



STRUCTURAL ENGINEERS OF COLORADO

NEWSLETTER

RSVP

May 18, 2017
Breakfast at 7:30 a.m.
Renaissance Hotel
3801 Quebec Street,
Denver, CO 80207

RSVP by 5pm
Tuesday, May 16
on the [SEAC website](#).

2017 SCHEDULE

Meetings

Renaissance Hotel
3801 Quebec St.
Denver, CO 80207
May 18
July 20
September 21

Annual Meeting:

Red Rocks Visitor Center
November 9, 2017, 6pm

Fall Seminar:

Renaissance Hotel
October 20, 2017,
7:30am—12pm

Golf Tournament:

August 17, 2017

Board of Directors:

Martin/Martin, Inc.
12499 W. Colfax Ave.
Lakewood, CO 80215
Time: 7:30am
June 1
August 3
October 5

Web-Based Board

Meetings

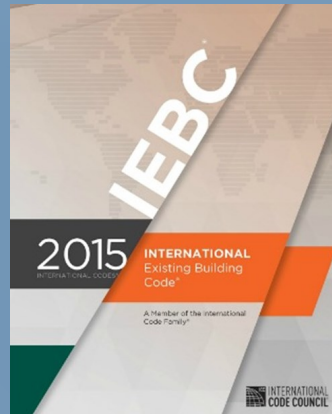
May 4
July 6
September 7
November 2

Business Management Committee

Martin/Martin, Inc.
12499 W. Colfax Ave.
Lakewood, CO 80215
June 8
August 10
October 12

MAY 18, 2017

The International Existing Building Code — Application and Case Studies



This presentation by members of the Existing Structures Committee (ESC) of SEAC provides a brief overview of existing structures issues and how we have addressed these problems. The purpose of the committee presentation is to give useful insight into the workings of the code regulations for existing structures.

Jerry Maly is a principal with Wiss, Janney, Elstner and has practiced in Denver since 1976. His work includes the evaluation of structural capacity and the assessment and investigation of damage, deterioration and failures in steel, wood, concrete, and masonry buildings. Jerry is a member of the NCSEA Existing Buildings Committee and is a past President of SEAC.

Donald Harvey is an Associate Vice President of Atkinson-Noland & Associates in Boulder. Donald will present some of the challenges involve masonry assemblies of existing buildings. He will briefly review the provisions of the IEBC related to masonry and fill in some of the gaps that the Code leaves behind. The presentation will include a summary of historic masonry compression and shear test results to provide some perspective on appropriate design values for existing masonry structures.

Dale Statler, an engineer with WJE, will present the 2015 IEBC provisions for reroofing buildings in “high-wind regions,” which require roof diaphragms be evaluated (and possibly strengthened) for current code wind loads. Much of Colorado falls under this provision, and plan reviewers have started to enforce it across the state. In this segment you will learn where this provision comes from, what it requires, and explore some of the potential implications through a recent case study.

Gene Stevens, is a principal with J. R. Harris & Co. and founder and chair of the SEAC Existing Structures Committee. As the final speaker, Gene will summarize the premise of assessing existing structures using the IEBC & ACI 562 provisions as they relate to structural reliability and the perspective of repair. Using real life examples of repair designs to improve the safety and performance of existing structures, Gene will examine the judgement factor of the codes and meeting the owner’s needs.

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

Happy May!

I hope you attended our joint meeting with CAGE in March. We heard an informative presentation on seismicity in Colorado. Although the intensity of shaking is generally thought of as being small, there have been large events, and there continues to be regular seismic activity in Colorado, most recently induced events. A compelling case was also presented for avoiding use of Seismic Design Category A for schools in Colorado.

Our longtime delegate to NCSEA, Brent Norris, is stepping down to pursue retirement. Many thanks to Brent for serving the members of SEAC over the last many years. The delegate serves the important role of liaison between the national organization and Colorado. The delegate attends SEAC board meetings, reports to the members, participates in monthly national conference calls, and attends the national conference, among other duties. The board is looking for someone interested in serving as the delegate. If you are a past SEAC board member or current active committee chair, please contact a board member to express your interest. We'd like to have the new delegate in place by this summer.

