



# CONNECTIONS

September 2019 Volume 19 Issue 5

Newsletter of the  
Structural Engineers  
Association of Oregon

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## Upcoming SEA Meetings and Events:

### Thursday, September 19, 2019: SEA Young Member Forum Happy Hour

Location: Henry's 12th Street Tavern, 10 NW 12th Avenue, Portland, OR  
Time: 5:30 pm to 7:30 pm  
See page 10 for additional information and how to RSVP for this event.

### Thursday, September 26, 2019: 5th Annual SEA Excellence in Structural Engineering Awards Dinner Banquet & Chapter Meeting

Topic: Providence Park Stadium Expansion  
Speaker: Nathan Ingraffea, Principal, KPFF Consulting Engineers  
Location: Multnomah Athletic Club, 1849 SW Salmon St, Portland, OR  
Time: 4:30-5:15 pm Tour of Providence Park (Limited to First 25 Registrants and by RSVP only); 5:30 Check-in/Social; 6:15 Dinner; 6:30 Program  
You can RSVP on the [seao.org](http://seao.org) website for the meeting and to [Jane@seao.org](mailto:jane@seao.org) for the Stadium tour. You must register for the meeting in order to attend the tour.  
See page 3 for more information.

### Thursday, October 3, 2019: SEA Fall Seminar

Topic: Transitioning to the 2019 OSSC Based on the 2018 IBC, Including Significant Changes in the ASCE 7-16  
Speakers: S.K. Ghosh & Sandra Hyde  
Location: Sheraton Portland Airport Hotel, 8235 NW Airport Way, Portland, OR  
Time: 8:30 am to 4:30 pm  
See pages 11 and 12 for general information and instruction on how to register.

### Saturday, October 12, 2019: SEA PE and SE Practice Exam

Location: Jacobs Engineering, 2020 SW Fourth Avenue, 3rd Floor, Portland, OR  
Time: 7:30 am to 4:30 pm  
See page 6 additional information and instruction on how to register.

### Wednesday, October 30, 2019: SEA Chapter Breakfast Meeting

Topic: Mass Plywood Panel: Designing with the Newest Mass Timber Product  
Speaker: Austin Basl, Freres Lumber Co.  
Location: Portland City Grill, 111 SW Fifth Avenue, 30th Floor, Portland, OR  
Time: 7:00 am check-in and breakfast; 7:30 am program

### Tuesday, November 12 to Friday, November 15, 2019: NCSEA Structural Engineering Summit

Events Include: Over 16 Hours of Continuing Education; Keynote Speakers; Timber-Strong Design Build Competition; SE3 National Symposium; and the NCSEA Excellence in Structural Engineering Awards.  
Location: Disneyland Hotel, Anaheim, CA  
See [ncsea.com/meetings/annualconference](http://ncsea.com/meetings/annualconference) for additional information.

SEAO has a twitter  
account and can be  
followed at  
[@SEAOregon](https://twitter.com/SEAOregon).



**CONNECTIONS** is a monthly publication of the Structural Engineers Association of Oregon, published to disseminate current news to our membership and others involved in the profession of structural engineering. The opinions expressed reflect those of the author and, except where noted, do not represent a position of SEAO.

Send membership inquiries to:  
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## PRESIDENT'S MESSAGE: *BY: NORM FARIS, P.E., S.E.*

It's an honor to continue to serve SEAO, and I truly appreciate all the dedication, passion, and time that is offered to keep our organization going. For those that may not know, SEAO is one of the more active organizations in the nation; it's likely ranked within the top 10% of the 50 member states for engagement, committees, seminars, programs, and everything else that goes on. That couldn't be true without the passion and energy by all those involved: so, with that, here are all of those that have spent the year making SEAO one of the best in the nation!



**Seth Thomas-**  
(Past President)

I don't think anyone could say enough for your ongoing commitment to SEAO. The time you invest in both the organization and profession is admired. Looking forward to your continued success and development in our industry. There's way too many to list, but your dedication this past year includes; spearheading the new website, working through the new code updates, support of the various technical committees, and maintaining engagement at the national level. THANKS AGAIN!

**Steve Trautwein-**  
(V.P./Incoming President)

Thank you for stepping in as our new delegate, helping organize the programs and your supportive role as V.P. I am looking forward to working together another year and seeing all the plans you have for 2019/2020.

**Dusty Andrews-**  
(Secretary/Incoming V.P.)

Continued commitment as both an Engineer and Industry representative, your assistance in the Public Outreach Challenge, supporting our board and your incoming 3-year role to lead us is appreciated.

**Mike Daily-**  
(Treasurer)

Thanks for your service on the board, maintaining our records and assisting in the Public Outreach Challenge.

