



SEAI Mission Statement

"To promote and enhance the Structural Engineering profession in Idaho by educating the public about the activities of Structural Engineers and their benefit to society and by providing professional development and support to SEAI members that is relevant, reliable, and inspirational to modern engineering practices."

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Message From the Board

By Dan Cordova, Vice President



I'd like to take a few moments to discuss what career development in engineering may look like and the growth opportunities that can help engineers along the way. This is based on my personal opinions, experience, and information from the internet. We first enter the field of engineering with fundamental know-how and book smarts. Then over time, through professional development and growth opportunities, we mature and improve with an applied professional knowledge. All engineers have a story to tell about how they've grown into the engineer they are today.

Engineers tend to be goal-oriented and so most of us start our careers by defining short and long-term goals. Then, by professional development, we hone our skills accordingly. This is a growth process, meaning that we are continually improving our skills with supplemental training through seminars or special courses. For some, chance openings arise to work for other organizations. This provides an opportunity to expand our knowledge and experience in engineering that results in another phase of career growth. In an internet search on the topic of career growth, Workforce Magazine says there is a career 'lattice' of growth comprised of vertical and lateral movement between jobs.¹ Looking at it this way, I see how this lattice approach to growth results in increased experience and a broadened perspective.

There are some critical non-technical skills that improve during our engineering careers. One of them is in developing and maintaining solid working relationships with customers. The companies we work for rely on our increasing ability to communicate with and serve customers. This is important because satisfied customers are critical

to the success of any business. This continual network and serving skill is a part of the growth equation. Another area of growth over the years is an improved knowledge of the construction industry and its practices. Basically, over time we get better at understanding the gears and working parts of construction projects and how these affect the project schedule. Other areas in which we improve are multi-tasking and project management. We should also improve how we handle mistakes. Forbes Magazine says we should learn to embrace our mistakes head-on, take responsibility for them, and talk to others about them. This allows us a level of freedom - to learn from the mistakes and to move forward with confidence.² Another critical development area is how we manage stress as we take on more responsibility. And, of course, there is a need to understand and manage the politics in the industry. Most of these growth skills are learned at the office and are not taught in school.

There is a critical skill on the technical side of engineering that should improve as we grow in our careers. Structural engineering work continually challenges our problem-solving abilities. And as engineering projects seem to increase in complexity, so our design skills improve and grow more efficient. In doing so, we get better at thinking outside the box when confronted with difficult design issues. In essence, this trains engineers to respond more efficiently to customer demands and equips us to become better project leaders. And, at some point, most engineers will obtain professional licensure and credential in structural engineering. These are growth skills that are developed over many years in the profession.

I remember my first job as an engineer working in the semiconductor industry. Then, a second opportunity arose in the wood and steel truss industry. Now, after 15 years in that industry, I'm starting another growth opportunity in consulting structural engineering. Each interval has been one of challenges, experience, and shaping. It has been a career of professional development within each organization and of growth opportunities. I completely believe in company loyalty and integrity. I think it is important to work for a company that challenges your engineering skills, has good resources, and treats you like an important part of the team while encouraging your development within its organization. A company with these elements is a company to grow with and

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Message From the Board (Continued)

serve for many years as an integral part of the team.

Sources

1. Thomas, R. Buck Consultants. (December 3, 2012). What Is The Difference Between Career Growth and Career Development? [Electronic version]. *Workforce Magazine*. <http://www.workforce.com/2012/12/03/what-is-the-difference-between-career-growth-and-career-development/>
2. Lipman, V. (June 8, 2015). How To Handle Mistakes So They Don't Harm Your Career. [Electronic version]. *Forbes Magazine*. <http://www.forbes.com/sites/victorlipman/2015/06/08/how-to-handle-mistakes-so-they-dont-harm-your-career/#78beafd6fed>



Committee Update – Matt Blake, Program/Seminar Chair



Hello fellow SEAI members!
My name is Matt Blake and I am your Program Chair for the monthly SEAI luncheons. This is my second year as Program Chair for the luncheons, and my role is to schedule our monthly speakers and to make arrangements with our luncheon venue. The program chair is a non-voting position on the

SEAI board, but it is still extremely important, because the monthly luncheons provide a valuable opportunity for members to network and interact with other local engineers. As Program Chair, my goal is to bring you an informative series of lunch presentations that focus on current engineering trends, professional development, and advancing the practice of structural engineering in Idaho.

I try to choose topics that I think will have a broad appeal, but given the diversity of age and experience within our membership, it can sometimes be difficult to find topics that everyone finds interesting. When looking for speakers, I try to find people who will incorporate some technical content in their presentations, and I try to avoid product vendors, since they will often be more than willing to come present at your office and even buy you lunch. I realize that it's probably impossible to find a discussion topic that appeals to every member, but I hope that every member can find something of value to take away from each presentation. It can be challenging to consistently find good topics and speakers though, so if you have a suggestion for a topic or speaker for one of our luncheons, please email them to me at mblake@axiompllc.com. I welcome your feedback as members and will do my best to incorporate any suggestions I get for speakers or topics.

