



# EQUILIBRIUM

Newsletter of the Seattle Chapter  
Structural Engineers Association of Washington

JANUARY 2008

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## Coming in February:

ACI hosts our annual joint dinner meeting:

**Wednesday,  
February 13<sup>th</sup> at  
McCormick & Schmicks  
on Lake Union.**

Program by  
Cary Kopczyński & Co.

## Seismic Upgrade of Harborview Medical Center's East Hospital/North Wing

**S**tart the New Year off right and off and attend the first ever Seattle Chapter lunch meeting **Tuesday January 22** at the College Club in downtown Seattle.

Thanks to a generous grant by Degenkolb Engineers and DCI Engineers, students with current ID are invited to attend at no charge.

This lunch meeting program will feature the seismic upgrade of Harborview Medical Center's East Hospital/North Wing. This portion of the hospital is an existing nine-story, fully occupied, "Essential Facility" serving the region as the only Level 1 trauma center in a five state area. Using recommended FEMA procedures, the optimum and most cost effective seismic upgrade solution was determined to be fiber-reinforced polymer (FRP) panels with fiber anchors attached to the exterior face of the existing concrete walls. The FRP panels enabled the building to remain occupied and functional during the renovation, and reduced the upgrade cost to less than a third of the hospital's original budget. Extensive testing of the FRP materials was performed at the University of Washington to confirm hybrid properties and performance, and a nonlinear analysis was used to verify an "Immediate Occupancy" performance level.

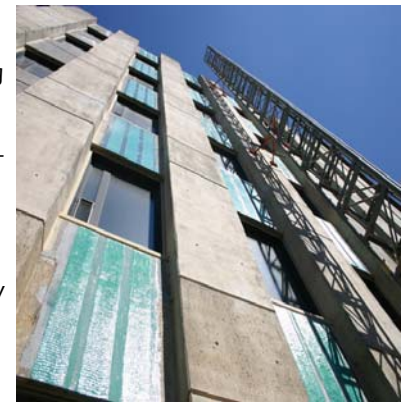
**Presenter:**  
Robert D. Anderson, P.E., S.E.

Robert Anderson is a Principal at Magnusson Klemencic Associates (MKA), a 170-person

structural and civil engineering firm headquartered in Seattle, Washington. At MKA Bob manages the structural design of new and renovated healthcare and institutional facilities. For the last five years, he has served as Project Manager on the Harborview Medical Center expansion, including the new Inpatient Expansion Building and the seismic renovation of the hospital's North Wing. Bob has taught the seismic analysis portion of the SEAW sponsored refresher course for the SE Exam, and frequently lectures at the University of Washington. He was also named SEAW Engineer of

the Year in 2000, and has served as director and Chapter president.

**Project Architect:** NBBJ  
**General Contractor:** Turner Construction



## Meeting Information

<b>Date:</b>	Tuesday, January 22, 2008	
<b>Place:</b>	College Club, 505 Madison, Seattle <i>Parking will be limited: Carpool or use alternative transportation if possible!</i>	
<b>Time:</b>	12:00 12:15 to 12:30 12:30 to 1:30	<b>Lunch served</b> Business Presentation
<b>Menu:</b>	Halibut Steak Almondine, salad, rice, vegetable, dessert	
<b>Cost:</b>	SEAW Members Non-Members Students (with ID) Late Registration, add	\$25.00 \$30.00 FREE \$ 5.00

**Reservation Deadline:** Thursday, January 17

**REGISTER ONLINE** at [www.seaw.org](http://www.seaw.org), email [seaw@seaw.org](mailto:seaw@seaw.org) or call 206/682-6026. Prepayment is appreciated!

**No Mini-Seminar:**  
Due to time limitations there will be no mini-seminar at this lunch meeting

**January Meeting Business:**  
A nominating committee will be selected to determine candidates for the 2008-2009 Seattle Chapter Board.

