Practical Applications for Buckling Restrained Braced Frames

Join us for a non-proprietary presentation on buckling-restrained braced (BRB) frames focusing on interesting projects around the Puget Sound area including:

- The Casad Dam intake retrofit near Bremerton where stainless steel BRBs are submerged in the forebay.
- Seattle Seahawks Practice Facility in Renton where a multi-tier BRB frame was used for this design-build prefabricated metal building.
- VA Hospital Nursing Tower retrofit in Seattle. This retrofit removed and replaced the existing braces with new BRBs. In addition, BRBs are used between adjacent buildings to prevent pounding.
- Eastside Catholic School in Sammamish where BRB frames were used as the main lateral-load-resisting system.

The discussion will include a brief history of buckling restrained braces including:

- where they came from
- how they work
- where they are used
- what they typically cost

If time permits, interesting and current research projects will be discussed including “eccentric” BRB frames and pairing BRB frames with reinforced concrete frames.

**Presenter Bio**

Tim Nordstrom, PE, SE, is an alumnus of the University of Idaho and is a structural engineer for Star Seismic LLC based near Seattle, WA. Tim has fifteen years of structural engineering experience and provides design support for practicing engineers, fabricators, erectors, contractors, and owners to support successful projects using BRBs.

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**Meeting Information:**

**Date:** Tuesday, October 22, 2013  
**Place:** Hotel Monaco Seattle 1101 Fourth Avenue, Seattle  
**Note:** Valet parking for SEAW meeting attendees is $12.00, space is available.

**Time:** 5:00—6:00 PM  Registration / Networking  
6:00—6:45 PM  Dinner  
6:45—7:00 PM  Welcome / Introductions  
7:00—8:15 PM  Program

**Menu:**  
Maple-Grain Mustard Roasted Pork Loin, Parsnip Puree, Foraged and Cultivated Mushroom Ragout, Salsa Verde  
~or~  
Penne Pasta, Brick Oven Roasted Vegetables, Basil Cream, Parmesan

**Price:**  
Open Members $40.00  
Non-members $50.00  
Students / Unemployed * $15.00  
Registration after 10/17, add $5.00

* Unemployed current members may register at the student rate.

**Registration Required**  
Prepayment Appreciated  
Register online at [www.seaw.org](http://www.seaw.org)

**Registration deadline is 5pm Thursday, October 17**

Credit cards accepted online only; not at the door. No-shows and cancellations after the deadline will be subject to full charge.
From the Board: The Six Prescriptions for Success

-by Steve Dill

The Six Prescriptions for Success are still good medicine for risk management.

I had the opportunity last week to participate in the Texas Centennial ASCE program. I was part of a panel that made presentations and answered questions regarding the general topics of risk and claims management. A portion of the program was a review of the “Six Prescriptions for Success” that was developed by the Structural Engineers Risk Management Council (SERMC). For those of you that are unfamiliar with SERMC, it was formed, in the early 1990’s, by DPIC, a professional liability carrier, and a collection of their insured structural engineers, to address the high incidence of negligence claims associated with the practice of structural engineering. SERMC developed a number of interesting risk management programs before the organization was ultimately discontinued. One such program was the “Six Prescriptions for Success.”

The Six Prescriptions are a set of guidelines through the practice of which structural engineers can minimize their professional practice risk. While they were developed over twenty years ago, their message is just as relevant today as it was then. At KPFF, we have found the simple messages of the Six Prescriptions to be a great framework around which to structure ongoing education about risk management. What follows is the title and description of each of the Six Prescriptions as recorded in SERMC training materials, followed by my commentary.

**Rx 1: Evaluation of Risk**

**Perform design services only after we have reviewed and assessed the requirements and risks of a project and have decided we have the capability and readiness to meet client expectations.**

With 20/20 hindsight, it is often clear that projects that turned into problems were destined to be problems from the beginning—we just chose to ignore the signs. The first prescription is about taking a moment, before we agree to provide professional services on a project, to consider the signs—the people and conditions involved. What do we know about the owner ... Have they done this kind of project before? Have we worked with them before? What has that experience taught us? Are they adequately financed to do the job?

