



The

Oregon

Professional

Engineer



PRESIDENTS MESSAGE - David Etchart, PE

Fellow PEO members, Fall is settling in quickly as we transition from a warm, dry Summer to what looks like continuing wet weather. It's been an eventful and productive Spring/Summer as our Chapters have planned and started their 2019-2020 monthly technical programs, all of which look to be informative and excellent in developing our engineering skills and judgment. The tiered relationship that we began with NSPE in 2017-2018 looks to be working well and NSPE has assisted PEO several times with legislative advocacy in responding to several bills affecting our practice in the Oregon Legislature. The webcasting of our chapter technical presentations using Zoom sharing is growing rapidly with the Central Oregon Chapter joining the Columbia Chapter in webcasting their programs. Other chapters are considering sharing their technical presentations as well, and we are planning our second PEO Statewide Town Hall Meeting to be shared on Zoom later this Fall or early Winter.

The Education Foundation has experienced solid growth in their scholarship funds and are on track to roll out a new funding campaign to generate funding from a larger base of private companies and government sector engineering groups to serve a larger number of Oregon engineering students and prepare more excellent future engineers for servicing Oregon engineering needs. Our practice groups (Private Practice, Government Practice and Industry Practice) are active in reaching out to their respective engineering groups to develop engineers and continue to promote licensure. With excellent collaboration with Hyster Yale, our industry practice reach will begin to increase demonstrating the high value to industrial companies of having their engineers licensed and continuing their development of technical skills and engineering judgement.

Planning is also underway for our 2020 PEO Annual Conference which will be informative and enjoyable. We wish all of you a very successful 2019-2020 program year!

Fall 2019 ISSUE

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Statements and opinions expressed in these articles are solely those of the author or authors and may or may not be shared by PEO.

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WELCOME NEW MEMBERS:

David Arthur Sellers
Sean C. Passage
Sarah Crisp
Ilya Sarafinchan
Erin McConville
Dario Rolon-Manzo
Jared Arthur Bott
Jonathan Gregory Wilson
Jonathan Manabu Denman
Hannah Farris
Alexis Marie McMillan
Cory England
Ronald Scott Haynes
William Samuel Roderick
Sireesha Linga

UPCOMING EVENTS:

Local Chapter Meetings:

Columbia Chapter - 1st Tuesday of the Month
Mid-Willamette Chapter - 1st Tuesday of the Month
Rogue Valley Chapter - 3rd Friday of the Month
Southwestern Chapter - 3rd Wednesday of the Month
Central Oregon Chapter - 4th Monday of the Month
Schedules may change - check with your local chapter President for more details - www.oregonengineers.org

Statewide Events:

Members Town Hall Webinar - January
MATHCOUNTS Competition - February / March
Day at the Capitol - February 10th
Engineers Week - February
2020 PEO Annual Conference | Seminar - April 29, 30 & May 1
National Events go to www.nspe.org

JOB BOARD:

To place a position on this site it is complimentary to member companies. Non-member companies there is a fee of \$150.00 per placement. To place a position please email JOB_POSTING_TO:peo@oregonengineers.org. For more information please call 800-919-9552.

ATTENTION PEO MEMBERS...

OSBEELS Board Selects Jason Barbee to be New Administrator

At its September meeting, the members of the Oregon State Board of Examiners for Engineering & Land Surveying (OSBEELS) selected Jason Barbee to be the Board's next Administrator. Barbee will join the agency after serving as the Unemployment Insurance Division Deputy Director for Policy and Operations with the State of Oregon's Employment Department. He started with the Board on October 1. Barbee brings over 11 years of management experience with the State of Oregon, and has a track record of successfully leading programs and departments.

"It is an absolute honor to lead this agency which has such an important role to play in the safety and wellbeing of the public," Barbee said in regards to his selection as the Board Administrator. "I'm looking forward to learning from the Board, the staff and the stakeholders to make sure we provide the best possible services and resources to our state registrants and members of the public." In his new role with the OSBEELS, Barbee will oversee the day-to-day operations of the agency and serve as a Board representative to external state departments and professional organizations, among other responsibilities.

