EQUILIBRIUM

January 2017

Newsletter of the Seattle Chapter
Structural Engineers Association of Washington

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Message from the Board

By Chun Lau

Happy New Year! On behalf of the Chapter Board, I would like to extend our warmest greeting to you and wishing you a prosperous year.

My office is in downtown Seattle. As I maneuvered through the streets of downtown in the past year, I noticed that the traffic is getting worse due to all the construction going on! When I looked up in the sky, I see a record number of tower cranes in the downtown areas. I believed that a lot of you have been busy in the last year making all these construction sites a reality. I hoped that you can still find time during this holidays to spend with friends and families. I certainly took the opportunity this past Thanksgiving and traveled to Hong Kong and China to visit my brothers and sister. How can I pass up a $400 round trip airfare offered by United Airlines! I saw the same type of construction boom in Beijing, actually it seems like it's been going on for the last decade there. There are many interesting buildings built in the last ten years. Most of them are just stunning landmark buildings, it's not your traditional building and involved a lot of imagination from our Architectural friends and definitely a lot of challenges from the structural engineering standpoint. Two of my favorite buildings are the CCTV headquarters (attached picture) and Galaxy SOHO Beijing. It seems like these buildings would require a 360-degree architectural/structural design and I am not sure how one would put it on a set of 2D construction documents. Hats off to the structural engineers who made these types of designs a reality!

16. Employment Opportunities

Chapter Leadership

President
Cary Kopczynski

Vice President
Chun Lau

Treasurer
Theodore E. Smith

Secretary
Michael Bramhall

Past President
Theodore E. Smith

Directors 2014-2017
Adam Slivers
Hans-Erik Blomgren

Directors 2015-2018
Joyce Lem
Darrell Staaleson

Directors 2016-2019
Douglas Beck
Shalini Prochazka

YMF President
Morgan Wiese

Well, back to the Chapter business. As we embark on a new year, we would like to make this a productive year for SEAW. Among our goals is to provide relevant continuing education seminars and informative dinner meetings this year. Also, with the leadership of Darrell Staaleson as the editor of this newsletter, we would like to bring the monthly newsletter to you in a timely manner so you can stay abreast of the activities that we put forth for you. However, we do need your support and feedbacks to help us grow as an organization. I am very encouraged to see the attendance at our past couple dinner meetings by our young members. I totally agree with what Chapter President Kopczynski said in his September Board message "The future of any organization lies with its younger members." I look forward to seeing many of our young members at our dinner meetings this year.

Again, wishing you a good year to come. It is my sincere hope that you would include in your New Year's goals to get involve with SEAW by becoming a committee member, YMF leader, or help with our new outreach committee.

From the Editor

By Darrell Staaleson

January Meeting Announcement

Firms Showcase & Student Event
January 24, 2016

The Board of Directors for the Seattle Chapter has decided to make Equilibrium available to all chapters Statewide. In the coming months we will be adding a section for news and articles from each chapter.

All members are welcome to submit articles to Equilibrium. Write Engineer's Notes from Afield; or summarize an interesting technical design you worked on; write about how you have been successful and increased productivity with an accounting procedures or marketing technique; or write about your experiences in community services.

We are looking for another Member to help with the publication of the Equilibrium. Please contact me at dstaal@staaleng.com if you are interested. Currently, the Equilibrium publication team includes:
Darrell Staaleson, Editor
Allison Tran
Cara Condon

Sustainability Committee

By Kyle Steuck
The sustainability committee is working on a range of issues, from discussions with local concrete suppliers related to mix designs, to the impacts of the new LEED v4 for Washington State and Seattle energy codes, and details used to address

5:30 - 9:00 PM
UW Waterfront Activities Center

Tuesday, January 24 will mark our ninth Seattle Chapter Younger Member Forum featuring a Firms Showcase and Student Project Showcase. The meeting will take place at the University of Washington Waterfront Activities Center.

Our meeting will kick off with the popular Firms Showcase networking event from 5:30 pm to 6:30 pm. The showcase is an opportunity to introduce attendees to a variety of structural design firms in the Seattle area, their work on various types of projects, and answer questions from students on what it's like to work for a Seattle area structural design firm. Read more

February Meeting Announcement

February 28, 2017

Mike Schneider will provide an overview of the current state of the concrete industry from his unique vantage point as the President of ACI International. Mr Schneider will discuss significant advancements of the last several decades, both nationally and internationally, and also give his perspective on future challenges facing the concrete industry. We are fortunate to have Mr Schneider as our speaker for what promises to be an informative, insightful, and well attended presentation. Registration will open soon, stay tuned!

thermal bridging issues. The committee is also tracking the developments related to cross-laminated timber and the push for taller wood structures in the Northwest and across North America. The committee meets monthly, with the next scheduled meeting on Thursday, January 26 at MKA. New members are always welcome!

