



CONNECTIONS

January 2013 Volume 13 Issue 4

Newsletter of the
Structural Engineers
Association of Oregon

SEAO

9220 SW Barbur Blvd.
No. 119
PMB #336
Portland, OR 97219

Phone: (503) 753-3075

Fax: (503) 214-8142

E-Mail: jane@seao.org

Web site: www.seao.org



Upcoming SEAO Meetings and Events:

Wednesday, January 30, 2013: SEAO Lunch Meeting

Speakers: Dieter Bohrmann, Communication Manager, and Dan McDonald, Tank Waste Disposal Project Manager, both from the Washington Dept. of Ecology's Nuclear Waste Program

Topic: Hanford Tank Waste Treatment Project

Location: Governor Hotel, Second Floor, Portland

Time: 11:30 am check-in; 12:00 pm lunch and program

Sponsors: Louisiana Pacific Corp — LP Solid Start Engineered Wood Products

See Page 3 for more information.

Thursday, February 7, 2013: SEAO YMF Happy Hour Get Together

Location: Henry's 12th Street Tavern at 10 NW 12th Avenue, Portland, OR

Time: 5:30 pm to 7:30 pm

Come join the YMF for happy hour. We will be upstairs in the pool table area. Bring your friends and co-workers and come enjoy some food, drinks, and socializing with other engineers in the area.

Hope to see you there. See Page 6 for more YMF information.

Wednesday, February 20, 2013: 49th Annual Engineers Week High School Banquet

Keynote Speaker: Dr. Owen McCarty, Associate Professor in Biomedical Engineering at Oregon Health & Science University

Topic: A Sticky Situation in the Blood

Location/Time: Lloyd Center DoubleTree Hotel, Portland

Time: 6:30 pm to 8:30 pm

To register, visit the website www.asceor.org/eweek/ or see pages 10—12 for more information.

**Engineers
Week
2013**

Thursday, February 21, 2013: SEAO YMF Tour of Galvanizing Facility

Location: Galvanizers Company, 2406 NW 30th Avenue, Portland, OR

Time: 4:00 to 5:30 pm

See Page 6 for additional information.

Thursday, February 28, 2013: SEAO SF Tradeshow

Location: Monarch Hotel & Conference Center, 12566 SE 93rd Avenue, Clackamas, OR

Time: 5:00 pm to 8:00 pm – Seminar times to be determined and printed in February Newsletter.

See Page 9 for Sponsor Information.

IN THIS ISSUE: PAGE

- President's Message 2
- January Lunch Meeting Info 3
- January Sponsor Info & Seismic Quiz 4
- NCEES Graders Needed & New Members 5
- Upcoming Seismic Events & Young Member Forum Activities 6
- IBC Q & A 7
- Employment Opportunities 8
- Trade Show Exhibitor Info 9
- Engineers Week 10-12

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 SEO.

Send membership inquiries to:
9220 SW Barbur Blvd.
No. 119
PMB #336
Portland, OR 97219

BOARD OF DIRECTORS

President

Aaron Burkhardt
KPFF Consulting Engineers
Ph: 503.227.3251
Aaron.burkhardt@kpff.com

Vice President

Amit Kumar
Bureau of Development Services
City of Portland
503.823.7561
Amit.Kumar@portlandoregon.gov

Secretary

Jennifer Eggers
Degenkolb Engineers
Ph: 503.223.9932
jeggars@degenkolb.com

Treasurer

Shelly Duquette
City of Portland
Ph: 503.823.4961
Shelly.Duquette@portlandoregon.gov

Director

Don Ellsworth
Contech Services, Inc.
Ph: 503.223.9817
Don@Contechservices.com

Director

Jason Thompson
KPFF Consulting Engineers
Ph: 503.277.3521
Jason.Thompson@kpff.com

Past President

Ed Quesenberry
Equilibrium Engineers LLC
Ph: 503.636.8388
edq@equilibriumllc.com

Executive Secretary

Jane Ellsworth
SEO Staff
Ph: 503.753.3075
Fax: 503.214.8142
jane@seao.org

PRESIDENT'S MESSAGE: GRATEFUL RECOGNITION

By: Aaron Burkhardt, P.E.