**JoMarie Farrell-**  
(Director/Newsletter)

There is no way we can thank you enough for your tedious commitment to make sure our Newsletter gets out on time, along with your service on the board in replacing the much-needed Director position and of course the time you spend in the Awards program. There is a lot this organization couldn't do without you.

**CJ Marquardt-**  
(Director)

Your service on the board and ongoing time spent to have SEAO represented at Engineers Week has been very helpful.

**Brynn Adkins -**  
(Awards Program)

It's always one program we look forward to every year, and its ongoing success is in part due to you!

**Michelle Juarez –**  
(Engineers Week)

Connecting with our youth and representing the organization at the wonderful venue will help maintain the spirit in our industry: thank you!

**Deanna Kuhlman -**  
(Young Member)

Not enough to say for all your time you've put into the organization. As you turn over the chair of your Young member forum; we look forward and thank you for staying on to mentor the incoming, young, energetic group.

### BOARD OF DIRECTORS

**President**  
*Norm Faris*  
Valar Consulting Engineering  
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Norm.faris@valarengineering.com

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**Past President**  
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KPFF Consulting Engineers  
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**Executive Secretary**  
*Jane Ellsworth*  
SEAO Staff  
Ph: 503.753.3075  
jane@seao.org

*(Continued on Page 4)*

## SEAO COMMITTEES

### CODE ADVISORY COMMITTEE

Seismic  
*Reid Zimmerman*  
reid.zimmerman@kpff.com

Wind  
*OPEN CHAIR*

Snow Load  
*Andy Stember*  
andy@jasenginc.com

Code  
*Eric Watson*  
eric@miller-se.com

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wyounie@dc-engineers.com

Special Inspections  
*Eric Watson*  
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Mass Timber  
*Eric McDonnell*  
Eric.McDonnell@holmesstructures.com

### STRUCTURAL ENGINEERS EMERGENCY RESPONSE (SEER)

*David Tarries*  
David.tarries@portlandoregon.gov

### PROGRAM COMMITTEE

Monthly Meetings  
*OPEN CHAIR*

Awards  
*Brynn Adkins*  
brynn@wdyi.com

Golf Tournament  
*Stephen Stenberg*  
steez07@yahoo.com

Conferences  
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kevin@miller-se.com

### ADVOCACY COMMITTEE

Website  
*Seth Thomas*  
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Engineers Week  
*Michelle Juarez*  
michelle@miller-se.com

Young Member Forum  
*Deanna Kuhlman*  
dkuhlman@mcknze.com

### CONTINUING EDUCATION COMMITTEE

Seminars  
*Andy Stember*  
andy@jasenginc.com

### MEMBERSHIP COMMITTEE

Newsletter  
*JoMarie Farrell*  
jomarie@equilibriumllc.com

Roster  
*Jane Ellsworth*  
jane@seao.org

### DELEGATES

NCSEA & WCSEA/NWC  
*Seth Thomas*  
seth.thomas@kpff.com

*Amit Kumar (Alternate)*  
amit.kumar@portlandoregon.com

# SEPTEMBER AWARDS DINNER MEETING ANNOUNCEMENT THURSDAY, SEPTEMBER 26, 2019

Please join SEAO for the 5<sup>TH</sup> Annual Excellence in Structural Engineering Awards presentation. The meeting will feature keynote speaker Nathan Ingraffea, of KPFF Consulting Engineers presenting, "Providence Park Stadium Expansion". Awards will be presented to the winning projects, as selected by an esteemed panel of independent judges, in the following categories:

- New Buildings Over \$10M
- New Buildings Under \$10M
- Renovation/Retrofit
- Special Use Structures

In addition to the Awards and Speaker, we will be installing the new SEAO Board and announcing the SEAOSF Scholarship winners. A tour of the stadium is also available from 4:30 to 5:15 pm. The tour is limited to the first 25 registrants and by RSVP only (see reservation section below for tour sign up info). This is a meeting you don't want to miss!

## Topic: Providence Park Stadium Expansion

The new eastside expansion to Providence Park Stadium is a primarily vertical addition to the historic soccer stadium. It includes three new levels of seating for 4000 fans, party decks on the north and south ends, new concessions and amenity spaces, two new elevator towers and a new roof structure. The expansion was constructed through and over the existing eastside structure and also forms an arcade over the sidewalk along the west side of SW 18<sup>th</sup> Avenue. Reinforced concrete moment frames comprise the primary structural system and support post-tensioned concrete floor slabs. Three precast seating trays are supported on cantilevering precast rakers which are anchored back to the concrete frames. The roof structure is comprised of 152 foot-long space trusses which cantilever beyond the supporting concrete frames toward both the field and SW 18<sup>th</sup> Avenue. The structure is founded on at both the field level and the level of SW 18<sup>th</sup> Avenue.

