CONNECTIONS

December 2014 Volume 15 Issue 3

Newsletter of the Structural Engineers Association of Oregon

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SEAO has a twitter account and can be followed at @SEAOregon.

Upcoming SEAO Meetings and Events:

Wednesday, December 10, 2014: Deadline for Entry Registration for Canstruction Design & Build Competition
Future Event to Occur in April, 2015.
See pages 10 & 11 for additional information.

Thursday, January 8, 2015: YMF Lunch Meeting
Location: KPFF Consulting Engineers, 111 SW Fifth Avenue, 26th Floor Conf. Room, Portland, OR
Time: noon to 1:00 pm
Join us for our bi-monthly lunch meeting to discuss future events and activities.
This is a great way to get involved. See Page 4 for additional YMF information.

Wednesday, January 28, 2015: SEAO Dinner Meeting
Topic: The Most Common Errors in Wind Design & How To Avoid Them
Speaker: Emily Guglielmo, S.E., Associate, Martin/Martin, Inc.
Location: Sentinel Hotel, 614 SW 11th Avenue, Portland, OR
Time: 4:45 pm Committee Info Session, 5:30 pm check-in & social, 6:15 pm dinner, 6:30 program
PDH Credit: 1 hour
Meeting Sponsor: Open for Sponsorship.

Friday, January 30, 2015: YMF Winterhawks Hockey Game
Location: Moda Center, Portland, OR
Time: 7:00 pm
YMF went to a game last year and had a lot of fun, so this year they are doing it again. Watch for an email soon to reserve your ticket(s). The estimated price for a ticket is $20.
See Page 4 for additional YMF information.

Wednesday, February 25, 2015: SEAOSF Trade Show
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's Newsletter.

Wednesday, February 25, 2015: 51st Annual Engineer's Week High School Banquet
Location: Lloyd Center DoubleTree Hotel
Time: 6:00 pm to 8:30 pm
Look for more information in January's newsletter.

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 inquires to:

9220 SW Barbur Blvd.
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BOARD OF DIRECTORS

PRESIDENT'S MESSAGE: HAPPY HOLIDAYS!

By: Jennifer Eggers, P.E., S.E.

The Holidays are upon us, and they came so quickly this year! The Board would like to wish everyone a Happy Holiday season. We hope you all had a wonderful Thanksgiving and wish you and your family the best through this season.

I have two little boys at home (ages 6 and 3) and personally, I just love this time of year. I most enjoy watching them explore and help form our own family traditions as we pass on traditions from the past. One favorite year-round past time of theirs that seems to heighten during this time of year is playing with LEGOS!! I can imagine that most of us growing up really enjoyed toys that allowed us to use our imaginations to build and create anything we could imagine. Whether we were building a pretend city or a batman-lava-magma-laser-shooting spaceship that can also go underwater (and yes, according to my boys, that is a real thing), we all used our imagination. The wonderful thing about our profession is that we still get to do that. We get to be creative, think outside the box, take what is traditionally done and find ways to make it better. Yes, we do have some realistic boundaries . . . like gravity, and we don't ALL get to make lava shooting lasers, but if you think about what we get to do, it is pretty amazing. I work on a lot of renovation and historic projects. I often think about the engineers and architects who originally designed the building that I am analyzing, 100 years earlier. I wonder what they would think or say to me as the person who is trying to improve and extend the life of the building they helped build so long ago. You could easily be the engineer that people are thinking of in 2114 while they are studying your building design to extend its life. It is pretty amazing and powerful. I encourage each of you to think about why and how you became a structural engineer and how you will shape the future of our profession. Also, when you are given the chance, remember to help the next generation . . . you never know when the next underwater lava shooting batman car building kid will become an engineer. We all have different paths on how we got here and it's a lot of fun to hear and share those stories. I imagine at least of few of them are "Well, I really liked playing with Legos as a kid and . . ."

I want to thank all of you for your support and participation in this organization. We had over 80 members attend our September lunch meeting. That is incredible! Please keep it up. The more participation we have from everyone, the stronger our organization can be for our membership. Also, please remember that each meeting or seminar you attend, you get to enter your name in the drawing for a spot on the SEAO Fishing Retreat.

The holidays are also a time for giving. Please consider giving back to the Structural Engineers Association of Oregon Scholarship Foundation (SEAOSF). SEAOSF has a trade show each February to raise funds for deserving undergraduate or graduate students pursuing a career in structural engineering. Other than this trade show, SEAOSF scholarships are funded by donations from our membership. These scholarships are well deserved and much appreciated. It has been fantastic seeing recent scholarship recipients attend SEAO meetings and really dive in to learn more about our profession. These scholarships make an impact. You can contribute by going online at http://www.seaosf.org/donate/ or you can send a check to:

SEAO Scholarship Foundation
9220 SW Barbur Blvd. #119
PMB#336
Portland, OR 97219

Thank you so much for your continued generosity. SEAOSF would not exist without your support.