What about the project ... Does this project type have a consistent record of claims? Are there unusual technical risks? Can we somehow mitigate them?

What about us ... Do we have the right experience and expertise to do this project? Do we have enough time to do it? Is there enough fee to do it right?

What about the other design team members ... Do we know them? Can they deliver? Can we be successful if they don’t?

While most of us will generally conclude that the risks associated with a potential project are manageable, there are circumstances where this is not true. Sometimes the best project is the one we didn’t take.

**Rx 2: Scope of Services**

Execute a written agreement with a scope of services that permits us to fulfill client expectations and meet our firm’s performance policy at a fee that is fair to both parties.

This prescription advocates for a clear, well-written document outlining those services that we expect to provide, those that we don’t do, and our expectations regarding fee and schedule. This communication can occur through checklists or in less structured formats. Form is not the point; clearly matching up expectations with our client is the point.

**Rx 3: Contract for Quality, Profit, and Risk Allocation**

Execute a mutually agreed upon written contract for each project.

As we all know, contracts can be complicated and for many of us they are not part of our day-to-day responsibilities. It is important, however, that someone be responsible to negotiate a fair contract—one that provides a fair balance of risk and reward. If the contract we have signed has committed us to extraordinary risk, we need to be clear about what that risk is, and how best to actively mitigate it.

**Rx 4: Contract Document Quality Assurance**

Apply a systematic quality assurance and control process to the production of contract documents in order to meet our client’s requirements and our community’s standard of care.

This is the prescription that speaks to each of us in terms of what we do every day. It asks that we each do what we can to produce the highest quality engineering services and contract documents possible. Because each of us works on different projects, with different clients, within different firms, it is not possible [or desirable] to define a single path toward improved quality. As firms, we can (and should) do what we can to improve the quality of services provided by our offices through education and training, documentation of best practices, facilitating an environment of open communication, etc. Ultimately, as professionals, each of us needs to find our own unique approach to continuously improve the quality of our service—and to minimize our professional risk.

**Rx 5: Construction Phase Services**

Include adequate construction phase services as part of our scope of services in order to confirm that the design intent is properly executed, thereby minimizing design/construction inconsistencies.

Professional negligence issues frequently become apparent during construction. To both confirm that the contractor correctly interprets our design intent and to ensure that we will have the opportunity to manage disputes as they arise, we must be involved during the construction phase of the project. That involvement starts with having appropriate construction support services included in our scope of services. To manage risk with these services requires that we provide them well, accurately, and timely, while paying close attention to issues that may be "graduating" into claims.

**Rx 6: Early Action Plan**

Respond to problems or potential disputes as quickly as possible and in a manner that promotes open communication and contributes to early resolution.

Continued on Page 3
September Meeting Recap

-by Peter Somers

The September dinner meeting featured an engaging presentation by Jason Black and Emily George of KPFF Consulting Engineers on the Federal Center South Building 1202 project. This one-of-a-kind, High Performance Green Building, recently received an NCSEA Engineering Excellence Award, among many other design and construction accolades. The program began with Jason, a principal with KPFF and current Seattle Chapter Director, providing the background for the three-story, 206,000 square foot, $72 million project that now serves as the headquarters for the Seattle District of the U.S. Army Corps of Engineers. The design-build project, funded through the 2009 American Recovery and Reinvestment Act, included several structural challenges that were solved using innovative structural solutions and included a very interesting program for materials reuse.

Situated along the Duwamish River in Seattle, the site features approximately 150 feet of soft alluvium fill over consolidated glacial deposits. The foundation included driven steel pipe piles and a series of stone column ground improvements along the river front to reduce the risk of lateral spreading associated with the high potential for liquefaction. Embedded within the steel piles are geothermal loops that account for a significant portion of the building’s heating and cooling capacity.

As with most federal projects, the building design criteria included provisions for blast resistance and protection against progressive collapse. To satisfy these criteria, the exterior structure features a “dia-grid” system of three-story sloping columns and horizontal beams, configured as multiple overlapping triangles to provide alternative load paths involving cantilevered trusses to support the building loads if an individual column is compromised. Compared with traditional welded rectilinear moment frame systems for progressive collapse resistance, this dia-grid system resulted in approximately 30 percent less steel tonnage, fewer piles, and a substantially reduced time for erection.

