



### SEAI Mission Statement

“To promote and enhance the Structural Engineering profession in Idaho by educating the public about the activities of Structural Engineers and their benefit to society and by providing professional development and support to SEAI members that is relevant, reliable, and inspirational to modern engineering practices.”

## Message From the Board

By *Bryan Starr, Director*

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Let me start with an introduction, since many of you probably don't recognize my name.

Bryan Starr here. I moved with my family to Boise a little over a year ago. My twenty years of structural engineering experience has taken me all over the country, though that was not intentional. I have worked in Nashville, Portland, Denver, Charlotte, and finally now in Boise. I had a great experience working for KPFF Consulting Engineers for many years; that's a name I know most of you will recognize. During the recession I briefly forayed into the mining industry (designing conveyors) but have spent the vast majority of my career in consulting engineering. I have now worked as a leader in a national architectural/engineering firm for the past four years.

Now that we've been introduced, I have a question for you. Have you ever played buzzword bingo, or more specifically, done it during a meeting with architects? I'm always amazed at the expressions used by architects, from talking about "form" to "design purity" and even "typology." Some of my favorites are how one part of the building is "married" to the other, or one part of the design "shakes hands" with another. Engineers can have a hard time relating to the ways architects describe projects.

This difference in terminology is a symptom of a larger underlying problem. Early in my career I noticed how there seems to be a constant tension between architects and engineers. Architects often envision buildings that are light and airy – and preferably not square. In many buildings, the architect would prefer that no one even knew a structure existed! Engineers, on the other hand, think linearly, and often find themselves frustrated by architects pushing the boundaries and asking for something unique and different.

And at many firms, even and perhaps especially ones where architects and engineers work side by side, the two tend to attack and undermine each other.

I believe there is a better way.

The core issue creating the tension between architects and engineers is more than a difference in terms; it is often a lack of genuine appreciation of what each discipline brings to the design. Instead of viewing the differences between architects and engineers as a negative, instead of battling against each other, we need to check our egos at the door to create the best end result and serve our clients well.

After working at an architectural firm for a few years now and experiencing the possibilities of interdisciplinary cooperation first hand, here are some tips I can share:

- **Don't just say no.** This can be hard for engineers, but give it a try. Here are some possible alternatives... "Yes; it's not easy, but we can do that." Or... "I'm not sure you'll like the way that looks, but what about this option?" Or... "We can do that, but not within the construction budget. Would this work for you instead?"
- **Get involved early.** At our firm, engineers work with the architects in the concept and schematic design phases to set the tone for the project, such as selecting the structural system and locating the column grid. Our deliverables are normally minimal – often just a narrative – but the architect's drawings will show the structural system and grid we developed together, setting us up for success in the next phase.
- **Stretch yourself.** Allowing architects to push us and ask hard questions is a great way to continue to develop as an engineer. I believe I've grown more as an engineer in the last four years working at an architectural firm than any four-year period prior to this.

Now if I were given the choice to work with architects or without, I would choose to partner with them ten times out of ten. Together, we can create something far greater than either could do alone. In fact (in case anyone is playing buzzword bingo right now, here come a few freebies), the cross-pollination of diverse disciplines is a key ingredient to innovation, to cultivating breakthrough ideas. 📌

## Committee Update – Nawid Mousa, Website Editor

*By popular demand (and out of necessity), SEAI has been making a concerted effort recently to update and improve its website by bringing on an expert in website design. Board members have been testing out beta versions and providing feedback to make sure the final site is polished and easy to use. Easy access to information on SEAI events and updates will benefit the group as a whole and will position the organization to meet future goals.*

*See update below from the website master, Nawid Mousa.*



Our goal this year is to build a functional website for our members. We are envisioning a website with added functionalities and sections such as:

- **About SEAI** (Board, Committees, Membership, YMG)
- **Events** (Board Meetings, Lunch Meetings, Seminars, Conferences, Calendar)
- **Resources** (Downloads, Archive, Newsletters, Links)
- **Forum**
- **Careers/Job Postings**
- **Scholarship**
- **Sponsorship**
- **Find an Engineer**
- **Payments**

Having the above functionalities will provide much-needed resources and flexibility for our members.