Quick reminder: You should have seen your dues renewal notice arrive in the mail. Please take a minute to renew your dues online or with Jane and please let us know if you have not seen them arrive.

Again – Happy Holidays to you and your family!! I hope you all have a Happy New Year as well! Jennifer

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OCTOBER MEETING RECAP

By: Sarah Knoles

Topic: Resilience: An Engineering Challenge
Speaker: Mary Comerio, Professor, Dept. of Architecture at UC Berkeley

Resilience has become a highly discussed topic in our communities. This is reflected in engineering as we increasingly take into account post-disaster performance of our buildings and infrastructure in addition to life safety. Researchers and planners have used past events as a way to guide forecasting for recovery and in the process have exposed many challenges to engineers that go beyond improvements to the building code.

Risk modeling has often used "The 3 D's: Deaths, Dollars, and Downtime" to estimate building and infrastructure performance following disasters. However, past events have shown that building performance is only one aspect of recovery, and that measuring recovery can be quite complex. For example, the $300 billion loss that occurred due to the Tohoku, Japan earthquake seems significant compared to the $40 billion loss due to the Christchurch, New Zealand earthquake, but is only 1 to 4% of GDP compared to 20%. As one would expect, recovery is much slower when a more significant portion of an economy is affected. Similarly, recovery can slow when a large percentage of housing is damaged or destroyed as was seen following Hurricane Katrina. Downtime is a particularly complex issue that is difficult to predict and can depend much more on how insurance claims are handled than the degree of damage seen.

Factors that are more indicative of recovery speed include whether government funding for housing is available, how involved the government is in the recovery process, whether citizens are involved in the process, and how leadership adapts. Recovery time following the Maule, Chile earthquake was short due in part to the success of the building codes, but also due to the ability of existing institutions to adapt over time, strong national and local leadership, and a robust economy. Conversely, recovery following Katrina was long despite the US having similarly strong building codes and economy. This was due to the limited government funding available for housing and a very complex aid process that did not adapt well to changing needs.

Improving resilience poses many challenges and opportunities for the engineering community moving forward. Hazard mitigation could be more incorporated into land use planning by making hazard maps more readily available to planners and the public. Performance measures need to be expanded to include multiple disciplines and focus more on urban systems as a whole. Community expectations following events could be shaped by making building codes more transparent and easily understood. The recovery process could also be used as an opportunity to implement new technologies on a wider scale than is usually possible. In all cases, improved collaboration between engineers, planners, and policy makers is required for successful resilience design.

See a video of Mary Comerio's full speech on PEER's YouTube channel at https://www.youtube.com/watch?v=IQgrp6puiQo&feature=share&list=UUjfNJFtYU_iylVPvKkC1DZA

EMPLOYMENT OPPORTUNITY

SCE Structural Engineering, **Inc** is looking for highly motivated self-starters to join our downtown Portland office. We currently have full time positions available for a Project Engineer/Manager with 2+ years of experience. Candidates will be evaluated/selected based upon their practical design experience with timber, concrete, masonry, and steel, familiarity with computer analysis programs (RISA3d, Enercalc, RAM Concept, RAM Structure, ETABS, etc), and effective communication skills. Revit Structural experience is a plus.

Successful candidates will have the opportunity to work in a rapidly growing relaxed and vibrant office environment. Our office is involved daily in a wide variety of building projects ranging from retail to multi-story commercial structures, high-rise multi-family to high end residential, schools and medical projects utilizing all structural materials and systems.

Contact information: Todd Schutte, PE, SE at tschutte@scestructural.com. Also, see our company website at www.scestructural.com for additional information. (Please e-mail, Do Not Call.)

SEISMIC EVENTS

ASCE Webinars (www.asce.org)
Monday, December 15, 2014, 9:00 – 10:30 AM PT. Design of Masonry Shear Walls.

NEES Webinars (nees.org)
Friday, December 12, 2014, 11:00 – 12:30 AM PT. Seismic Performance of Architectural Precast Façade Systems – Part B Design Implications and Lessons Learned.

YOUNG MEMBER FORUM ACTIVITIES

By: Phil Davis & Seth Thomas

Upcoming YMF Events:
Thursday, January 8th – YMF Lunch Meeting — KPFF Consulting Engineers, 111 SW Fifth Avenue, 26th Floor Conference Room—noon to 1:00 pm. Join us for our bi-monthly lunch meeting to discuss future events and activities. This is a great way to get involved in SEAO.