SEAW-UW Student Chapter Fall Networking Event

By Natalie Aguilar-Carranza

On November 30th, the SEAW student chapter at the University of Washington organized their major networking event of the fall quarter. For this event, there was a panel of speakers composed of a diverse group of structural engineers from different firms. A total of eleven engineers participated in this panel. The companies represented in this event were: Douglas Engineering, City of Seattle Department of Construction and Inspections, MKA, Coffman Engineers, DCI Engineers, WJE, Degenkolb Engineers, Smith & Huston, Dibble Engineers, Reid Middleton, and Integrated Design Engineers.

The networking event was held at the UW campus. For the first half hour students and engineers had the opportunity to socialize while eating pizza and soda that were provided at no cost to all the participants. Starting at 5:30pm, all the panel speakers sat in front of the classroom and introduced themselves to the students. The panel discussion lasted over an hour and a half with students having very interesting and diverse questions. The questions from students covered topics from the importance of pursuing a Master's Degree, how

Mike Schneider is a veteran of the concrete industry. He started with Baker Concrete Construction (Monroe, Ohio) as a Project Manager in 1978, and is currently Sr. Vice President/Chief People Officer. He also serves as the company champion of Baker's Incident & Injury Free (IIF) Program and is responsible for safety within Baker on a Global basis. Mike has been a member of ACI since 1981 and currently serves as ACI President. In 2006, he was named an ACI Fellow and received the Rogers H. Corbetta Concrete Construction Award in 2011. He's also a member and past President of ASCC (American Society of Concrete Contractors). Locally, Mike received the Lifetime Achievement Award from the Spirit of Construction Foundation of Greater Cincinnati in 2012. Mike is involved with the Boy Scouts of America and serves on numerous boards throughout the Cincinnati community.

Wind Engineering Committee

Next Meeting: Thursday, January 12 from 12:00 noon to 1:00 pm at DCI Engineers, 818 Stewart Street, Ste. 1000, downtown Seattle. The January meeting will focus on a request by the SEAOC Wind Committee to assist in the preparation of a Wind Design Manual, similar in format to SEAOC's Seismic Design Manuals, with practical design examples. All members are encouraged to participate either in person or via Go-to-Meeting. Please contact the

schoolwork translates into working for a consulting firm, transition from college life to entry level engineer, pros and cons of working in a small company vs. a larger firm, comparison between private sector vs. public sector, work-life balance, company culture, and work relations with other professionals in the industry including architects, general contractor, and clients. Read more

Structural Masonry Design Seminar Recap

By Tom Young

The Northwest Concrete Masonry Association conducted a full-day masonry design seminar on December 15th in Seattle. It was attended by 45 engineers. The primary presenters were Ed Huston, P.E., S.E. and John Hochwalt, P.E., S.E.

The seminar covered both working stress and strength design methods of the 2015 IBC and 2013 TMS 402 masonry code. It will be held again in 2017 in Kennewick, Spokane, Portland and Anchorage.

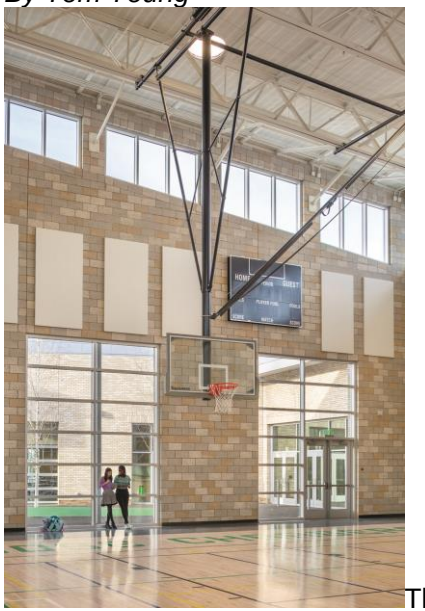
Comments Received:

"Well paced, focused on concepts not numbers so I liked that"

WEC chair, Scott Douglas sdouglasscott@gmail.com, to join the WEC and to receive information on Committee activities and actions.

Masonry Cavity Wall System Provides Best Value for Portland Middle School Construction

By Tom Young



The new Parkrose Middle School is a two-story 140,000 sf structure designed by DOWA - IBI Group Architects and KPFF Consulting Engineers. It is an excellent example of an all-masonry cavity wall system incorporating interior exposed concrete masonry structural walls with a brick veneer exterior.

This project did not start out as a masonry building. Four different exterior wall systems were considered including a few options within each system. In the end, the most cost-

"Really solid overall and very comprehensive"

"Great job by all!"

Facebook Update

By Darrell Staaleson, PIC Chair

The SEAW Facebook Page has 2,332 'Likes.' That means 2,332 people will see your post immediately. And the upper-bound of 2,305,000 could see your post if everyone shared an article of interest on their Timeline with their Friends and it goes viral.