## FROM THE BOARD: What A Long Strange Trip It's Been

About five years ago, my friend Steve remarked to me that there had been more changes in the codes and standards governing the practice of structural engineering in the past 5 years than in the 25 years that preceded them. I can't speak for Steve, but I was certainly old enough at the time to know what he meant and to heartily agree with him. In the five years since that remark, I haven't detected any let up in the pace of change. In fact, it has probably accelerated in that time and I suspect Steve agrees. So, why has this been happening, who has been doing this, will it ever stop and what do we do about it if it doesn't stop soon? I would like to briefly describe what I think are the three primary reasons for so much change. Then, I will try to explain when I believe it will slow down and what we can do to make sure it happens.

The first reason is three recent earthquakes: Loma Prieta (1989), Northridge (1994) and Kobe (1995). Collectively, they had a profound effect on how we design structures to resist the effects of earthquakes and taught us how much we still had to learn. Among lessons too numerous to mention in this column are the consequences of locating structures in liquefaction-prone areas (Loma Prieta) and the benefits of redundancy (Northridge).

The second reason is the transition from a regional to a national consensus in the development of standards governing seismic design. Until the mid-1990s, SEAOC was the leader. Now, we have participation

from structural engineers throughout the country. Some of the impetus behind this has been from the federal government through FEMA, which has provided much needed funding for the development of the NEHRP provisions and other documents that line our office shelves.

The third reason is the transition from a regional to a national consensus in the development of codes governing the built environment with the merging of the regional model code organizations (ICBO, BOCAI and SBCCI) into a single national organization (ICC). This may appear to have only an indirect effect on the practice of structural engineering but it has had a profound effect on other design professions, especially architecture whose practitioners are often our clients.

Put these three reasons together and what you get is a tremendous amount of change coupled with increases in complexity, which I suspect many of us are barely coping with. Will this seemingly ceaseless change slow down? Is there light at the end of the proverbial tunnel? Yes there is. I see it. It's dim, but it's there. So, how do we move more quickly to that light?

The stage in which codes and standards are developed is much larger now than it was when Steve and I began our careers. The development process is more complex and reducing complexity within that process is more difficult. The increasing complexity of codes and standards has much to do with the increasing complexity of the structures we design, which codes and standards must account for in order to ensure public safety. These structures are brought to us by our clients, architects, which are brought to them by their clients, owners. Are any of us willing to demand simplicity by demanding simpler buildings to design so that the codes and standards governing their design can be simplified?

Let's also not forget those lessons learned from previous earthquakes. Incorporating them into codes and standards requires lots of words, sometimes torrents of them. There isn't necessarily a correlation between the quantity of text in code provisions and their com-

plexity. The opposite is often the case. Lengthy text is the consequence of provisions that are well written and well coordinated with related provisions.

Some of my colleagues have bemoaned the days when material standards were reproduced in the UBC. Luckily, that is no longer the case. They were mostly pale copies of the originals: out of date and not well maintained. This practice of extraction was also not sustainable because of the code development processes maintained by the model code organizations (and now ICC). They were and are formal processes structured to ensure access for all individuals who have an interest in participating. This access, however, comes at a cost: code development hearings with strict time limits preventing the deliberation necessary to develop technically sound standards. This necessary deliberation does occur in the standards development processes of ASCE AISC, AISI, ACI, AF&PA and the other organizations you will find in the lists of reference standards in Chapter 35 of the IBC.

I occasionally hear comments from practicing engineers in other regions of the country that the standards development committees of these organizations are dominated by academics and their supposed lack of practical experience is responsible for much of the complexity in our codes and standards. I serve on several of those committees. The academics who also serve contribute in a reasoned and measured manner and are not the cause of unnecessary or overly complex provisions any more than other committee members. I have grown weary of such talk, which I believe comes from individuals who typically don't serve on these committees and have little first hand knowledge of the actual influence academics have on them. Something can be said about the influence of industry representatives but this column is getting long and I need to wrap it up. Permit me to save that topic for another day.

There is a troubling aspect to this: the results of trial designs by our colleagues from an ongoing initiative by SEI, which was recently reported in a column by Brent Nutall, PE, SE, in the December, 2007 edition of Structure Magazine. My answer to this is not to blame it on the complexity of



codes or point fingers at unsuspecting academics, but to insist on codes and standards that are clear, concise and comprehensive. I can say that, of course, but what difference does it make unless it actually happens? So, how does it happen, who are those trying to make it happen and what must they do in order for it to happen?

