



STRUCTURAL ENGINEERS OF COLORADO

NEWSLETTER

SEPTEMBER GENERAL MEETING

2014 Schedule

Mark Your Calendar

General Membership Meetings

Renaissance Hotel
(Breakfast 7:30 a.m.)
January 15 - Wednesday (Lunch)
March 20
May 15
July 17
September 18

Fall Seminar

October 23** Note new date
Location: Sheraton Denver West
Time: 7:30-12:00

Annual Banquet

November 15
Location: TBD
Time: TBD

Board of Directors

Structural Consultants, Inc.
(7:30 a.m.)
January 9
February 6
April 3
June 5
August 7
October 2

Business Management Committee

Renaissance Hotel
(Breakfast 7:30 a.m.)
February 13
April 10
June 12
August 14
October 9

Weld Inspections in Building Construction - Joint Meeting

The specifications of weld inspection requirements for building construction projects are often not clear, and sometimes are neglected. Welding inspectors are sometimes faced with not understanding their scope of their work and being unclear in tracking which weldments have been inspected. This has resulted in the Engineer-of-Record (EOR) sometimes being unsure whether the intended welded connections have been inspected. The Committee found the following as we developed our topic:

- The Codes and Standards that are most often referenced in the Contract Documents, such as the International Building Code (IBC), AISC Code of Standard Practice (COSP), and AWS D1.1, each have their own set of Quality Control (QC) and Quality Assurance (QA) requirements, and they are not always comparable in terminology and in describing the types and frequencies of weld inspections. The provisions in the IBC and AISC documents have experienced significant changes in recent editions, while the AWS requirements have remained largely unchanged.
- If the EOR only makes reference to IBC Chapter 17 in the Contract Documents as a specification for weld inspection requirements, the scope of the inspection work will be largely undefined.
- The cost to provide inspection services is generally determined through bids being submitted to the Owner. Unclear scope can result in a large spread in the bids and a selection for services based upon cost only and a reduced scope without consideration for the appropriate qualifications.
- If the extent and locations of the Inspections are not carefully monitored, it will be a challenge at the end of a project for the testing agency to confirm that the required inspections have been performed.

The **SEAC/RMSCA Steel Liaison Committee** has prepared a presentation in response to these issues with the following goals in mind:

- To assist the EOR to clearly specify and communicate the project requirements.
- To clarify for Owners, Engineers, Contractors, Architects, Fabricators, Erectors and Inspection Agencies the weld inspection terminology and some of the misconceptions about welding inspection requirements.
- To summarize common weld inspection requirements, entity responsibilities and the weld inspection process so that the expectations of the requirements of the EOR and local governing authority can be met.
- To identify some of the typical communication breakdowns and provide suggestions to more actively engage the inspection agency in order to improve access to information and to better maintain the status of inspection work already completed.

See Page 3 for Location, Time, and RSVP information.

BOARD OF DIRECTORS

Structural Engineers Association of Colorado



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We Want To Hear From YOU! The SEAC BOD is interested in hearing your suggestions, comments and ideas. Please feel free to contact a member of the Board of Directors at any time.

Thank you to all of our members who continue to support SEAC!

PRESIDENT'S MESSAGE

Structural Engineers Association of Colorado

Programming is an essential component of the benefits of being a member of the Structural Engineers Association of Colorado. Several committees and the Board of Directors allocate a good portion of their time to developing ideas for programs, planning and preparing programs, making arrangements for guest speakers, venues and AV equipment, and hosting and presenting the programs. This is a team effort conducted by a talented group of people that allows us to continue to put on interesting, high quality programs covering a variety of topics. This year alone, we have touched on the impacts of the flooding in Lyons in September 2013, evaluating older wood and timber framed structures, the updates to ASCE 41 regarding the evaluation and design of structural systems for seismic resistance of older buildings, and discussing the evolving requirements of PE licensure relative to continuing education requirements and how Colorado fits into the national scene. In addition, SEAC and its Northern Colorado Committee played a key role in the precast concrete double-tee load test program held in Loveland this summer.

Still to come are our September General meeting regarding Welding Inspections presented by the SEAC/RMSCA Joint Committee on steel construction (see the newsletter front page announcement), and the half-day fall seminar produced by the SEAC Education Committee in October on the subjects of fire resistance and snow loads (see the announcement attached to end of the newsletter.)

Based on the quality programming, our membership continues to grow, and the general meetings and fall conference are consistently well attended. We thank you for your compliments this year on the programs put on, and for the opportunity to catch up and exchange ideas with your peers at the meetings.

