

Structural Engineers Association of Utah 6th Annual Education Conference

February 20 & 21, 2018
Davis Conference Center
Layton, UT



Conference Overview

The SEAU Board of Directors would like to invite you to the SEAU 6th Annual Education Conference to be held at the Davis Conference Center in Layton, Utah on February 20th & 21st, 2018.

Topic Overview

- Networking Strategies
- Ethics
- Alkali-Silica Reaction in Concrete
- Interpreting Soils Reports
- ASCE 7-16
- High Performance Precast Concrete
- Podium Slab Structural Design and Detailing
- Utah Snow Load Study
- Seismic Ground Motions
- Glulam Beam Design
- Residential Seismic Retrofit
- Steel Stud Design
- Timber Frame Design

Two classes will be going on concurrently, as shown on the enclosed Conference schedule. Attendees will be able to choose which classes to attend throughout the day while at the Conference.

Each conference attendee will have the opportunity to receive up to 12 Professional Development Hours (PDH) over the two-day event.

A hardcopy of ASCE 7-16 is offered at a discounted price with conference registration. Class notes will be available to download on the SEAU website prior to the conference.

Lodging

Hilton Garden Inn Hotel (attached to the Davis Conference Center)

762 West Heritage Park Blvd
Layton, Utah, 84041
Phone: 801-416-8899

A limited number of rooms are available at a discounted rate of **\$104.00 a night**. This discounted room rate is available for hotel stays on February 19th, 20th, 21st.

Use code **'SEAU'** or contact the hotel directly to make reservations and be sure to mention "SEAU" to ensure the discounted rate.

Note: The discounted rate is only guaranteed for reservations made prior to January 28, 2018; after that date rates are subject to change.

Parking

Free parking is available in the Conference Center lots adjacent to the building and across the street.

Location

Davis Conference Center
1651 North 700 West
Layton, Utah 84041

Directions:

From Salt Lake City

Take I-15 North toward Ogden, take Exit 332 for Antelope Dr., turn right onto Antelope Dr., take the 1st right onto University Park Blvd, continue onto Heritage Park Blvd/Heritage Pkwy. The Conference Center will be on the left.

From Ogden

Take I-15 South toward Salt Lake, take Exit 332 for Antelope Dr., turn right onto Antelope Dr., take the 1st right onto University Park Blvd, continue onto Heritage Park Blvd/Heritage Pkwy. The Conference Center will be on the left.

Conference Registration

DEADLINES:

- **Early Registration Deadline:** January 23, 2018 at 5:00pm
- **Code Order Deadline:** January 23, 2018 @ 5:00pm
- **Late Registration:** February 12, 2018 at 12:00am

REGISTRATION FEES:

Early Registration		Late Registration	
General			
One Day Only	Both Days	One Day Only	Both Days
\$120	\$210	\$145	\$250
Student			
Block (4 Hours)	All Day	Block (4 Hours)	All Day
\$20	\$70	\$25	\$80

Cancellation Policy:

- All cancellations will be subject to a \$10.00 cancellation fee.
- Cancellations received prior to **January 1, 2018** will receive a 100% refund, minus the \$10.00 cancellation fee.
- Cancellations received from January 1, 2018 through February 8, 2018 will receive an 80% refund, minus the \$10.00 cancellation fee.
- Beginning **February 9, 2018**, no refunds will be issued; however, you may transfer your registration to another person at no cost.
- Please contact Katelyn Vidmar at executivedirector@seau.org for any cancellation and transfer requests.



*Partial funding for this training program has been provided by the **Division of Occupational & Professional Licensing (DOPL)** from the 1% Surcharge Funds on all building permits. We wish to thank DOPL for their support!*

Online Registration and Payment:

To register and pay for the Conference, click on the attendance link below that best matches your schedule – CHOOSE ONLY ONE. The link will take you to the appropriate registration page where you can book your seat and pay online.

Note: The online registration system allows for multiple registrations with a single transaction for each attendance type.

For registration questions, contact Katelyn Vidmar at 928-245-8086 or executivedirector@seau.org or Zach Hansen at 801-782-6008 ext. 8231 or zachh@arwengineers.com.