The codes and standards development process in this nation suffers from a chronic lack of funding. It is largely voluntary, reliant on contributions from individuals motivated to make a difference who typically devote a great deal of their personal time to it with often little in return but reimbursement of their travel expenses. SEAW is fortunate to have many such individuals who have made and are making enduring contributions far in excess of other SEA's in this nation.

Clear, concise and comprehensive codes and standards don't just happen; they are made to happen. That admittedly dim light I see at the end of the tunnel could be one of my wild imaginings but I don't think so. I believe what I'm seeing dimly is success, the achievement of which will be in direct proportion to our willingness to make it happen.

In case you were wondering, yes, I did have a happy holiday season. I trust you did as well. Your comments on this column are welcome.

-Phil Brazil, [pbrazil@reidmidd.com](mailto:pbrazil@reidmidd.com).

*Phil Brazil is a senior engineer with Reid Middleton. A member of SEAW since 1986, Phil is chair of the Building Engineering Committee and the Wood Task Group, is an active member of the Earthquake Engineering Committee, and serves on the Seattle Chapter board.*

The SEAW Seattle Chapter *Equilibrium* is printed monthly from September through May and is available online at [www.seaw.org](http://www.seaw.org). Circulation by mail: approximately 550 copies. Articles, letters, and announcements are accepted by e-mail to [seaw@seaw.org](mailto:seaw@seaw.org).

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# NCSEA Annual Conference Recap

## NCSEA 15<sup>th</sup> Annual Conference – Philadelphia Pennsylvania

This past October, I had the opportunity to attend the 15<sup>th</sup> Annual NCSEA Conference in Philadelphia, PA. This year, in addition to technical symposiums, the focus was geared to honoring past presidents, improving local chapter meetings and increasing the involvement of younger members.

The conference kicked off on Thursday with Committee meetings and forums and a welcoming reception that evening. Friday consisted of technical sessions, with opening remarks by Richard Weingardt, a frequent contributor of articles to Structure magazine. Weingardt's keynote address was titled "Developing the Engineering Skills Demanded by Today's Global World". He summarized with 6 ideals that he humorously referred to as his "six pack". I jotted them down as he spoke and they consisted of the following:

- Continued education (both technical and non-technical),
- Maximize presentation skills and style,
- Become an expert in something outside engineering,
- Be active in other societies (outside of SEA),

-Get familiar with the political process/run for Board positions,

-Find mentors and role models who are successful leaders.

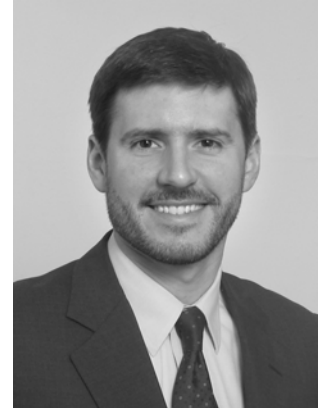
After the address, the bulk of the afternoon was made up of technical sessions. The themes included historic renovation of buildings in New England area, material-specific design processes, quality assurance, electronic documentation and record management, and continuing education and registration trends. During the sessions and breaks, attendees were received by the 29 Exhibitors that were also participating in the conference.

Friday night was highlighted with a formal dinner honoring the past presidents and in particular, the first president and instrumental founder of the national organization, Jim Cagley. After this, a group of 8 of us somewhat "younger members" decided to head out and take in a bit of Philadelphia's evening scene. This was not on the official schedule, but gave us a chance to get to know one another on a bit more social level and talk about our personal experiences in the engineering profession.

After a morning of committee reports, Saturday was

geared more toward professional development and recruiting. After lunch, we kicked off a series of workshops with an introductory session titled "Taking Your Organization to the Next Level", led in part by Ed Huston. Three people, including myself, got up in front of the group to share some of the actions we had been involved with at the Chapter level that addressed this theme. I reported in on the formation of the YMF, how it was going and what we are doing to continue to bolster our younger membership and hold more engaging chapter meetings.

The workshops were very engaging and we managed to get some good dialogue going. Interestingly, I learned that each local Chapter is dealing with unique challenges. While younger member recruitment was a fairly common theme, meeting times and formats as well as general purpose and vision were also of concern as some of the newer Chapters have not been in existence for long. Saturday's dinner included recognition of various projects that had received acknowledgment for design excellence and installment of Ed Huston as this year's new President of NCSEA.



