

The Oregon Examiner

PUBLISHED BY THE OREGON STATE BOARD OF EXAMINERS FOR ENGINEERING & LAND SURVEYING

Summer 2020

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10 SYMPOSIUM

September 24 & 25

This year we go virtual.
Register today to earn up to 14 PDHs!

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Mission

The mission of the Oregon State Board of Examiners for Engineering & Land Surveying (OSBEELS) is to regulate the practice of engineering, land surveying, photogrammetric mapping, and water right certification in the state as they relate to the welfare of the public in safeguarding life, health and property.

10 SYMPOSIUM

September 24 & 25

\$50 for up to 14 PDHs

Register today:

<https://rb.gy/tfxexf>



Scan the above QR code with your mobile device or tablet

Join OSBEELS for year 10 of our annual Symposium! This year we're going virtual and offering 2 days of educational and inspiring sessions. You'll have the opportunity to earn up to 14 PDHs!

As a new era of design, measurement, and sustainability are set to redefine the future of engineering, land surveying, and water right examination in Oregon, Symposium 10 is excited to feature the accomplishments of the past and present, and take a glimpse into the future!

Time Thursday, Sept. 24

8:30-9:00	Welcome & Intro
9:00-10:00	<i>Hydrographic & Geophysical Surveying – More than Meets the Eye</i> John Dasler, PE, PLS (David, Evans, & Associates)
10:00-11:00	<i>Landslides in Oregon: Investigation, Evaluation, and Mitigation</i> Tom Westover, PE (Cornforth Consultants)
11:00-12:00	<i>Supporting Safe Navigation with NOAA's Office of Coast Survey</i> Crescent Moegling (National Oceanic and Atmospheric Administration)
12:00-12:30	Lunch Break
12:30-1:30	<i>The Right Way to go About Right-of-Entry</i> OSBEELS
1:30-2:30	<i>Designing Communities for Wildfire Resilience</i> Erica Fischer, PhD, PE (Oregon State University)
2:30-3:30	<i>How the Oregon Association of County Engineers & Surveyors is Serving Oregon</i> Mike Bezner, PE & Bradley Cross, PLS
3:30-4:00	Closing Remarks

Time Friday, Sept. 25

8:30-9:00	Welcome & Intro
9:00-10:00	<i>The PAE Living Building - Scaling Sustainable Design</i> Marc Brune, PE, LEED AP (PAE) & Justin Brooks, Principal (ZGF)
10:00-11:00	<i>The First 169 Years</i> Chuck Whitten, PLS
11:00-12:00	<i>Engineering Ethics and Its Impact on Society</i> William Macy, PhD, PE (TX & NM) (Texas Tech University)
12:00-12:30	Lunch Break
12:30-1:30	<i>Portland State University Viking Pavilion Retrofit & Renovation</i> Chris Tung, PE, SE, LEED AP & Alexandria Stroud, PE (KPFF)
1:30-2:30	<i>Working With NGS's Online Positioning Service</i> Mason Marker, PLS (Oregon Tech)
2:30-3:30	<i>Electronic vs Digital Signature – What's the Difference</i> OSBEELS
3:30-4:00	Closing Remarks



Administrator's Corner

When I began my role as the Board Administrator for the OSBEELS last October, one of my top priorities was to find a solution to fixing our old and antiquated licensing system. Over the last six months, I've asked for feedback from our licensees, other licensing agencies, our staff and our Board to help identify what functionality everyone would want in a new system. The feedback I received was very consistent, direct and reasonable; the expectation is that our customers want to interact with us electronically.

I'm extremely excited to announce that we've hired a vendor to bring OSBEELS into the 21st century. The expectation is that we will have an online portal that will allow our customers to do almost everything online with an intuitive web-based system. Our agency's targeted timeline would have licensing, renewals, license lookup, payments and exam registrations, and other online system tools up and running early next spring. I know it sounds like that is a long time away, but for a system of this size, it's actually a very aggressive implementation schedule.

Of course, with any kind of system replacement, there's going to be some

bumps and bruises for both our staff and our customers, but I promise these short-term pains will be worth the long-term rewards. Please have patience with us as we focus our effort over the next eight or so months to transition from our old database to the new licensing system.

Also, please feel free to contact me directly if you have any questions or feedback at Jason.Barbee@oregon.gov.

While we have some legal limitations on what can be changed, I'm always open to hearing ideas on what could make our processes easier to understand and comply with.

Board Seeking New Members

With the recent term endings for two of our Board members, I'd like to announce that we are looking to increase the diversity of the Board and are currently seeking to add new members. We are looking for one of the two vacant positions to be filled by a registered professional photogrammetrists.

As a Board member, you will have the opportunity to work alongside public and professional members, as well as agency staff, to license individuals, address questions from the professional community, and uphold the Board's mission to protect the health, safety, and welfare of the general public.