General Registration: (For Professionals)

- [FULL CONFERENCE – Day 1 & 2](#)
- [DAY ONE ONLY](#)
- [DAY TWO ONLY](#)

Student Registration: For current, full-time students only

ATTEND CLASSES ONLY (Register for one or more)

- [DAYS 1 or 2 \(8:30am-5:00pm\)](#)
- [PARTIAL DAY 1 \(8:30am-12:00pm or 1:30pm-5:00pm\)](#)
- [PARTIAL DAY 2 \(8:30am-12:00pm or 1:30pm-5:00pm\)](#)

Code Book Orders:

(Available until January 23, 2018)

- [ASCE 7-16 \(\\$135\)*](#)

*Indicates the SEAU Discounted price – originally \$240

Schedule

	Tuesday		Wednesday	
7:30am	Registration & Breakfast		Registration & Breakfast	
Location	Conference Room 1	Conference Room 2	Conference Room 1	Conference Room 2
8:30am	Timber Frame Design for Vertical and Lateral Loads -Part 1 <i>Paul Thorley</i>	Cold Formed Metal Stud Deferred Submittal – Who is responsible for what? -Part 1 <i>Steve Ericksen & Scott Roche</i>	ASCE 7-16 Seismic Provision Changes and Review <i>Luke Balling, Brent Maxfield, & Eric Hoffman</i>	Interpreting and Understanding Geotechnical Reports <i>Ryan T. Cole & Ryan B. Maw</i>
10:00am	Break		Break	
10:30am	Timber Frame Design for Vertical and Lateral Loads -Part 2 <i>Paul Thorley</i>	Cold Formed Metal Stud Deferred Submittal – Who is responsible for what? – Part 2 <i>Steve Ericksen & Scott Roche</i>	Utah Snow Load Study Update <i>Marc Maguire & Brennan Bean</i>	Residential Seismic Retrofit <i>Barry H. Welliver</i>
12:00pm	Lunch, Committee Short Reports & Keynote Speaker		Lunch & Raffle Drawing	
1:30pm	Networking Strategies <i>Jennifer Anderson</i>	Alkali-Silica Reaction in Concrete <i>Jason Ideker</i>	Discover High Performance Precast Concrete <i>John Dobbs</i>	2-Stage Analysis: Wood on Podium Design – Part 1 <i>Phil Miller & Jared Cope</i>
3:00pm	Break		Break	
3:30pm	Ethics: A Practical Guide for the Practicing Engineer <i>Barry Arnold</i>	The Evolution of Glulam Design <i>John Niedzwiecki</i>	Seismic Ground Motions – How We Got to Where We are Today <i>Travis Gerber</i>	2-Stage Analysis: Wood on Podium Design – Part 2 <i>Phil Miller & Jared Cope</i>
5:00pm	Classes Conclude		Classes Conclude	

CLASS DESCRIPTIONS

Timber Frame Design for Vertical and Lateral Loads:

Presenter: Paul Thorley

Heavy timbers have been used in structures for thousands of years. This course will cover a brief history and the recent changes in “Mass Timber” industry. Code reference and industry standards will be covered for Timber Frames used support vertical loads and as part of the lateral force resisting system. Topics such as materials, NDS governed connection, tradition mortise and tenon connections, and frame analysis will be will be discussed.

Networking Strategies:

Even Introverted Engineers Can Network Effectively

Presenter: Jennifer Anderson

Regardless if you’re a veteran engineer, firm owner, or a newbie right out of college, networking is an important aspect of growing your career. This session will help you to identify comfortable and effective ways to network and connect with other professionals in a non “used-car-salesman” kind of way.

Learning Objectives:

- Differentiating yourself from other engineers
- How to prepare for networking
- What to do after attending a networking event

Ethics: A Practical Guide for the Practicing Engineer

Presenter: Barry Arnold

Ethics is an often misunderstood but critical part of successfully practicing structural engineering. A solid understanding of ethical principles is as vital to a successful career as the technical knowledge an engineer may acquire. Unfortunately, in recent years an emphasis on technical skills has forced the topic of ethics into a secondary role where it is seldom discussed, emphasized, or enforced. The purpose of this course is to acquaint the participant with the source and evolution of the Code of Ethics, the application of the Code of Ethics, the benefits of being ethical, and provide tools for assessing if and what corrective action is required.

Cold Formed Metal Stud Deferred Submittal - Who is responsible for what?

Presenters: Steve Ericksen & Scott Roche

This course will discuss the range of responsibilities of the cold formed framing package for buildings. Who is responsible for the metal stud design? What portions of the metal studs need to be designed? How does the sub-contractor/specialty structural engineer know what requires design? These questions and many others will be discussed during this course. This course is intended to be an open discussion regarding the deferred submittal process. Cold formed contractors will be assisting in the presentation to provide perspective from the construction point of view.