In addition to finding our new NCSEA delegate, the board has been busy with several other issues. We have created a shortlist from the 20 applicants received for the Executive Administrator position and will begin interviews. We continue to work through website/database issues. We are reviewing the dues structure and expenses for the organization to remain fiscally sound. And we will be reviewing a new version of the Bylaws and Operations Manual that the working committee has been creating for the past several months.

I'd like to acknowledge Ben Cook for the job he's done this year securing sponsors for our General Meetings. Ben has arranged a sponsor for most of our meetings. Please visit with the sponsor when you come to our meetings. The income from sponsors helps keep our dues low, and you may learn something about a new product or service that will help with your practice.

Our May meeting will focus on using the IEBC with a couple of case studies. As many of you know, this code can be difficult to use in practice. The speakers will share their knowledge of actual projects and how they've applied this code. I hope to see you there.



ANNOUNCEMENTS

Structural Engineers Association of Colorado

NEW!

Welcome to our Newest Members

Kevin Garrett (Affiliate Member)
Martin/Martin Consulting Engineers

Geoff Leewaye (Student Member)
DLR Group

Shane Miller (Affiliate Member)
Froelich Engineers

Brian Wilson (Student Member)
J.R. Harris & Company

Tanner Waldron (Affiliate Member)
HCDA Engineering

Jacob Zilliox (Affiliate Member)
Peak Engineering, Inc.

SAVE THE DATE!

AUGUST 17, 2017 1:30 start
2017 SEAC/CAGE/ASCE/ADSC
GOLF TOURNAMENT
FOSSIL TRACE GOLF COURSE

More information and registration to
come.

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 Katharine Sparhawk (SEACNEWS@MartinMartin.com)

EMPLOYMENT OPPORTUNITIES

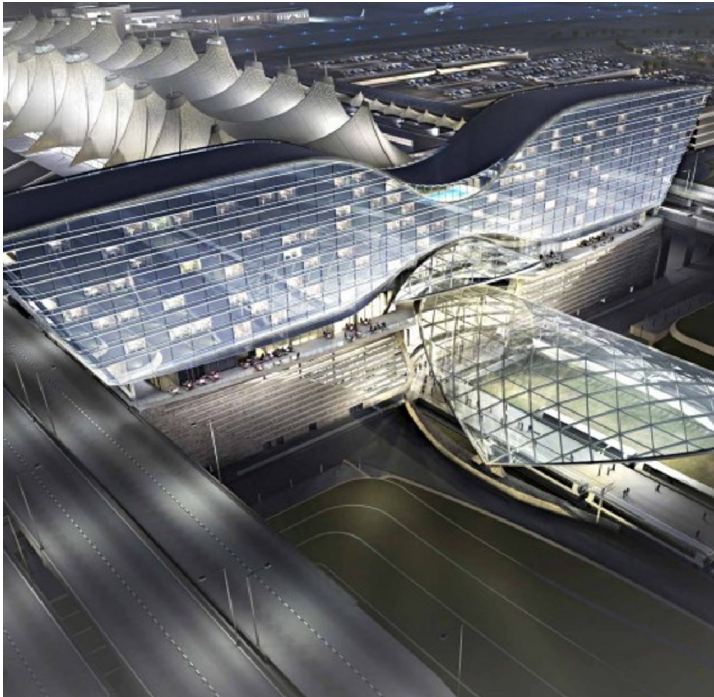
Structural Engineers Association of Colorado



S.A. Miro, Inc.

S. A. Miro, Inc. seeks to hire a structural Senior Project Engineer with the following qualifications:

- ◆ Licensed in good standing in the state of Colorado.
- ◆ 6 to 10 years' experience in consulting structural engineering for commercial, institutional and 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 and mentoring design engineers a must.
- ◆ Knowledgeable in scheduling and budgeting engineering projects is considered an advantage.
- ◆ Experience with computer software including Revit Structure, Ram Structural System and RISA is a plus.



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 Caryn, Katharine, or any Board member for further details.

EMPLOYMENT OPPORTUNITIES

Structural Engineers Association of Colorado



Investigative Engineer — Building Envelope Team

Martin/Martin, Inc.'s Investigative Group has an opening for a creative, experienced structural engineer to join our team in the Lakewood, Colorado office.