This presentation will include:

- A brief history of the site and stadium
- Discussion of the design constraints and analysis methods used
- Numerous photos, sketches and drawings of the structure
- 3D point cloud renderings and videos

## Speaker: Nathan Ingraffea, P.E., S.E., KPFF Consulting Engineers

Nathan Ingraffea P.E., S.E., is a Principal in the Portland office of KPFF Consulting Engineers. He began his career in San Francisco working on large and complex structures including the Sony Metreon Entertainment Complex and the Four Seasons Hotel and Tower. He relocated to Portland in 2003 and began work on the pre-recession building boom that included OHSU's expansion into the South Waterfront District as well as numerous high-rise residential and office towers. His recent projects include the new Multnomah County Central Courthouse, the OHSU Center for Health and Healing II, and the Providence Park Stadium Expansion. He has always enjoyed teaching and has served as an adjunct assistant professor at the University of Oregon and often teaches structural review courses for local practicing architects through the Portland AIA.



**Location:** Multnomah Athletic Club, 1849 SW Salmon Street, Portland, OR

Parking information can be found at: [www.themac.com/parking](http://www.themac.com/parking)

**Time:** 4:30—5:15 pm — Tour of Providence Park  
5:30 pm — Check-in & Social  
6:15 pm — Dinner  
6:30 pm — Program

**Cost:** \$55 — Prepaid Members  
\$65 — Prepaid Non-Members  
Free — Students

**Reservations:** Pre-registration is required for all. You can register and pay online at [www.seao.org](http://www.seao.org) before noon, Friday, September 20. You can also register with Jane Ellsworth via phone at (503)753-3075 or via Email: [jane@seao.org](mailto:jane@seao.org). Note: No-shows will be billed. If you want to register for the stadium tour, contact Jane at [jane@seao.org](mailto:jane@seao.org) to sign up.

**PDH Credit:** One PDH has been recommended for this program.

**PRESIDENT'S FINAL MESSAGE**  
**(CONT. FROM PAGE 2)**  
*BY: NORM FARIS, P.E., S.E.*

- Amit Kumar** – Appreciate your time in making meetings and keeping SEAO connected at the national level.  
(Delegate)
- Ed Quesenberry** – Thank you for keeping our state informed as to what is happening around the nation. It helps us better  
(NCSEA) serve our membership.
- Andy Stember** – Our seminars have been very successful, primarily because of your commitment to knowing what our  
(Seminars & Snow Load) engineers are seeking!
- Stephen Stenberg** – Your time in making the golf tournament a success is truly appreciated; it's a major event for us and we  
(Golf Tournament) thank you and the committee for everything.
- David Tarries** – Appreciate your dedication in keeping our members up to speed in SEER; there is a lot to do and you've  
(SEER) helped ensure the state will be prepared at all levels.
- Eric Watson** What a year! We thank you for representing and supporting this during this code cycle. The state is  
(Codes & Special Inspection) endowed to you and the committee's commitment.
- Dominic Webber**- Thanks for stepping in and leading the Scholarship Foundation.  
(Scholarship)
- Reid Zimmerman** It's been great to have a well-respected individual lead this committee; thank you!  
(Seismic)
- Jane Ellsworth** You make being part of this organization extra special and of course very exciting. It's been a pleasure  
(Executive Secretary) working with you and I cannot say enough for everything you do. Without you, this organization would not operate as smoothly as it does.

Thanks again!

For everyone else involved that makes our organization a success, your time, talent and efforts are truly appreciated. We look forward to another year and welcome **Alexandra Stroud** and **James McPherson** to our board.

Before I end, I encourage those that are thinking about serving and volunteering to let us know. The satisfaction by serving in a volunteer role is unlike what we do every day to serve the public in our jobs: it provides a unique opportunity to engage first-hand about advancements in various aspects of our profession; it's an avenue to meet new people with a similar cause; and finally, serves as a platform unlike any other to support and make this industry better than we left it.

-Norm Faris

## 2019-2020 SEAO BOARD

The following members have been elected to this year's Board and will be installed at this month's meeting:

- President:** Steve Trautwein  
**Vice President:** Dusty Andrews  
**Secretary:** Alex Stroud  
**Treasurer:** Mike Daily  
**Directors:** CJ Marquardt (2nd Year of 2-Year Term)  
James McPherson (1st Year of 2-year Term)  
**Past President:** Norm Faris

Congratulations and many thanks to the incoming Board for the time and efforts they will provide over the course of the next year. We would also like to thank our outgoing board members, Seth Thomas and JoMarie Farrell, for their time and support of SEAO!