Interested in learning more? Visit the state boards and commissions' website:

oregon.gov/gov/admin/Pages/Boards-and-Commissions.aspx

Interested in applying to become an OSBEELS board member?

Contact me at

Jason.Barbee@oregon.gov.

Board Responses to Professional Practice Questions

At recent meetings, the Board's Professional Practices Committee reviewed and responded to several questions submitted by members of the professional community. See a summary of the questions and the Committee's responses below.

The first question reviewed was regarding whether a geotechnical engineer may provide a soils report for construction, then after that report is provided, claim to no longer be responsible, or liable, for the findings of their report as a result of not being contracted for additional work. The Committee discussed and did not respond directly to this point but rather noted he should consult with private legal counsel for an answer. It was noted the topic, contractual and civil disputes, is an area the OSBEELS is unable to make a determination on and is outside of the Board's jurisdiction.

The second question reviewed was related to forms of acceptable digital signatures and how to properly verify the authenticity of submitted plans with digital signatures. The Committee responded that there is software available that verifies digital signatures through third-party authentication and certifies an individual's digital signature, but that the Oregon Board does not make recommendations for specific companies/providers. The Electronic and Digital Signatures article included within this publication was also developed in response to this question.

The Board encourages all professional registrants to consistently review Oregon statutes and rules under the OSBEELS' jurisdiction to ensure they are up-to-date on professional practice and conduct standards that may relate to their professional area of competence or services offered to the public. If you have a professional practice question you'd like to submit to the Board office for review, please visit the OSBEELS website and complete the 'Ask the Board a Question' form within the Contact Us section.

Board Bids Farewell to members Shelly Duquette & Chris Aldridge



The Board would like to thank members Shelly Duquette, PE, SE, and Chris Aldridge, RPP, for their years of service on the Board.

First appointed in 2013, during her time with the Board, Shelly served as the President of the Board from 2017-2019 and Vice President from 2015-2017. In addition to her Board leadership roles, Shelly has served on the Examinations and Qualifications, Law Enforcement, Professional Practices, and Rules and Regulations Committees. Further, she also participated on the Oregon-Specific Examination Task Force and the Joint Compliance Committee in partnership with the Oregon Board of Geologist Examiners.

Currently, Shelly is a Building Plans Examiner and Inspector with the City of Portland. She is also actively involved with the Structural Engineers Association of Oregon and previously served as a member of the National Council of Examiners for Engineering and Surveying's Exam Committee.

Chris joined the Board in April of 2015 and served as the Board Vice President from 2017-2019. During his time on the Board, he served as the Committee Chair for the Professional Practices Committee and the Photogrammetric and Remote Sensing Task Force. Chris has also participated on the External Relations, Examinations and Qualifications Committees and the Customer Service and Communications Standards Task Force.

Professionally, Chris is the manager of U.S. Operations for Terra Remote Sensing, Inc. He notes the improvements to Board processes and internal operations as some of the Board's great accomplishments during his time serving as a member.

"I would like to thank my fellow Board members for their service, friendship, and guidance, in particular my fellow officer Shelly Duquette who helped shepherd the agency through difficult periods over the last two years," Chris said reflecting on his time with the Board. "My greatest hope is that all of the Oregon registered

engineers, surveyors, photogrammetrists, and water right examiners will take the time to understand the hard work done by the Board and the value it presents to the people of Oregon."

In his spare time, once his time on the Board comes to an end, Chris is looking forward to resuming normalcy and enjoying in-person meet ups with friends and colleagues, as well as attending Portland Timbers games.

Shelly and Chris will be greatly missed on the Board. They dedicated an invaluable amount of time and effort while serving in leadership positions, acting as Board representatives to local and national organizations, and offering their expertise to help solve numerous Board matters.

The Board and OSBEELS staff would like to thank Shelly and Chris for their dedication to improving the engineering, land surveying, and photogrammetric mapping professions and wish them the best in their future endeavors.

The Difference Between Electronic and Digital Signing

This article was authored by Board members Tim Fassbender, PLS, and Renee Clough, PE, PLS

Recent concerns and questions raised by the professional community regarding Oregon Administrative Rule (OAR) 820-025-0010, digital seal and signature requirements, have been received by the Oregon State Board of Examiners for Engineering & Land Surveying (OSBEELS) and prompted a discussion about digital signatures and signing final documents. To address these questions and concerns, we have developed this article that will share resources and information to help professional registrants, and the users of their documents, to understand the differences between an electronic signature and a digital signature.

Relevant rules to this topic include:

1. OAR 820-025-0001 – defines digital signature and digital certificate.
2. OAR 820-025-0005(5) – specifies digital signatures as an acceptable alternative to a wet signed signature if specific criteria are met
3. OAR 820-025-0010 – outlines requirements for digital seal and signature for electronic final documents.