Alkali-Silica Reaction in Concrete:

Presenter: Jason H. Ideker

This lecture on Alkali-Silica Reaction (ASR) in concrete will cover three main topics: mechanisms of the reaction, ways to prevent ASR from occurring in new concrete and test methods that are used for the detection and prevention of ASR. Dr. Ideker will cover the ASTM C1778 guide to detection and prevention of alkali-aggregate reaction in concrete with step-by-step examples showing how it can be used.

Seismic Ground Motions -

How We Got to Where We are Today:

Presenter: Travis Gerber

This course covers the basis of the seismic ground motions used in current code-based design. A primary objective is to understand “where the numbers come from” when one uses the International Building Code, ASCE 7, or USGS’ on-line seismic design parameter and mapping tools. Discussion will feature attenuation relationships, deterministic versus probabilistic hazard analyses, seismic performance objectives, the “two-thirds factor”, and risk coefficients. By having a better understanding of the basis of current seismic design, course attendees will be able to improve their interactions across engineering disciplines (seismological, geotechnical, and structural), be able to more clearly communicate potential seismic risks with clients, and increase their preparedness for future changes in ever-evolving codes.

The Evolution of Glulam Design:

Presenter: John Niedzwiecki

Simplicity in Single Family Residential and Light Commercial Construction Applications, asks participants to rethink their perceptions of 24F-V4 DF glulam and the applications they specify the product in. The course covers recent evolution in glulam beam manufacturing, how modern glulam fits within the EWP product matrix and North American wood beam manufacturing capacity.

Residential Seismic Retrofit:

Presenter: Barry H. Welliver

Attendees will learn why existing homes need to be retrofit and which specific structural elements of a residential structure are most prone to damage during a seismic event. This course will cover retrofit techniques and design philosophies that can be used to make residential buildings safer and less prone to major structural damage during an earthquake.

2-Stage Analysis: Wood on Podium Design:

Presenters: Phil Miller & Jared Cope

ASCE 7 permits two-stage seismic analysis for structures meeting specific stiffness and period requirements. Podium structures are typically categorized within the two-stage definition. These types of structures are generally used in areas with limited real estate for mixed used development. This course provides an introduction to the qualifying criteria, common lateral systems utilized, and design methodology. Multiple existing structural examples will be presented along with general rules to follow in design.

ASCE 7-16 Seismic Provision Changes and Review:

Presenters: Luke Balling, Brent Maxfield, Eric Hoffman

This course will review the ASCE7-16 Seismic Provisions and outline the updates and changes that have been incorporated into this new standard.

Utah Snow Load Study Update:

Presenter: Marc Maguire & Brennan Bean

A recent update to ground snow load (GSL) prediction in Utah was initiated by SEAU and executed by Utah State University. This course will outline the method used to determine GSL in Utah, present the new GSL website, and discuss prediction philosophies throughout the Western United States.

Interpreting and Understanding Geotechnical Reports:

Presenters: Ryan T. Cole & Ryan B. Maw

This course provides a discussion on how geotechnical data is collected and interpreted by a geotechnical engineer as well as how this information is communicated as part of geotechnical reporting. A primary objective is to understand what should be expected in geotechnical reports and how geotechnical data and communication with the Geotechnical Engineer of Record manages project risks and contributes to project success. Discussions will address development of a geotechnical field study plan, selection of a laboratory testing program, proper reporting of geotechnical design recommendations, and a candid discussion on how issues can arise in this process. By having a better understanding of how geotechnical recommendations are developed attendees will be able to better understand geotechnical reports and more clearly communicate with the Project Geotechnical Engineer.

Discover High Performance Precast Concrete:

Presenter: John Dobbs

Participants will explore building design solutions using precast and prestressed concrete products. They will learn what precast, prestressed concrete products are, how they are manufactured, including structural theory of prestressing, and quality assurance procedures. They will learn about the industry certification program (PCI) of plants, people and performance. Participants will explore numerous examples of architectural and structural concrete solutions for numerous building markets. They will explore a variety of architectural finishes and how each is created in terms of color, form and texture. They will explore common structural solutions using prestressed concrete products and explore integrated solutions; realizing the full potential of loadbearing architectural precast units. The session will end with an overview of industry support available to the design community, including published and electronic media and a question and answer session.

