



SEATTLE SECTION NEWSLETTER

June 2014
Volume 49 No. 10

Section Officers

October 1, 2012 – September 30, 2013

SEATTLE SECTION OFFICERS

Perry Cole, <i>President</i>	425-471-9022
Stefanie Herzstein, <i>President-Elect</i>	425-821-3665
Elizabeth Korb, <i>Secretary</i>	206-331-1176
Sam Swartz, <i>Treasurer & Budget Chair</i>	206-689-3324
James Chae, <i>Immediate Past President</i>	425-990-6832
Mike Harney, <i>Director (2014)</i>	206-695-6850
Jessica Aguilar, <i>Director (2015)</i>	206-357-5625
Lisa Harbert, <i>Director (2016)</i>	425-481-6100

YMF OFFICERS

Elizabeth Clark, <i>President</i>	206-770-3661
Courtney Davis, <i>President-Elect</i>	206-926-0451
Shane Binder, <i>Board Representative</i>	425-821-3665
Adam Hill, <i>Secretary</i>	206-219-5894
James Le, <i>Treasurer</i>	206-382-9800
Amanda Shellenberger, <i>Past Executive</i>	206-903-3371

UW/SEATTLE U CONTACTS

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Chris Padin, <i>Seattle U Student Chapter President</i>	padinc@seattleu.edu

KITSAP BRANCH OFFICERS

David Dinkuhn, <i>President</i>	360-850-5319
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NORTH BRANCH OFFICERS

John Tuttle, <i>President</i>	360-733-5760
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BOEING BRANCH OFFICER

Vinny Avendano, <i>President</i>	vinicio.p.avendano@boeing.com
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WEBMASTER

Ann Bryant	seattleasce@yahoo.com
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ASCE Seattle Section Meeting

Wednesday, June 11, 2014

Place: McCormick & Schmick's Harborside,
1200 Westlake Ave. N., Seattle, WA 98109

Cost: General Admission \$40
Student or Unemployed \$15
Late General Admission \$45
Late Student or Unemployed \$20

Meal: Meat or Vegan entrees are available.

5:30 Social Hour
6:00 Dinner
7:00 Program

Please make your reservations on or before
11:59 pm on Monday, June 9.

[Register online here](#)

For assistance with online registration, please contact House
and Hospitality at 206-434-6378 or
seattleascereservations@gmail.com

Direct questions or comments regarding meetings to Section
President Perry Cole at seattleascepresident@gmail.com

Program: 2014 Local Outstanding Civil Engineering Achievement Awards

The ASCE Seattle Section meeting will present the 2014 Local Outstanding Civil Engineering Achievement (LOCEA) Awards at our June meeting. The LOCEA Awards recognize projects that have improved the quality of life and contributed to the economic development of the local community, area, or region. These projects represent the successful combination of multiple engineering objectives, including design innovation and excellence, environmental sustainability, cost effectiveness, the effective use of materials, and aesthetics.

The I-5 Skagit River Bridge Replacement and SR 520 Floating Bridge and Landings Anchor Design projects have captured top honors in the 14th Annual LOCEA Awards. The winning project teams will describe the challenges they faced and the solutions they found to successfully implement their design. We also will recognize two other projects with Honor Awards. In addition, Section scholarship winners will be recognized this evening.

The deadline for the
September 2014 issue is
5:00 p.m.
Friday, August 22, 2014

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Your newsletter editor is:  
**Todd Crandell**  
[seattleASCEnews@gmail.com](mailto:seattleASCEnews@gmail.com)  
Phone: (206) 459-2250

#### CHANGE OF ADDRESS:

All change of address information (including your e-mail address for the newsletter) should be provided directly to ASCE at [www.asce.org](http://www.asce.org) or:  
1801 Alexander Bell Drive,  
Reston, VA 20191-4400.  
The Seattle Section will receive your updated information from ASCE.