One thing that is certain in our profession is that codes will change. No doubt about it. Last September, the Oregon State Building Codes Division (BCD) announced that they would issue the Oregon Structural Specialty Code (OSSC) on April 1, 2014. This new version of the OSSC will be based upon the 2012 International Building Code (IBC). As we all know, the final version of the OSSC is a significantly amended version of the IBC. BCD announced that the amendment process would begin by accepting written public proposals from November 1 through December 17. SEO has a history of providing amendment proposals for past versions of the OSSC on behalf of our members and this time was no different.

Our Code Committee, led by Eric Watson, was charged with collecting and producing the proposed amendments on behalf of SEO. This included not only the Code Committee reviewing the 2012 IBC and ASCE 07, but also coordinating with the Wind, Seismic, and Snow Committees. The Wind Committee led by Jim Riemenschneider, the Seismic Committee led by Jason Thompson, and the Snow Committee led by Andy Stember were already (to varying degrees) going through these codes in preparation of this inevitable OSSC announcement. This was a huge task completed by many volunteers. At the end of the reviews, we submitted 22 formal amendment proposals to BCD for consideration. The amendment topics ranged from moment frames at penthouses to sloped soil loading conditions behind retaining walls. The total num-

ber of items reviewed was over three times the number submitted at the end. In the coming weeks, we will post all of these amendments on the SEO website for you all to see. The public hearings and decisions will occur in the first quarter of 2013. Additional information can be found on BCD's website.

Each month the SEO Board reviews/nominates individuals as member of the month for outstanding work done on behalf of SEO and our members. These members are acknowledged here in the monthly newsletter and given the opportunity to attend a chapter meeting free of charge. This month we decided to do something a little different. We felt that all of the individuals responsible for working on these proposals earned the recognition as members of the month. The following are our members of the month for this work:

Eric Watson	Ray Miller
Doug Meltzer	Amit Kumar
Jason Thompson	Chad Kilian
Jim Riemenschneider	Tim Rippey

On behalf of all of our members, we thank this group of engineers for all of their time and effort. I talked a lot last month about the importance of the volunteer effort that happens within this organization. The work done during this amendment process exemplifies the volunteer spirit that keeps our organization going.

All the best,
Aaron

SEAO Committees

Technical

Doug Meltzer
dougmb@bmgengineers.com

Seismic

Jason Thompson
Jason.thompson@kpff.com

Wind

Jim Riemenschneider
jimr@vlmk.com

Snow Load

Andy Stember
andy@jasenginc.com

Code

Eric Watson
eric@millers-se.com

Vintage Building

Wade Younie
wyounie@dc-engineers.com

Emergency Response

Shelly Duquette
emergencyresponse@seao.org

Legislative

Paul Kluvers
pkluvers@gmail.com

Website

Aaron Stocck
Aaron.Stocck@kpff.com

Newsletter

JoMarie Farrell
jomarie@equilibriumllc.com

Monthly Meetings / Programs

David Gilroy
dgilroy@strongtie.com

Golf Tournament

Melissa McFeron
melissa@millers-se.com

Conferences

Kevin McCormick
kevin@millers-se.com

Young Member Forum

Seth Thomas & Phil Davis
stthomas@degenkolb.com
pdavis@degenkolb.com

Seminars

Andy Stember
andy@jasenginc.com

Engineers Week

Michelle Chavez
michelle@millers-se.com

NCSEA

Sue Frey
sfrey@ch2m.com

WCSEA/NWCC

Sue Frey
sfrey@ch2m.com

MASER, OBOA

Ron Vandehey
ron@millers-se.com

JANUARY LUNCH MEETING ANNOUNCEMENT WEDNESDAY, JANUARY 30, 2013

Sponsored by: Louisiana Pacific Corp—LP SolidStart Engineered Wood Products.

