

State News for NSPE Members

NSPE-AK Hosts Presentation with the "8 to Automate" Team

On September 10, the Alaska Society of Professional Engineers hosted a statewide presentation featuring the "8 to Automate" research team whose members presented via Zoom on their patented REST ("Roof Evaluation Stress Technology") system.

This emerging technology has been featured in the Editor's Pick keynote article in Forbes Magazine and is particularly applicable with the snow load problems on flat-roofed buildings reoccurring every winter in Alaska.

An enthusiastic group of presentation attendees were eager to learn from these very creative young scientists and engineers (middle school students) from Dublin, Ohio. Most importantly, these young people on the research team are the future of professional engineering and deserve our strongest backing as they learn and progress through our academic institutions and then move onward into design and engineering careers.

We were thrilled to have NSPE President Tricia Hatley, P.E., F.NSPE, attend this Zoom session and deliver some very worthwhile remarks about supporting and mentoring the next generation of professional engineers.

The "8 to Automate" team presentation can be viewed in its entirety by clicking on the following link.

Continuing Education Opportunities for NSPE-AK Members

Professional development is crucial to maintaining a license, moving up the career ranks, and maintaining a sense of engagement during these challenging times. NSPE-AK members can stay on top of their continuing education through webinars/learning opportunities sponsored by NSPE and the state society. And

don't forget that, as part of your NSPE membership, you also receive access to 15 free online seminars.

In April, Governor Mike Dunleavy signed COVID-19 related legislation (S.B. 241) to allow state licensing boards to expedite licensing for professionals from out-of-state and provide a temporary continuing education requirement waiver for licensure renewal in 2020.

Since the licensure renewal date for design professionals is in 2021, the Alaska State Board of Registration for Architects, Engineers, and Land Surveyors *will not* be issuing a COVID related waiver for continuing education. If there is a licensee that is experiencing a physical disability, serious illness, a family emergency, or other extenuating circumstances that will prohibit him or her from meeting the education requirements, the board will consider an exemption by written request.

The Alaska licensing board does not have a requirement as to how many continuing education hours must be completed online versus face-to-face instruction. Access more information about the continuing education regulations here.

NCEES Monitors Pandemic as October Exams Near

The National Council of Examiners for Engineering and Surveying is closely monitoring the impact of COVID-19 on the October 2020 pencil-paper exam administration. All exam site locations are currently proceeding with reduced capacity restrictions in place. Changes to state and local requirements that further reduce capacities for groups and events may impact the number of examinees that are able to test at a specific site. NCEES will continue to monitor these changes between now and exam day.

NCEES is aware that capacity restrictions are preventing many examinees from being able to register for the October exam administration. In order to accommodate as many examinees as safely as possible, NCEES has moved up the transition to computer-based testing for the PE Electrical and Computer: Power exam (registration is open with appointments starting on December 1) and will offer a regional pencil-and-paper exam administration in January for PE Civil examinees.

Regional Pencil-Paper PE Civil Exams Slated for January

To accommodate as many pencil-paper examinees as safely as possible, NCEES has added a regional exam administration in several locations on January 26, 2021, exclusively for PE Civil examinees. Registration for the regional PE Civil exam administration will open November 1, 2020, and close December 13, 2020, at 3 p.m. (EST).

The exam will be administered in the following cities: Phoenix, Arizona; Pomona, California; Denver, Colorado; Hartford, Connecticut; Orlando, Florida; Topeka, Kansas; Minneapolis, Minnesota; Raleigh, North Carolina; Cleveland, Ohio; Houston, TX; and Seattle, Washington. Additional cities may be added before registration opens.

Examinees who are located outside of these states should check with their state licensing board prior to registering to determine their eligibility to test outside of their jurisdiction.

Access ncees.org for exam updates.

Upcoming Licensing Board Meeting

The next Alaska Board of Registration for Architects, Engineers, and Land Surveyors meeting will be held via teleconference **November 12-13**, 2020.

All professional registration applications, including those for land surveyors who plan to sit for the AKLS exam, are due no later than 30 days prior to the Board meeting. The deadline for the upcoming meeting is October 12.

The Board of Registration for Architects, Engineers, and Land Surveyors holds four regular meetings a year. Dates and locations are tentative and subject to change. Other meetings may be held as necessary to conduct board business.

For additional information regarding board meetings, or for assistance regarding applications, please contact the AELS Executive Administrator and Licensing Examiner at AELSBoard@alaska.gov.

What's the Status of Bridges in Alaska?

A recent American Road & Transportation Builders Association report provides a snapshot of the status of bridges in the US. The association compiled state profiles and rankings from the Federal Highway Administration's 2019 National Bridge Inventory Data (released in April 2020).

The recent report showed that more than one third (37%) of US bridges—nearly 231,000 spans—need repair work. More than 46,000 bridges are rated in poor condition and classified as "structurally deficient." A total of 81,000 bridges should be replaced. While the number of structurally deficient bridges declined by 900 compared to 2018, it still would take more than 50 years to repair them all.

The profile highlights the following about bridges in Alaska

Of the 1,595 bridges in the state, 145, or 9.1%, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.

- This is down from 146 bridges classified as structurally deficient in 2015.
- The deck area of structurally deficient bridges accounts for 7.7% of total deck area on all structures.
- 12 of the structurally deficient bridges are on the Interstate Highway System.
- 145 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 299 bridges at an estimated cost of \$344.3 million.
- This compares to 304 bridges that needed work in 2015.