**AMERICAN SOCIETY OF  
CIVIL ENGINEERS, SEATTLE SECTION**  
<http://www.seattleasce.org>

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#### ASCE SEATTLE SECTION NEWSLETTER ADVERTISING RATES

##### Employment Ads:

Employees Wanted:  
75 cents per word

Seeking Employment:  
First 75 words free  
75 cents per each additional word

##### Display and Business Card Ads:

Contact the editor at  
[seattleASCEnews@gmail.com](mailto:seattleASCEnews@gmail.com)  
for pricing and format requirements.

## President's Column

By **Bethy Clark, P.E., Seattle YMF President**

*Which came first: Our amazing volunteers or our awesome programs?*

Lately, members of other professional organizations have expressed interest in the remarkable things ASCE, and particularly our Younger Member Forum (YMF), are doing in Seattle. I've been asked: *How do we motivate volunteers to get things done? How are we able to gain so much support?* I even had someone tell me that they wished their professional society provided half of the opportunities we do.



- I have been fortunate in my presidency to have an amazing board and group of committee chairs who not only deliver on everything they've set out to do, they come up with great ideas for new events and improvements on reoccurring programs. We are also lucky to have had a multitude of dedicated volunteers that came before us and started the ball rolling, allowing us to continue their momentum. For other groups that aren't fortunate enough to inherit such a well-oiled machine, I can see how it seems impossible to achieve what our group has been able to do. Let me start by bragging about our Seattle YMF (I can't help myself!).
- Over the past year we have won a number of regional and national awards including: Outstanding Group Project, Outstanding Large Group, and individual awards for community service, professional achievement and one member was named a New Face in Civil Engineering.
- We hold an average of four events a month covering social events, sporting events, school outreach, professional development opportunities, construction tours and community service projects.
- We have a board of six members, 17 committee chairs and an annual budget of over \$10,000 from which we are able to provide a scholarship to incoming college freshmen.

See *President's Column* on page 3

## New Member Report

Based on the new membership information from the ASCE national database, the following members enrolled to the Seattle Section between

Megan Conley

David Young

Erin Pothier

Harpreet Kang

Michael Bramhall

Matthew Fife

Benjamin Blasen

So, what do you think? Are we able to attract amazing volunteers because of the events we hold or are our events exceptional because of the caliber of the professionals that donate their time to creating these organizations? I think at the heart of our success is the dedication of all the YMF volunteers and over 100 years of providing benefits to our members and bettering our Puget Sound communities. I believe that ASCE will continue to attract the best volunteers and provide exceptional opportunities for our members. I can't take credit for the century of dedication to the community. It takes a village to accomplish what the YMF does every year, and our village just happens to be made up of extremely creative, talented, dedicated and energetic individuals. I just hope that every president that comes after me will continue to improve upon what we've done and will continue to enjoy the fantastic volunteer base that we're so lucky to have right now.

We all choose how we spend our time and I choose to be involved in ASCE because of the benefits developed over the society's long history and the freedom we are given to continue to tailor those benefits to our group's current needs.

If you would like join our high-performance team we'd love to have you! Just follow the link to our [website](#), sign up to receive our email announcements by sending a blank email to [seattleymf-subscribe@yahoogroups.com](mailto:seattleymf-subscribe@yahoogroups.com) or show up at one of our exciting [events](#).

Respectfully,

*Bethy Clark*

Seattle YMF President

## Reach over 2,000 Engineering Professionals

Post Your Employment Ad in this Newsletter  
and on the Seattle Section Web Site

See advertising details  
on page 2

## 2014-2015 ASCE Seattle Section Officer Election Results

Congratulations to the following people who volunteered their service, and were elected to the ASCE Seattle Section board!