We are seeking a structural engineer to work on our Building Envelope Team, performing investigations and designing repairs for structural and waterproofing elements. The successful candidate will develop expertise in the rapidly expanding building envelope market segment, learn to evaluate the integrity of assemblies, perform testing on existing or new installations, and work closely with contractors and clients. The candidate will also obtain a broad range of experience in many areas of investigative engineering including forensic analysis, historic preservation, non-destructive testing, fall protection, seismic retrofit, repair, and remodel work.

Required Qualifications:

- 3 to 6 years of progressive structural engineering experience
- Registered Professional Engineer in Colorado or able to obtain within 1 year
- Strong knowledge of building and design codes
- Strong background and understanding of computer analysis and design software
- Excellent time-management skills
- Self-motivated and able to work independently for extended periods of time
- Strong work ethic
- Demonstrates strong commitment to continued personal growth and development in all aspects of their work
- Good written and verbal communication skills

Desired Qualifications:

- Demonstrated ability to design, detail, coordinate, and model projects
- Experience with remodel/addition/tenant improvement projects
- Revit literate in producing plan work, details, notes, and general editing
- Capable of working from scaffolding and lifts at elevated heights

EMPLOYMENT OPPORTUNITIES

Structural Engineers Association of Colorado



Investigative Engineer — Parking Garage Team

Martin/Martin, Inc. is looking for a structural engineer to join our Parking Garage focus team within the Existing Building Services group in the Lakewood, Colorado office. This team focuses on the design of new parking garages, repair of existing parking garages, and various structural engineering projects for higher education buildings and other structures.

The position will provide the opportunity to perform structural engineering analysis for new parking garage structures such as developing design criteria in accordance with IBC standards, performing structural calculations for gravity and lateral building components, producing plans and details for construction documents, and performing construction administration site observations. Other engineering tasks will include assisting with the assessment and design of repairs for existing structures and evaluating various components of existing buildings.

Required Qualifications:

- Bachelor's degree in Architectural, Civil, or Structural Engineering
- Has EIT certification or currently registered as a Professional Engineer in Colorado
- 1 to 6 years of progressive structural engineering experience
- Good knowledge of building and design codes
- Strong work ethic with excellent time-management and organizational skills
- Self-motivated and able to work independently for extended periods of time
- Demonstrates strong commitment to continued personal growth and development in all aspects of their work
- Good written and verbal communication skills
- Committed to client-service and a team-based approach

Desired Qualifications:

- Master's degree in Architectural, Civil, or Structural Engineering
- Experience using Autodesk Revit to produce building construction documents
- Demonstrated ability to design, detail, coordinate, and model projects
- Experience analyzing structures using SAP, ETABS, or RAM
- Completed several concrete design projects

BUSINESS MANAGEMENT COMMITTEE

Structural Engineers Association of Colorado

Those of you that attended the January 2017 General Meeting will hopefully recall the brief section regarding the Business Management Committee and its activities. Since 1982 SEAC has been conducting a survey of company's with members of the organization regarding Colorado structural engineering business practices. Initially this was conducted through the general membership during the time when all members were owners of structural engineering firms, and after the membership transition in the early 1990s through the Business Management Committee. The survey covers a number of 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. Both practices encourage the submittal of accurate data.

The survey will be offered again this year; it is expected to go out before the end of May 2017. However, this year, in keeping with steps taken last year to improve organizational fiscal responsibility, we will be requesting a small stipend of \$50.00 from respondents to cover the cost of processing by an independent accounting firm. In addition, this year for the first time, the survey results will be available to other interested non-responding members for a fee of \$800.00, provided a minimum of 25 complete responses are received.

We encourage you to participate in this year's Business Practices Survey. Over the past five years an average of 25 companys 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.

Please contact Paul Hause if interested, paul@sci-denver.com.

EC CORNER

Structural Engineers Association of Colorado

1) The PE/SE Bridge Review Session

The SEAC EC PE/SE Subcommittee hosted the PE/SE Bridge Review session on Wednesday, April 5th at HDR's office in Denver. It was led by Mr. Darin Freeman P.E., the Bridge Group Lead at HDR.