Friday, January 30th — Winterhawks Hockey Game – Moda Center, Portland, Oregon at 7:00 pm. The game last year was so successful and fun, we are doing it again! Watch for an email soon to reserve your ticket(s). Ticket prices are estimated to be $20.

Future Events—In the upcoming year, the YMF is planning more social events in addition to our monthly happy hours. Continue to check the newsletter for details about postings for group outings and upcoming tours.

YMF Website Info:
http://www.seao.org/committees/advocacy/ymf/. Please visit our website for more information on YMF events and information.

DUES REMINDER

Annual dues for SEAO membership were due on October 31, 2014. You can make checks payable to SEAO and mail to:

9220 SW Barbur Blvd, No. 119
Portland, OR 97219

Or renew online using a credit card by going to: www.seao.org

Renewals: Member (licensed PE in Oregon): $102
Affiliate Member (unlicensed): $95
Student Member (full-time student in Civil or Structural Engineering): $16.50
Retired Members & Retired Affiliate Members: $25

Membership must be current (dues paid) to have your name included in our annual roster.

To update our records, please be sure that we have your correct address, name of your company, current phone numbers, and your email address. This will guarantee that you are receiving all correspondence and information from SEAO. You can update your information online or if you have any questions contact jane@seao.org.

PROPOSED REVISIONS TO CITY OF PORTLAND'S TITLE 24.85
"Seismic Design Requirements for Existing Buildings"

The City of Portland is proposing to revise Title 24.85 **"Seismic Design Requirements for Existing Buildings".** The Bureau of Development Services, City of Portland, is interested in getting your feedback to the proposed changes.

Title 24.85 was first adopted in 1995 and then revised in 2004. It deals with regulations for the seismic design of existing buildings. It identifies thresholds of when existing buildings are required to be evaluated and upgraded for seismic resistance.

Since its revision in 2004, ASCE 31 the code referenced by Title 24.85, has been replaced by ASCE 41-13 which combines the old ASCE 31-03 and ASCE 41-06. The proposed revision to Title 24.85 seeks to update the Title to reference the new code ASCE 41-13 since the old reference code is obsolete. In general the proposed revisions do not alter the intent or the philosophy of the current Title 24.85. The proposed revisions would adopt ASCE 41-13 as the evaluation and upgrade standard in its entirety. The only exception is in the definition of BSE-1E and BSE-2E where the following change is proposed.

> "…… the design spectral response acceleration parameters Sxs and Sx1 for BSE-1E seismic hazard level shall not be taken as less than 75 percent of the respective design spectra response acceleration parameters obtained from BSE- 1N seismic hazard level and need not be greater than BSE-2N at a site." AND
> "….that the design spectral response acceleration parameters Sxs and Sx1 for BSE-2E seismic hazard level shall not be taken as less than 75 percent of the respective design spectra response acceleration parameters obtained from BSE- 2N seismic hazard level and may not be greater than BSE-2N at a site."

Starting with UCBC and then with IEBC and ASCE 31, existing buildings were provided some leniency when they were evaluated and modifications designed to lower force levels than that required for new buildings. Typically existing buildings are evaluated and designed for 25% lower force levels than that required for new buildings. The new ASCE 41-13 has approached this issue from a different angle by evaluating and designing existing buildings using ground motions associated with more frequent earthquake. For example, where a new building is designed for collapse prevention performance level in a maximum credible earthquake with a 2% probability of exceedance in 50 years or return period of 2475 years, existing buildings are evaluated and designed for ground motions associated with an earthquake with a 5% probability of exceedance in 50 years or a return period of 975 years, for the same performance level.

In the Portland metro area analysis has shown that this results in design force levels that are about 52% to 65% of the design loads for new buildings. We believe this to be unconservative. In keeping with past precedent and the general desire not to make substantial changes to the intent of the existing Title 24.85, the proposed changes would limit the design and evaluation of existing buildings to 75% of the design values for which new buildings are required to be designed .

The second proposed change is to add a definition of Occupant Load and how it is to be calculated. Occupant load calculations in Title 24.85 are used to determine if more than 149 people are added when a change of occupancy or use is proposed. This number triggers requirements for seismic upgrades. Applicants have been applying the provision of the code inconsistently by proposing occupant loads based on what they believe is the actual use in the building using the exception in section 1004.1.2 of the 2014 Oregon Structural Specialty Code. This has led to inconsistent occupant load calculations and application of Title 24.85. The proposed definition clarifies that occupant loads are to be calculated using the occupant load factors tabulated in OSSC thus providing the user a consistent and clear method to determine the occupant loads.

Other revisions provide definitions to terms used in ASCE 41-13 and Title 24.85 like BSE-1N, BSE-1E, BOPN, BPOE etc.