Emily, an Associate with KPFF and the project manager, then described perhaps the most interesting feature of the project which is a central commons area that was constructed with a significant portion of reclaimed lumber salvaged from the 1940s era, wood-framed warehouse previously located on the building site. The warehouse, approximately 300 feet wide by 1,100 feet long, yielded over 300,000 board feet of high grade Douglas-fir timbers and decking. The salvaged lumber provided the material was carefully deconstructed, then transported to a lumber yard in Ferndale, Washington, for cataloging, grading, and preparation for reuse. The salvaged lumber provided the columns, purlins, and decking used for the new building. The floor system consisted of a concrete slab over wood decking on timber purlins supported by structural steel girders. Tolerance in the purlins due to checking, warping, twisting, and sagging of the 70 year old material was provided by an innovative system of rabbet notches along the top corners of the beam that resulted in horizontal and vertical uniformity in the decking support. Taking advantage of the concrete slab for increased structural capacity, the purlins were designed as a composite system with the slab using lag screws as the shear transfer. A preconstruction testing program by KPFF and the general contractor, Sellen Construction, demonstrated that the composite system had capacity substantially exceeding the required design loading.

The project, which was awarded and designed at the height of the recession, with a lot of interest and competition among the local design community, is a clear demonstration of how innovation and collaboration are critical aspects of winning design-build projects and then successfully seeing them through completion.

Peter Somers is a Principal at Magnuson Klemencic Associates and president of the Seattle Chapter for 2013-2014.

Continued from Page 2

Rx 6: Early Action Plan

When a potential problem arises, our first step should be to seek counseling. No claim situation should be faced alone. While in each of our firms the protocol for that communication may be different, usually the managing principal, or another partner, will be the likely choice for that counsel. When dealing with problems, try to stay open and communicative—not defensive—and work to solve the problem. Remember that identifying problems early and working creatively to solve them is a proven opportunity to build relationships. It can be the most effective marketing that we do.

In closing, I would like to suggest that risk management is not something separate from the practice of engineering, but quite the opposite. Design and construction problems, along with the practice risk that those problems can create, are an integral part of what we do. Practicing our profession requires a solid understanding of that risk—where it comes from and what can be done about it. If you have an interest in this topic, you might want to consider joining other members of SEAW with a similar interest at an upcoming Professional Practices Committee meeting.

Steve Dill is a principal, board member, and the Chief Financial Officer for KPFF Consulting Engineers. Steve is a 2011-2014 Seattle Chapter director, and has been a member of SEAW since 1985.
Most engineers who have been successful in their careers can probably look back to a mentor somewhere along the way who was instrumental in guiding them on their path to success. I know that I have been one of the more fortunate engineers to have had good mentors helping me along early in my career. As the economy begins to pick up again, more and more younger engineers are being hired into firms and thrown right into the fire. These firms need young engineers to quickly surpass the steep learning curve that exists between school and professional practice. Coming out of the recession has created a new market where clients have gotten used to expecting more for less, with tighter budgets and timelines. Because of this, much of the mentoring that once occurred has been sidelined. Project managers who feel these same pressures have less time to teach. There is also an experience gap that has been created, interrupting the once natural flow between mentors and the mentored. For this reason it has become more important for younger engineers to network, and to have places outside of their own offices to talk about problems they are facing and how to come up with solutions for them.

This problem has not gone unnoticed by either NCSEA or SEAW. Recently, the NCSEA has put a large emphasis on supporting and developing young member groups under the various member organizations. They have put together resources outlining how to start, maintain, or improve these young member groups, and have seen a rapid increase nationwide in the number of young member groups that exist. The SEAW Seattle Chapter YMF has been fortunate to have received support from our chapter for many years. The Seattle Chapter understands the importance of the YMF and has provided the necessary funding and support. More recently, the SEAW Seattle Chapter has even started to encourage committee members from the various technical committees to attend the monthly happy hours in order to promote involvement of younger engineers in the committees. This is a great start, and we are continuing to look for more ways to elevate the members of the YMF within our professional community.