President-Elect..... Evan Sheesley

Treasurer ..... Gene Gladden

Director (Branches) ..... Amanda Shellenberger

YMF Representative ..... Elizabeth Clark

## Seattle ASCE Water Resources Committee June Event

**Time:** June 19, 2014, Noon - 1:00 p.m.

**Location:** Brown & Caldwell in the Convention Place Building, 701 Pike Street #1200, Seattle, WA 98101

**Presentation Title:** "Estuary and Nearshore Restoration Design - Case Study on 3 Crabs Nearshore and Estuarine Rest," by Daniel Elefant - Cardo ENTRIX

**Presentation Abstract:** Mr. Daniel Elefant will present the elements of conceptual and engineering design for the 3 Crabs Nearshore and Estuarine Restoration Project. Topics will include assessments of geomorphic processes, hydrology and 2d hydraulics modeling, tidal channel design, wetland delineation, design for future sea level rise, and 3d conceptual design, construction, and feasibility.

**Speaker Biography:** Mr. Daniel Elefant has an M.S. in Environmental Engineering with a focus on water resources, fluvial and coastal geomorphology, and water quality. He has 7 years experience conducting and leading programs for water quality management, aquatic ecology, and restoration engineering. Over 4 years of his water quality experience involved the collection and analysis of chemical and biological data for managing phytoplankton and zooplankton production systems in open lakes and raceways in both Hawaii and New Zealand. He spent a year working for King County government doing water quality measurement and monitoring for Clean Water Act compliance. His strong understanding of environmental chemistry and water quality stems from his background as a Chemical Engineer.

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## Employment Notices

To post an employment notice in the newsletter and on the Section's web site, please contact the editor in advance of the monthly deadline. Rates for advertising are shown on page 2.

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### Structural Engineers

**KPFF Portland** is looking for motivated Structural Engineers interested in opportunity for growth.

Position: Structural Project Engineer

Position Summary: As a Structural Project Engineer, you will work individually and collaboratively in the design - construction process for some of the most challenging projects in the Pacific Northwest, as well as nationally and overseas. You will work closely with talented engineers, BIM / CAD technicians, architects, project managers, contractors and client teams.

Our current projects include:

- Airports
- Arenas + Stadiums
- Long-Span Structures
- Bridges
- Government Facilities + Embassies
- Commercial Developments
- High-Rise Structures
- Mixed-Use Developments
- Corporate Campuses
- Healthcare + Medical Facilities
- Education Facilities (K-12 + Higher Ed)
- Museum + Convention Centers

Qualifications

- The preferred candidate will have:
- 3+ years of experience in structural engineering
- PE and MS / MEng engineering degrees
- Experience with Revit Structure
- Strong verbal and written communication skills
- Creative, proactive, and detail-oriented individual

- Outgoing individuals who thrive when working directly with architects, contractors and other engineers

Apply: KPFF would like to hear from you. Please follow this link to apply: <http://tinyurl.com/kpffpdx-structuralengineer>

KPFF is an equal opportunity employer.

Location: Portland, OR

Portland was most recently ranked as America's #1 Most Livable City by Vocative.com, which used open source websites to rank the 50 most populous cities in the country. "Oregon's biggest city secures the top spot on our index because of its strong job market, cheap utilities, and vibrant music scene." (Voactive.com)

With a lively arts and cultures scene, an extensive public transit system, celebrated restaurants, and close proximity to lush pristine landscapes, Portland is often described as America's most European city. As the largest city in Oregon, Portland is also small enough to maintain a strong sense of community and affordable neighborhoods to live in. It is not unusual to spend time exploring local vintage shops, a brewery, art galleries, and a public park all in an afternoon. This creative and entrepreneurial culture attracts many unique and inspiring thinkers that have established niche markets in research, technology, and product design, among others.

*Employment ads continued on page 5*

### Civil Project Engineer (3 Openings)

AHBL, Inc. is a local consulting firm seeking 3 Civil Project Engineers. The ideal candidate will have entry level to 8 years' experience in Western Washington. We have an opportunity in our Seattle office as well as two positions in our Tacoma office. Please specify which location you are applying for in your cover letter and application. Local experience is preferred.

The ideal civil candidates will have a BSCE, PE, or EIT and experience in public and private civil design including sustainability, grading, drainage, sanitary sewer, water distribution and roads. Familiarity with local development codes and requirements along with AutoCAD, and Civil 3D 2012 experience is preferred.