PRESENTERS

Paul Thorley, SE is the Founder and President of Acute Engineering, Inc. (www.acuteengineering.com) a local engineering firm with offices in Orem and Sandy Utah. He received an Associate's degree from Moorpark College and a Bachelors and Master's degree from Brigham Young University. For the last five years he has served as the Structural Engineers Emergency Response Chair for SEAU. He has provided training on light frame structural engineering to the Utah Chapter ICC Annual Business meeting and Education Conference. Paul has engineered hundreds of Timber frame projects and has published several papers and sponsored original research in timber frame design included such topics as; tensile capacity of mortise and tenon connections, Interlocking cross laminated timbers, and timber frame knee braces in lateral design. He has been a member of and presented to the Timber Frame Engineering Council (TFEC).

Jennifer Anderson: Born into a family of engineers, but focusing on the people side of engineering, Jennifer Anderson has nearly 20 years as a career strategist. With a goal to "build stronger teams – one career at a time", she offers training to companies covering recruiting and employee retention, mentoring in the workplace, career management, professional networking and more. Jennifer consults with national and international companies to improve careers for employees which improves team morale and helps companies to retain their top talent and reach extraordinary results. Jennifer is a regular contributor to media with guest appearances on KSL News, The Matt Townsend Show, various podcasts and Deseret News. Jennifer is published in Structure Magazine and Forbes and is ranked as a "Top 40 to Follow" on Twitter (@CareerCoachJen). For more information: www.CareerCoachJen.com

Steve Ericksen, SE is currently a Senior Project Structural Engineer with ARW Engineers and has been with ARW since his graduation from Utah State University in 2002. Like any young boy, Steve admired his father and wanted to follow in his footsteps. "My dad is a significant influence in my life. He was a B52 pilot and he can fix just about anything." His father encouraged him to go to school and Steve decided on engineering as a profession. He graduated from Utah State University and joined ARW in 2002. Steve enjoys the hands-on aspect of the job saying, "I grew up wanting to work in construction so naturally my favorite part is the construction phase."

Scott Roche, SE has been a project manager with Ensign since 2006. He is a licensed structural engineer in multiple states and has experience in many diverse areas of structural design, including apartment buildings, hospitals, educational facilities, high schools, universities, churches, office warehouses, justice & correctional facilities and technical facilities using concrete, steel, masonry, and wood building materials. Scott has also been involved with many specialty projects that require outside the box creativity to complete the design. Outside of work Scott enjoys spending time with his family and friends, coaching his children in various team sports, spending time outdoors camping, hiking, fishing, and gardening.

Jason H. Ideker, Ph.D. is an Associate Professor at Oregon State University and Co-Director of the Green Building Materials Laboratory. He holds a B.S. in Civil Engineering from The Georgia Institute of Technology and an M.S.E and Ph.D. from The University of Texas at Austin. Dr. Ideker's main research areas are in service-life of concrete with a focus early-age behavior of high performance cementitious materials, mitigation and test methods for alkali-silica reaction and durability of calcium aluminate cements. He has been working in the research area of alkali-silica reaction since 2001. Dr. Ideker and his group do transformational research where results are implemented into improved test methods and specification development. His work spans micro to macro scale addressing fundamental reaction and mitigation mechanisms to diagnosis and repair of structures suffering from ASR. He has authored over 75 technical articles and reports. Dr. Ideker is a member of ACI Committees 201, 231 and 236, ASTM C01 and C09, and serves on the Executive Board of C09. He chairs ASTM Subcommittee C09.50 – Risk Management for Alkali-Aggregate Reactions. He is also a member of the RILEM TC258 *Avoiding Alkali Aggregate Reaction (AAR) in Concrete - Performance Based Concept*. Dr. Ideker is a 3-time recipient of the PCA Education Foundation Fellowship. Along with Professor Karen Scrivener and Dr. Anthony F. Bentivegna their International "Corvallis Workshops" has brought together industry, practitioners and academic researchers to improve concrete performance in three meetings since 2011. Ideker has authored over 80 publications including peer-reviewed journal articles, research reports, conference proceedings and book chapters.