No other major revisions are proposed.

The proposed revisions have been posted on City of Portland's website and may be accessed using the following link:

http://www.portlandoregon.gov/bds/article/510180

The Bureau of Development Services, City of Portland, is interested in getting your feedback to the proposed changes. Please email your comments to amit.kumar@portlandoregon.gov. Please provide feedback by **December 31, 2014**

NEW MEMBERS

The newest members to join SEAO are:

Shalini Prochazka, Simpson Strong Tie
Keith Bohren, Simpson Strong Tie
Ezra Stockton, Student

Welcome!!

EDUCATIONAL OPPORTUNITIES

PRESTRESSED CONCRETE DESIGN CLASS

SPONSORED BY KNIFE RIVER AND OREGON PRECAST CONCRETE INSTITUTE

CE 486/586 - Prestressed Concrete (3 credits)
Prerequisite: Course in reinforced concrete design
Instructor: Dr. Keith Kaufman of Knife River
Winter Term: 6 to 9 pm on Tuesdays starting January 6th on the OSU campus in Corvallis

MASONRY DESIGN CLASS

SPONSORED BY MASONRY INSTITUTE OF OREGON

CE 482/582 - Masonry Design (3 credits)
Prerequisite: Course in reinforced concrete design
Instructor: Nathan Wallace of CH2M-Hill
Winter Term: 6 to 9 pm on Thursdays starting January 8th on the OSU campus in Corvallis

Register for these regular university courses that can be used towards a degree or for PDHs. Admissions and registration information can be found on the OSU web page: http://oregonstate.edu/.

If you have any questions, please contact Prof. Tom Miller at 541-737-3322 or via email at Thomas.Miller@oregonstate.edu.

IBC CODE INFORMATION

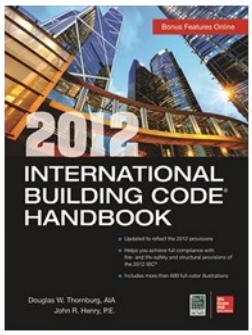
EXCERPT FROM 2012 IBC HANDBOOK

1607.10.1.2 Heavy live loads.

In the case of occupancies requiring relatively heavy minimum uniform live loads, such as storage buildings, several adjacent floor panels can be fully loaded. Field surveys indicate that rarely is any story loaded with an average actual live load of more than 80 percent of the average design live load.[1] Thus, the ASCE 7 committee concluded that the minimum uniform live load should not be reduced for the floor and beam design, but that it may be reduced a flat 20 percent for the design of members supporting more than one floor. In Exception 1, the IBC further qualifies this allowance to require that the reduction be calculated in accordance with Section 1607.10.1, with the maximum reduction limited to 20 percent.

The IBC also includes a second exception to the prohibition on reduction, permitting additional live load reduction for uses other than storage when the registered design professional can provide an acceptable substantiation for doing so. The rationale is that there can be uses other than storage where the maximum design live loads may exceed 100 psf, but the average load on members with large tributary areas may be less. For example, floors supporting heavy machinery may have very high uniform loads that are concentrated mostly over a small part of the floor area. This provision will allow the registered design professional to present to the building official a rational load reduction proposal if those scenarios apply. Since there are no specific criteria stated and the reduction is subject to the approval of the building official, this exception is very much like reiterating the concept of an alternative method of design as described in Section 104.11.

[1]American Society of Civil Engineers, *ASCE Standard Minimum Design Loads for Buildings and Other Structures*, ASCE 7-93, ASCE 7-95, ASCE 7-98, New York, NY, 1993, 1995, 1998, and 2000, respectively, ASCE 7-02, ASCE 7-05, ASCE 7-10, Reston, VA, 2002, 2005, and 2010, respectively.



This excerpt is from the 2012 International Building Code Handbook, authored by John Henry, PE and Doug Thornburg, AIA. The book is available at iccsafe.org/store. Use ID # 4000S12.

SEPTEMBER MEETING RECAP
By: David Tarries

Topic: Inelastic Structural Response to Subduction Zone Earthquakes
Speaker: Sarah Knoles

About the Presenter: Sarah Knoles is an engineer with WRK where she works primarily on power distribution for public and government projects. Her work includes seismic analysis and modeling of electrical substations and seismic qualification of electrical equipment. She holds a B.S. in Civil Engineering and an M.S. in Civil Engineering from Portland State University.