If you would like to become more involved with the SEAW YMF, to attend happy hours, or act as a mentor for younger engineers, please contact us at SEAWYMF@gmail.com

### Upcoming YMF Events

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Details</th>
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<tbody>
<tr>
<td>Oct 8</td>
<td>Happy Hour</td>
<td>5:00-7:00 PM, Yard House, 1501 4th Avenue, Seattle</td>
</tr>
<tr>
<td>Oct 19</td>
<td>Habitat for Humanity Volunteer Day</td>
<td>Ten person limit, contact Kyle Holman at <a href="mailto:seawymf@gmail.com">seawymf@gmail.com</a></td>
</tr>
<tr>
<td>Nov 12</td>
<td>Happy Hour</td>
<td>5:00-7:00 PM, Von's 1000, 1225 1st Ave. S., Seattle</td>
</tr>
<tr>
<td>Nov 20</td>
<td>Eastside Happy Hour</td>
<td>5:00-7:00 PM, Facing East, 1075 Bellevue Way NE, B2, Bellevue</td>
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I’ve wanted to do this for thirty years—walk over the Brooklyn Bridge. Now that I am really here, it is hard to put my feelings into words. The first impression I got was “The Ages Past.” There were the cables, the feel of the massive stonework, and the steel framing all fashioned for a purpose by one of the icons of my own profession.

I walked the 1.3 miles over the bridge with my mother, who is in her late 70s and has an arthritic foot. I asked Mother if she thought she could make it. I received a cold stare and pursed lips and was told, “I’m walking over this bridge with you!” So we walked along with half of Brooklyn; people speaking dozens of different languages, and a contingent from the Hasidic Jewish community. Along the way we met a Jamaican couple selling Gatorade and water. They kindly offered Mother a chair to rest. We also passed an Italian man and woman taking wedding photos with the Bridge in the background. An American experience! “E Pluribus Unum!”

To me, this place is a shrine to the life’s work of a great engineer, the vision of our civil engineering profession, and the history of America. As a fitting monument to civil engineering—whose vision is service—this bridge is still used every day by thousands of people.

I stood at the first pier and looked up at the archway. My little picture might give a hint of the scale of this place. But it does not capture the immensity or grandeur. Every civil engineer has heard about this bridge. And like everyone else I have seen movies and studied the design and construction. Yet, nothing prepared me for the experience of being in this place. It may sound crazy, but I was in a state of wonderment when I realized I was touching steel and stone that Roebling worked. And I realized something: this isn’t just a trip to take when you can. This is a vision is service—this bridge is still used every day by thousands of people.

More of my Engineer’s Notes from Afield are published on our SEAW Facebook Page.

Darrell Staaleson, P.E., S.E., dstaal@staaleng.com
SEAW Public Information Committee Chair

#### YMF Leadership

- **President:** Tyler Kurz  tkurz@dci-engineers.com
- **Vice President:** Kyle Holman  kholman@dci-engineers.com
- **Past Chair:** Jennifer Ahlport  jahlport@gmail.com
- **Social Representative:** Chelsea Snodgrass  snodgrass@jacobssf.com
- **Outreach Representative:** Cal Bearman  cfbearman@gmail.com

The Younger Member Forum provides networking and social opportunities to SEAW members 35 and under, as well as new non-member engineers and students. All SEAW members are welcome to participate in YMF functions.
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Meetings, Seminars and Announcements

Wind Design Using the New Provisions in ASCE 7-10

ASCE 7-10 represents a major rewrite of the wind provisions, going from one chapter in 60 pages to six chapters containing 147 pages of text and figures. Not only has the organization of the wind provisions changed but the methodology has as well.

Don Scott, SE. (current chair of the ASCE7-10 Wind Load Subcommittee) and Ed Huston, SE, two of the better known wind engineers and presenters in SEAW, have put together a seminar outlining the major changes including example problems.