Candidates must meet the following criteria to be eligible for an interview:

- EIT is required with a Washington State PE license advantageous
- Experience with Land Development Projects
- Experience with AutoCAD and Civil 3D 2012

Candidates should submit the following items:

- Cover letter,
- Resume,
- AHBL Application
- Salary history and,
- Brief project list/narrative highlighting the unique challenges associated with each local project.

We offer an excellent benefit package including insurance, 401(k) plan, and paid vacations/sick leave. Salary is based on experience.

Send complete submittal package to: [careers@ahbl.com](mailto:careers@ahbl.com)

AHBL is an Equal Opportunity Employer. We embrace diversity at all levels of our organization and we provide equal opportunity without regard to race, color, religion, sex, sexual orientation, age, national origin, genetic information, disability, or veteran status.

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## ASCE Seattle Section Executive Board Meeting Minutes for April 21, 2014 Meeting

Attendees:

Perry Cole  
Liz Korb  
Stefanie Herzstein  
James Chae  
Lisa Harbert  
Sam Swartz  
Tom Krzewinski

Meeting called to order at 1:05 pm by Stefanie. MOTION to approve agenda and passed by quorum.

MOTION to approve meeting minutes for March brought by Stefanie and passed by quorum. Liz to update spelling of board member names.

### Old Business

- None.

### Treasurer's Report

- Tracking well overall.
- Dinner income is still a little low.
- Students and YMF are beginning to draw budgeted

money.

- MOTION to approve treasure's report brought by James and passed unanimously.

### Membership Report

- As of March 21 the Section and Branches have 2,321 members.
- 8 new members but 35 additional members overall due to old members paying dues.
- Year to year, we are about the same.

### Standing Committees

- **Audit Committee:**
  - No updates.
- **Diversity Committee:**
  - No updates.
- **Centennial Committee:**
  - No updates.
- **House and Hospitality Committee:**
  - No updates.
- **Legislative:**
  - Approached by National to team with Associa-

See [April Minutes](#) on page 6



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## April Minutes (continued from page 5)

tion of Washington Cities. Will do some publicity or event.

- **PSEC-**
  - PSEC Inter-Society Officers Workshop (ISOW) to be held on May 17th, near Magnuson Park, Seattle
  - Mentor Night at Highline Community College (April 22nd)
  - Mentor Night at Bellevue College (May TBD)
  - Order of the Ring Induction
- **RH Thompson Scholarship Chair**
  - No updates.
- **University Advisory Committee**
  - No updates.
- **K-12**
  - No updates.
- **Program Chair**
  - No updates.
- **Professional Practice**
  - No updates.
- **EWB Puget Sound Professionals**
  - No updates.
- **Public Information Chair**
  - No updates.
- **History and Heritage**
  - Working on landmark brochure.

### Branch Reports and Action Items

- Nothing to report.

### Technical Committees and Action Items

- Geotechnical group
  - April 24th- Planning and Vision meeting.
  - May 8th- Geo-Institute Cross Country Lecture, Tom O'Rourke/ Thomas Briggs Professor of Engineering Cornell University. Impact of the Canterbury Earthquake Sequence on the underground infrastructure in Christchurch, NZ
- Ports and Harbors
  - Meeting on April 30th about floating platforms.
- Structural Committee/ SEAW
  - Nothing to report.
- Urban Development & Transportation:
  - Nothing to report.
- Water Resources
  - April- Rivers in the Sky are flooding the Pacific Northwest, Atmospheric Rivers and Managing Large Floods in Western Washington.
  - May 15th- not set yet
  - June 19th- Estuary and Nearshore Restoration

Design Case Study on 3 Crabs Nearshore and Estiraine Rest by Daniel Elefant with Cardo EN-TRIX

- Sustainability
  - April 25th Brightwater Tour.
  - Looking for members interested in joining committee and taking on leadership roles.
- Transportation
  - A letter has gone out to ITE to ask them to partner with us for the Transportation Group.