"The Board is very excited to have Jason step into the Administrator Position. Jason's skill sets in leadership, management and policy development are well suited for the OSBEELS in achieving its mission to protect life, health, and property." Board President, Daren Cone. Barbee earned his Bachelor's Degree in Accounting from the University of Oregon before joining the state as an Income Tax Auditor with the Oregon Department of Revenue. Barbee remained with the Department of Revenue until 2013, gaining management experience and expanding his roles within various Special Program units, before transitioning to the Oregon Employment Department. He has been the Unemployment Insurance Division Deputy Director since 2015.

In his capacity as the Deputy Director, Barbee developed program policies, participated in strategic planning, assisted with the Division's \$8 million biennial budget preparations, and oversaw a unit comprised of 40 professionals.

Barbee's professionalism, ability to lead a successful team, and legislative experience stood out to the Board during the recruitment process, which drew applications from across the country. The Board is excited to have Barbee join the OSBEELS as its Administrator and lead the agency in accomplishing its mission of regulating the practices of engineering, land surveying, photogrammetric mapping, and water right examination in the State as they relate to the welfare of the public in safeguarding life, health and property.

Barbee and his family live in Millersburg, OR. When he is not working, Barbee enjoys spending time with his family, which generally is in the form of him and his wife sitting on bleachers and watching Oregon State Board of Examiners for Engineering & Land Surveying their two high school children play sports. Barbee also loves barbecuing on his Traeger and cheering on his alma mater, the University of Oregon Ducks.

Kris Strickler Named New Director of Oregon Department Of Transportation

After a six-month search, the Oregon Transportation Commission has offered the top position at the state's transportation agency to Kris Strickler, an experienced administrator of major road projects for two state governments.

Strickler rejoined the Oregon Department of Transportation last year, to supervise the highway division, after four years overseeing the southwest region for the Washington Department of Transportation. Strickler directed ODOT's involvement in the Columbia River Crossing bridge project in the first half of this decade, before the \$3.4 billion effort to replace the bridge connecting Portland and Vancouver collapsed in 2014.

In a statement, Strickler said he was looking forward to modernizing the state's transportation network and fully implementing a transportation package approved in 2017, which promises \$5.3 billion for projects over 10 years. "I'm eager to lead the agency in this dramatic time of growth in our state and to work to modernize our transportation network, diversify the department's workforce, and bring innovative solutions to achieve Oregon's transportation, environmental and economic goals," Strickler said in an ODOT press release.

Strickler beat out finalists Victoria Sheehan, the commissioner in charge of New Hampshire's transportation department, and Randell Iwasaki, the executive director of the Contra Costa Transportation Authority in the Bay Area.

"[Strickler] was chosen from a very competitive field of candidates from around the country," said OTC Chairman Robert Van Brocklin in a statement. "He has driven the agency's vision for how to address the complex mobility needs of our region and brings strong interstate partnerships to bear."

Strickler replaces Matt Garrett, who stepped down from the ODOT leadership post this year after directing the agency since 2005. In addition to the transportation package, the new director faces challenges, such as a controversial proposal to expand Interstate 5 through Portland's Rose Quarter and a possible resumption of discussions of a replacement bridge between Portland and southwest Washington.

MEMBERS IN THE NEWS...

Tree House Escapes

Tree houses aren't just for kids. Now, adults can also find a playful escape. And of course, PEs are putting their essential stamp on these opportunities for adventures in the sky.

NSPE member Charles Greenwood, P.E., has made a name for himself as one of the very few go-to professional engineers for private residential and recreational tree houses. The Oregon-based consultant has thousands of projects on his resume. Most of his current projects serve as Air BnB or retreat locales across the US and abroad.

Technology has improved to increase safety and resilience for these structures that are tied to a living, growing object. "We have been able to advance in the design process to successfully build for the long-term growth of the tree," says Greenwood. "With the [older] design methods you could make a nice little tree house in the backyard for your kids, but you'd have to tear it down by the time they went to college because the tree had overgrown the design."

The "Hideaway Woods" exhibit at the Museum of Life and Science in Durham, North Carolina is Greenwood's favorite and most challenging project to date, because it involved state-of-the-art design to create a dynamic structure in a situation in which ensuring public safety was critical. The two-acre exhibit offers a nature discovery environment featuring a tree house village, a flowing streambed, and sculptures. "We created an exciting human experience on a structure that is essentially alive. That's quite a different design experience than most engineers face."