Introduction:
As a research assistant at Portland State University, Sarah worked with Dr. Peter Dusika in the iSTAR laboratory on a numerical based study of subduction zone earthquakes. Her research was based on recorded accelerations from actual subduction zone earthquakes around the Pacific to most accurately model a condition that could occur in the Northwest United States.
Geologists agree that based on geologic evidence of past events, the Cascadia fault running parallel to the Pacific coast of the Northwest is due for an event. This so called "megathrust" quake has occurred at approximate intervals in history and the time since the last estimated event is nearing that interval. If current codes are primarily based on evidence from crustal earthquakes in other parts of the US, does that accurately portray the accelerations and damage that may occur with a major subduction zone quake? Sarah's research at PSU was developed to study the difference a subduction zone "megathrust" quake might have in comparison to the current code requirements, which do not take into account the duration of the event that might be associated with a major subduction zone earthquake.

Data Sets:
Acceleration data for the study was taken from three recent subduction zone events with reliable recordings. The events were the Maule quake in Chile in 2010, and two events in the Tohoku region of Japan in 2011 (Tohoku 1 and Tohoku 2). The earthquake records selected were done carefully to avoid over-manipulation and possible contamination of results. Recorded data was not simulated or scaled in any way to remain consistent between sets. Other data restrictions included:

- Event of magnitude greater than 6.5
- PGA over 0.1g
- Instrument distance of more than 10km from the fault
- Soil site class of C or D

Japan is densely instrumented so there were many data sets available. Chile has less dense coverage but still had numerous instrument sites that met the data restrictions. The results of the data collected from the Chilean and Japanese events were not filtered for outliers or other such parameters in order to limit the amount of bias added to the results. All available data was used in the research.

Analytical Models:
The standard computer model used for analysis was a Single Degree of Freedom system that was adjusted to test many different structural properties. It was kept as simple as possible to reduce sources of variation in the results. Three different systems were modeled to represent different building types. The first was made up of bi-linear steel elements. The second was a degrading model to represent concrete moment frames or ductile steel moment frames. The third was an elastic non-linear material to represent buildings with seismic retrofits. These models were run with and without strain hardening considered. Five percent critical damping was assumed in keeping with the code spectra.

A constant ductility approach was used instead of a constant force approach as it did not require scaling data sets. This was thought to lead to more accurate results as noted previously by limiting data manipulation; however, it did require iterative analysis and therefore more intensive computing. The models were designed for three ductility levels over periods of 0 to 4 seconds. In the end, more than 750,000 single degree of freedom time history analysis models were run to complete the research.

Results:
The results of the analysis showed consistent trends between the different events and mean inelastic acceleration spectra. The results were evaluated with consideration that the Tohoku 1 event had higher peak acceleration and the Maule and Tohoku 2 events had hypocenters closer to the earth's crust.

The cumulative plastic displacement for each model was used as a key response for comparison across the events. It was calculated for each analysis period by removing the elastic response, since no damage occurs in this range, and considering only the cumulative plastic displacement. The elastic response grows with additional cycles as more energy is absorbed by the system. Tracking this result allowed for comparison of damage in each building system based on increases in duration and or intensity of shaking.

Cumulative plastic displacement was broken out by set revealing some interesting trends. The crustal earthquakes (code spectra) had lower plastic displacement results. Displacement demands were similar between the Tohoku quakes, but showed some differences with the Maule event which had a shorter duration.

Conclusions:
Interpretation of the results did not suggest that a single variable of duration or acceleration consistently correlates with the displacement demand in a system. There is something specific about each fault condition that contributes to the differences in results. Ultimately the research was inconclusive as to the effect of duration on building damage; however, it shows there is more to determine about this phenomena.

There are some general trends that can be concluded from the model analysis. These include:

- Residual displacement, which gives an idea of final damage, had trends common among all structural types.
- The degrading models had higher demands than the bi-linear and elastic non-linear. The values from the recorded events were 3 to 5 times greater than the crustal code analysis suggested.
- Elastic non-linear models had higher displacement demands from subduction events over the code prescribed crustal earthquake at all building periods.

Research concluded that duration is not the only factor in the inaccuracies of the current code to predict the seismic response of structures, and that common earthquake intensity measures do not adequately capture expected inelastic demand. There are other factors at play specific to each fault that requires additional research. Sarah suggested that her work on this topic was only a start and that research will continue on structural responses to subduction zone earthquakes at PSU.

2014 NCSEA ANNUAL CONFERENCE REPORT
New Orleans, LA
September 18-20, 2014
By: Ed Quesenberry

Over 200 Structural Engineers, Professional Engineers, EITs, and vendors gathered in New Orleans in mid-September for the 19th Annual NCSEA Conference. SEAO sent Seth Thomas and me as Alternate Delegate and Delegate respectively to report on the organization's activities over the last year, garner ideas from the other 43 member SEAs that were in attendance, and to get updates on the activities of NCSEA's many committees. The conference was held over 3½ days, with NCSEA Committee meetings and reporting sessions held on Wednesday, technical sessions on Thursday and Friday, NCSEA Design Excellence Awards Friday evening, and the NCSEA Business Meeting on Saturday morning. As you might imagine, Seth and I were quite busy trying to cover as much of the proceedings as possible so that we could bring back the following information to all SEAO members.