What did I take home from all of this you might ask? In talking with various thirty-somethings from around the country, I realized that they share my concern for the success of the next generation of structural engineers. I also discovered that structural engineers in different parts of the country approach their profession in slightly different ways, depending on the uniqueness of their environment and what it demands with respect to both design and process.

We are fortunate to have Ed Huston with his foresight and enthusiasm at the helm this year. He is eager to "take the organization to the next level", both at the national and local level. So let's do our part to help him out!

- J. Andrew McGlenn  
McGlenn@jacobssf.com

## Condolences

**Dave Swanson** of Reid Middleton Engineers and longtime active SEAW member, tragically lost his 13 year old daughter, Emily, who was killed in an avalanche Friday, January 4<sup>th</sup>. Emily was hiking with friends near Lake 22 when the avalanche struck.

SEAW members were notified by email of the memorial service, which was held Saturday January 12th at Northshore Christian Church in Everett.

### Memorial Donations

Memorial Donations may be made to two organizations that helped in Emily's recovery:

**Everett Mountain Rescue Unit**  
C/O Ken Ohlsen  
5506 Old Machias Road  
Snohomish, WA 98290

**Snohomish County Volunteer Search & Rescue**  
5506 Old Machias Road  
Snohomish, WA 98290

**Please keep Dave, his wife Kim, son Bryan and daughter Megan in your thoughts and prayers.**

## It's Time to Pay Your SEAW Dues!

January is Membership Dues invoicing month. Members with e-mail addresses will receive their invoices electronically; those without e-mail on file will receive theirs by mail. Dues payments are due on receipt. This year we're going to try to be a little more proactive about sending regular reminders to members if their dues are not paid.

### Paying Dues Online

Members can pay their dues online using VISA or MasterCard.

- Go to the SEAW website at [www.seaw.org](http://www.seaw.org)
- Sign in to the Members-only area. **The default log-in name is your e-mail address, password is your first name.** If you changed this information and have forgotten it, click on "forgot password" and your information will be e-mailed to you.

- Click on the "My Membership" tab
- Click "Membership Renewal" in the gray menu bar
- Select an invoice to pay (if you paid your 2007 dues, there will be just one listed)
- Follow the prompts to pay your dues. Note that you will be required to select your name from among the SEAW members at your company.
- On successful completion of your transaction a confirmation page will display. You will also receive an e-mail confirmation.

### Other payment options

Members can pay their dues by check, remitted to the SEAW office at PO Box 44, Olympia WA 98507, or fax their credit card payment to us

at (360)753-1838. Please be aware though, that faxed credit card payments must then be entered online using the same system as above. You can save SEAW administrative costs by paying online directly.

### Consider a Donation to the SEAW Scholarship Fund

Member contributions help SEAW to award annual scholarships to outstanding structural engineering students. You can help! Look for the scholarship contribution option on your dues confirmation page, or on your print invoice, and make a contribution to the future of the profession!

### Unpaid for 2007?

Members whose dues are unpaid for 2007 will find two invoices when they go to pay online. The Seattle Chapter board of directors has ex-

tended the 2007 payment deadline to January 31<sup>st</sup>. After that date, unpaid members will be removed from the rolls, and a \$15.00 reinstatement fee will be charged to reinstate membership.

### Life Member Fee Waived

The Seattle Chapter board has also waived the \$10 "mailing fee" charged to Life Members. Life Members will receive a "Zero" invoice to give them an opportunity to update their membership information and to contribute to the Scholarship Fund if they so desire.

### Questions?

Feel free to give me a call or send an email with any questions about your dues invoice and/or payments.