We also thank the members that have volunteered their time and talent in bringing suggestions to the table and the effort put forth to produce the programs. Please keep up the good work.

After the fall conference in October we have one more official meeting for SEAC for 2014, the Annual Meeting. The planning is underway for an evening dinner event in downtown Denver on Saturday November 15, 2014. This meeting is a chance to pause and pay homage to the past, and look forward to the following year and finalize the slate of candidates for the opening Officer and Director positions. Please save the date, and stay tuned for further information via e-mail and the next newsletter.



Paul Hause, PE
SEAC President

Don't Miss Out September Meeting

Thursday, September 18, 2014

Renaissance Denver Hotel
(Breakfast at 7:30 a.m.)

3801 Quebec Street, Denver, CO 80207
(South of the I-70 & Quebec Intersection)

MUST RSVP by Monday, September 15th on the SEAC website at:

www.seacolorado.org or e-mail

Caryn Farrell at:

seac@martinmartin.com

EMPLOYMENT OPPORTUNITIES

Structural Engineers Association of Colorado



KL&A, Inc.

Structural Engineers and Builders

The Loveland office of KL&A has an immediate opening for an engineer with 4 or more years of experience.

Full-time position applicants for this position **must** have:

- A **Masters Degree** from an accredited civil/structural or architectural/structural engineering program

Preferred applicants will have:

- A PE or SE license
- Experience with Revit Structure modeling
- Experience in structural design of residential, commercial, industrial, or institutional buildings
- Experience working with architects

Personal attributes of many kinds may be acceptable, but an understanding of and dedication to client-centered service is a requirement.

Applicants for full-time positions should send a cover letter and resume to Greg Kingsley (gkingsley@klaa.com) and Jake Hohmann (jhohmann@klaa.com).

Please visit www.klaa.com for more information about our firm.



Winter Park

JVA, Inc. has an opening for a Structural Project Engineer with project management experience in our Winter Park office. We are looking for a licensed engineer with 8-10 years of design experience in a variety of building systems. Successful candidates will be motivated, service-oriented, experienced with REVIT, RAM, and/or RISA; and possess strong written and verbal communication skills. Send résumé to JVA, Inc.; 1319 Spruce St.; Boulder, CO 80302 or e-mail info@jvajva.com. JVA offers competitive salaries and comprehensive benefits in a rewarding work environment. To learn more about JVA, please visit www.jvajva.com

Fort Collins

JVA, Inc. has an opening for a Structural Project Engineer with some project management experience in our Fort Collins office located in historic Old Town. We are looking for a licensed engineer with 5-10 years of design experience in a variety of building systems. Successful candidates will be motivated, service-oriented, experienced with REVIT, RAM, and/or RISA; and possess strong written and verbal communication skills. Send résumé to JVA, Inc.; 1319 Spruce St.; Boulder, CO 80302 or e-mail info@jvajva.com. JVA offers competitive salaries and comprehensive benefits in a rewarding work environment. To learn more about JVA, please visit www.jvajva.com.

EMPLOYMENT OPPORTUNITIES

Structural Engineers Association of Colorado



STRUCTURAL DRAFTER/MODELER (BOULDER)

JVA has an opening for a creative and highly motivated Drafter/Modeler to work in our downtown Boulder office.

Qualifications:

1. REVIT and AutoCAD power user.
2. Comfortable creating and maintaining sophisticated REVIT families.
3. Experience working with a variety of building types and systems.
4. Collaborative and client service oriented individual.
5. Excellent writing and verbal communication skills.
6. Flexibility and desire to work on multiple projects.
7. *Sharepoint/ASP Classic* programming experience desirable.

STRUCTURAL PROJECT ENGINEER (BOULDER)

JVA has an opening for a creative and highly motivated Structural Engineer to work in our downtown Boulder office.

Qualifications:

1. 5 years experience minimum; licensed Professional Engineer.
2. Expertise in all building types and systems preferred. Strong technical skills required: Building design experience with wood, masonry, steel, and concrete is essential. Seismic design experience is desirable.
3. Excellent writing and verbal communication skills are required.
4. Experience with REVIT and AutoCAD is desirable.
5. Flexibility and desire to work on multiple projects is essential.
6. Motivated, service oriented, and must have a passion for engineering.

JVA is headquartered in beautiful downtown Boulder, Colorado, with a northern office in historic Old Town Fort Collins and a mountain office in Winter Park. Established in 1956, JVA is an 80-person structural, civil, and environmental engineering firm serving architects, owners, and builders on projects throughout the Rocky Mountain region and nationwide.

