



# CALIFORNIA COUNCIL OF TESTING AND INSPECTION AGENCIES

May 19, 2016  
Hilton Stockton  
2323 Grand Canal Blvd.  
Stockton, CA 95207

## Minutes - General Business Meeting

1. Call to Order – Tim Rodriguez
  - a. Time
    - *The meeting was called to order at 1:34 p.m. by President Tim Rodriguez.*
  - b. Self-introductions
    - *The following members were in attendance:*

<i>Jim Auser (BSK Associates)</i>	<i>Tim Rodriguez (BSK Associates)</i>
<i>Jeffrey Cannon (Youngdahl Consulting Group)</i>	<i>Colin Stock (Terracon Consulting, Inc.)</i>
<i>Miki Craig (CCTIA)</i>	<i>Chuck Tinkler (Youngdahl Consulting Group)</i>
<i>Terry Egland (Testing Engineers, Inc.)</i>	
2. Approval of Minutes
  - a. March 24, 2016
    - *The minutes were approved with a minor amendment and correction of a typographic error.*
3. Financial Report
  - a. Income Statement (*handout*)
    - *Executive Secretary Miki Craig provided a copy of the Income Statement through April 30, 2016, evidencing receipts totaling \$14,950.00 and expenses of \$9,191.99, leaving net reserves of \$5,758.01.*
  - b. Balance of Account
    - *The balance in the checking account at April 30<sup>th</sup> was \$16,871.16.*
  - c. Status of 2016 Dues Payments
    - *Executive Secretary Miki Craig reported Reliant Testing Engineers, Inc. is the only firm not renewing this year. President Rodriguez will call prior to referring for action of the Executive Board.*
4. Committee Reports
  - a. ASTM – Jeffrey Cannon (*handout*)
    - *Chair Jeffrey Cannon provided a listing of recently published changes to selected ASTM Standards that might be of interest to the members. He indicated there was nothing really dramatic, but interestingly several formulas have been corrected in some. ASTM D3282 has had quite a few changes that may impact firms providing federal highway work; D4753 had had significant changes to the scale requirements; and modifications to D6024 may be of interest to some.*
    - *In reference to his report at the March meeting regarding the elimination of D421 and D422, he noted he has some issues with language in the replacement standard (D6913) having to do with hydrometers, so is interested in how adoption of the new standard will play out.*
    - *Director Terry Egland reported there is a work item in Committee E36 that is effectively a new standard for fireproofing. In the rationale, ICC is promoting the removal of all the fireproofing references within the IBC, and utilizing this new standard in its place. Director Egland objects to some language in the work item that requires accreditation to ASTM E329.*
  - b. SEAONC CQA – Terry Egland
    - *Chair Terry Egland provided a copy of the latest issue of the SEAONC newsletter which contains one of the new FAQs.*
    - *He reported he submitted five or six high strength bolt questions at the CQA committee meeting last night, but attendees felt it would be more timely to address installed anchor questions first.*
    - *The CQA is working on a way to convince the jurisdictions of the need to update their Statement of Special Inspection and Statement of Structural Tests forms. Mr. Mark Gilligan will begin work on a white paper to*



## CALIFORNIA COUNCIL OF TESTING AND INSPECTION AGENCIES

address the issue. A decision has not been made yet as to a recommended form format, but the DSA 103 is highly thought of.

- There is another SEAONC committee addressing the seismic restraint of non-structural components (i.e., equipment, storage shelving) that the CQA is trying to work with to develop guidelines.
- Mr. Tim Hart's program on special inspection of wood construction has been accepted for presentation at the SEAOC Convention – a very important honor.

c. FAQs – Colin Stock

- Chair Colin Stock reported Director Egland had provided him with a CD of past FAQs. He has not had a chance to review it yet, or solicit volunteers to work on them.

d. NCAWNV ACI Certification – Tim Casey/Cliff Craig

- No report

e. Caltrans JTP Work Group – Jim Auser

- Executive Secretary Craig reported Al Ochoa has replaced Joe Peterson as the leader of the work group. Mr. Ochoa is a supervisor in District 11 – the San Diego area. He is working on getting the program moving forward once again, obtaining necessary approvals, and hopes to have it running by late September or early October. For our industry, that would mean the start of registering certified FTI staff through CSULB's database.