Also, please feel free to provide your feedback or suggestions on the menu options or the venue. We have been at the Cottonwood Grille for about 3 years now since our beloved Murphy's closed, but we will always be willing to consider other options for the luncheon venue. I am honored to serve as your Program Chair and I'm excited for another great year of SEAI lunch presentations! 🇺🇸



SEAI MONTHLY LUNCHEON

- Topic:** Galvanizing
- Date:** Thursday, 11/17/16
- Time:** Social—11:45 pm
Lunch & program—12 pm
- Location:** Cottonwood Grille
913 W. River St.
Boise, ID 83702
- Cost:** Member—\$20
Non-member—\$25
- Speaker:** Alana Hochstein

RSVP TO MATT BLAKE
mblake@axiompllc.com

Galvanizing – by Alana Hochstein

Presenter Biography:

Alana Hochstein is the corrosion engineer for the American Galvanizers Association (AGA). She provides assistance to architects, engineers, fabricators, owners, and other specifiers regarding technical issues and the processing of hot-dip galvanized steel. She also manages AGA studies and research on performance, application, and processing of hot-dip galvanized steel. Alana Hochstein can be reached via email at ahochstein@galvanizeit.org.

Presentation Overview:

Hot-dip galvanizing is used throughout various markets to provide steel with superior protection from the ravages of corrosion, and its use is constantly evolving. With new and innovative designs now specifying batch hot-dip galvanizing, it is important for structural engineers and designers to understand best design practices. This presentation will review reasons specifiers choose galvanized steel and assist you in the design and integration of batch hot-dip galvanizing for corrosion protection in your next project. Information will be provided on the hot-dip galvanizing process, relevant ASTM specifications, design and fabrication considerations, inspection, and preparing hot-dip galvanized surfaces for painting or powder coating.

Code Corner

1804.1 Excavation Near Foundations

CHANGE TYPE: Addition

CHANGE SUMMARY: Basic requirements for providing safe and adequate underpinning at excavations have been added because the code was not specific on how to address excavations adjacent to structures.



2015 CODE: 1804.1 Excavation Near Foundations. Excavation for any purpose shall not ~~remove~~ reduce lateral support from any foundation or adjacent foundation without first underpinning or protecting the foundation against ~~settlement or lateral translation~~ detrimental lateral or vertical movement, or both.

1804.2 Underpinning. Where underpinning is chosen to provide the protection or support of adjacent structures, the underpinning system shall be designed and installed in accordance with provisions of this chapter and Chapter 33.

1804.2.1 Underpinning Sequencing. Underpinning shall be installed in a sequential manner that protects the neighboring structure and the working construction site. The sequence of installation shall be identified in the approved construction documents.

CHANGE SIGNIFICANCE: Specific requirements related to the excavation of foundations adjacent to structures had not previously been addressed in the IBC. Although Section 3307, Protection of Adjacent Property, requires adjoining public and private property, including

footings, foundations, party walls and so forth, to be adequately protected from damage during construction, remodeling and demolition work, there were no specific details provided. Because the IBC contained very little detail, due diligence was required during excavations near neighboring structures to meet the intent of the code. Failures to perform proper pre-construction investigations and monitoring procedures have led to failures in construction during underpinning and excavation operations. Improperly constructed excavations have resulted in doors and windows that don't open, cracking of bearing walls and support members, failures of some critical structural members and even collapses resulting in fatalities.

Because the term "detrimental" is used to discuss settlement in other provisions of Chapter 18, as well as other chapters of the IBC, the term has been added here as well. The term "remove support" was changed to "reduce support," because the removal of support could lead to a failure. As indicated in Section 1803.5.7, underpinning is only one way of providing support; thus new Section 1804.2 provides requirements when underpinning is chosen to provide support. 🇺🇸



This excerpt is from the Significant Changes to the International Building Code, authored by John Henry, PE, Jay Woodward and Doug Thornburg, AIA. The book is available at shop.iccsafe.org.

Employment Opportunities:

STRUCTURAL ENGINEER Portland, Oregon Bureau of Development Services

Recruitment dates: November 21st - December 12th, 2016

The Bureau of Development Services, City of Portland is looking for a qualified Structural Engineer. Structural Engineers for the Bureau of Development Services (BDS) perform advanced professional engineering assignments. Engineers on this team exercise individual creativity and initiative, and routinely collaborate on unusual or complex projects. The core of the work is performing specialized structural plan reviews of private development and public work structures, to assure compliance with applicable codes and regulations. The objective is to meet the Bureau's Mission Statement, which is: *to promote the safety, livability and economic vitality through efficient and collaborative application of building and development codes.* The City of Portland offers a competitive compensation package and provides a dynamic and inclusive workplace. A *certificate of registration as a Professional Engineer (P.E.)* is required.

You are invited to attend an optional information session to learn more about this position.

For Information Session dates, Qualifications and to Apply Visit: www.PortlandOregon.gov/JOB when recruitment opens November 21, 2016



Structural Engineers
Association of Idaho
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at jstippel@idahopower.com
or (208) 287-0205.

Monthly Rates for Advertising

Standard Business Card..... \$50
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multiple months*

UPCOMING EVENTS

- **December 15, 2016 (Thursday)**
SEAI monthly luncheon at Cottonwood Grill
- **September 21-23, 2017**
2017 IABSE Symposium
Location: Vancouver, BC, Canada



For more information, visit Seaidaho.org

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