On the day before the conference started, all NCSEA committees held 4 hour long meetings in which they reviewed progress of ongoing efforts and planned future efforts. Seth attended the Seismic Committee and Young Member Support Group Committee meetings and I attended the Basic Education Committee meeting. The Basic Education Committee's mission is to promote a core curriculum for Undergraduate engineering students that plan on practicing structural engineering, and to promote the profession through outreach to middle and high school students and educators. Through the implementation of a survey of all colleges and universities offering a Bachelor's Degree in Civil Engineering, the committee has established that curricula vary greatly across the nation, and in many cases, students are graduating without fundamental courses such as matrix analysis, timber design, masonry design, and technical writing. The committee has joined efforts with SECB (Structural Engineering Certification Board) and is close to having a Student Certificate program ready for distribution to the universities and colleges, which will hopefully incite those institutions that do not offer NCSEA's core curriculum to do what they can to add in the missing courses. With regards to outreach, the committee will be issuing a guide to each member organization which will provide guidelines on how to implement a "What is Structural Engineering" presentation program in their state. SEAO has been giving this presentation to middle and high school students for a few years now, but many states have yet to implement it.

The NCSEA Seismic Committee met to discuss a variety of topics. Items discussed included updates to the seismic provisions being balloted for ASCE 7-16. Major updates being considered include changes to the out-of-plane wall anchorage requirements for flexible diaphragms, diaphragm and wall forces (resolving discrepancies at roof level), and non-structural provisions. Members of the committee expressed concerns about the application of the seismic provisions in low to moderate seismic regions where practicing engineers don't have experience with high seismic design. The committee felt that there was a large learning curve for users picking up ASCE 7 seismic provisions for the first time (or transitioning from a UBC type code). A simplified procedure for seismic design categories (SDC) A and B was discussed, but after discussion about failed attempts to produce stand-alone provisions for SDC A and B in ASCE 7, it was decided that the best way to address the problem was to produce a set of design guides specifically for SDC A and B. The committee is targeting next summer for completion of these guides.

The NCSEA Younger Members Committee's primary focus has been providing support to the member organizations' younger member groups (YMG). This committee was formed at the 2012 NCSEA conference when there were only 3 active younger member groups across the nation. The committee is made up of 9 members representing 8 state's younger members groups (CA, FL, AZ, WY, UT, TX, OR, and MA). Through the work of the committee, there are now 18 active younger member groups across the country with the SEAO group ranking as one of the most active. The committee has established a set of positions with a three year cycle of Secretary, Chair, and Past Chair to maintain the continuity and progress that has been achieved. Goals for the next year include finishing the YMG Resource Guide, support and promote the establishment/expansion of YMG's in all states, development of a YMG page on the NCSEA website, and development of a program of YM-specific activities for the NCSEA annual summit. The Oregon YMF group was recognized as one of the most successful groups, with the success of the education outreach program, growing membership, and variety of technical and non-technical activities. Having Seth as a representative on the national committee will allow him to learn from other YM groups' experiences and to develop new and exciting programs for the SEAO YMF in the coming year.

The conference was officially kicked off Thursday morning with a talk entitled "Why your Strategic Plan is Doomed to Fail" given by Kelly Riggs, a strategic planning consultant and founder of The Business Locker Room. Kelly was retained by NCSEA to facilitate a 5-year strategic planning process for the organization, and NCSEA had negotiated the keynote address as part of his contract. His talk provided an overview of what a successful strategic planning process looks like and touched on common pitfalls of strategic plans. His presentation was enlightening and well-received, and provided all that attended with an insight into the process NCSEA will be undertaking in the coming year.

The technical sessions were strong this year, as they were tailored to providing the practicing engineer with useful information that can be applied every day in the office. Presentations covered such topics as ASCE 7-10 wind design, 2012 NDS provisions and applications, ACI 562 Building Code for Repair of Concrete Structures, Most Common Errors in Seismic Design, and a panel discussion on The Future of Building Codes and Standards.

Continued on Page 9

2014 NCSEA ANNUAL CONFERENCE REPORT (CONT.)

The conference came to a close on Friday evening with the annual NCSEA Excellence in Structural Engineering Awards Gala, a formal affair that highlights some of the year's most intriguing and impressive structural engineering feats. This year the entries were judged by representatives from SEAO, and our organization was recognized at the Gala for our participation in and support of NCSEA. Unfortunately, no projects or firms in Oregon took home any hardware from the event as they have in years past, but the evening was festive and inspiring nonetheless.