- Caltrans has requested Executive Secretary Craig attend the next work group meeting on behalf of the NCAWNV Chapter, which is scheduled to be held in late June. She will pass on the meeting information on to Chair Jim Auser upon receipt.

f. DSA – Augie Smarkel

- The Council typically sends a list of questions and/or discussion topics to DSA prior to the semi-annual meetings. A posting requesting questions for the June event will be loaded to the CCTIA website and LinkedIn account. All suggestions should be submitted to Executive Secretary Craig no later than June 8<sup>th</sup>.

g. Membership – Jim Backman/Elizabeth Clarke

- No report

h. Communications – Tim Rodriguez

- President Rodriguez reported events and announcements are being posted to the revised website. A new link to SEAONC's FAQ website has also been uploaded. Executive Secretary Craig reported that few were using the website's event registration feature, but she hopes it will get more activity as people become aware of it.

i. Professional Development – Elizabeth Clarke

- Executive Secretary Craig reported CEU certificates for the April program have been prepared and will be provided to those who requested one in the next few days.

j. Programs – Elizabeth Clarke

- Executive Secretary Craig reported the June meeting will host DSA's State Architect, Chet Widom, and LEA Coordinator, Eric France. The July meeting is dedicated to DIR's Assistant Labor Commissioner, Eric Rood, who will focus on changes to prevailing wage requirements.

### 5. Old Business

a. CCTIA Meeting Locations and Times – Tim Rodriguez (*handout*)

- Today's attendees indicated their appreciation of the Hilton Stockton facility and ease of access (shorter driving times). It was determined to hold two more meetings at this facility – in August and November. Executive Secretary Craig was tasked with making necessary arrangements and cancelling the reservations at the Four Points in Pleasanton for those dates.

b. Coring of Concrete Masonry Walls – Cliff Craig

- As Member Craig was not in attendance, this update was postponed to a future meeting.





## CALIFORNIA COUNCIL OF TESTING AND INSPECTION AGENCIES

### 6. New Business

#### a. Fall Protection Training – Jeffry Cannon

• *Member Jeffry Cannon opened the discussion noting his in depth research to determine if OSHA requires fall protection training to be performed by a third party, or if it may be done through an in-house program. He has been unable to find any restrictions prohibiting providing the training in-house by a competent individual. President Rodriguez noted his employer provides it in-house with a formal program. Member Cannon noted OSHA uses the term “certified” in its regulations, and was concerned that an in-house program would not meet the accepted definition of the term. There are some interpretations of the OSHA regulations on its website, but nothing that directly addresses this type of training or who may provide it. A safety consultant, by the name of Bill Bellm, may know the answer. Director Colin Stock remarked that his employer also provides in-house certification programs covering multiple safety and loss prevention categories.*

### 7. Adjournment

#### a. Time

• *There being no further business, the meeting was adjourned at 2:35 p.m. by President Tim Rodriguez.*

#### b. Next meeting

• *The next meeting will be June 16th, at 12:00 p.m., at the Four Points by Sheraton in Sacramento. CCTIA will be hosting the semi-annual DSA Roundtable with special guests, State Architect Chet Widom and LEA Coordinator Eric France. Lunch will be provided. The program is free to CCTIA members, and \$35.00 per person for non-members.*

Respectfully submitted,  
Miki Craig  
Executive Secretary

CCTIA  
Operating Statement

	<b>2016</b>	
	<b><i>Actual</i></b>	<b><i>Budget</i></b>
	<b><i>YTD 4/30/16</i></b>	<b><i>YE 12/31/16</i></b>
<b><i>Revenues</i></b>		
Dues & Initiation Revenues	\$13,000.00	\$13,650
ABM Registrations	1,950.00	900
ABM Sponsorships		500
General Meeting Guest Registrations		
Education Programs		
<i>Total Revenues</i>	<i>14,950.00</i>	<i>15,050</i>
<b><i>Expenses</i></b>		
Education Programs		
Executive Secretary Services		500
Hemsley Award Expenses		200
ABM Expenses	7,711.86	9,500
General Meetings	1,449.35	10,000
Newsletter		
Office Supplies		100
Postage	10.78	50
S I Guidelines		
Stationary & Printing		
Taxes & Licenses	20.00	20
Website		120
<i>Total Expenses</i>	<i>9,191.99</i>	<i>20,490</i>
<b><i>Net Reserves/(Losses)</i></b>	<b><i>\$5,758.01</i></b>	<b><i>(\$5,440)</i></b>