I encourage all of our members to provide us with additional ideas and suggestions that might be beneficial for all SEAI members. 🇺🇸



## SEAI MONTHLY LUNCHEON

**Topic:** Qualifications Based Selection

**Date:** Thursday, 10/19/17

**Time:** Social—11:45 pm  
Lunch & program—12 pm

**Location:** Cottonwood Grille  
913 W. River St.  
Boise, ID 83702

**Cost:** Member—\$20  
Non-member—\$25

**Speaker:** Teri Ottens / QBS Council

### **QUESTIONS TO NIC PEÑA**

**[nicolas.pena@kpff.com](mailto:nicolas.pena@kpff.com)**

Pay in Advance Using PayPal Links Below:

Members — \$20 — [Pay Here](#)  
Non-Members — \$25 — [Pay Here](#)

## Qualifications Based Selection

### **Presentation Overview:**

The Qualifications Based Selection state law affects all design professionals more than you might know.

Teri Ottens, QBS Facilitator for the Qualification Based Selection Council, will talk about the QBS law, recent case studies and conclusions, interpretations and results.

The overview will review the services the QBS Council can offer to engineers and their companies, to governmental entities, and to elected officials. 🇺🇸



## Code Corner

### 1803.5 Investigated Conditions

**CHANGE TYPE:** Modification

**CHANGE SUMMARY:** The requirements addressing the evaluation of rock materials for foundation support have been updated to be more consistent with current geotechnical engineering practice. In addition, basic requirements for providing adequate underpinning and excavations have been added.

#### 2015 CODE: 1803.5.6 Rock Strata.

Where subsurface explorations at the project site indicate variations or doubtful characteristics in the structure of the rock upon which foundations are to be constructed, a sufficient number of borings shall be drilled to sufficient depths to assess the competency of the rock made to a depth of not less than 10 feet (3048 mm) below the level of the foundations to provide assurance of the soundness of the foundation bed and its load-bearing capacity.



Geotechnical investigation

Photo Courtesy of Craix Subsurface, Inc.

**1803.5.7 Excavation Near Foundations.** Where excavation will reduce lateral support from any foundation, an investigation shall be conducted to assess the potential consequences and address mitigation measures. a registered design professional shall prepare an assessment of the structure as determined from examination of the structure, the review of available design documents and, if necessary, the excavation of test pits. The registered design professional shall determine the requirements for underpinning and protection and prepare site-specific plans, details and sequence of work for submission. Such support may be provided by underpinning, sheeting and bracing, or by other means acceptable to the building official.

**CHANGE SIGNIFICANCE:** The past wording of Section 1803.5.6 suggested that it would be possible to provide “assurance of the soundness of rock” dur-

ing the geotechnical evaluation phase, which may not necessarily be the case. Unfortunately, experience has shown that even at sites where rigorous evaluation of rock conditions is undertaken, it is often determined during construction that rock conditions between the locations sampled can vary significantly. Often the actual rock conditions at foundation locations are exposed or better defined (through excavation, proof-drilling, etc.) during construction, and interpretations of the conditions exposed during the construction process are necessary to complete the design of the foundation system. The modifications to Section 1803.5.6 express the characteristics necessary to assess the rock strata and estimate a load-bearing capacity based on observations and testing. Modifications to Section 1803.5.7 provide specific guidelines to identify responsibilities and basic requirements for providing safe and adequate underpinning and excavations. New Section 1804.2 was also added to provide specific requirements when underpinning is chosen to provide support for adjacent structures.



*This excerpt is from the Significant Changes to the International Building Code, authored by John Henry, PE, Jay Woodward and Doug Thornburg, AIA. The book is available at [shop.iccsafe.org](http://shop.iccsafe.org). Use ID # 4000512.*

## Community Involvement Opportunities

### STEM Mentoring

The Idaho Future City middle school STEM program is seeking volunteer mentors to work with students as they develop their visions for cities of the future between now and the Idaho Regional Future City Competition on January 20th at Boise State University.

Contact Lynn Olson at [lynnolson1@boisestate.edu](mailto:lynnolson1@boisestate.edu).

Visit the website for more info:

<https://futurecity.org/participants/mentors>



### Boise Women in AEC

The newly-formed Boise Women in AEC group is looking for Founding Sponsors as the organization mobilizes for some ambitious goals in 2018. Founding Sponsors will receive membership discounts and other benefits. See the link below for more information about the group's mission and upcoming events.

Contact Katie Walker or Ashley Thompson of SEAI if your company is interested in learning more about sponsoring.