- **Lynnell Brunswig**,  
SEAW Administrator  
206/682-6026  
[seaw@seaw.org](mailto:seaw@seaw.org)

## Mark Your Calendar

January 2008		HAPPY NEW YEAR! Dues Statements Emailed
Tuesday	22 <sup>nd</sup>	Seattle Chapter Board meeting 10:00 AM
Tuesday	22 <sup>nd</sup>	Chapter LUNCH meeting 12:00 Noon at the College Club <i>-election of nominating committee</i>
Friday	25 <sup>th</sup>	February Newsletter deadline
Friday	25 <sup>th</sup>	State Board meeting
Wed	31 <sup>st</sup>	Deadline for nominating committee to submit candidates' names

### February 2008: National Engineers week, Feb 17 – 23

Wed	13 <sup>th</sup>	ACI hosts joint meeting
Wed	20 <sup>th</sup>	SW Chapter Tradeshow
March 2008		
Friday	14 <sup>th</sup>	SEAW seminar series Part I: "Floor Vibrations - A Critical Serviceability Issue"
Tuesday	25 <sup>th</sup>	Joint meeting with ASCE: Green Design
April 2008		
Wed	16 <sup>th</sup>	SW Chapter Hosts: Nucor Steel Mill
May 2008		
Fri	18 <sup>th</sup>	SEAW seminar series Part II: "Serviceability of Concrete Floors"
June '08	21 <sup>st</sup> &22 <sup>nd</sup>	SEA NW Conference: SEA of Idaho hosts.

Watch the SEAW website for Calendar updates!

## Meetings/Seminars

### NCSEA/S.K. Ghosh Webinar Series

#### January 8 & 15

The Design of Reinforced Concrete Shear Walls For Regions of High Seismicity  
Join **S. K. Ghosh, Ph.D.** for the National Council of Structural Engineers Associations (NCSEA) webinar, *Seismic Design of Reinforced Concrete Shear Walls*. Starts Tuesday, January 8, 2008 and continues one week later, on January 15, 2008.

The first webinar will present systematic background on shear wall design provisions for regions of high seismicity, as they have evolved in recent years. It will provide a detailed explanation of the current ACI 318-05 shear wall design provisions for buildings in high seismic design categories and will address the design of shear walls for flexure and axial loads as well as for shear forces. The January 15 webinar will provide a question and answer follow-

up to the January 8 webinar, as follows: Dr. Ghosh will open with a brief statement on 2006 IBC Chapter 16, then take and respond to questions from the audience. Midway during the webinar, Dr. Ghosh will make a brief statement on Chapter 19, following it up with a second question and answer session.

Dr. Ghosh heads his own consulting practice, was formerly Director, Engineering Services, Codes, and Standards at the Portland Cement Association, and is Adjunct Professor of Civil Engineering at the University of Illinois at Chicago. He specializes in the analysis and design, including wind and earthquake resistant design, of reinforced and prestressed concrete structures; and he is a member of the Boards of Direction of ACI and EERI.

**1.5 professional development hours (PDH) will be awarded for each webinar.**

**\$250 per connection per webinar, or \$400 for both webinars.**

Register at [www.ncsea.com](http://www.ncsea.com).

## Meetings/Seminars

### Two-part Seminar on Serviceability Considerations For Floor Systems: Design and Construction

Friday, March 14 — Part I  
Friday, May 16 — Part II

Doubletree Inn, Seatac 18740  
Pacific Highway S.

Register now for the upcoming two part seminar being sponsored by the **Structural Engineering Association of Washington**. Speakers will share topics not specifically addressed by Design Standards relating to serviceability considerations in the design and construction of steel and concrete framed structures. **Serviceability topics to be presented include, but are not limited to vibration, short and long term**

**deflection, camber, creep, shrinkage, construction tolerances, shoring and reshoring.** Presentations will also include practical case studies. A question and answer panel discussion will follow the presentations at each seminar.

**Thomas M. Murray, P.E., Ph.D.** is the Montague-Betts Professor of Structural Steel Design at Virginia Tech and is the first **author of the AISC/CISC Design Guide 11, "Floor Vibrations due to Human Activity"**. He has published many papers on the subject of floor vibrations and has presented seminars on the subject in numerous countries. Murray is a member of the American Institute of Steel Construction and the American Iron and Steel Institute specification committees, as well as,

the AISC Committee on Manuals and Textbooks. He has received excellence in teaching awards from both the University of Oklahoma and Virginia Tech. In February 2002, he was elected to the National Academy of Engineering.