Year-to-Date as of  
April 30, 2016

## Recently published changes to Selected ASTM standards

18-May-16

Standard	Title	Notes
D559-15	Standard Test Methods for Wetting and Drying Compacted Soil-Cement Mixtures	Minor changes throughout
D560-15	Standard Test Methods for Freezing and Thawing Compacted Soil-Cement Mixtures	Minor changes throughout
D1241-15	Standard Specification for Materials for Soil-Aggregate Subbase, Base, and Surface Courses	Minor changes throughout
D1556-15 <sup>E1</sup>	Standard Test Method for Density and Unit Weight of Soil in Place by Sand-Cone Method	A few minor changes, plus new requirements for reporting significant digits
D1587-15	Standard Practice for Thin-Walled Tube Sampling of Fine-Grained Soils for Geotechnical Purposes	
D2167-15	Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method	Corrected the formula on in-place dry unit weight, plus a couple of very minor changes
D2573-15	Standard Test Method for Field Vane Shear Test in Saturated Fine-Grained Soils	Various changes, including clarification on suitable and unsuitable soils, and revisions to figures and equations
D2850-15	Standard Test Method for Unconsolidated-Undrained Triaxial Compression Test on Cohesive Soils	A few changes to terminology, revised apparatus requirements and sample, clarified procedure, and measuring chamber pressure
D2976-15	Standard Test Method for pH of Peat Materials	Corrected reagent mixing directions, now references ASTM Type III water
D3282-15	Standard Practice for Classification of Soils and Soil-Aggregate Mixtures for Highway Construction Purposes	Many revisions, corrections, and deletions throughout the entire standard
D4531-15	Standard Test Methods for Bulk and Dry Density of Peat and Peat Products	A few minor changes
D4648-16	Standard Test Methods for Laboratory Miniature Vane Shear Test for Saturated Fine-Grained Clayey Soil	A few minor changes
D4753-15	Standard Guide for Evaluating, Selecting, and Specifying Balances and Standard Masses for Use in Soil, Rock, and Construction Materials Testing	Many revisions, corrections, and deletions throughout the entire standard
D4959-16	Standard Test Method for Determination of Water Content of Soil By Direct Heating	Several changes, mostly minor





# Structural Engineers Association OF NORTHERN CALIFORNIA

May 2016

[www.seaonc.org](http://www.seaonc.org)

575 Market Street, Suite 2125  
San Francisco, CA 94105-2870  
415-974-5147

Vol. XIX, No. 5

[office@seaonc.org](mailto:office@seaonc.org)

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Founded in 1930, SEAONC's mission is to advance the art and science of structural engineering, to maintain the honor and dignity of the profession, and to enlighten the public regarding the province of the structural engineer. See our [History](#), [Mission Statement](#), and [Bylaws](#) for more information.

## How to get involved

- Become a member:** Select the appropriate [membership level](#) for you, and complete the [application](#).
- Dinner meeting:** Meet and mingle with fellow engineers. Register through the link in this month's news letter.
- Join a committee:** [Click here](#) to see a description of each committee, contact the committee chair to ask how you can help, join the committee email list, or just show up to a [committee meeting](#).
- Make a suggestion:** Have an idea and want to help with something that SEAONC is not already pursuing? Email a [SEAONC Board Member](#). Ad-hoc committees can address specific needs.
- Become a sponsor:** Support SEAONC and showcase your company's services at the SEAONC events through [sponsorship](#)!

## The SEAONC Newsletter is Public!

In order to view new applicants posting for membership, you must log into the [SEAONC website](#). The list is under the main title bar "News & Publications" on "Posting for Membership." SEAONC member access only.

## President's Message



### Here's to Mentors

Most of us, myself included, would not be where we are without the support and wisdom from mentors.

Below I highlight a few of mine, and why I'm grateful to them, but first, updates:

- Your **feedback needed** on SEAONC monthly meetings, especially from members who don't regularly attend. Please respond to our survey: <https://www.surveymonkey.com/r/SEAONC>
- Help **end onerous duty-to-defend** provisions! Now is the time to contact your representative. See details below.