### YMF

- Past Events
  - March 5th- Networking in Seattle at the Ram- 12 members.
  - March 11th- Husky Tour- 17 members.
  - March 21-23- Winter Leadership Ski Retreat- 18 Seattleites and 10 Portlanders.
- Upcoming Events
  - April 26th joint happy hour with Engineers without Borders.
  - April 26th- Rebuilding Together.
  - April 29th- Spokane Street Bridge Tour
  - Summer- golf tournament.
- Committee Activities
  - Soccer team continuing for spring season.
  - Technical tour being planned on Alaskan Way Tunnel and U Link Construction.
- Action Items
  - Need to get YMF website updated.

### Miscellaneous

- LOCEAA update- Final tally of scores coming up.
- Officers and Director search updates
  - Confirming candidates for President
  - Offers for Treasurer and Branches Director have been accepted.
- Discuss software options for elections.
- Region 8 updates
  - August 29th in Anchorage

### Announcements

- None

Next board meeting May 14 at University of Washington at 4:30pm.

Meeting called to a close at 1:36pm.

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# ASCE Seattle Section Recognizes Local Outstanding Civil Engineering Projects: *I-5 Skagit River Bridge Replacement and SR 520 Floating Bridge and Landings Anchor Design are Top Honorees*

By Rachel Blomker and James Chae, Immediate Past President

The Seattle Section of the American Society of Civil Engineers (ASCE) has chosen the I-5 Skagit River Bridge Replacement and the SR 520 Floating Bridge and Landings Anchor Design projects for top honors in their 14th Annual Local Outstanding Civil Engineering Achievement (LOCEA) Awards.

The LOCEA Awards recognize projects that have improved the quality of life and contributed to the economic development of the local community, area, or region. These projects represent the successful combination of multiple engineering objectives, including design innovation and excellence, environmental sustainability, cost effectiveness, the effective use of materials, and aesthetics.

The Seattle Section ASCE is also recognizing two projects with Honor Awards as part of this year's LOCEA Award competition, including: Seattle Children's Hospital Design and Consulting Services (Seattle, WA), Honor Award: Transportation & Development Category; and the Cottonwood Neighborhood Drainage Improvements (Birch Bay, WA), Honor Award: Water Resources Category.

ASCE Seattle will formally present the outstanding achievement and honor awards at its June 11, 2014 meeting at McCormick & Schmick's Harborside Restaurant in Seattle.

## **I-5 Skagit River Bridge Replacement**

The ASCE Seattle Section has chosen the I-5 Skagit River Bridge Replacement near Mt. Vernon, WA for recognition as a 2014 Local Outstanding Civil Engineering



*I-5 Skagit River Bridge Replacement*

Achievement in the Structures Category. The award-winning project team includes Parsons Brinckerhoff and Max J. Kune Company. Washington State Department of Transportation (WSDOT) is the project owner.

Built in 1955, the Interstate 5 Skagit River Bridge crosses the river between Mount Vernon and Burlington in northern Washington. On May 23, 2013, a portion of the I-5 Skagit River Bridge collapsed into the Skagit River near Mount Vernon after an over-height truck clipped a portion of the bridge's steel truss, causing a 160-foot-long span to collapse into the river. The accident severed the primary trade and transportation corridor for the entire U.S. West Coast – the means for transporting as much as \$20 billion in freight to and from Canada to the U.S. – Mexico border annually.

The Washington Department of Transportation (WSDOT) hired the design-build team of Max J. Kune Company, with Parsons Brinckerhoff as designer, to construct the \$6.87 million permanent bridge span replacement. Using accelerated bridge techniques and Virtual Design and Construction (VDC) capabilities, the team developed an innovative design and construction scheme that allowed WSDOT to reopen the bridge ahead of schedule on September 15, 2013, just 88 days after contract award and 115 days after the initial accident.