Topic: Hanford Tank Waste Treatment: An Overview from the WA State Department of Ecology
This presentation overviews the treatment plan for the 56 million gallons of dangerous, radioactive and chemical waste currently stored in 177 underground tanks at the Hanford Nuclear Site. Ecology staff will discuss the history and current status of the tank waste treatment project, the risks associated with different waste forms, and Ecology's role in designing and building the \$12.3 billion Waste Treatment and Immobilization Plant.

Speakers:

Dieter Bohrmann is the communication manager and public involvement team lead for the Washington Department of Ecology's Nuclear Waste Program in Richland. Dieter coordinates internal and external communications and serves as the program's lead media spokesperson. He also supports Ecology's outreach and education efforts on Hanford issues, and is the point of contact for the Hanford Advisory Board.



Dan McDonald is the Tank Waste Disposal Project Manager for the Department of Ecology's Nuclear Waste Program. Dan earned a Bachelor of Science in Business Management at the University of La Verne, CA and a Master of Science in Hazardous Waste Management at Idaho State University. In total, he has 22 years of experience in project management, quality assurance, and environmental management. Twelve of those years have been spent working on Hanford-related issues. Before coming to Ecology, he worked for the Department of Defense, Department of Energy, and Department of Energy contractors. Currently, he oversees project work relating to Ecology's dangerous waste permit for Hanford's Waste Treatment Plant.

Location and Times:

Governor Hotel, 2nd Floor, 614 SW 11th Avenue, Portland, OR

The MAX Light Rail System stops just a block away from the hotel (The Galleria stop) and Portland's Streetcar stops right outside the hotel. Smart Park is located at SW 10th and Yamhill about two blocks from the hotel.

Check-in: 11:30 am

Lunch and Program: Noon, videocast begins at noon

Cost: Lunch and Program

\$32 — Prepaid Members
\$40 — Prepaid Non-Members
\$18 — Students

Cost: Videocast Locations

\$20 — Members
\$33 — Non-Members
\$13 — Students

Videocast Venues:

Corvallis: CH2M Hill, 1100 NE Circle Blvd, Suite 300, (541)752-4271

Medford: Marquess & Associates, 1120 East Jackson Street, (541)772-7115

Bend: Eclipse Engineering, 155 NE Revere Avenue, Suite A, (541)389-9659

Reservations:

Pre-registration is required. **You can register and pay online at www.seao.org before noon, Friday, January 25.** You can also register with Jane Ellsworth via phone at (503)753-3075 or via Email: jane@seao.org. Note: No-shows will be billed.

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

Meeting Proudly Sponsored by:



SOLIDSTART®
ENGINEERED WOOD PRODUCTS

JANUARY MEETING SPONSOR LP BUILDING PRODUCTS



LP Building Products has been at the forefront of engineered wood technology for more than 40 years. Our LP® SolidStart® LSL and LVL products are great alternatives to traditional lumber. LP SolidStart products provide you with strength and consistent dimension that make them ideal for load-bearing applications. Add to it the ability to resist warping, twisting and bowing, and you can see how LP SolidStart products are engineered with you in mind.



© 2013 Louisiana-Pacific Corporation. All rights reserved. All trademarks are owned by Louisiana-Pacific Corporation.

SEISMIC QUIZ

This seismic quiz has been put together by the Seismic Subcommittee of SEAO. This month's theme is **Concrete**. Enjoy!

1. Below what length-to-height ratio must special concrete shear wall coupling beams be evaluated for requiring diagonal reinforcing?
2. What is the maximum permitted building height for a single-story warehouse with intermediate precast shear walls in seismic design category D?
3. At what locations may Type 2 mechanical splices be used?
4. What is the maximum shear permitted in a wall pier of a special structural wall, under any circumstances?
5. What is the maximum area of longitudinal reinforcement permitted in a column member of a special moment frame?

See Page 6 for answers.