This seminar will begin with a short history of wind storms in Western Washington by Cliff Mass of the University of Washington (with a local speaker for the eastern Washington wind storms for the Spokane-Tri City audience). Ed Huston will discuss the major changes to the code followed by example problems for the “all-heights” method. Don Scott will present lessons learned from recent high wind events in the Midwest and, time permitting, go over frequently asked wind engineering questions.

Lunch will be provided along with video from the Insurance Industry Wind Tunnel Tests of full-size structures.

The seminar is intended for both recent graduates and experienced practicing engineers and will qualify for six hours of professional development.

Seminar Dates:
Spokane: October 10; Tri-Cities: October 11, and Seattle: November 16th

Register now at www.seaw.org!

S.K. Ghosh presents
Transitioning from the 2009 IBC to 2012 IBC (Structural Provisions)

NOTE: SEAW members registering before October 22 receive a $25.00 discount

Date: October 29, 2013
Time: 8:00 AM to 5:00 PM Pacific Time (8 PDHs)
Speakers: S. K. Ghosh, Ph.D. and Susan Dowty, S.E.
Venue: Red Lion Seattle Airport, 18220 International Blvd, Seattle, WA 98188

For more information, please visit: http://skghoshassociates.com/seminar-id-149/

Discounted Publications
Receive a 15% discount on any publications sold by S. K. Ghosh Associates Inc. when purchased along with seminar registration.

ARE YOU READY to ShakeOut? Plan to participate in the 2013 Great Washington ShakeOut

Thursday, Oct. 17, 2013, 10:17am

While earthquake hazard varies from region to region, most of Washington is prone to earthquakes. You could be anywhere when an earthquake strikes: at home, at work, at school, or even on vacation. What do we do now will determine our quality of life after our next big earthquake. Are you prepared to survive and recover quickly?

The great Washington ShakeOut is a statewide opportunity to practice how to be safer during big earthquakes: “Drop, Cover and Hold On.” The ShakeOut has also been organized to encourage you, your community, your school, or your organization to review and update emergency preparedness plans and supplies, and to secure your space in order to prevent damage and injuries.

For more information on ShakeOut Washington, visit www.shakeout.org/washington
Visit our own Earthquake resource page at http://www.seaw.org/events_detail_announcement.cfm?pk_announcement=168

SEFW Fall Forum

The Structural Engineer’s Foundation of Washington is excited to announce details for its 2013 Fall Forum, to be held Thursday, November 21, 2013, at Benaroya Hall.
This year’s speakers are two world leaders in wood construction innovation, Michael Green, AIBC, FraIC, AIA, Principal at MG Architecture, and J. Eric Karsh, MEng, P.Eng., Struct.Eng., M.I.Struct.E., Ing., Principal at Equilibrium Consulting. Their presentation, “Tall Wood—How Timber Suddenly Decided to Grow Up” will surely change your perspective on wood-based design.

Come prepared to learn about the amazing progress timber has made as an incredibly sustainable and economical construction material over the past few decades. As Michael Green calls it the “most technologically advanced material grown by the sun,” wood has earned its place alongside steel and concrete in the construction of large institutional and commercial projects such as international airports, municipal halls, university buildings, and yes, high rises.

Wood has gone high tech, and if you are in the building business, you should know about it.

To further pique your interest in this year’s Forum, check out Michael Green’s fascinating TED talk, found here: http://www.ted.com/talks/michael_green_why_we_should_build_wooden_skyscrapers.html

Forum sponsorship opportunity letters will be sent out in the coming weeks, and registration for the event will be announced soon. SEFW is a 501c3 non-profit, dedicated to furthering the structural engineering profession. We look forward to having your support and seeing you at this year’s Forum! For more information, contact SEFW Chair Howard Burton at chair@sefw.org, or SEFW Administrator Angela Gottula at admin@sefw.org.

University Mentor Night Help Needed

If you are interested in being a mentor for a night for college students, the Puget Sound Engineering Council (PSEC) needs your help! The purpose of the mentor night activity has been to bring as many practicing engineers together with as many students as possible. We are trying to inspire the students, most of whom are freshmen and sophomores as well as high school seniors, toward a career in engineering. The mentor night allows engineers to relay their experience in the profession and answer questions posed by students.