Barry Arnold PE, SE, SECB graduated from Utah State University with a B.S. degree in Civil Engineering in 1989 and a M.S. degree in 1991 with an emphasis in structural engineering. He served five years on the Board of the Structural Engineers Association of Utah (SEAU) and was president of SEAU in 2004. Barry also served 7 years on the Board of the National Council of Structural Engineers Associations (NCSEA) and was president of NCSEA in 2014-15. He currently serves the structural engineering profession as: SEAU's delegate to NCSEA, member of the NCSEA's Structural Licensure Committee, and Editorial Chair of STRUCTURE Magazine. Barry was selected as the Engineer of the Year by the Utah Engineers Council (UEC) in 2007. Additionally, he is a co-owner and vice-president of ARW Engineers and is a licensed professional engineer in 34 states and 4 Canadian Provinces. He is a licensed Structural Engineer in Utah.

Ryan T. Cole, PhD, PE: Ryan is the president and founder of Gerhart Cole. For the last 18 year he has provided geotechnical services and practical solutions to challenges in the design and construction of foundations over soft ground and seismic sensitive soils along the Wasatch Front. Mr. Cole was recently recognized by ASCE as the Engineer of the year and has led the Utah Geo-Institute as the Chair since 2008. Ryan completed his undergraduate degree at the University of Utah and his doctoral education at Brigham Young University. His graduate research focused on development of passive resistances in deep foundations from full scale testing. Ryan maintains relationships with academia by teaching undergraduate and graduate courses in geotechnical engineering and participating in research at Brigham Young University and the University of Utah. His Professional project experience includes: design-build and CM/GC projects, geotechnical aspects of dams, highways, slurry walls, canals, dikes, haul roads, large pump stations, large diameter pipelines, foundations (piles, drilled shafts, auger cast piles, and micropiles), landslides, lined ponds, shoring (tiebacks and soil nails), and MSE walls. Ryan's soft soil experience extends beyond structural foundations, having served as project manager for over 50 miles of embankment construction, modification, and rehabilitation (up to 25 feet in height) on soft and challenging Bonneville clays. Technologies successfully used and implemented on his projects include: staged construction, accelerated embankment construction, ground improvement / stabilization, surcharging, dewatering, cutoff walls, shoring, deep foundations, and field instrumentation.

Ryan B. Maw, P.E., G.E. Mr. Maw, PE, GE (OR, CA) is a licensed Civil and Geotechnical Engineer who has extensive experience as a technical consultant and practitioner on projects across the Intermountain West and West Coast. This practical experience has provided Mr. Maw with insights into the hazards, risks, and challenges associated with complex, interdependent civil structures. Ryan's practice has supported a wide range of clients and sectors that include commercial, industrial, water resources, mining, transportation, municipal-federal and nuclear. Mr. Maw became involved with ASCE as part of his undergraduate and graduate education in Civil and Environmental Engineering at Utah State University and currently serves as the Vice-Chair of the Utah Geo-Institute. As a member of the American Society of Civil Engineers (ASCE), Mr. Maw has been involved on a national level with the Infrastructure Resilience Division, Critical Infrastructure and Earthquake Engineering and Soil Dynamics Committees. Locally Ryan recently served as the lead author on geotechnical aspects of the ASCE report card for the State of Utah. His expertise includes field exploration, laboratory testing, site characterization, shallow and deep foundation design, shoring / earth retention, slope stability, cutoff and containment walls, geotechnical asset management, tunneling, ground improvement, and seismic design. As an owner's representative, he has been a part of the prevention and successful resolution of change of condition claims. Mr. Maw's commitment to the Civil Engineering discipline centers on the responsibility of Civil Engineers to be stewards of society's infrastructure and to create resilient communities.

Dr. Travis M. Gerber, PE: Within the fields of civil and geotechnical engineering, Dr. Travis M. Gerber, PE (Utah) is experienced as a professional practitioner (thirteen years) and university professor (eight years at Brigham Young University). Travis has particular expertise in seismic ground shaking and liquefaction hazards. Some of his more recent seismic-related projects include seismic ground motion hazard analyses and seismic ground response analyses for the new Utah State Correctional Facility as well as a new bridge structure founded on soft, deep soils at Redwood Road (SR-68) & I-215 near Salt Lake City. Travis' doctoral studies resulted in the development of load-displacement relationships (p-y curves) for deep foundations in liquefied soil. A principal with Gerhart Cole in Draper, Utah, Travis provides engineering consultation services across multiple market sectors including water resources, transportation, public/private utilities, and industrial / commercial facilities.

John Niedzwiecki has been in the business of field construction management or building material supply and distribution since the mid 1980's. In his current position as a business development manager for Rosboro llc he's focused on reintroducing the wood construction market to the value and versatility offered by stock glulam. John resides in Colorado.

