24 25 26 27 28 29 30 <mark>31</mark>

SMTWTFS

1 2 3 4 5 6 7

8 9 10 11 12 13 14

15 16 17 18 19 20 21

22 23 24 25 26 27 28

November

July

April									
S	M	Т	W	Т	F	S			
			1	2	3	4			
5	6	7	8	9	10	11			
12	13	14	15	16	17	18			
19	20	21	22	23	24	25			
26	27	28	29	30					

August

 S
 M
 T
 W
 T
 F
 S

 2
 3
 4
 5
 6
 7
 8

 9
 10
 11
 12
 13
 14
 15

 16
 17
 18
 19
 20
 21
 22

 23
 24
 25
 26
 27
 28
 29

 30
 31
 14
 15
 14
 15

December

M	Т	W	Т	F	S
	1	2	3	4	5
7	8	9	10	11	12
14	15	16	17	18	19
21	22	23	24	25	26
	7 14	1 7 8 14 15	1 2 7 8 9 14 15 16	1 2 3 7 8 9 10 14 15 16 17	M T W T F 1 2 3 4 7 8 9 10 11 14 15 16 17 18 21 22 23 24 25

NCSEA NEWS

Structural Engineers Association of Colorado

2020 NCSEA Excellence in Structural Engineering Awards

The NCSEA Excellence in Structural Engineering Awards annually highlights some of the best examples of structural engineering ingenuity throughout the world. Structural engineers and structural engineering firms are encouraged to enter.

Projects are judged on innovative design, engineering achievement and creativity in the following categories:

- New Buildings < \$30 Million
- New Buildings \$30 Million to \$80 Million
- New Buildings \$80 Million to \$200 Million
- New Buildings Over \$200 Million
- New Bridges or Transportation Structures
- Forensic/Renovation/Retrofit/Rehabilitation Structures < \$20M
- Forensic/Renovation/Retrofit/Rehabilitation Structures > \$20M
- Other Structures

Chosen projects will be honored at the NCSEA Structural Engineering Summit Awards Event at the MGM Grand in Las Vegas, NV.

Selected projects must have a representative present at the banquet in order to win the award. An outstanding project will be chosen from each category and then featured in STRUCTURE Magazine.

Click here to submit your project.

Full instructions for online submissions as well as award program rules and project eligibility, can be found here.

Required materials must be submitted online by 3 pm CDT on Tuesday, July 14, 2020.

Upcoming Webinars:

July 7th Existing Buildings and the "10% Rule" - Are We in Agreement?

July 8th Welding Processes and Welding Details

July 15thPrinciples of Welded Connection Design

July 22nd Special Welding Applications and Problems and Fixes

July 23rd 2018 National Design Specification (NDS) Updates

July 29thWelded Connections for Seismic Service

August 11th<a>The 2020 Aluminum Design Manual

August 18thFailure Prediction Model for Structural Glass Design

BOARD OF DIRECTORS

Structural Engineers Association of Colorado



Chad Mitchell President S.A. Miro, Inc. 720-407-1031

president@seacolorado.org



Lacey Goetz VP/Treasurer Integral Engineering 303-804-7003

vp@seacolorado.org



Brian Lobmeyer Secretary Anchor Engineering Inc. 303-783-4797

secretary@seacolorado.org



Jeremy Crandall Past President Lam-Wood Systems, Inc. 303-458-1736

pastpresident@seacolorado.org



Mike Piper Director Martin/Martin 303-431-6100 director3@seacolorado.org



Jeff Borger Director Jirsa Hedrick 303-839-1963 director1@seacolorado.org



Maryann Davis Director Drake-Williams Steel 720-354-4664 director2@seacolorado.org

<u>We Want to Hear from YOU!</u> 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 <u>administrator@seacolorado.org</u> or go online to <u>https://seacolorado.org/seac-shop/</u>.

> 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