We have assembled a talented team of engineers, drafters, and support staff who provide high quality services consistent with JVA's corporate philosophy. JVA is a member of the U.S. Green Building Council and we are committed to designing high performance buildings and sustainable sites. Our building portfolio includes institutional facilities, residential construction and commercial buildings. We specialize in historic preservation and our structural team is working on National Park projects in multiple regions of the United States.

JVA is committed to excellence and is a caring company focused on our staff. We are an open book organization that offers our staff flexibility and encourages community involvement. Staff training and continuing education is important to our culture and JVA's staff is active in builder's groups and professional organizations such as SEAC, ACEC, DBIA, AIA Colorado, Colorado Preservation Inc., and the Association of Preservation Technology.

Please visit our website at www.jvajva.com

Competitive benefit package.

EMPLOYMENT OPPORTUNITIES

Structural Engineers Association of Colorado



JVA has an opening for a creative and highly motivated structural engineer to work with our Historic Preservation and Residential teams in our downtown Boulder office.

Qualifications:

1. 5 years' experience minimum; license Professional Engineer.
2. Experience assessing historic structures or existing buildings and designing repairs and alterations important.
3. Experience in multi-family residential construction is highly desirable.
4. Strong technical skills required. Experience in wood and masonry design critical. Seismic, steel and concrete design experience also desirable.
5. Excellent writing skills and verbal communication required. Experience writing technical structure assessment reports desirable.
6. Experience with REVIT and AutoCAD.
7. Primary responsibility will be in our Historic Preservation department. Flexibility and desire to work on multiple projects is essential.

Established in 1956, JVA is a 80-person structural, civil and environmental engineering firm serving architects, owners, and builders on projects throughout the Rocky Mountain region and nationwide. JVA has a strong background in preservation and renovation work on historic buildings, and we are the only firm in Colorado with a Historic Preservation Department dedicated to this effort. We provide forensic, stabilization, renovation and preservation services on a large variety of historic structures ranging from dilapidated barns and mining cabins to high profile buildings with Historic Register listings.

At present we provide services to the National Park Service on several A/E teams team for both historic and new work in multiple regions of the country. We've completed dozens of NPS projects involving visitor centers, auditoriums, comfort stations, shelters and housing.

JVA is active with the U.S. Green Building Council, and many of our engineers are LEED Accredited Professionals. In addition JVA Inc. is fully committed to ongoing staff training,

Please visit our website at www.jvajva.com
Competitive benefit package.

Thornton Tomasetti

Structural Engineers

Thornton Tomasetti's Denver office is seeking talented structural engineers with 2-4 years of experience. Candidates should have strong experience in steel and concrete design.

Responsibilities:

- Assisting senior staff in coordination, planning, and completion of engineering projects.
- Structural analysis, design and detailing of structural systems for steel, concrete, masonry and timber systems using various building codes.
- Coordination of design work with in-house staff, as well as other design professionals including Architects and other engineering disciplines.
- Generation of three-dimensional Building Information Models and preparation of construction documents using various software such as AutoDesk Revit, TEKLA, and Rhino.
- Perform construction administration for projects, check shop drawings, and answer RFI's.

Qualifications:

- Master's Degree in structural engineering or related field preferred.
- Strong technical skills.
- Working knowledge of current industry software, including SAP2000, ETABS, RAM, Risa3-D, PCA Software, Revit, and Microsoft Office.
- Excellent verbal and written communication skills.
- 2-4 years of experience.

Thornton Tomasetti offers an excellent compensation and benefits package including medical and dental insurance, a matching 401(k) plan, and a friendly, collaborative work environment.

Submit your resume to Melanie Welton at:

MWelton@ThorntonTomasetti.com. For further information regarding this job posting please visit our Career Page at:

<http://www.thorntontomasetti.com/careers>

EMPLOYMENT OPPORTUNITIES

Structural Engineers Association of Colorado



Farnsworth Group, Inc. is a full-service engineering and architectural firm that offers our valued clients nearly 400 employees located in a nationwide network of offices. We are also one of the nation's leaders in sustainable design initiatives. Farnsworth Group is an employee-owned company with a rich 100-year history that offers an impressive benefits and compensation program in addition to excellent career development opportunities. We have the following position available:

Structural Engineering Leader, Denver, CO

This is a unique and exciting opportunity for an experienced Structural Engineer in our Denver, CO office. This key leadership position will work to build a client focused, technically excellent structural and transportation engineering team to serve local and nationwide clients in the support of multiple design and construction projects.

Qualified candidates will be expected to provide technical leadership related to both building and bridge structural engineering. We are looking for someone with an entrepreneurial drive to develop business opportunities in relation to structural and transportation engineering. Specific responsibilities include the ability to cultivate strong client relationships, lead marketing activities, build a team, develop and mentor staff, collaborate with other disciplines, establish and maintain budgets, and work in partnership with leadership throughout the Company.