Barry H. Welliver, SE has been involved in structural engineering since 1973. Moving from the state of Connecticut to pursue an interest in earthquake engineering, he chose California as his classroom. There he worked for several prominent firms before establishing his own private practice in 1979. After twenty-two years of residency, he moved with his family to Utah where he presently has a growing practice while maintaining his California office. He has been actively involved in the Structural Engineers Associations of California and Utah serving on and chairing several committees. His interests in seismic engineering lead to involvement with the Utah Seismic Safety Commission (USSC) beginning in 1996 as an observer and later as delegate commissioner for the Structural Engineers Association of Utah. Barry has been an advocate for seismic improvements in older existing hazardous buildings and currently is chairman of the USSC.

Jared Cope, SE is a graduate of Utah State University. He has practiced structural engineering in Utah since 2006 with additional experience in both civil and geotechnical fields. He began his career in construction prior to studying engineering in college. Jared is currently a Senior Associate at Dunn Associates, Inc. where he oversees the wood design department. He is licensed as a structural engineer in Utah and California.

Phil Miller, SE: "Structural" Phil has a BS and MS degree from the University of Utah, and has been practicing structural engineering since 2006 for Dunn Associates, Inc, where he is currently a principal. He is licensed as a structural engineer in Utah and California. Phil was a member of the SEAU Board from 2015-2017. Phil is passionate about PT Design, mentoring, and structural design software.

Marc Maguire, Ph.D. is an Assistant Professor at Utah State University. He graduated with his PhD from Virginia Tech in 2013 and has since led over 20 externally funded research projects with over \$1.6M in research funding. Recent research has focused on structural reliability, sustainability in structural engineering and western states ground snow load prediction.

Brent Maxfield, SE is a Professional Structural Engineer with more than 30-years' experience working on structural and seismic projects. He is currently employed by the Church of Jesus Christ of Latter-day Saints. Brent is an active member of local professional societies. He has served two terms on the board of the Structural Engineers Association of Utah (SEAU) and has served as president of the Earthquake Engineering Research Institute (EERI) Utah Chapter. He is the author of three books on the use of the software program Mathcad. In 2012, Brent was named the Utah Engineer of the Year by the Utah Engineers Council.

Luke Balling, SE is currently a principal engineer at TBSE Structural Engineers where he has worked for the last 10 years. He earned his Master's Degree in Civil Engineering from Brigham Young University and published his thesis research in the ASCE Journal of Structural Engineering titled, "Design of Buckling-Restrained Braced Frames Using Nonlinear Time History Analysis and Optimization". He currently serves as the Seismic Committee Chairman for SEAU. His experience includes structural design of small wood framed structures to large steel framed higher education buildings. He has also performed many seismic retrofits of existing buildings and structural peer reviews.

Eric Hoffman, PE is a Design Engineer at Ensign Engineering and Land Surveying where he works in the structural engineering department. He earned his Bachelor's and Master's Degrees from Brigham Young University. In Arizona he founded and served as Chair for the Young Member's Group and served on the Central Chapter Board of the Structural Engineers Association of Arizona and now in Utah serves as a Seismic Committee Member for the Structural Engineers Association of Utah. Eric has over 10 years of structural design and construction experience and is a licensed engineer in Utah, Arizona and California. During this time, he has worked on a large variety of projects including multi-family structures, educational facilities, universities, churches, offices, warehouses, justice and correctional facilities and technical facilities using concrete, steel, masonry, and wood building materials. Along with full building design, Eric has expertise engineering various building façade types and solar structures for specialty contractors, fabricators, and installers.

Brennan Bean is a 3rd year PhD student in the department of Mathematics and Statistics at Utah State University. He graduated with a bachelor's degree in applied mathematics from Brigham Young University - Idaho in December, 2014. A native of Rexburg Idaho, Brennan is no stranger to snow and its crucial influence in the climate and economies of the semi-arid west. When he is not in the office, you can probably find him hiking, biking, or cross-country skiing with his wife Jessica to one of the many beautiful locations in and around Cache Valley.

John Dobbs, PE, SE is the Executive Director of the Precast/Prestressed Concrete Institute (PCI) Mountain States Region. He represents nine PCI Producer Member Companies operating 14 PCI Certified plants in the Mountain States of Colorado, Idaho, Montana and Utah. John has worked in the precast/prestressed concrete structures industry for over 30 years in a variety of senior management positions. He is a licensed professional and structural engineer in six states.