On Saturday morning, NCSEA held its annual Business Meeting, where NCSEA officers and committee chairs make "state of the organization" presentations on the financial and operational aspects of NCSEA to the state MO delegates and anyone else who wants to attend. These reports will be posted to the NCSEA website soon if any of you are interested. Perhaps the most significant announcement NCSEA made was that they have established a Structural Engineering Grant Program that will be open to all members. In 2015, NCSEA's total available grant will be $30,000 and will be awarded to applicant(s) who can demonstrate how the funds will be used to advance our profession the most. As more information on the Grant Program becomes available, I will share it with all of you through the newsletter, email, and SEAO's monthly meetings.

Both Seth and I would like to thank SEAO for sponsoring our attendance at this year's conference. SEAO's continued support of and participation in NCSEA plays a large role in NCSEA's ability to serve its members across the nation. Being one of the top 5 largest NCSEA Member Organizations, SEAO is seen as a leader and a model for smaller state organizations, so our presence at the annual conference is important and appreciated.

2015 NCSEA WINTER LEADERSHIP FORUM

NCSEA will be hosting the 3rd Winter Leadership Forum, January 29-30, 2015 in Coral Gables, Florida. The forum gathers together structural engineering principals and leaders in an energetic and engaging environment, focused on key strategic issues vital to firm survival and success.

The sessions include:

- AEC Business Development: The Decade Ahead
- Increasing Your Engineering Firm's Value to Your Client
- Ideas to Get Your Firm Hired and Retain Relationships
- Organic Growth vs. Growth by Acquisition
- Banking Relationships
- Case Study: To Purchase or Pass (on Another Firm)

See Page 12 for additional information.

CALL FOR ENTRIES

THE 19TH ANNUAL DESIGN AND BUILD COMPETITION

TO BENEFIT OREGON FOOD BANK

WHO
Teams of Portland Metro area Architects, Engineers, Contractors, Designers and Students attending Schools of Architecture, Engineering and Design.

WHEN
December 3	**Kickoff Meeting, 5:30 - 6:30 pm**
	DOWA-IBI Group, 907 SW Stark, downtown
December 10	Deadline for Entry
April 2015	canstruction Build Out (TBD)

WHAT
Design and build structures made entirely from canned foods as a creative fundraising and teambuilding opportunity for the A/E/C community.

Sponsored by Portland Chapter, SDA

MAIL $250 CHECK TO
SDA Portland Chapter
ATTN: canstruction
P.O. Box 40144
Portland, OR 97240

Payable to: SDA, Portland Chapter

ENTRY FORM (e-mail to canstruction@sda-portland.org)

Firm _____

Contact _____ Phone _____

Address _____

E-mail _____

Teaming with Firm _____

Contact _____ E-Mail _____

CONTACT US
Amber Corsen, canstruction Chair
phone: 360-571-5577
e-mail: canstruction@sda-portland.org

LIKE US on Facebook (canstruction Portland Oregon)

Learn more at canstruction.org

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Oregon FOOD BANK SM

Excellence in Design Firm Management SDA Portland

Juror's Favorite

Interface Engineering | S.D. Deacon

Bridging the Gap

Best Use of Labels & Most Meals

Hoffman Construction Company | Mackenzie

GOOOOOOOOOAL

Structural Ingenuity & People's Choice

Bremik Construction | Scott|Edwards Architecture | VLMK Consulting Engineers

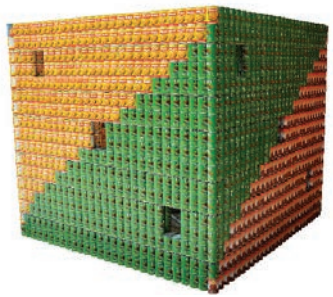
Going Hungry is DESPICABLE 2 ME!

Best Meal

KPFF Consulting Engineers | SRG Partnership

Rise Above Hunger

Honorable Mention



McKinstry | R&H Construction

A New Twist on Hunger

GBD Architects | Glumac | Pate LaManna Commercial | Turner Construction

Solving Hunger

Ankrom Moisan Architects | Arciform | New Seasons Market

Tow-Mater Soup

MulvannyG2 Architecture | Walsh Construction

Let's LE-GO of Hunger

Livermore Architecture & Engineering

Feeding Frenzy!

LIKE us on Facebook
canstruction Portland OR

ONE CAN MAKE A DIFFERENCE

2014 STATISTICS

Raised 35,637 lbs of food
and over $17,294
for Oregon Food Bank,
equaling 78,188 meals.