**Bijan Aalami, S.E., Ph.D.** is a Professor Emeritus of Civil Engineering at San Francisco State University. For over three decades, Bijan has been a driving force in the structural design industry and has made significant contributions to the advancement of bridge and building design with software tools, design literature **including numerous PTI technical notes publications**, consulting, and training services. Dr. Aalami has been actively engaged in the design and construction of numerous notable post-

tensioned buildings, and special structures. Additionally, he has advanced the industry through worldwide educational seminars and extensive publications on concrete design. In 2003, the Post-Tensioning Institute conferred upon Dr. Bijan O. Aalami lifetime membership in recognition of his outstanding technical leadership and remarkable contributions to the post-tensioning industry.

A PDH certificate will be available upon completion.

**REGISTER ONLINE at**  
[www.seaw.org](http://www.seaw.org).

For complete information see the flyer included with this newsletter or visit the SEAW website at [www.seaw.org](http://www.seaw.org).

## YMF Corner: An Interview with Ben Piermattei



In this YMF corner I have interviewed Ben Piermattei, the current YMF outreach representative. Ben has served as outreach representative since early 2007 and his responsibilities include: organizing the university outreach lunches, planning site tours, and providing leadership within YMF.

The purpose of these interviews is to help the membership get to know the YMF representatives. In the coming months I will also interview Chad Taylor, current YMF social chair. As always, please contact any of us with comments or suggestions on how we can improve our programs.

- Cale Ash - [cash@degenkolb.com](mailto:cash@degenkolb.com)

**Ben, tell us about your background. Where did you graduate? What types of activities were you involved with during college?**

I received my undergraduate civil engineering degree from Gonzaga University in 2003, and my Master of Science in Civil Engineering from the University of Washington in Fall 2007. At Gonzaga, I was involved with ASCE student chapter and was first introduced to SEAW by Steve Hawk after working at Coffman Engineers as a summer intern.

**Tell us about Jacobs Associates. How long have you been with the firm and what projects are you working on?**

Last year Jacobs Associates celebrated its 50<sup>th</sup> anniversary of providing engineering and consulting services with a focus on underground construction. Over the years, Jacobs Associates has developed into a specialty firm for heavy construction and tunnel engineering. Our local branches

are in Portland and Seattle.

In my third year with Jacobs Associates, I am currently working as a staff engineer on the University Link Light Rail project for Sound Transit. My responsibilities include analysis and final design of the 3.15-mile underground light rail extension twin-bore soft ground tunnels and underground stations at Capitol Hill and University of Washington. The University Link extension is expected to be open for service in 2016 and Jacobs Associates is providing prime design services, tunnel design, station design and geotechnical engineering. We make up one-third of the Northlink Transit Partners, a Joint Venture between Jacobs Associates, HNTB and Earth Tech. I am part of a team of over 65 technical staff members that perform the in-depth analyses required to: configure the tunnel ventilation system to meet life safety requirements, refine rail geometry

and optimize the civil structures to reduce costs; develop pedestrian bridge connections to the light rail stations, and devise construction sequences for the tunnel and underground station excavations.

**How long have you been involved with SEAW and the YMF? What are some of the YMF outreach activities?**

I attended my first Spokane Chapter meeting in 2002 and have increased my involvement over the years. Since graduating from Gonzaga, I have been working in Seattle and started to get involved with the YMF. Last year, I started working as the YMF outreach representative and plan to double my efforts for this new year.

Last year we had tremendous success hosting two lunches, one at the University of Washington and the other at Seattle University. Not only do we attract new SEAW members, but

we also continue to develop our relationship with both Universities.

**Any advice for younger engineers considering involvement in a professional society such as SEAW?**

Fresh out of college, SEAW and ASCE helped me develop key relationships with members of our profession. My participation in these organizations helped me fine tune my career goals and provide the connections and opportunities to achieve these goals.

SEAW has continued to be a valuable resource with the design seminars, monthly meetings and conferences. Now that I reflect on these experiences, I feel compelled to continue my work as the YMF outreach representative.