The events have included over 40 mentors in 17 disciplines.
Top minds from the UW, state government and the private sector will share their thoughts on the challenges and opportunities Washington faces as we plan and build the infrastructure of the future.

When: Oct. 23, 30 and Nov. 14
Where: Kane Hall, UW campus
Cost: Free. Advance registration required. Learn more about this exciting lecture series at UWalum.com/engineering
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Photo: Mercer Court, University of Washington, Aiken-Moisan Architects, courtesy WCI Clark Construction
Photo: Stage at the Wood Center for American Theater, Nic Lehoux, courtesy of Bing Thom Architects
Disaster Preparedness & Response

Tuesday, October 15, noon-1pm at Quantum Consulting Engineers office, 1511 Third Ave, Suite 323, Seattle.

Contact: Joyce Lem, chair, at joyce.lem@hdrinc.com, 425.450.6345.

Login info for remote access via GoToMeeting will be sent by John Riley at jriley@quantumce.com.

Topics for discussion:
- Updated list of attendees at SEAW-taught ATC-20 classes and next steps (chapter contacts for phone tree, DOH)
- Upcoming SAP/ATC-20 classes
- The Great Washington ShakeOut (Oct 17, 10:17am)—participation
- Registries: DOH, Cal EMA SAP, ours.

SEAW/WABO Liaison

Next Meeting: Thursday, October 10, 11:30 AM – 1:00 PM at Bellevue City Hall.

Contact: Charlie Griffes, charlie@ctengineering.com

Update: The SEAW/WABO committee continues to meet most every month to develop white papers and discuss other matters. Current efforts include a white paper on fire truck loadings for building structures. Code enforcement for tree houses is also being discussed. Meetings are 2nd Thursday of the month from 11:30 to 1:00 at Bellevue City Hall.

Sustainability

Wednesday, October 23, 12:00 to 1:00 PM, at KPFF, 1601 Fifth Ave, Ste 1600.

Contact: Adam Slivers, Chair, at adam.slivers@kpff.com

Topic: Life Cycle Assessment of wood products. October’s meeting will feature Kate Simonen from UW who will present the story behind environmental data used for Life Cycle Assessments of wood products, and how they relate to steel and concrete.

Earthquake Engineering

Tuesday, November 5, 12:15 to 1:30 PM at the Westlake Center Office Tower, 1601 Fifth Avenue, 4th floor conference room. Agenda to be announced.

Contact: Andy Taylor, Chair, Andy.Taylor@kpff.com

Committee News:
- The EEC met Thursday, September 12, with Andy Taylor as chair. Tom Xia was thanked for his leadership of the EEC over the past five years. Reviewed: committee membership; reports from members on current activities of other technical committees outside SEAW; and current and future initiatives. There was an extended discussion about the EEC becoming more active in public outreach and education about earthquake engineering. The EEC will coordinate this initiative with the SEAW Public Information Committee. There was also discussion about continued active involvement by EEC members in local and national technical committees.
- Chairman Taylor met with Seattle Chapter VP and Committee Liaison chair Tom Corcoran to discuss EEC committee status and direction. It was agreed that active recruitment of young members should be a priority. Taylor will attend YMF events to discuss the EEC and encourage participation.