Specific Requirements include:

- Bachelors in Civil or Architectural Engineering, Masters in Structural Engineering or Business Administration preferred
- Licensed Professional Engineer, currently registered or eligible to apply to be registered in the state of Colorado
- 10 years of diverse project experience in the design and construction administration of building

and industrial structures

- Experience in transportation structures, desired
- Experience working on and with DOT projects / clients
- Proven leadership skills with engineering staff and organizations
- Excellent interpersonal, written and verbal communication skills
- Strong team player in a multi-disciplinary environment
- Ability to effectively manage clients
- Ability to effectively participate in and lead business development activities
- Ability to manage and contribute to several projects simultaneously
- Working experience with AutoCAD and REVIT, preferred

We offer a competitive salary and benefits program that includes:

- Medical/Dental Plans, Prescription Drug Program, Vision Plan
- 401(k) with Company Match
- Tuition Reimbursement
- Flexible Spending Account
- Time-off Benefits

For immediate consideration, please Apply Online by clicking on the link below:

<http://newton.newtonsoftware.com/career/JobIntroduction.action?id=8acf169147ec62990147f03377a005e0&source=SEAC-Structural%20Engineering%20Association%20of%20CO>

Keywords:

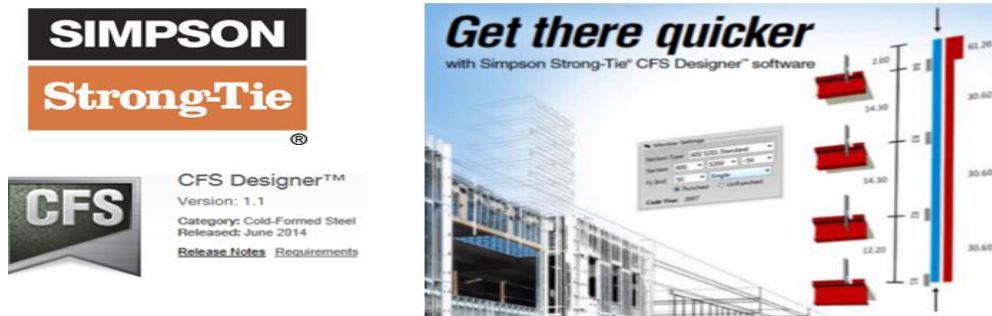
Structural, structural engineer, structural manager, building, engineering, engineer, leader, manager, engineering manager, engineer manager, bridges, bridge engineer, CDOT, transportation, DOT, engineering leader, structural leader, industrial structures, industrial

SPONSORS - THANK YOU

Structural Engineers Association of Colorado

SIMPSON STRONG-TIE SEPTEMBER SPONSOR

Simpson Strong-Tie® introduces our newest software for Cold-Formed Steel: CFS Designer™.



Simpson Strong-Tie® CFS Designer™ gives cold-formed steel (CFS) designers the ability to design CFS beam or column members according to AISI specifications and to analyze complex beam loading and span conditions. Intuitive design tools automate common CFS systems such as wall openings, compression posts for shear walls and floor joists with unbalanced load combinations. CFS Designer™ allows the design of multiple systems within the same job file and supports connection design for specific Simpson Strong-Tie curtain wall and bridging connectors like the SUBH/MSUBH u-channel bridging connectors.

CFS Designer™ Software is available for purchase at www.strongtie.com.

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INTRODUCING OUR NEW LOOK

We are pleased to announce the launch of a refreshed brand and website for Olson & Olson, Ltd. Our renewed brand is an integral part of company growth, reflects our enduring commitment to excellence and the strength of our valued client partnerships. This vision solidifies our position and reinforces our dedication to meeting some of the country's most challenging risk management needs.

GIVE US A CALL TODAY
SO WE CAN BACK YOU UP TOMORROW.