[Benjamin.piermattei@soundtransit.org](mailto:Benjamin.piermattei@soundtransit.org)

# Opportunities

## Staff Engineers

Established and growing Structural Engineering design firm seeks outstanding individuals to fill immediate openings for Staff Engineers in our Seattle and Tacoma offices. All experience levels considered and encouraged. We're a mid-size dynamic company recognized for our team work, creativity and innovation. Our informal studio setting facilitates collaboration and communication between all staff levels and departments. We combine a very progressive benefits package with a fun, flexible and casual office culture. Our diverse project teams and loyal clients provide opportunities to work with a variety of materials and building types.

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Email resume to [bbresko@swensonsayfaget.com](mailto:bbresko@swensonsayfaget.com) or fax attention Blaze Bresko at 206 443-4870.

## Engineering Manager

**HDR, Inc.  
Ports and Marine Engineering Manager  
Bellevue, WA 98015**

HDR is an employee-

owned architectural, engineering, planning and consulting firm that excels at helping clients manage complex projects and make sound decisions. Approximately 6,000 professionals, including architects, engineers, consultants, scientists, planners and construction managers, in over 140 locations worldwide pool their strengths to provide solutions beyond the scope of traditional A/E/C firms.

## Description:

Manage marine transportation related projects for onshore and offshore maritime activities including but not limited to: siting and location of terminals and marine facilities including deep water ports; marine traffic and

navigation safety evaluations; ports and waterways development and improvement; and, assessment of environmental and operational impacts. Broad working knowledge of and experience with commercial maritime activities and port/marine facility operations is necessary. Familiarity with USCG and USACE regulatory authorities, programs and practices is crucial; familiarity with roles of USFWS, MARAD, MMS, EPA, FERC and other Federal and State agencies is highly desirable. Familiarity with environmental statutes and authorities related to the marine environment is desirable. Typically requires a bachelors degree or higher in a field related to marine transportation or

*-continued next page*



Routinely recognized as one of the best places to work, Degenkolb Engineers is actively recruiting structural engineers looking for a long-term career with a clear path to leadership and ownership. We encourage lifelong learning and support professional and community-based activities. Degenkolb engineers have the opportunity to follow their interests and develop their own book of work. And when we're not doing that, we are playing...sometimes in one of four company cabins in Tahoe, Big Bear, Monterey, and Sunriver. As renowned leaders in seismic and structural engineering, we offer a diverse, challenging mix of projects on both new and existing structures. Minimum requirements are an MS in Structural Engineering, excellent communication skills, and a desire to work in a challenging, collaborative environment. We have offices in San Francisco, Oakland, Los Angeles, San Diego, Portland and Seattle and are seeking engineers with all levels of experience. EOE

If you're interested in joining our award-winning firm, please contact: **Stacy Bartoletti, 415.354.6501**

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# Opportunities

engineering and 6+ years of related experience.

### Experience Required:

- BS degree in a field related to marine transportation or engineering; Master's degree preferred.

- 6+ years of related experience.  
- Highly developed written and verbal communication skills are necessary for working with Federal, State and local governments, Port Authorities, Pilots, marine terminal and vessel operators, port industry personnel and the public as well as clients and project technical and management personnel from all of the fields addressed above.  
- Demonstrated team building skills are necessary for effective coordination of

diverse project teams.

### Apply Online:

<http://www.gojobs.com/seeker/aoframeset.asp?Job-Num=1071686&JBID=1404>

Employer Job Code: 061943  
[GJ.1071686.1404]

### Senior Structural Engineer

**Required:** PE license for Washington. Appropriate engineering degree from accredited college, or equivalent professional experience/combined education. Strong ability in MS Office & Windows OS & AutoCAD. Excellent organizational skills. Knowledge of contract-

ing & A/E/C industry codes, processes, procedures. Ability to manage variable workload and a positive, helpful attitude.

**Desired:** LEED certification, Washington & California SE III licenses. Flexible hours, benefit package, pay DOE. Must be a team player! Art Anderson Associates is an Equal Opportunity Employer. Recipient of the 2007 AWB Better Workplace Award. Visit our website at [www.artanderson.com](http://www.artanderson.com)

**To Apply:** Send a single Word document with your cover letter & resume, as an attachment, to [Jobs@artanderson.com](mailto:Jobs@artanderson.com)  
In your cover letter, be

sure to state the position title and where you saw the listing.