<https://sites.google.com/view/boisewomeninaec>





Structural Engineers  
Association of Idaho  
P.O. Box 8733,  
Boise, ID 83707

### WISH TO PLACE AN AD IN THE NEWSLETTER?

Contact our Treasurer, Erick Baca, at  
[erick.baca@forterrabp.com](mailto:erick.baca@forterrabp.com)  
or (208) 459-2250.

### Monthly Rates for Advertising

Standard Business Card..... \$50  
Quarter Page..... \$90  
Half Page..... \$120  
Full Page..... \$150

*10% discount for ads running  
multiple months*

## UPCOMING EVENTS

### Idaho State Capitol Restoration Building Tour

November 2, 2017 at 4:00pm  
Hosted by Boise Women in AEC  
*All are welcome, but space is limited.*

RSVP or send questions to [boiseaewomen@gmail.com](mailto:boiseaewomen@gmail.com)

### SEAI Winter Seminar: Lateral Design and Analysis Considerations

December 6, 2017 from 8:00am–5:00pm  
Hyatt Place Downtown - 1024 W Bannock Street  
\$150 for SEAI Members and \$175 for non-members

See page 6 for additional information!

## SEAI Board and Chairs

### SEAI Board Members

#### President

Joe Stippel - Idaho Power  
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### SEAI Committee Chairs

#### Building Code Chair

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#### Membership Chair

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### SEER Committee Chair

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### Program/Seminar Chair

Vacant

### Technical & Education Chair

Nic Peña - kpff  
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## SEAI Winter Seminar

**Topic:** Lateral Design and Analysis Considerations

**Date:** December 6, 2017

**Time:** 8:00am–5:00pm

**Location:** Hyatt Place Downtown  
1024 W Bannock St  
Boise, ID 83702

**Cost:** Member—\$150  
Non-member—\$175

**Speakers:** John Hooper / MKA  
Donald R. Scott / PCS

Contact Ashley Thompson with questions:

[Ashley.Thompson@kpff.com](mailto:Ashley.Thompson@kpff.com)

Sign Up Using PayPal Links Below:

Members – \$150 – [Pay Here](#)

Non-Members – \$175 – [Pay Here](#)

## Lateral Design and Analysis Considerations

### Presentation Overview:

The chairmen of the ASCE 7 seismic and wind subcommittees, John Hooper and Don Scott, respectively, will present on lateral analysis and design considerations. See their information below. There is **limited seating** so make sure to sign up soon (link on the left). This seminar will count towards 7 PDH's.



John Hooper, Magnusson Klemencic Associates



Don Scott, PCS Structural Solutions

### Presenters:

John Hooper is a Senior Principal and the Director of Earthquake Engineering at Magnusson Klemencic Associates, a consulting structural and civil engineering firm in Seattle, Washington. He received his Bachelor of Civil Engineering from Seattle University and a Master of Science from the University of California at Berkeley.

John has over 30 years of engineering experience in the fields of renovation, earthquake engineering, and structural analysis. He is Chair of the American Society of Civil Engineers (ASCE 7) Seismic Subcommittee and is a member of the Main Committee.

John has been involved in the majority of MKA's Performance-Based Seismic high-rise designs over the past 15 years and has been part of the Project Technical Committee responsible for developing the FEMA P-58 Seismic Performance Assessment of Buildings Methodology. 📄

Donald R. Scott, S.E., F.SEI, F.ASCE, is the Vice President and Director of Engineering at PCS Structural Solutions and has been a Principal of the firm since 1986. He has led many of the firm's educational, commercial, institutional and private projects for new and renovated construction. Don's proficiency in high-end structural analysis is a strong resource at PCS Structural Solutions, a 50-person firm with offices in both Tacoma and Seattle, Washington. Don is a civil and structural engineering graduate of the University of Idaho with civil and structural engineering licenses in Washington and seven other states.

Don has authored many technical publications and has presented numerous seminars and webinars for ASCE/SEI and NCSEA on wind design throughout the country. He has been a member of the ASCE 7 Wind Load Committee since 1996, shaping future IBC provisions for wind design, and currently serves as Chairman. He is also a member of the ASCE 7 General Provisions committee, a member of the ASCE 7 Steering Committee, Chairman of the NCSEA Wind Committee, former Chair of the SEAW Wind Load Committee, and current Chairman of the NIST Community Resiliency Panel Buildings and Facilities Committee. 📄