## **SR 520 Floating Bridge and Landings Anchor Design**

The ASCE Seattle Section has chosen the SR 520 Floating Bridge and Landings Anchor Design project in Seattle/Bellevue, WA for recognition as a 2014 Local Outstanding Civil Engineering Achievement in the Geotechnical Engineering Category. The award-winning project team includes Hart Crowser, Inc., Kiewit/General/Manson (KGM) Joint Venture, and KPFF Consulting Engineers. Washington State Department of Transportation (WSDOT) is the project owner.

The new SR 520 Evergreen Point Floating Bridge and Landings Replacement Project will replace the existing floating bridge and improve a major traffic corridor between Seattle and Redmond. The bridge will consist of 77 concrete pontoons and will be the longest floating bridge in the world at a length of approximately 1.5 miles.

See [LOCEA Awards](#) on page 8

## **LOCEA Awards** (continued from page 7)

Hart Crowser was the lead geotechnical consultant on a multi-disciplinary design-build team who designed 58 highly specialized anchors constructed in water up to 210 feet deep. The anchors are required to resist incredibly large environmental forces and ultimately keep the bridge in place through massive storms and even earthquake-related wave loading. Throughout design and construction, the team successfully installed and proved the anchor's function and capacity through a comprehensive full-scale field load testing program evaluating the ability of the anchors to resist the required loads.

### **Honor Awards**

The ASCE Seattle Section recognized an additional two projects as Honor Award recipients as part of the 2014 Local Outstanding Civil Engineering Achievement Awards competition.

***Honor Award, Transportation and Development Category: Seattle Children's Hospital Design and Consulting Services (Seattle, WA).***

Project Owner: Seattle Children's Hospital.

Project Team: Transpo Group, Coughlin Porter Lundeen, SvR Design, WH Pacific.

Transpo provided design and construction support of the traffic signal system, channelization, roadway illumination, and civil improvements associated with the expansion of Seattle Children's Hospital. The improvements included construction of an extension of the Burke Gilman Trail to the Seattle Children's hospital campus at the 40th Avenue NE/Sand Point Way NE intersection. Sand Point Way is a heavily travelled corridor, which intersects with 40th Avenue NE at a skewed angle presenting challenges for the trail crossing. Transpo used the skew as an opportunity to add a pedestrian/bicycle crossing as the third pair of approaches to the intersection. This crossing directly linked the Burke Gilman Trail, a major regional rail-trail, with the campus frontage. In addition, Transpo designed one of the first supplemental pedestrian detection systems, on the West Coast, utilizing stereoscopic video detection, and also designed the signage and illumination for the crossing and an interface between the cycle track and the high-use transit stop.



*SR 520 Floating Bridge and Landings Anchor Design*

***Honor Award, Water Resources Category: Cottonwood Neighborhood Drainage Improvements (Birch Bay, WA).***

Project Owner: Whatcom County.

Project Team: Whatcom County Public Works, Leonard Honcoop/Len Honcoop Gravel, Inc., Dale Buys, P.E./Reichhardt & Ebe Engineering, Amerlia Seagrave, P.E./Whatcom County Public Works.

The Cottonwood Neighborhood Drainage Improvements project is located in northwestern Whatcom County. This subbasin has the highest levels of fecal coliform bacteria in Birch Bay, more than five times higher than most other coastal tributaries in the watershed and is a high priority area for water quality improvement and protection. The project area was also subject to flooding when upland runoff flowed through failing stormwater infrastructure, resulting in damage to Birch Bay Drive and adjacent properties and creating hazardous conditions for the community. This multifaceted stormwater project combines water quality protection objectives with much needed conveyance improvements. Key project accomplishments include installation of a bioinfiltration treatment facility; significant reduction of localized flooding, maintenance, and safety problems in a high-density residential neighborhood and high-use recreational area; building ongoing relationships with the community maintained through BBWARM stormwater program activities; and project construction under budget with no accidents in a highly sensitive marine shoreline with significant archaeological resources.