## ASK A QUESTION—GET AN ANSWER

### OREGON SNOW LOAD MAP OR THE LOOKUP TOOL?

#### Question:

*Do you know which data should be relied on (the map or the lookup tool)? We are noticing that the Oregon Snow Load Map does not always match the Latitude-Longitude Lookup tool on your web site. Using the Latitude and Longitude of 43.8575 and -121.3257, the Oregon Snow Load Map displays an elevation of 4,977' and a snow load of 81 lbs/sqft. Using these same coordinates, the Latitude-Longitude Lookup tool displays an elevation of 4,806' and a snow load of 80 lbs/sqft.*

*If we had to rely on one application or the other, which would be considered the most accurate – the map or the lookup tool?*

#### Response:

The elevation displayed in results of the Lookup tool is the Modeled Elevation, which is the average elevation for the 4 kilometer square grid cell used in mapping. From the "Map Usage Notes":

*In determining the ground snow loads occurring within the state of Oregon, PRISM divides the state into a grid work of 2.5-arc-minute square cells, approximately 4 kilometers in length, or slightly larger than 2-1/2 mile increments. The snow load for each of the grid cells is determined by calculating a regression curve and a load value for each cell.*

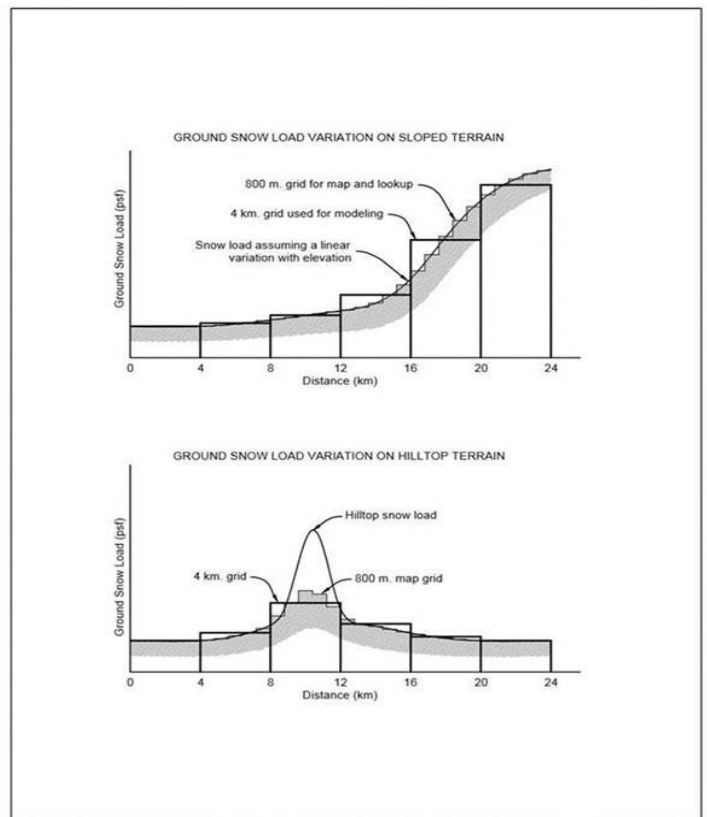
*In order to improve the resolution of the map created by PRISM, the 4 km grid cells were divided into 25 cells of 800 meters, or about a 1/2 mile square. The 800 meter grid cell snow load values were calculated by adjusting the snow load values of the 4km cells for the average elevation of each individual 800 meter cell.*

The map displays the elevation and snow load for the 800 meter square cells. In steep terrain, the site elevation may differ significantly from the average 800 meter cell elevation and the modeled grid elevation. It is important to adjust the snow load for the site if the site elevation is higher than the modeled elevation.

To the right is a graphical representation of the difference between the 4 km cells, the 800 meter cells, and the site. This diagram can be found in the Snow Load Manual.

So the Modeled Elevation should be used to determine if the reported 800 m cell snow load needs to be adjusted for elevation. Under the "Elevation" tab on the Lookup Tool, "Site Elevation versus Modeled Grid Elevation", you may need to adjust the snow load value if your site elevation is more than 100 ft. above the modeled grid elevation shown, or if your site is at or near the top of a hill.

This has also been clarified in the upcoming Section 1608 of the 2019 Oregon Structural Specialty Code.



## NEW MEMBERS

Welcome to our new Members!

Sarah Johnson—DCI Engineers  
Alejandro Virgen—David Evans & Associates, Inc.  
Sharoo Shrestha—PCS Structural Solutions  
Matt Galvin—PCS Structural Solutions  
Nisarg Mehta—DCI Engineers

### WELCOME TO SEAO!

Our goal is to provide benefit to our members and the best way to do that is get involved! Watch your emails, read our newsletters, and check the website for more information.

## SEAO PE & SE PRACTICE EXAM SATURDAY, OCTOBER 12, 2019

If you're taking the PE or SE this fall, one of the best ways to make your final preparations is to spend a day taking a practice exam. To help you with this, SEAO is hosting a practice exam on Saturday, October 12.