Back to mentors: Mine have not only imparted their own wisdom, they've also been the ones to hold up the mirror.

Prof. Jerry Hajjar, my undergraduate adviser at the University of Minnesota, was the first mentor to give me "enough rope to hang myself with" – as much responsibility as I could take. On research projects he pushed

## May Dinner Meeting

### 2016 Excellence in Structural Engineering Awards

**Date:** Tuesday, May 3rd  
**General Assembly:** 5:30PM  
**Dinner:** 6:15PM  
**Program:** 7:15PM  
**Location:** The City Club  
155 Sansome  
San Francisco, CA

The Structural Engineers Association of Northern California (SEAONC) proudly announces the annual Association Awards Ceremony in celebration of the SEAONC 2016 Excellence in Structural Engineering Awards program on the evening of Tuesday, May 3, 2016 at the City Club in San Francisco. All are invited to celebrate and give recognition to those in the SEAONC membership demonstrating excellence in their work. The Awards Ceremony will also include the presentation of the SEAONC 2016 Scholarship Award recipients.

The format for the evening will include a display of all entry boards during the assembly commencing at 5:30pm, followed by the dinner meeting at 6:15pm and Awards Ceremony at 7:15pm. Excellence in Structural Engineering Award recipients will be formally announced and invited to make a brief presentation and overview of their awarded project entries.

## SEAONC May Short Course

**Wood Diaphragm Analysis and Design:  
Practical Applications and Emerging  
Methodologies**

Tuesday, May 24th and Wednesday, May 25th

HOK, San Francisco  
[REGISTER HERE](#)

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*President's Message (Cont. from Page 1)*

me to think bigger, even "biting more than I could chew." There were times when I had to admit failure. But when I got over the anger and embarrassment, I realized the lesson underneath: that fear of failure is never enough reason to avoid trying.

Prof. Hajjar also held up a mirror, helping me realize I would always need others to double-check my work. He pegged me early on for preferring the start of projects vs. the end, and it's true. It took more than a few times of him snapping, "Just focus on finishing," for the message to get through. And, given the life-and-death nature of our jobs, I'm eternally grateful that he insisted.

Speaking of insistence, the next mentor I'm grateful to is John Dal Pino, whom I worked with when we were both at Degenkolb Engineers. John insisted that I draw the dang rebar. Every piece. At full scale. He had observed enough construction – and I hadn't – to understand, for example, that a #11 needs a whole lot of space to make a 90° hook.

I haven't drawn a lot of rebar lately, but there's another lesson from John that I do use every day: that relationships are work – but well worth the effort. My patience for small talk soared when I saw – and experienced – how it can help build rapport and lead to projects.

Finally I'll recognize Ross Stein, a USGS scientist emeritus whom I've worked with more recently. Ross challenges my left-brain engineer tendencies, emphasizing the power of story. I find myself stunned at how he captivates an audience in minutes – sometimes seconds – whether a meeting of three or a TED talk of 1,000. Telling stories is far from natural for me, but I've come to appreciate how narratives, and the emotions that go with them, is what people remember.

One interesting commonality among these mentors is that all of them are men. It's widely published that the need for professional mentors is especially strong among women. But in no way does that exclude men from serving in this role.

Who have been your mentors? What have you learned from them?

Respectfully,

Kate Stillwell  
SEAONC President

Award Categories included: 1) Study/Research/Guidelines; 2) Special-Use Structures; 3) Infrastructure; 4) Historic Preservation; 5) Retrofit/ Alteration; 6) New Construction; 7) Sustainable Design; 8) Landmark Structures; and, 9) Alternative Project Delivery. This year the submitted Award entries from SEAONC Members and Member SE's include projects in all Award Categories with a total of 24 entries.

SEAONC makes a special thanks to all those that took the time and energy to submit an Entry this year. Entries were reviewed and judged by a Jury Panel consisting of five distinguished judges which included Dr. Wenshen Pong, Tom Tripp, Cary Bernstein, Peter Lee, and Megan Stringer. Entries demonstrating outstanding achievement and excellence in structural engineering practice and project work were selected to receive both Awards of Excellence and Awards of Merit.

We hope that you can join us for this fun and special evening!