NSPE member Nabil Taha, P.E., entered into the tree house market in 2005 when a tree house designer needed licensed engineers for a project. "The layout or architectural drawing of a tree house is easy. As a licensed engineer, I ensure that the tree house is strong enough to safely support people," says the principal engineer at Precision Structural Engineering Inc., in Klamath Falls, Oregon. The Out n' About Treesort in Cave Junction, Oregon, offers an example of this unique tree house design work.

A Flexible Engineering Approach

Designing a tree house requires a flexible engineering approach.

Top Workplaces 2019 by The Oregonian/Oregon Live

Congratulations for ranking #18 out of 99 companies.

AKS Engineering and Forestry.

Sector: Engineering.

Headquarters: Tualatin, Oregon.

Regional employees: 225.

Check out the 99 companies in Oregon @ <https://www.oregonlive.com/news/g66l-2019/09/1b695416dc9728/here-are-99-great-places-to-work-in-oregon-and-sw-washington-top-workplaces-2019.html>



"You're dealing with structures that must be by their nature flexible. A normal prescriptive path to design is actually dangerous with a tree house," says Greenwood.

Testing has become a significant part of the process to ensure safety and long-term durability of tree houses. It all starts with assessing the health of the tree, which is done by a licensed arborist with a sensor test.

Load testing determines how much stress and weight a tree can handle. A tree attachment bolt (TAB) is installed and loaded hydraulically. Crushing is inevitable, so the test is limited to 0.030 inches of permanent deflection, which is measured after the load is released. Values for design load vary by fastener selection and by tree species—and even by individual trees, says Greenwood.

The load testing allows the design of the house to blend with the natural strength of the tree. Trees can grow their own version of rebar and concrete, says Greenwood, in response to the load. A design can induce productive growth in the tree and it will gain strength to adapt to the load of the construction materials and inhabitants.

How much does a tree house project cost? If you want one designed by someone with Greenwood's and Taha's expertise, you could pay nearly \$50,000 up to \$350,000 for a more sophisticated model.

Tree houses may have initially been created for little kids, says Taha, but what he loves most about them is that they are now also retreats for adults. "It's just a beautiful feeling when you're high up in the air and with the birds," he says. "If you haven't tried out one of these tree houses, you're missing out. It's interesting...it's romantic...and can be an escape."

NSPE MEMBERS CHARLES GREENWOOD, P.E., AND NABIL TAHA, P.E., USE THEIR PROFESSIONAL ENGINEERING EXPERTISE FOR THE DESIGN, CONSTRUCTION, AND TESTING OF RESIDENTIAL AND RECREATIONAL TREE HOUSES. GREENWOOD WAS INVOLVED WITH THE "HIDEAWAY WOODS" TREE HOUSE PROJECT (TOP LEFT AND RIGHT) AT THE MUSEUM OF LIFE AND SCIENCE IN DURHAM, NORTH CAROLINA AND WITH THE DESIGN OF THE MARY PIGGOT TREE HOUSES (BOTTOM LEFT AND CENTER) IN SAMMAMISH, WASHINGTON. TAHA WAS INVOLVED WITH TREE HOUSE PROJECTS (BOTTOM RIGHT) AT THE OUT 'N ABOUT TREESORT IN CAVE JUNCTION, OREGON.



FALL 2019 NEWSLETTER

SEE YOU AT THE PEO ANNUAL CONFERENCE IN SUNRIVER, OR

SAVE THE DATE: APRIL 29, 30 & MAY 1, 2020

This years theme... ENGINEERING 2020: PROGRESS, PEOPLE, PLANET



the start of unforgettable.



*Thank you
to our
members..*

Thank you for your ongoing support of

MATHCOUNTS & The Professional Engineers of Oregon Educational Foundation - Scholarship Fund!

Your contribution helps make all possible!

MATHCOUNTS - Please consider making a tax-deductible donation for funding the state competition - budget \$17,500.00.

SCHOLARSHIP FUND - Please invest in the future by contributing to the PEO Educational Foundation and ensure meaningful scholarships to worthy Oregon Engineering students. The Foundation is a 501C3 Charitable organization which has provided scholarships to upper class engineering students at all five engineering schools for over forty years.

We look forward to great success in 2020 because of your support!

Contact the PEO office with any questions at peo@oregonengineers.org or 800-919-9552.

ENCLOSED FORMS FOR MATHCOUNTS & ED FOUNDATION.