303-867-2055
olsonandolson.com



SEAC FALL SEMINAR - 2014

OCTOBER 23, 2014

7:30 AM – 12:00 PM

SHERATON DENVER WEST

360 UNION BOULEVARD

LAKEWOOD, CO 80228

FALL SEMINAR SCHEDULE

7:30 AM – 8:00 AM

Registration and Breakfast

8:00 AM – 8:15 AM

Introductions Announcements

8:15 AM – 9:15 AM

Fire Rating of Structures

9:15 AM – 9:30 AM

Break

9:30 AM – 10:45 AM

Snow Loads on Unusual Roof Shapes

10:45 AM – 11:00 AM

Break

11:00 AM – 12:00 PM

Snow Load Collapse Case Studies

4 HOURS OF PROFESSIONAL
DEVELOPMENT HOURS

SPONSORED BY:

**STRUCTURAL ENGINEERS
ASSOCIATION OF COLORADO**

RSVP ON LINE AT

WWW.SEACOLORADO.ORG

COURSE DESCRIPTION

Snow Loads on Unusual Roof Shapes

As Architects have moved further away from “boring” box-like structures, Structural Engineers frequently encounter roof geometrics or snow loading situations not specifically covered in ASCE 7. Another common situation is a new high-level addition adjacent to an existing lower level roof. The desire to avoid the cost and difficulty in reinforcing the “now” lower level roof often leads Structural Engineers to ask “what if” questions. In both such cases it is useful to have an understanding of snow drifting on roofs with “unusual” shapes. The objective of this seminar is to provide practicing structural engineers with such an understanding. This will be accomplished through analysis of three unusual shaped roofs, as well as mitigation approaches for new higher roof adjacent to an existing “lower roof” geometry. Changes to the “Snow Load Provisions” of ASCE 7-10 will also be briefly touched on. The second portion of this presentation discusses snow related roof failures, focusing occurrences in New England during the 2010-11 winter. Approximately five dozen snow failure case studies from the presenter’s forensic practice suggest drift loading was the predominate condition leading to structural roof failure. Causes of the poor performance of the problem roofs will be discussed with consideration of ground snow loads, measured roof snow loads, and simulated drift loading.

Fire Resistance Rated Construction Requirements in IBC Chapters 6 and 7

The fire protection requirements for a building are typically determined by the architect, but these requirements have a significant effect on the structural design. This seminar provides an overview of fire resistance rated construction requirements found in Chapters 6 and 7 of the International Building Code, with particular emphasis on the structural implications of these requirements. Topics to be covered include the following:

- Building Construction Types: I-A, I-B, II-A, IIB, III-A, III-B, IV, V-A, V-B
- UL listed Fire Resistance Rated Assemblies and IBC Tables 720 and 721
- Fire Walls, Fire Barriers and Fire Partitions Exterior walls and requirements for columns within exterior walls
- Floor construction within multi-level dwelling units in fire resistance rated buildings

ONLINE REGISTRATION

Early Registration Deadline: October 6, 2014

Members: \$95.00

Non-Members: \$115.00

Students: \$10.00

After October 6, 2014

Members: \$110.00

Non-members: \$135.00

Students: \$35.00

RSVP ONLINE AT www.seacolorado.org

*****Need to pay by check? See page 3. *****

Page 1

SPEAKERS

MICHAEL O'ROURKE, PhD, PE

Michael O'Rourke, PhD, PE, is a Professor of Civil Engineering at Rensselaer Polytechnic Institute, specializing in structural engineering, and national leader in the area of snow loading. Dr. O'Rourke's extensive research continues to contribute to building codes around the world regarding structural design hazards, particularly snow loads and earthquake. He has been on the faculty at Rensselaer since 1974, following four years with the University of Wisconsin-Parkside. Dr. O'Rourke has led 18 snow loading research projects, authored more than 40 journal papers and conference proceedings on the topic of snow.

MASOUD SABOUNCHI, PE, CBO, CFPS

Mr. Sabouchi has 29 plus years of experience in the field of building life-safety and fire protection engineering. Masoud is a Principal with Advanced Consulting Engineers, Inc. (ACE Inc.) providing building fire protection and life-safety system evaluation for new and existing buildings. He worked as a plan review engineer for City of Kansa City Missouri, as a code consultant in Seattle, as a senior plan review engineer for City of Denver and as the Chief Fire Protection Engineer for Denver Fire Department prior to establishing ACE Inc. in 2000. Masoud graduated from Kansas State University in 1984 with a degree in mechanical engineering with two years continuing education in structural engineering at University of Missouri in Kansas City.



PAYING BY CHECK – REGISTRATION FORM

Company Name		
Phone No.:		
	Name of Attendees	Fee Amount
Total:		

Make your check payable to:
SEAC and send to the address listed below along with this Registration Form

SEAC
c/o Martin/Martin, Inc.
12499 W. Colfax Ave.
Lakewood, CO 80215
Attn: Caryn Farrell

REGISTER EARLY TO RECEIVE THE DISCOUNT

Early Registration Deadline: October 6, 2014

Members: \$95.00 Non-Members: \$115.00 Students: \$10.00

After October 6, 2014

Members: \$110.00 Non-members: \$135.00 Students: \$35.00



Please submit this form along with your check.