A digital signature in compliance with OAR 820-025-0010 utilizes a public-private digital key pair provided through the services of a certificate authority. The private key is known only to the signer and is often in the form of a password. The public key is utilized by the certificate authority to validate the document. To verify a digital signature, the verifier must have access to the signer's public key and have assurance that it corresponds to the signer's private key. In the case of OAR 820-025-0010 this assurance must be provided by using a certificate authority as a trusted third party to associate an identified signer with a specific public key; essentially the

certificate acts like a notary. A self-signed certificate is one that is created by the individual signer without the services of a certificate authority; this is not sufficient for purposes of compliance with OAR 820-025-0010.

The term "third party" in all the above cited OAR sections requires specific discussion. Some software will allow the user to make their own digital signature certificate which is often referred to as a self-signed certificate. This is often made in the same software being used to create the particular document but could be made in some other software. The upshot though is that anyone seeking to verify the authenticity of the digital signature will be coming back to signer for that authentication. In the case of a non-self-signed certificate, an entity known as a "Certificate Authority", has made the certificate and verified your identity as part of the process. When the digital signature is applied to the document the local software communicates with that Certificate Authority. Later when someone verifies the signature their local software also communicates with that Certificate Authority. Hence the term "third party", that certificate authority is not you, it is not the person receiving the document - it is a third party. A "third party" Certificate Authority is equivalent to a notary.

See the table on page 7 and the discussion below summarize the differences:

Numerous certificate authorities are available with the ability to interface with a variety of software. Consequently, the process of utilizing a digital signature in compliance with OAR 820-025-0010 is too variable to provide a step-by-step description here.

It should be noted that, with a digital signature, the original is the digitally signed file. Prints of that file, whether to paper or to another digital format (such as pdf), are equivalent to photocopies of a wet signed

document. Those prints can be used when a photocopy would be acceptable but not when an original is required. Most software capable of opening a specific file type is also capable of confirming the validity of a digital signature when it necessary to confirm the original has been received. Some software will display this confirmation prominently at the top or side of the screen, others need the user to interact with several layers of menus.

Lastly, it is important to note that OAR 820-025-0005(e) requires a digitally signed document to have the words "digitally signed" in the location where a wet signature would traditionally be placed.

In an effort to continue to address questions from the professional community, as well as provide further direction, the Board will be reconvening the Digital Signatures Task Force. Actions taken by the Task Force may cause information within this article to become outdated. To stay up-to-date on the latest information and resources, we recommend visiting the Board website.

Please refer to the below resources for additional information on the differences between electronic and digital signatures.

Digital Signature for Engineering Documents – Ranvir Singh, PLS, 2008
<https://rb.gy/rooiu3>

Understanding Digital Signature – Jason Kent, PE, and Ranvir Singh, PLS, 2017
<https://rb.gy/pqxrv9>

Law Enforcement Cases

Case X0035 – John Nissen

The Board issued a Final Order by Default in Case #X0035 issuing Mr. Nissen a \$500 civil penalty for violating Oregon Administrative Rule (OAR) 820-010-0635(1)(a) & (e), continuing professional development requirements, and a \$1,000 civil penalty for violating OAR 820-020-0015(7), deficiency of Professional Development Hours (PDH).

Reminder: Requirement to Notify Board of Original Disciplinary Actions Received from Other Jurisdictions in 45 Days

In recent registration renewal cycles, Board staff have noticed an increasing number of registrants using the renewal process as a means for notifying the Board of disciplinary action(s) they received during the previous two years from other jurisdictions. The Board would like to remind registrants of their obligation to give written notification to the Board of any disciplinary action(s) received by any licensing agency within 45-days of the final order being issued, per Oregon Administrative Rule (OAR) 820-020-0045(4). Registrants may notify the Board by submitting a written notice via email or letter to the Board office and should also include a copy of the disciplinary action(s) received with the date the disciplinary was confirmed, included.

Electronic Signatures	Digital Signatures
A Functional term	A legal term
Not technically bound to a specific individual or the result of a validation process	Tied to a specific individual via a PKI-based digital certificate
Created via options such as typed names, scanned images, online tools, or a “click wrap” agreement	Created using a digital algorithm to bind the document using a certificate, resulting in a unique “fingerprint”
Legal, but not easily identifiable to one unique user and can be replicated	Easily identifiable to a unique individual, auditable, and non-replicable
Does not meet OAR 820-025-0010 requirements	Does meet OAR 820-025-0010 requirements



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You may return this form by email to osbeels.info@oregon.gov, by fax to 503-362-5454 or by mail to the address listed above. Please note, the contact information in which Board correspondence is sent will not be changed by submitting this form. Please utilize the Name/Address Change form (<https://goo.gl/9uTvyC>) to comply with Oregon Administrative Rule (OAR) 820-020-0050.

Registrant Information

First name	Middle name or initial	Last name	
Email Address		Registration or certificate number, if applicable	
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