NCEES NEEDS GRADERS FOR SE EXAM

By: Shelly Duquette

You've earned your engineering degree; you've gained enough experience, its time to sit your Structural Engineering exam. You've studied so much you are doing rigid diaphragm force distribution for fun. At home. On the weekends. With the dog (because the kids run every time they see you coming at them with a mechanical pencil). You finally get to sit the exam and were so focused you didn't notice the funny look from the proctor when you asked for another workbook (yes this is based on a true story, but I couldn't get the dog to differentiate between e_x and e_y – I was out of bacon, I'm sure he could do it for bacon). Ever wonder what happens to that test once you hand it to the proctor?

Now is your chance to find out. NCEES is looking for qualified S.E. exam graders. To qualify you simply need to be recognized by your state as a licensed S.E. You also have to be willing to donate approximately three and a half days of your time. NCEES is based in Clemson, South Carolina and it's not easy to get there from here. Grading takes place at their headquarters starting first thing on a Friday morning and continues Saturday until all exams are graded. Travel takes place Thursday and Sunday.

If that sounds like too much just to satisfy your curiosity, NCEES does give you an honorarium of \$200/per day of grading. They also pay for all of your travel, food and lodging. You will also earn those coveted Professional Development Hours. Grading and exam development has probably been some of my best continuing education. I always learn something and am amazed at the talented engineers from around the country who are also willing to volunteer their time to give back to the profession.

Exam grading is usually the first or second weekend of June and December. The next grading session is June 7 and 8 of this year. The December session depends on the Clemson football schedule.

If you are interested please let me know via email at shelduq@gmail.com and I will forward your name to the committee chair and the NCEES SE exam coordinator. If you have any questions, feel free to send them to the same email address.

WELCOME NEW MEMBERS

November:

Nicholas Bachmeier - Intel
Adrian Corella - Bittner-Shen Consulting Engineers
Rob Aman - Nishkian Dean
Robert Grummell - Grummell Engineering
Jacob Christensen - Parkin Engineering
Britt Killian - Parkin Engineering
Ahsan Sheikh - Wellons
Rory McGruer - Jacobs Engineering Group
Timothy Oyen - Student
Travis Sanders – Degenkolb Engineers

December:

Jason Dhanens - Barnhart Crane & Rigging
Todd Schutte - SCE
James Gaskey - CH2M Hill
Samuel Ford - Student

UPCOMING SEISMIC WEBINARS, WEBCASTS, & MEETINGS

FEMA Free Webinars (see www.atcouncil.org/events):

Wednesday January 30, 2013, 11:00-12:30 PST.

FEMA E-74: Reducing Non-Structural Damage from EQ's Webinar.

Thursday January 31, 2013, 11:00-12:30 PST.

FEMA 395: EQ Safety & Mitigation for Schools Webinar

ATC Event (www.atcouncil.org/events)

Tuesday February 12, 2013, Seattle, Washington.

Free training on FEMA P-807, Seismic Evaluation and Retrofit of Multi-Unit Wood-Frame Buildings with Weak First Stories. Event is in conjunction with EERI Annual Meeting.

EERI Annual Meeting, Seattle, WA (<https://www.eeri.org/>)

Tue Feb 12 to Fri Feb 15, 2013.

2013 Annual Meeting: Building Resilient Communities through Policy and Mitigation

Answers to This Month's Seismic Quiz (from page 4):

1. Coupling beams with $L_n/h < 2$ must be checked to determine whether diagonal reinforcing is required. (ACI 318-08 Section 21.9.7.2)
2. 45 feet. (ASCE 7-05 Table 12.2-1 footnote k)
3. Type 2 mechanical splices may be used at any location. Type 1 mechanical splices are limited by locations specified by ACI 318-08 Section 21.1.6.2.
4. Wall pier shear, V_n , is limited to $10A_{cw}vf'_c$ when the criteria of ACI 318-08 section 21.9.4.4 is met.
5. Six percent. (ACI 318-08 Section 21.6.3.1)

YOUNG MEMBER FORUM ACTIVITIES

By: Phil Davis & Seth Thomas

Thursday February 7th – SEO YMF Happy Hour Get Together

Come join the YMF for happy hour on Thursday, February 7th from 5:30 to 7:30 pm at Henry's 12th Street Tavern (10 NW 12th Ave.). We will be upstairs in the pool table area. Bring your friends and co-workers and come enjoy some food, drinks, and socializing with other engineers in the area. Hope to see you there.