Alaska Gets Share of \$1.2 Billion in Airport Infrastructure Grants

US Secretary of Transportation Elaine L. Chao recently announced that more than \$1.2 billion in airport safety and infrastructure grants will be awarded through the Federal Aviation Administration to 405 airports in 50 states, Puerto Rico, the US Virgin Islands, and other territories.

Alaska projects that will receive grants include Fairbanks International Airport with \$13.8 million in funding and various locations in Juneau with \$8.1 million in funding.

The total includes over \$1 billion from the Airport Improvement Program and \$152 million in Coronavirus Aid, Relief, and Economic Security Act grants to equal a 100% federal share. The grants will be used for a variety of critical infrastructure and safety projects. The projects include purchasing aircraft rescue and firefighting equipment, constructing runways and taxiways, repairing runways and taxiways, installing aircraft lighting and signage, conducting airport master plan studies and installing airport perimeter fencing.

Read more.

Client Selection Is More Important Than Ever

By Rich Friedman (Friedman & Partners)

When the economy starts to look rocky and project opportunities may be diminishing, it can be tempting to start saying yes to work that's not a great fit (but it's work) or chasing RFPs.

I saw a lot of this happening during the Global Financial Crisis (2008-2009), and I'm seeing it again now. In times of uncertainty, of course, we may be more willing to take on a project that is not ideal. But too often, firms start to convince themselves that throwing best practices out the window is their best option.

In this article, I discuss why that's not a good idea and offer some helpful guidelines for creating and implementing a thoughtful client selection process, one that strengthens your firm for the future.

Read more.

We Want to Hear from You!

Do you know of engineering news in Alaska that would be great for this newsletter? Maybe it's a project you or your firm is working on, or perhaps you read some interesting engineering news in your local newspaper. Or maybe you know of a fellow PE or student who deserves a little recognition. If so, we want to hear from you. Email your ideas to pemagazine@nspe.org.

Stay up to date on legislative issues through the NSPE Advocacy Center.

Society Releases Policy Guide on Emerging Tech, Public Safety

A new NSPE policy guide has added the professional engineer's voice to the growing conversation around the safe development and deployment of emerging technologies. The guide's safety recommendations begin with the premise that the public's interests are best served when licensed professional engineers oversee the design, development, and/or deployment of emerging technologies.

NSPE's Emerging Technologies Task Force crafted the recommendations as a starting point for adopting standards that protect public safety and to provide guidelines to measure the safety readiness of technologies before they are deployed. The guide is intended for public policy decisionmakers, regulators, manufacturers, and others.

The Society strongly encourages the adoption of these recommendations and is available as a resource for information and drafting of regulations.

Access the guide.

Honoring the commitment of federal engineers to innovation and service is the hallmark of the Federal Engineer of the Year Award. Nominations for the award, which attracts participation from more than a dozen federal agencies, are open until **October 31**.

The FEYA ceremony is scheduled for February 18, 2021, at the National Press Club in Washington, D.C. Tickets will be available for sale in January and sponsorship opportunities are available.

Timothy Sullivan, P.E., who has brought mechanical, civil, and environmental engineering expertise to the Air Force Civil Engineer Center in San Antonio, Texas, was named the 2020 FEYA winner. Sullivan developed the first-ever comprehensive execution guidebook to support \$604 million in nationwide construction, and as part of that three-year project, he crafted a project risk management process to identify vulnerabilities of construction projects greater than \$5 million.

Apply or nominate a worthy engineer today.

Upcoming Webinars: Traffic Signals, Forensic Engineering, Communications Skills, Vintage Trolley Cars, Design Safety



NSPE's **PE Institute** helps members stay current in the profession, earn PDHs, and advance in their careers through webinars on important topics. The webinars are held at 2:00 p.m. – 3:00 p.m. EST at a member price of \$99 (\$129 for nonmembers).

September 23

The Physics of the Yellow Traffic Signal: ITE's First Recommended Practice The webinar will focus on the Institute of Transportation Engineers' first recommended practice for calculating the duration of the yellow traffic signal. *Presenter: Brian Ceccarelli, P.E.*

September 30

So, You Want to Launch a Forensic Engineering Consulting Practice

Forensic engineers can operate as sole proprietorship, partnerships, professional corporations or be part of a multifaceted forensic engineering company or one of the many national forensic engineering investigation firms. This session addresses the opportunities for engineers interested in performing forensic engineering services as well as the issues they will need to address.

Presenters: John Certuse, P.E., Michael Leshner, P.E., James Petersen, P.E., and Samuel Sudler P.E., F.NSPE

October 7

The Four Languages of Influence

Improve your influence by customizing your interactions to four distinct communication styles that will help make better connections.

Presenter: Roger Grannis

October 14

Vintage/Heritage Trolley Cars in Transit Use: Past, Present, and Future

The presentation will help attendees better understand the unique nature, challenges, and opportunities of vintage and heritage trolley cars in actual public transit use in the modern age, including vehicle engineering support and technical assistance, for these vehicles.

Presenter: Matthew Nawn, P.E., PMP

October 21

Too Many Crashes at Your Roundabout? Learn Design Techniques to Optimize Safety

This presentation will discuss how design safety principles affect how drivers receive and process information. For optimal safety and operations, the roundabout design must simplify decision-making and provide clear, concise information as to the correct way to drive the roundabout.

Presenter: Mark T. Johnson, P.E.

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