## Engineers

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Seattle Structural PS Inc is a downtown Seattle firm looking for engineering candidates at all experience levels. Share in our vision of client-based service and hard working enthusiasm on diverse and challenging projects in the US and overseas. Join our collaborative staff of 10 in one of Seattle's most vibrant office towers, specializing in public, commercial, retail, industrial and spe-

*-continued next page*

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*While we appreciate all interest in our firm, only applicants selected for an interview will be contacted.*

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# Opportunities

cialty projects. We offer excellent benefits and stimulating work in a casual environment. Visit our website at [www.seattlestructural.com](http://www.seattlestructural.com)

Send resumes to: Pete Pawlak, PE 1420 Fifth Avenue, Suite 425, Seattle, WA 98101

206-343-3000 phone; 206-343-3013 fax; PPawlak@SeattleStructural.com

## Sr Structural Engineer

KH<sub>2</sub>A Engineering in Portland, Oregon is seeking a senior structural engineer. Our projects are typically industrial in nature ranging from steelmaking and wood products to chemicals production. Ongoing projects in Russia and Bolivia add an international

flair to the backlog. Applicants should have a bachelor's degree in civil engineering with structural emphasis and licensure in Washington, Oregon and California. 401 (k), health insurance, competitive salaries. Please send resume and cover letter to KH<sub>2</sub>A Engineering, 5515 SE Milwaukie Avenue, Portland, Oregon 97202 or email it to [vrunyan@kh2aengineering.com](mailto:vrunyan@kh2aengineering.com)

## Structural Engineer

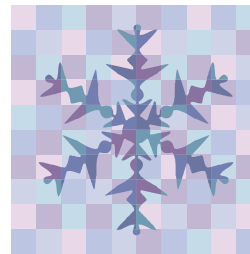
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Thank you for your consideration!



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[http://www.seaw.org/resources\\_newsletter.cfm](http://www.seaw.org/resources_newsletter.cfm)

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## Membership

### Membership Applications

**Nathan Gollcher**  
Cary Kopczynski & Co.  
BSc 1998 Universidade Federal  
de Juiz de Fora, Brazil  
MEng 2000 University of Al-  
berta, Canada  
Licensed PE, Washington  
Class: Professional Associate

**Matthew Hopper**  
Cary Kopczynski & Co.  
BSCE 2001 Purdue University  
Class: Associate

**Christopher G. LeVan**  
KPFF Consulting Engineers  
BSCE 2004 Gonzaga University  
MSCE 2005 University of Wash-  
ington  
Licensed EIT, Washington  
Class: Associate

### Applications Approved

**Basri Basri**, Professional Associate  
**Peter Brown**, Associate  
**Cheryl Burwell**, MEMBER  
**Kit C. Chan**, Associate  
**Erika Hansen**, Associate  
**Robert Lawson**, Associate  
**Ian Douglas Thomson McQuade**, Associate  
**Asrade Mengstu**, Associate  
**Sarah Ng**, Associate  
**Sabina Shakya**, Associate  
**Sage Shingle**, Associate  
**James E. Stephens**, Associate  
**Perry Welch**, Associate  
**Xiao Wu**, Associate

### Dues Reminder

**We show the following members unpaid for 2007.  
The Seattle Chapter Board of Directors voted to  
extend the payment deadline to January 31.  
Please be sure to pay your dues by then to retain  
your SEAW membership!**

Karl Anderson*	Michael Fitz	Sri Rajah
Douglas Applegate*	Chris Frossard	Dean Ratti*
Ahmad Asili	Heather Hirst	Gregory Schrader
Michael Bledsoe	David Houchin	William Shafer
Tim Carlson	John Hutchins	Todd St George
Clint Chapman	Jerry Jackson	Hillary Stibbard- Terrell
Bryan Collons	Jon Keiser	Edward Thomas
David Cotton	David Korpi	Mans Thurfjell
Seth Cutler	Hans Lund	Charles Voelker*
Alexandre Dehoux	Mike Mitchell*	Jeff Walters
Nancy Devine	Khoa Nguyen	Lisa Wipplinger
Gerald Dorn*	Craig Nishina	
Kinglsey Drake	James Perrault*	
Dennis Firth	Jack V Peterson	
Benjamin Fisher	Jacqueline Putt	