YEAR-TO-DATE STATISTICS

18 years of structures
526,219 lbs of food
186,242 dollars
952,968 meals

NCSEA
National Council of Structural Engineers Associations

2015 Winter Leadership Forum

January 29–30, 2015 Hyatt Regency Coral Gables, Florida

The third NCSEA Winter Leadership Forum will gather together structural engineering principals and leaders in an energetic and engaging environment, focused on key strategic issues vital to firm survival and success. Sessions include:

Thursday

AEC Business Development: The Decade Ahead
– Scott Butcher, Brad Thurman

Information is vital to anyone selling design and construction services-what works, what doesn't and how do clients want to be sold? The SMPS Foundation interviewed more than 100 buyers and sellers of A/E/C services to answer these questions and will share their findings with attendees.

Increasing Your Engineering Firm's Value to Your Client

This panel will focus on ways to increase billable hours, increase and provide more comprehensive services, and improve specialties.

Moderator:
Robb Dibble, Principal, Dibble Engineers

Panelists:
Greg Kingsley, President & CEO, KL&A Structural Engineers & Builders
Brad Thurman, Principal & Chief Marketing Officer, Wallace Engineers
Mike Tylk, Principal (retired), TGRWA, LLC

Ideas to Get Your Firm Hired and Retain Relationships - Part I

This panel presentation and discussion will focus on pre-positioning, business development, and go/no-go decisions for project pursuits. The design and construction industry has changed greatly since the onset of the Great Recession, creating upheaval in the traditional approaches to getting work. Owners have become more sophisticated and client loyalties have changed, meaning that firms traditionally viewed as subconsultants must now think like prime professionals.

Moderator:
Scott D. Butcher, FSMPS, CPSM, VP, JDB Engineering Inc., SMPS Foundation Trustee, and Co-Chair of Foundation Thought Leadership Committee

Panelists:
Robb Dibble, Principal, Dibble Engineers
Carrie Johnson, Principal & Chief Information Officer, Wallace Engineering SC
Greg Kingsley, President & CEO, KL&A Structural Engineers & Builders
Mike Tylk, Principal (retired), TGRWA, LLC

Thursday (continued)

Ideas to Get Your Firm Hired and Retain Relationships - Part II

We expect universities to train our employees for the technical tasks of their job. Technical abilities alone are not sufficient for long-term success. Communicating with our clients is something employees are often not trained to do. Soft skills are just as important as technical skills. They enable professional to navigate effectively through a wide variety of social and professional situations with a wide variety of people. How do you train your people to be effective communicators, to be responsive, creative, and organized? The panel will discuss ideas on how you can train your employees for successful interaction with your clients.

Moderator:
Carrie Johnson

Panelists:
Scott D. Butcher
Robb Dibble
Brad Thurman
Greg Kingsley
Mike Tylk

Friday

Organic Growth vs. Growth by Acquisition

This debate and panel discussion will focus on the avenues for firm growth, their pros and cons, and understanding which approach, if any, is right for your firm.

Moderator:
Jonathan Hernandez, PE, SECB, Partner at Gilsanz Murray Steficek LLP (GMS)

Debate Moderator:
Robb Dibble

Participants:
Organic Growth: *Mark Aden*, President, DCI Engineers
Growth by Acquisition: *Bjorn Morisbak*, VP, Acquisitions & Strategic Planning, Stantec

Friday (continued)

Banking Relationships
– Terry Vanderaa, Steve Van Drunen

Providence Bank Chairman Terry Vanderaa and Bank President Steve Van Drunen will discuss how engineering firms and banks can develop relationships that benefit both parties, how banks analyze firms, and how banks view growth opportunities.

Case Study: To Purchase or To Pass
– John Tawresey

This interactive case study will focus on whether or not to acquire another firm. Attendees will function as the Board of Directors making this decision.

"I enjoyed the interactive format and the lively discussions from diverse perspectives. Well worth my time."
Ed DePaola, P.E., SECB
President & CEO
Severud Associates Consulting Engineers

• • •

"A perfect mix of networking and business learning. The Winter Leadership Forum will be on my calendar every year."
Chris Hofheins
Principal
BHB Consulting Engineers

• • •

Take your seat at the table. Discuss and develop new strategies, and learn what other principals are doing and thinking.

Platinum Sponsor:

INTERNATIONAL CODE COUNCIL ICC ES ICC EVALUATION SERVICE

The Winter Leadership Forum will take place at the scenic Hyatt Regency Coral Gables in Florida. The hotel is located just steps away from beautiful beaches, lush fairways and dozens of shops. The Hyatt Regency also hosts a pool and an award winning fine-dining restaurant, Two Sisters.

Register at www.ncsea.com