Education

Thursday, Nov 7, 12:15-1:30pm, Seattle Municipal Tower, 700 5th Ave, Room 2170

Contact: Ardel Jala at Ardel.jala@seattle.gov or Adam Theiss at atheiss@mka.com

SEAW Committee Chairs

| Building Engineering | Scott Beard | 253-591-5019 | sb Beard@cityoftacoma.org |
| Code Advisory | John Hooper | 206.292.1200 | jhooper@mka.com |
| Committee Liaison Task Group | Tom Corcoran | 206.628.3137 | tpcorcoran@integrusarch.com |
| Disaster Prep/Response | Joyce Lem | 425.450.6200 | joyce.lem@hdrinc.com |
| Earthquake Engineering | Andy Taylor | 206.622.5822 | andrew.taylor@kpff.com |
| Education | Ardel Jala | 206.322.6354 | ardel.jala@seattle.gov |
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| Public Information | Darrell Staalesen | 253.520.0388 | dstaal@staaleng.com |
| Scholarship | David Peden | 509.328.2994 | dpeden@coffman.com |
| Snow Load Engineering | John Tate | 509.972.3079 | jatce@charter.net |
| Strategic Plan Monitor | Jill Shuttleworth | 509.840.3343 | jshuttleworth@meierinc.com |
| Sustainability | Adam Slivers | 206.622.5822 | adam.slivers@kpff.com |
| Technology | Lynnell Brunswig | 206.682.6026 | seaw@seaw.org |
| Western Council | Ed Huston | 206.448.8448 | huston@smithhustoninc.com |
| Wind Engineering | Don Scott (interim) | 253.383.2797 | dscott@pcs-structural.com |

Liaisons/Representatives:

- NCSEA
  - Chun Lau | 206.624.0100 | cclau@comcast.net |
  - Doug Wilson | 425.252.0454 | dwilson@dci-engineers.com |
  - Tom Xia, alternate | 206.332.1900 | btxa@dci-engineers.com |
- SEAW/WABO
  - Charlie Griffes | 206.285.4512 | charlie@ctengineering.com |
- Structural Engineers Foundation
  - Howard Burton | 206.343.3000 | hburton@seattlestructural.com |
- WA Seismic Safety Committee
  - Stacy Bartoletti | 415.392.6952 | sbartoletti@degenkolb.com |
Help Wanted

Innovative Engineering Inc. (IEI) seeks a part time contract registered structural engineer and cad designer to start a satellite office in metropolitan Seattle. IEI is a mid-size, award winning and nationally recognized structural engineering firm that provides design and analysis of a wide variety of traditional and unique projects for industrial, military and architectural clients. The ideal candidates will have an entrepreneurial spirit with outstanding customer service, interpersonal and communication skills. A minimum of 4 years experience on a wide variety of unique projects is required. An advanced degree is a plus. We offer a casual, flexible and yet professional atmosphere, career growth opportunities and competitive compensation.

Send resume to:
Scott L Weiland PE
sweiland@ieiusa.com
Web Site: www.ieiusa.com

Changes to IBC 2012 Edition

Sections 1614, 202—Atmospheric Ice Loads

CHANGE TYPE: Addition

CHANGE SUMMARY: A new section, definition and notation for ice loads on ice-sensitive structures have been added to the International Building Code in order to provide consistency with ASCE 7-10.


ICE-SENSITIVE STRUCTURE  A structure for which the effect of an atmospheric ice load governs the design of a structure or portion thereof. This includes, but is not limited to, lattice structures, guyed masts, overhead lines, light suspension and cable-stayed bridges, aerial cable systems (e.g., for ski lifts or logging operations), amusement rides, open catwalks and platforms, flagpoles, and signs.

1602 Definitions and Notations

D_i = Weight of ice in accordance with Chapter 10 of ASCE 7.
W_i = Wind-on-ice in accordance with Chapter 10 of ASCE 7.

SECTION 1614  ATMOSPHERIC ICE LOADS

1614.1 General. Ice-sensitive structures shall be designed for atmospheric ice loads in accordance with Chapter 10 of ASCE 7.

Load combinations involving ice loads

CHANGE SIGNIFICANCE: Section 10.1 of ASCE 7-10 requires atmospheric ice loads to be considered in the design of ice-sensitive structures. The term “ice-sensitive structure” is defined in Section 10.2 of ASCE 7-10 and this definition has been added to the IBC. Having the definition in the IBC provides the technical basis for determining which structures are ice-sensitive and are required to be designed for ice loads in accordance with the applicable provisions in ASCE 7-10. The new Section 1614 references Chapter 10 of ASCE 7-10 for the determination of ice loads on these structures. The LRFD load combinations in Section 1605.2.2 and ASD load combinations in Section 1605.3.2 have been modified to include ice loads where applicable. Where atmospheric ice loads must be considered in the design, these code sections cross reference ASCE 7 Section 2.3.4 for LRFD and Section 2.4.3 for ASD respectively.