Thursday February 21st, 4pm – SEO YMF Tour of Galvanizing Facility

The YMF is organizing a tour and information session at Galvanizers Company located at 2406 NW 30th Avenue in Portland, Oregon. This 1.5 hour tour and information session will cover how the galvanizing process works, why it is needed, what we as engineers need to consider for constructability, the size limits of what can and cannot be galvanized at their facility, and coordination tips for working with a galvanizer. We will then be taken around the facility and shown the kettles and the galvanizing process.

This is a great opportunity to get to see the galvanizing process up close and get some insight into the process, and this tour qualifies for continuing education credits. The facility is located close in Northwest Portland and very easy to get to. There is a limit of 40 people and space will be reserved on a first-come first-served basis and **this tour is not limited to YMF members--anyone from the SEO is welcome to join.**

Please RSVP to Phil Davis (pdavis@degenkolb.com) or Seth Thomas (stthomas@degenkolb.com) to reserve your space.

YMF Website Info: YMF now has an updated website and the address is <http://www.seao.org/committees/youngmembers/>. Please visit our website for more information on YMF events and information.

Ponding on Green Roofs

2009 IBC Section 1611.2

1611.2 Ponding instability. For roofs with a slope less than $\frac{1}{4}$ inch per foot, the design calculations shall include verification of adequate stiffness to preclude progressive deflection in accordance with Section 8.4 of ASCE 7.

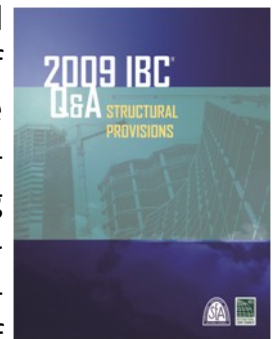
Q: With the increasing popularity of green roofs, I was wondering if the 2009 IBC addresses the structural issues that green roofs require. Should there be sections added to Section 1611.2 for ponding stability? Our concerns are with the stability of the whole system, including snow load.

A: The IBC does not provide specific criteria for structural design of green roofs. The general design provisions for roofs would apply to green roofs. Section 1607.11 simply lists all the loads that are applicable to roofs, including snow, rain, and any applicable live load. Section 1607.11.2.3 provides specifics in regards to landscaping installed on roofs.

Furthermore, with respect to live loads, Section 1607.3 provides the general caution to design for the maximum anticipated loads, but not

less than those in Table 1607.1, and Section 1607.2 requires the building official to approve live loads that are not designated. As for ponding, specific provisions are provided in Section 1611.2 under rain loads and Section 7.11 of ASCE 7 under snow loads. [16-123]

The application published herein is of the ICC staff and is not binding on the authority having jurisdiction. The authority having jurisdiction has the ultimate responsibility for rendering interpretations of the code.



This question and answer are from the *2009 IBC Q&A Structural Provisions*. The question is a commonly asked question which arises in the application of code provisions during design and plan review. The IBC section is reprinted for easy reference, by the question and answer pertaining to that section. The *2009 IBC Q&A Structural Provisions* is available at iccsafe.org/store.

Use ID # 4003S09.

EMPLOYMENT OPPORTUNITIES

Part-Time Structural Engineer

Munzing Structural Engineering, located in SE Portland, Oregon, is a small, growing structural engineering consulting business, seeking a part-time Structural Engineer consultant who has two to five years of experience designing with wood, concrete, masonry, and steel. The majority of our projects consist of modern residential and commercial buildings with an emphasis in wood/steel design. A Master's degree in Structural Engineering is preferred, but candidates with a Bachelor's degree will be considered.

The responsibilities for this position include preparing engineering calculations, detailing and preparing structural permit drawings including some CAD work, and construction administration. The ideal candidate will have a working knowledge of current building codes and seismic design, AutoCAD, and be familiar with engineering design software. Although the current position is part-time, it may develop into a full-time salary position as our firm grows. This person will need to be a creative self-starter, possess good communication skills, and work well in a team environment.