WHO: Any SEAO member taking the PE or SE this fall.

WHAT: 8 hour practice exam

WHERE: Jacobs Engineering, 2020 SW Fourth Avenue, Third Floor, Portland OR 97201

WHEN: Saturday, October 12, 2019

7:30 - Doors open, prep your books

7:50 - Door close, instructions

8:00-12:00 - Morning session

12:00-12:30 - Lunch break, pizza and drinks provided

12:30-4:30 - Afternoon session

4:30 - No-host happy hour at Suki's, 4201 SW Fourth Avenue

HOW:

1. RSVP to [steve.trautwein@jacobs.com](mailto:steve.trautwein@jacobs.com) or [jane@seao.org](mailto:jane@seao.org) by October 4, 2019.
2. Bring your own exam or request to have one provided (PE only) for \$20 when you RSVP.
3. A conference room will be set up to simulate the test environment.
4. Self grade your own exam.

This is also a great way to meet some of your peers taking the exam—SEAO Younger Members or not. Good luck!

## ASK A QUESTION, GET AN ANSWER

Do you have a code question you would like to ask the Wind Committee or Snow Committee? SEAO is pleased to announce a simple way for Q&A's with technical committees. Email questions to [jane@seao.org](mailto:jane@seao.org), and SEAO will direct your question to the appropriate committee chair for a response. Questions and their answers will be made anonymous and available to the membership on the website [www.seao.org](http://www.seao.org).

Committees include: Seismic, Wind, Snow, Code, Vintage Building, and Special Inspections.

## WEBSITE UPDATE

The SEAO Board has been working with the web designer on the new SEAO website. The primary objective is to make the website more user-friendly and up-to-date. A sample of what is being developed will be presented at the September dinner meeting.

One new feature will be each member's ability to track their PDHs and upload PDH certificates to their personal profiles (even for non-SEAO PDHs).

If you have any ideas or comments on the existing website that you would like to see improved, please contact Seth Thomas ([seth.thomas@kpff.com](mailto:seth.thomas@kpff.com)).

### ***VENDOR ADVERTISING***

SEAO is accepting vendor advertising!

Cost of a full page ad running for one month:

\$250 - Members

\$350 - Non Members

For more information, contact Jane Ellsworth at [jane@seao.org](mailto:jane@seao.org).

# SEAO SCHOLARSHIP FOUNDATION 2019 WINNERS

The Structural Engineers Association of Oregon is pleased to announce our scholarship recipients for the 2019-2020 academic year. The SEAO Scholarship Foundation Board dispersed a total of \$13,000 this year. The \$3,500 Don Kramer Memorial Scholarship was awarded to Sean Carnahan and the \$3,500 Susan M. Frey Scholarship was awarded to Carly Loving. \$3,000 scholarships were awarded to Joseph Nolf and Bradley Sharpshair. Once again, the generosity of our membership, combined with the success of the annual Trade Show continues to keep our scholarship program strong and allow this level of giving. Thank you to all our donors, the Trade Show vendors and the SEAO membership for your support of the Foundation.



The recipient of the **Susan M. Frey Memorial Scholarship** is **Carly Loving**. Carly is a Senior at Oregon State University. She is a member of Phi Sigma Rho, ASCE, Tau Beta Pi Honors Society, Phi Kappa Phi Honors Society, and College of Engineering Leadership Academy. She spent the summer working as an intern for

Quincy Engineering in Salem, Oregon as part of the Multiple Engineering Cooperative Program (CECOP). She has been a Lead College of Engineering Ambassador assisting with the organization of the outreach program for the College of Engineering, connecting with prospective students, parents, current students, faculty, and staff. She has coordinated and led college tours, career fairs, and alumni events, including managing 25 student Ambassadors. Carly also enjoys playing softball and racquetball, as well as spending time with friends and family.

Our **Don Kramer Memorial Scholarship** winner, **Sean Carnahan**, is a Senior at Portland State University. He is a veteran of the US Army, married father of two. He worked this past summer as an intern for BPA compiling site specific data for seismic hardening of BPA's communications infrastructure. He took part in footing design as well as the design of a small portable bridge. He hopes to use his education to work towards the analysis and seismic retrofitting of BPA's transmission infrastructure.



**Joseph Nolf** is a Senior at Oregon State University focusing on Structural Engineering. He worked for the PBOT Bridges and Structures group for his first CECOP internship where he did a variety of tasks including designing retaining walls, inspecting bridges, and making maintenance recommendations. For his second CECOP

internship he worked for Smith Monroe Gray Engineering where he did structural design for mostly material handling and temporary construction applications. Joseph is studying Spanish and is planning on studying abroad this winter quarter in Costa Rica. He will finish his bachelor's degree in the spring and is currently applying to the graduate school program at OSU. He has recently passed the FE exam. He enjoys soccer, golf, tennis, surfing, scuba diving, and skiing. He is also an avid city biker. He has also been awarded scholarships from OSU, OSU Alumni Association, and Precision Castparts Corporation.