A total of (8) people attended the session, (5) in person and (3) on-line. Congrats to the attendees for completing their exams and we hope the session helped in preparation.



2) April Project Presentation

The SEAC Education Committee hosted its first project presentation sponsored by SEAC and an NCSEA Grant.

Julian Lineham with Studio NYL Structural Engineers and Façade Designers gave an inspiring presentation on utilizing parametric techniques to optimize workflow in the design of geometrically complicated structures.

There were 35 people in attendance, including industry professionals and students. During the discussion forum people asked various interesting questions and this made the event atmosphere very interactive.

The NCSEA Grant was awarded to SEAC EC with the purpose to support the NCSEA Mission Statement:

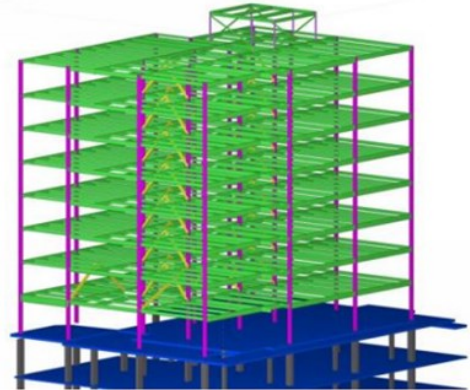
“ NCSEA advances the practice of structural engineering by representing and strengthening its members organization.”

EC CORNER

Structural Engineers Association of Colorado

3) SEAC Steel Fabrication Facility Tour

- When: Friday, June 23 at 12:45pm to 3:30pm
- Where: Drake-Williams Steel
20400 E. 26th Ave.
Aurora, CO 80011
- What:: The SEAC New Programming Subcommittee has arranged a shop tour of the Drake-Williams steel fabrication facilities. A light lunch will be provided followed by an introduction and tour focused on secrets of the steel fabrication industry, cost drivers, project applications and more. Online registration for this tour will begin following the May General Breakfast Meeting.



4) Save the Date: SEAC August Project Presentation

The SEAC EC New Programming Subcommittee will host the 2nd project presentation as part of its efforts in providing SEAC members with additional continued learning and networking opportunities.

- When: Tuesday, August 22 at 5:30pm
- Where: TBD
- Topic: TBD - Interested in giving a presentation? Please email EducationSEAC@gmail.com.

5) Save the Date: SEAC Fall Seminar

The SEAC Fall Seminar date and location have been confirmed! Please save the date and keep an eye out for more information to come.

- When: Friday, October 20 at 7:30am – 12:00pm
- Where: Renaissance Hotel, Stapleton

2016 FALL SEMINAR SPONSOR

Structural Engineers Association of Colorado

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- Reduced risk

Resilient

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- Earthquake resistance
- Blast resistance
- Passive fire resistance
- Indoor environmental quality
- Safety to occupants

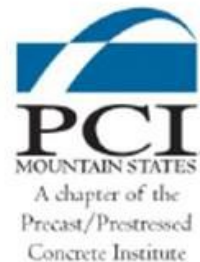
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Ben Cook,
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Structural Engineers Association of Colorado

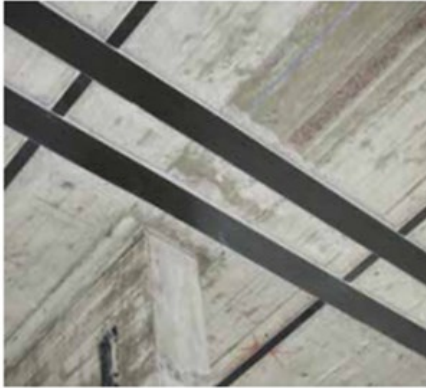


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SEAC COMMITTEES... WE NEED YOU!

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 Graham Allen	303.298.1900	Paul Doak
SEER	Brent Norris Mike Piper	303.860.9021 303.431.6100	Rob Jackson
Scholarship	Jeanette Torrents	303.444.1951	Jeanette Torrents
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	Jeanette Torrents	303.444.1951	Jeanette Torrents
Young Engineers	Jeremy Crandall Katie Courtright	303.399.5154	Jeremy Crandall