If interested in this position, please email your resume and cover letter to michael@mstructural.com.

T.M. Rippey Consulting Engineers: Consulting firm seeks Structural Engineer with four to six years of experience in commercial building design. P.E. required, S.E. preferred. Benefits package, including 401K and profit sharing.

Send resume to T.M. Rippey Consulting Engineers, 7650 SW Beveland Street, Suite 100, Tigard, OR 97223.

PacifiCorp is currently hiring for a Civil Engineer in our Portland, Oregon headquarters. This position will be responsible for providing civil engineering support for Rocky Mountain Power and Pacific Power substation projects. The position will provide technical support on projects designed in-house, or by consultants, or by Engineer/Procure/Construct (EPC) contractors.

This opportunity is eligible to be filled at either the mid or senior level. Qualified candidates will have a Bachelor's degree in Civil or Structural Engineering and a minimum of three years of directly related experience in structural engineering related to commercial, industrial, municipal, or electric utility power systems and three or more years of actual design experience.

For a complete job description and to apply, please visit our website at www.pacificorp.com and click on the Careers page. **Reference job #120931.** EOE.

STRUCTURAL ENGINEERS ASSOCIATION OF OREGON
ANNUAL TRADE SHOW - 2013

ATTENTION EXHIBITORS

WHAT: Annual Trade Show to benefit the SEAOSF Scholarship Foundation

WHERE: Monarch Hotel in Clackamas (Sunnyside Road exit off I-205)

WHEN: **Thursday – February 28, 2013, 5:00 PM - 8:00 PM**
Booth set-up: 1:00 PM Booth break down: 8:00 PM

FORMAT: There are two opportunities for exhibiting goods and/or services.

1. Pre-show seminars. There will be room for 8 seminars, set-up classroom style. The seminars will last for 1 hour with a 15-minute breakdown and set-up period between seminars.
1 PDH will be offered per seminar.
2. Booth - 10' with 8' table. As before, dinner and drink tickets will be given to attendees as they check in. The exhibitors must initial the tickets before the tickets can be redeemed for a free drink or meal.

COST:	Mini seminar	\$ 225.00
	Member Booth	\$ 500.00 includes electricity
	Non-member Booth	\$ 600.00 includes electricity
	Late Fee after 2/15/13	\$ 75.00 additional

DONATIONS: We will be holding a raffle, and donations to the raffle are greatly appreciated. Vendor donations will be announced for additional name exposure.

INFORMATION: Jane Ellsworth, Ph: (503) 753-3075 Fax: (503) 214-8142 E-mail: jane@seaosf.org



REGISTRATION FORM

Company name: _____

Contact name: _____

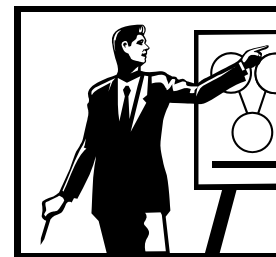
Ph: _____ **Email confirmation:** _____

Amount enclosed: \$ _____ **Mini Seminar Y N Topic:** _____

Product Type: _____ **Raffle prize donation: YES NO**

***Payment may be made by check, cash or credit card.**

If mailing a check mail to: SEAOSF, 9220 SW Barbur Blvd, #119, PMB #336, Portland, OR 97219
If paying by credit card, contact Jane Ellsworth at 503-753-3075.



We request your support for the 2013 Engineers Week High School Program. E-week is a community-supported outreach program to promote the field of engineering as a career option for local high school students. Portland, Oregon's Annual Engineers Week High School Program reaches out to high school students in the greater Portland metropolitan area and southwest Washington. Over 350 high school students and 50 high school teachers participate in the annual event.

The E-week High School Program was developed to educate high school students about engineering and the variety of engineering disciplines. The goal of the program is to engage and inspire students through: field trips to local engineering projects, research and design facilities, and fabrication facilities, exposure to the diversity of local companies which employ engineers, and 1-on-1 interactions with practicing engineers.