Among other things available on our Facebook page, you can watch the video of the load tests from the 2015 Student Competition or find announcements about upcoming seminars.

The most liked recent post from our Facebook page was this photo which reached 1,362 people.

November Dinner Meeting Recap

By Daniel Rich

effective solution was the masonry cavity wall. Speed of construction and energy efficiency were additional benefits provided by this wall system.

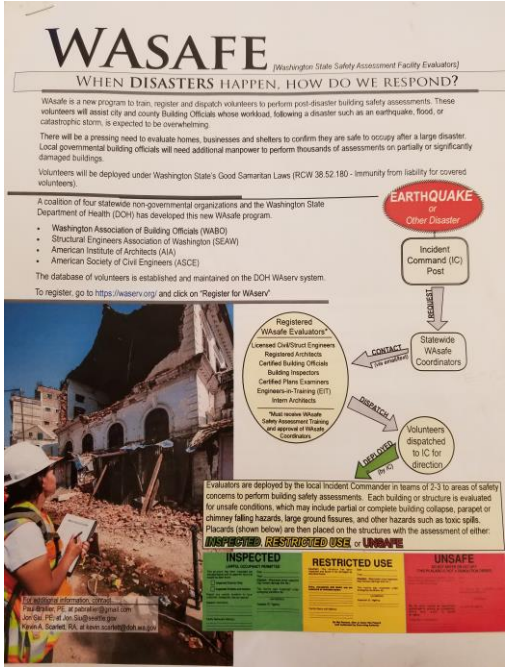
The new school has received several design awards and LEED GOLD status.

FilmWorks

The SEFW Board of Directors is interested in promoting the profession of structural engineering by the use of short videos, two minutes or less, depicting the activities of structural engineers and engineering in a manner that heightens public awareness of who we are and what we do. Video equipment need not be any more sophisticated than a smartphone. *This year's theme:* ***What's cool about structural engineering?*** Structural engineers in the work place, within the community, and as mentors should be portrayed in a manner that can be used to encourage young people (high school and first- and second-year college students) to pursue careers in engineering and to enlighten the general public about the profession. Read more

2017 Refresher Course

SEAW Seattle Chapter, in cooperation with the UW Department of Civil Engineering, will hold its annual



Paul Brallier, Senior Project Manager and Structural Engineer with HNTB Corporation, and Maximilian Dixon, Earthquake Program Manager for the Washington State Military Department's Emergency Management Division (WA EMD), were the speakers for November's Dinner Meeting topic of "Post-Earthquake Response (and Preparation) in Washington State".

Paul discussed the creation and implementation of the WAsafe program which is a tool for maintaining a database of Registered WAsafe evaluators. The evaluators are ready to be contacted by email or text by a Statewide WAsafe Coordinator after an Earthquake or other natural disaster strikes. WAsafe is modeled after the Cal OES SAP program which was established by the Applied Technical council in 1989 and has successfully been used in response to a number of earthquakes. Registered civil and structural engineers who are registered as SAP Evaluators in California or who have completed ATC-20/45 training will qualify as Type 1 WAsafe Evaluators. Read more

RefresherCourse on Tuesday and Thursday evenings from February 7th through March 30th.

The course is designed to assist engineers preparing for the NCEES Structural Exam and for practicing engineers who want to review principles of structural engineering. Fifteen two-hour lectures will present information regarding Structural Analysis, Wind Design, Foundations & Earth Retaining Structures, Seismic Design I & II, Structural Steel Design I & II, Concrete Design I & II, Prestressed/Post-tensioned Concrete Design, Bridge Design I & II, Wood Design, Masonry Design and Cold-Formed Steel Design. Read more

Upcoming 2017 Structural Masonry Design Seminars

The Northwest Concrete Masonry Association will be conducting a full-day seminar focusing on the design of reinforced concrete masonry construction. Both working stress and strength design methods of the new 2015 IBC and 2013 TMS 402/ACI 530 masonry codes will be covered.

The seminar will include the explanation of new code provisions and step-by-step design examples of masonry building elements by manual and automated methods. It is aimed at practicing engineers who want to learn how to design masonry in a practical and efficient manner. It will be presented by two professional engineers at each location. The seminar will consist of 7.5 hours of continuing education. Certificates of attendance will be issued.

Seminar dates and locations include:

February 8, 2017 - Oregon City, OR
February 10, 2017 - Kennewick, WA
February 28, 2017 - Anchorage, AK
March 14, 2017 - Spokane, WA

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. Read more

Additional information can be obtained from the Northwest Concrete Masonry Association at 425.697.5298 or www.nwcma.org. Online registration is available at www.nwcma.org/seminar.

Employment Opportunities

Structural Project Manager - Cary Kopczynski & Company

Designer/Design Engineer - WRK Engineers

Structural Design Engineer - Quantum Consulting Engineers LLC

Read more