**Bradley Sharpshair** is a recent Bachelor of Science in Civil Engineering graduate at Portland State University. He is continuing at Portland State pursuing his Master's degree with a focus on structural design. He is conducting research in PSU's Infrastructure Testing and Applied Research Lab where he assists with the testing of full-scale infrastructure specimens. His work at the lab includes equipment wiring, application of strain gauges and LVDTs, construction of formwork, and troubleshooting issues on site. He is interested in seismic retrofits of historic buildings. Bradley enjoys thinking outside the box to solve a variety of different problems and is passionate about designing efficient, creative, and safe structures. Bradley has been a member of the PSU ASCE Student Chapter.



# EMPLOYMENT OPPORTUNITIES

## KPFF

### Structural Engineer

#### Portland, OR

KPFF Portland Structural is looking for Experienced Structural Engineers who are motivated and interested in an opportunity for growth. KPFF is about freedom to work on what inspires you. Our engineers work on a vast spectrum of projects located around the globe: from anchorage of mechanical systems to complex, non-linear analysis of high-rise structures. We have all the benefits of a large, stable company but operate day-to-day with the flexibility of a small firm. Providing first-class service to our clients is what we are all about.

In addition to being creative, proactive and detail-oriented, the preferred candidate will have:

- 2-8 years of structural engineering experience;
- PE and MS or Meng degree;
- Revit Structure experience; and
- Strong verbal and written communication skills.

KPFF is an equal opportunity employer. Visit: [https://chi.tbe.taleo.net/chi04/ats/careers/requisition.jsp?org=KPFF\\_2&cws=63&rid=734](https://chi.tbe.taleo.net/chi04/ats/careers/requisition.jsp?org=KPFF_2&cws=63&rid=734)

## HOLMES STRUCTURES

### Project Engineers and Senior Engineers

#### San Francisco and Los Angeles, CA &

#### Portland, OR

Holmes Structures is a structural engineering firm, with offices in San Francisco, Los Angeles, and Portland. We are part of the New Zealand based [Holmes Group](#), with offices around the Pacific Rim. Compelled by the possibilities, we are relentlessly pursuing Why — to create what is Best.

We are seeking Project Engineers and Senior Engineers for our San Francisco, Los Angeles, and Portland offices. Candidates should have a B.S. (M.S. preferred) in Structural Engineering and 2-6 years of related experience. Candidates must possess a valid PE license; SE license is also a plus. Candidates must be fast learners, ambitious, have the ability to handle increased responsibilities, have excellent verbal and written communication skills, and be able to interact effectively with clients, project teams, and colleagues.

Check us out at [www.holmesstructures.com](http://www.holmesstructures.com) and send your resume with cover letter to [hr@holmesstructures.com](mailto:hr@holmesstructures.com).

## LUND OPSAHL

### Structural Engineers

#### Seattle, WA

Lund Opsahl is located across the street from T-Mobile Park. Lund Opsahl is a growing structural engineering firm that provides a wide spectrum of services, including planning, design, seismic and damage assessments, upgrades, additions, tenant improvements, and construction support for a variety of new and existing building types in the Pacific Northwest. Our reputation as creative innovators and technical experts is built on responsive service, collaborative teamwork, and lasting relationships. Our firm's size offers early opportunities to work on challenging projects and encourages exciting career growth uncommon at larger firms, especially for the ambitious.

We value the professional relationships within our firm and we believe values are fundamental to the development of professional relationships outside of our firm. Collaboration within our office as well as with our clients requires commitment and responsibility.

Structural Engineers of all skill levels are encouraged to apply. Please visit our website, [www.lundopsahl.com](http://www.lundopsahl.com) for additional information and job descriptions. Inquiries and resumes may be sent to [careers@lundopsahl.com](mailto:careers@lundopsahl.com).

## CATENA CONSULTING ENGINEERS

### Structural Engineers

#### Portland, OR

Catena Consulting Engineers, a growing structural engineering firm, offers the environment of a small firm while providing the opportunity to work on projects including concrete, steel, timber, and masonry buildings in a variety of market sectors. Our culture is embedded in learning and applying our expertise to projects that require creative structural engineering. You will work closely with Principals who are fully engaged in projects and provide daily mentorship. Our open office fosters optimum communication. We seek engineers that have earned a Master's degree with 2 to 5 years of experience, and that have a desire to learn, grow, and be challenged. While we have small firm setting, we offer salary and benefits of a large firm, and then some. US Citizenship is preferred. Catena is an Equal Opportunity/Affirmative Action Employer. Catena participates in the E-Verify program. Please email a cover letter and resume to [resumes@catenaengineers.com](mailto:resumes@catenaengineers.com).