E-week is an invaluable resource for the local engineering community for many reasons:

- E-week is free to students and teachers throughout NW Oregon and SW Washington
- E-week gives students exposure to engineering disciplines in various ways: field trips, exhibit hall, 1-on-1 dialogue with practicing engineers, and a keynote presentation.
- E-week introduces sophomores and juniors to engineering while they are still on the high school track to choose courses and other activities to more adequately prepare them for college engineering.
- E-week deconstructs engineering stereotypes and focuses on problem solving, team work, and promotes a strong foundation in science, technology, engineering, and math education.
- E-week promotes gender, cultural and economic diversity through focused outreach to schools and communities.
- E-week promotes science, technology, engineering, and math (STEM) curriculum in local schools and makes connections between local engineers and STEM teachers.
- E-week is coordinated by a diverse volunteer committee representing both the private and public sectors, a variety of engineering disciplines, and a variety of business sectors.

Please consider supporting this event as an E-week Sponsor. See next page for more details.

ENGINEERS MAKE IT WORK.

Support the 49th Annual Engineers Week High School Program

Wednesday, February 20, 2013
Lloyd Center DoubleTree Hotel

E-week Platinum Sponsor (\$2000)

- Principal title sponsor on all event advertisements.
- Your organization's name included in all press releases for the E-Week event.
- Your organization's name included on the event website and Facebook page.
- Opportunity for your company executive to address event participants at E-week banquet.
- Sponsor two schools. This includes hosting 20 students at the Event.
- Participation of 20 engineers from your organization at the event banquet.
- Special acknowledgement within the event invitation and the event program.
- Audio and visual recognition at the event.
- Optional: Host a technical field trip to your organization or a project site for students and teachers.
- Optional: Coordinate site visit to your office for your sponsored high school students before or after February 20th.

E-week Gold Sponsor (\$1000)

- Secondary title sponsor on all event advertisements.
- Your organization's name included in all press releases for the E-Week event.
- Your organization's name included on the event website and Facebook page.
- Sponsor one school. This includes hosting 10 students at the Event.
- Participation of 10 engineers from your organization at the event banquet.
- Special acknowledgement within the event invitation and the event program.
- Audio and visual recognition at the event.
- Optional: Host a technical field trip to your organization or a project site for students and teachers.
- Optional: Coordinate site visit to your office for your sponsored high school students before or after February 20th.

E-week Silver Sponsor (\$500)

- Tertiary title sponsor on all event advertisements.
- Your organization's name included in all press releases for the E-Week event.
- Your organization's name included on the event website and Facebook page.
- Sponsor 10 students at the Event.
- Host a technical field trip to your organization or a project site for students and teachers.
- Participation of 4 engineers from your organization at the event banquet.
- Special acknowledgement within the event invitation and the event program.
- Audio and visual recognition at the event.
- Optional: Coordinate site visit to your office for your sponsored high school students before or after February 20th.

E-week Steel Sponsor (\$175)

- Host five high school students.
- Acknowledgement within the event program.

Host (\$75) Attend the banquet and host a high school student. \$35/student to host additional students.

ENGINEERS MAKE IT WORK.

YES! My organization will sponsor the 49th Annual Engineers Week High School Program.

We would like to participate as (check one): *(See previous page for details)*

- ☐ Platinum Sponsor (\$2,000)
- ☐ Gold Sponsor (\$1000)
- ☐ Silver Sponsor (\$500)
- ☐ Steel Sponsor (\$175)
- ☐ Host Contributor (\$70)

Please provide the following information so we can contact you to coordinate day-of-event details:

Organization Name:

Point of Contact Name:

Email:

Phone:

Please make checks payable to "ASCE - Oregon Engineers Week".
Oregon Engineers Week is a 501c3 program.

Mail your check to: Patrick Van Duser
Black & Veatch
5885 Meadows Road, Suite 700
Lake Oswego, OR 97035

QUESTIONS? Please contact: Patrick Van Duser
503-443-4417
vanduserpm@bv.com

Darren Hippenstiel
503-872-4722
darren.hippenstiel@ch2m.com