This new code provision is from the Significant Changes to the International Building Code, 2012 edition, authored by John Henry, PE, Doug Thornburg, AIA, and Jay Woodward. The book is available at iccsafe.org/store. Use ID # 7024512.

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SEAW Calendar

**OCTOBER, 2013**

- **Tuesday 8th**  YMF Outreach Happy Hour, 5-7 PM  Yard House, 1501 4th Avenue, Seattle
- **Saturday 19th**  Habitat for Humanity Volunteer Day  Ten person limit, contact Kyle Holman at seawymf@gmail.com
- **Thursday 10th**  Wind Seminar-Spokane
- **Friday 11th**  Wind Seminar-Tri Cities
- **Monday 21st**  November Newsletter Deadline
- **Tuesday 22nd**  Seattle Chapter Board & Dinner Meeting  Hotel Monaco

Membership Postings

*In accordance with SEAW bylaws, membership applications are vetted by the Executive Director, granted probationary status by the chapter board, and posted for membership comment. Membership is considered accepted 30 days after posting if current year dues are paid and no member objections have been received.*

<table>
<thead>
<tr>
<th>Name</th>
<th>City</th>
<th>Class</th>
<th>Website</th>
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<tbody>
<tr>
<td>Nelson Chao</td>
<td>City of Bellevue</td>
<td>Associate</td>
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<tr>
<td>Behrooz Khorrani</td>
<td>City of Bellevue</td>
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<tr>
<td>Darrell E. Marchell</td>
<td>Vulcraft Sales corporation</td>
<td>Associate</td>
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SEAW Website News

After working our way through a few technical challenges in getting our new membership database established, we’re nearly ready to debut the new, improved SEAW website. As soon as we’re up and running, we’ll email an announcement to the membership with instructions for logging in and navigating to the member portion of the site. Until then, our online dues payment system has been temporarily disabled. Please contact the SEAW office if you need a new invoice, and either mail a check for your 2013 dues, or phone the office with credit card information.

SEATTLE CHAPTER UNPAID DUES

Members whose dues are paid at the end of the year will be deleted from the membership. Please see the website note at left for information about paying your dues.

<table>
<thead>
<tr>
<th>Jennifer Ahlport</th>
<th>Satendra Jain</th>
<th>Blythe Meigs</th>
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<tr>
<td>Nima Ala</td>
<td>Jennifer Johnson</td>
<td>Jason Miller</td>
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<td>Gregg Andrus</td>
<td>Shawn Johnson</td>
<td>Mahvash Nassiri</td>
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<td>Jeff Baerwald</td>
<td>Debbie Jung</td>
<td>Michael Nylander</td>
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<td>Chris Briz</td>
<td>Jon Keiser</td>
<td>Sean Peterfreund</td>
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<td>Kolby Burke</td>
<td>Eric Kelley</td>
<td>Sri Rajah</td>
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<td>Mariya Chorbova</td>
<td>Jeff Kilborn</td>
<td>Caitlin Reed</td>
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<td>David Cotton</td>
<td>Byounggeo Kim</td>
<td>Clemens Rossell</td>
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<td>Gerald Dorn</td>
<td>Kenneth Khalheim</td>
<td>William Shafer</td>
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<td>Lanny Lynn</td>
<td>Paul Larson</td>
<td>Jay Spearman</td>
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<td>Nathan Galer</td>
<td>Yuan Li</td>
<td>Andrew Stoupe</td>
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<td>Ella Garber</td>
<td>Natalie Liner</td>
<td>Lori Szewczyk</td>
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<td>Brian Glover</td>
<td>C Adam Ludwig</td>
<td>Jason Tornquist</td>
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<td>Chris Hasse</td>
<td>Martin Mainot</td>
<td>Michael Weinert</td>
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<td>Scott Hufford</td>
<td>Jim Mattison</td>
<td>William Williams</td>
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<td>Lily Ilterner</td>
<td>Kyle Maw</td>
<td>Doug Wilson</td>
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<td>Jennyfer Jacobson</td>
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<td>Irina Wong</td>
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For Committee contact information, visit [www.seaw.org](http://www.seaw.org) and click the Committee page.