## EMPLOYMENT OPPORTUNITIES (CONT.)

### NORTHWEST MASONRY INDUSTRY ASSOC.

Executive Director

Washington or Oregon

The Northwest Masonry Industry Assoc. is seeking an Executive Director. Responsibilities include association management; building code development; creation of educational programs and delivering technical presentations; technical support for design professionals; and coordination of industry research projects.

Northwest location permitting residence in Washington or Oregon. To express interest, submit a cover letter and resume to [admin07@nwcma.org](mailto:admin07@nwcma.org). Position Requirements:

- Bachelor's degree in civil/structural engineering.
- Minimum 3-5 years experience in commercial building design. A professional license is preferred.
- Excellent oral and written communication skills.
- Ability to work independently.
- Outgoing personality with the ability to provide design guidance and engage design professionals in discussions regarding building material selection. Existing contacts within the regional A/E/C community preferred.
- Some travel away from home with overnight stays.

For additional information please visit [www.nwcma.org/careers](http://www.nwcma.org/careers).

### VISTA STRUCTURAL ENGINEERING

Structural Engineer

Portland, OR

Vista Structural Engineering has an IMMEDIATE need for structural engineers experienced in wood structures and/or deep foundation systems. The position is to work remotely. Ideal candidate will be able to communicate directly with our firm with minimal guidance until the plans are ready for review immediately prior to submittal to the client; someone who is self-motivated, very organized, and enjoys structural engineering and interacting with clients. **Email resume to [office@vistastructural.com](mailto:office@vistastructural.com).**

Freelance candidate: \$65-\$75/hour with a minimum 10 hours per week. Full-time position compensation based on experience.

- 3+ years of experience in structural engineering and detailing of residential and wood-framed projects.
- Proficiency in AutoCAD, Microsoft Word, Excel and Enercalc, StruCalc, Forte, or similar structural software for wood-framed construction.
- PE license in OR and/or WA preferred but not required.
- Minimum 3-5 years experience in commercial building design. A professional license is preferred.
- **Must live within a one-hour drive of downtown Portland.**

### PBS ENGINEERING AND ENVIRONMENTAL INC. (PBS)

- Senior Structural Engineer/Project Manager  
<https://pbsusa.hiringthing.com/job/122590/senior-structural-engineer-project-manager>
- Structural Project Engineer  
<https://pbsusa.hiringthing.com/job/124334/structural-project-engineer>
- Staff Structural Design Engineer  
<https://pbsusa.hiringthing.com/job/122585/staff-structural-design-engineer>

Portland, OR

PBS is a regionally distinguished and growing engineering and environmental consulting firm in Oregon and Washington. Founded in 1982, our 200-plus person firm has a history of successfully serving major clients throughout the Pacific Northwest. We are currently seeking qualified individuals for the open positions noted above in our Portland, Oregon office.

Please click on the website links above to learn more about each opportunity.

PBS offers employment opportunities to experienced professionals who are excited by the challenges of meeting and exceeding our clients' expectations. We offer an excellent benefit package, including vacation and holiday pay, medical/dental/disability and life insurance, and 401(k). PBS is an Equal Opportunity Employer (EEO).

## EMPLOYMENT OPPORTUNITIES (CONT.)

### SSOE GROUP

#### Structural Engineer Hillsboro, OR

Explore the benefits that go hand-in-hand with a Structural Engineer position at **SSOE Group**. Collaboration, accountability, and top-notch training are building blocks we use to set you up for success.

The Structural Engineer will be responsible for producing high-quality deliverables on varied projects for advanced technology clients.

#### Position Requirements:

- Bachelor's degree or Master's degree in Structural engineering from an ABET accredited college.
- PE required; SE a plus.
- Solid understanding of structural fundamentals required.
- Knowledge of building codes including seismic requirements.
- Experience with structural analysis software such as RISA or STAAD.
- Experience with REVIT is preferred.
- Valid driver's license required.

Check us out at <https://www.ssoe.com> and send your resume to [jlombardo@ssoe.com](mailto:jlombardo@ssoe.com).

## YOUNG MEMBER FORUM (YMF) EVENT

After a long break happy hours are back!

We are transitioning to new chairs of the YMF. Please come and meet the new leadership and share any ideas!

September's happy hour will be at Henry's 12th Street Tavern. .

When: Thursday, September 19, 2019  
5:30 pm to 7:30 pm

Where: Henry's 12th Street Tavern  
10 NW 12th Ave, Portland, OR 97209

Appetizers are on SEAO, drinks on you.

YMF's goal is to host a friendly environment for young engineers to learn and make connections to strengthen their career! Feel free to bring other coworkers!

Please RSVP to Deanna Kuhlman at [DKuhlman@mcknze.com](mailto:DKuhlman@mcknze.com) so she can have a correct headcount for reserving a space and ordering appetizers.

Also, please let Deanna Kuhlman know if you want to be removed from this email list or if you have any other young members that should be added to our SEAO YMF email list for future announcements.

# Transitioning to the 2019 Oregon Structural Specialty Code (IBC 2018) & ASCE 7-16

Hosted by the Structural Engineers Association of Oregon (SEAO)

**Date:** Thursday, October 3, 2019 – 8:30 AM to 4:30 PM  
Registration Opens at 7:30 AM (Lunch Included)

**Cost:** \$200 SEAO Member (Includes Class Notes) \$250 Non-member  
\$25 Late Fee (if registration received after Sept. 26, 2019)  
Students \$65 (Includes Notes) – Must show current student ID  
No refunds after 12:00 noon Thursday, Sept. 26, 2019

Register early; Maximum 100 people

**Program to be Taped  
by Limelight Video**

**Location:** Sheraton Portland Airport Hotel and Conference Center 8235 NE Airport Way  
Portland, Oregon (503) 249-606

**Continuing Education:** SEAO has recommended this seminar for 6 PDHs (5 PDHs for Viewing Video)

**Speakers:** **S. K. Ghosh, Ph.D., President, S. K. Ghosh Associates LLC**  
**Sandra Hyde, PE, Senior Staff Engineer, ICC Code Development**  
S. K. Ghosh Ph.D., is a highly acclaimed speaker and author on seismic-related issues and concrete design, and has long been involved with the development of national codes and standards.  
Sandra Hyde, PE, is with the International Code Council (ICC) Code Development Group. She develops books and seminars about the structural provisions of the International Building Code (IBC).

**2019 Oregon Structural Specialty Code (2019 OSSC)**, which is based on the 2018 International Building Code (2018 IBC), is going to be adopted in the State of Oregon effective October 1, 2019, replacing the 2014 OSSC, based on the 2012 IBC. With the 2019 OSSC/2018 IBC comes a set of updated reference standards – for design loads, structural steel, cold-formed steel, masonry, and wood.

**Transitioning to the 2018 IBC** The seminar will discuss the major new features of the 2018 IBC structural provisions. Subjects covered include substantive revisions to structural-related Chapters 16-23. Many of the changes in Chapter 16 result from a change in the referenced standard for design loads from ASCE 7-10 to ASCE 7-16. The changes in other structural chapters result largely from changes in the referenced material standards such as ACI 318, AISC 360, and AISC 341. This seminar is designed to provide a great introduction to the 2018 IBC and assist the code user in making a transition to the new code. Some time will be spent in discussing changes to ACI 318, since ACI 318-14 represents a total reorganization of ACI 318-11.

**Significant Changes in ASCE 7-16** The latest edition of ASCE 7, dated 2016, has been available since 2017. Changes from ASCE 7-10 to ASCE 7-16 are many and their impact is far-reaching. The title of the standard has changed to Minimum Design Loads and Associated Criteria for buildings and other structures. A major chapter on design for tsunami loads has been added. There is a new Appendix E on fire resistance. The seismic ground motion maps have changed again and rather significantly. The site coefficients by which mapped ground motion is modified are quite different. The two changes together have a major impact on seismic design. There are other major changes in the seismic chapters including many altered or new provisions for nonstructural components and nonbuilding structures. There are also major changes in the snow chapter and the wind chapter.

The design wind speed maps are quite different from the maps in ASCE 7-10. This seminar will introduce the major changes to attendees and will explain the changes and discuss their impact.

## Transitioning to the 2019 Oregon Structural Specialty Code (IBC 2018) & ASCE 7-16

### Registration Form

Register Online at [www.seao.org](http://www.seao.org) or

Send to: SEAO  
PO Box 2958  
Vancouver, WA 98668  
(503) 753-3075

Make Checks Payable to:  
SEAO

Firm Name: \_\_\_\_\_

Firm Address: \_\_\_\_\_

Phone \_\_\_\_\_

Name of Attendee(s) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# of Attendee(s) \_\_\_\_\_ @ \$200.00 / each = \$ \_\_\_\_\_  
(Nonmember \$250.00)

# of Late Fees \_\_\_\_\_ @ \$25.00 / each = \$ \_\_\_\_\_

# of Students \_\_\_\_\_ @ \$65.00 / each = \$ \_\_\_\_\_

# of Videos \_\_\_\_\_ @ \$175.00 / each = \$ \_\_\_\_\_

**Total Enclosed =** \$ \_\_\_\_\_

Visa Or Mastercard go to [www.seao.org](http://www.seao.org) to register online or call Jane at 503-753-3075 to pay by Credit card.

Questions: Andy Stember (503) 657-9800