[REGISTER HERE](#)



## May Short Course

### Wood Diaphragm Analysis and Design: Practical Applications and Emerging Methodologies

**Dates:** Tuesday, May 24th and Wednesday, May 25th

**Registration:** 5:30PM-6:00PM

**Seminar:** 6:00PM-8:00PM

**Location:** HOK

1 Bush Street, Suite 200  
San Francisco, CA

#### Registration Fee:

*Before April 29:* \$140 Members, \$225 Non-members

*After April 29:* \$160 Members, \$250 Non-members

Attendees should pre-register by contacting the SEAONC Office by phone at 415-974-5147, by email at [office@seaonc.org](mailto:office@seaonc.org), or online at <http://seaonc.org>.

Drinks and light snacks will be provided.

This two-evening series of presentations will explore practical applications and new methodologies in the analysis and design of wood diaphragms for better seismic performance. The first evening will focus on to the results of *FEMA P-1026: Seismic Design of Rigid Wall – Flexible Diaphragm Buildings: An Alternate Procedure*, which explores a new design methodology that was developed to improve seismic performance of commonplace tilt-up concrete and masonry wall buildings with flexible wood diaphragms. The alternate procedure recognizes the unique dynamic behavior of these buildings and creates a practical design path by drawing upon current ASCE 7 provisions as well as new research. The purpose of this presentation is to provide a general overview of the FEMA document and discuss emerging methodologies that could change the way these structures are designed in the future.

The second evening will focus on the recently published NEHRP Seismic Design Technical Brief No. 10: *Seismic Design of Wood Light-Frame Structural Diaphragm Systems*, which addresses seismic analysis, design, detailing, and construction of wood structural panel sheathed diaphragms on wood framing. The purpose of this presentation is to provide a general overview of the NEHRP technical brief, and discuss the practical aspects of wood diaphragm design and detailing that affect current practice. Design, detailing and constructability of diaphragms


will be discussed in detail, including chords, collectors and subdiaphragms.

#### Presenters:

**John Lawson** is an Associate Professor at Cal Poly, San Luis Obispo, as well as a consulting Structural Engineer in California and Arizona. He has over 30 years of structural design experience including overseeing the design of over 100 million square feet of commercial and industrial buildings with low-slope roof diaphragm systems; and he has been the author for the diaphragm and tilt-up examples in the SEAOC Structural/Seismic Design Manual series. Most recently, Mr. Lawson is the co-author of FEMA P-1026, the result of a FEMA funded research study investigating the unique seismic behavior of buildings with rigid walls and flexible roof diaphragms. He holds a B.S. in Architectural Engineering from Cal Poly, San Luis Obispo, and a M.S. in Structural Engineering from Stanford University.

**Kelly Cobeen** is an Associate Principal with Wiss Janney Elstner Associates in the San Francisco Area. She has more than 30 years of experience in structural design, with a special interest in seismic resistance of light-frame construction. Ms. Cobeen has been involved in numerous code development, research, and educational activities, including the NEHRP Recommended Provisions for Seismic Regulations for New Buildings, the American Wood Council's Wood Design Standards Committee, International Building Code and International Residential Code development, and the CUREE-Caltech Woodframe Project, studying improved seismic performance for wood-frame buildings. She is co-author of the *Design of Wood Structures* text book, and NEHRP Seismic Design Technical Brief No. 10.


[REGISTER HERE](#)



### New 3rd Generation Structural Floor Deck

**Features and Benefits:**


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- Available in G60 and G90
- Offered in factory applied Prime Shield® prime paint on underside
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**3WxH-36**

**NEW PRODUCT**

Full product information is listed in our **NEW** Floor Deck Catalog. To order your catalog, go to [www.ascsteeldeck.com](http://www.ascsteeldeck.com) or call 800.726.2727





## May Business Forum

### Design Professional Contracts and Insurance Basics

#### **\*Rescheduled from April\***

**Date:** Tuesday, May 17th

**Registration:** 12:00PM-12:30PM

**Forum:** 12:30PM-1:30PM

**Location:** Simpson Gumpertz & Heger  
100 Pine Street, Suite 1600  
San Francisco, CA

<b>Registration Fee:</b> Business Forum Member	\$25.00
Member	\$35.00
Other	\$40.00

Attendees should pre-register by contacting the SEAONC Office by phone at 415-974-5147, by email at [office@seaonc.org](mailto:office@seaonc.org), or online at <http://seaonc.org>.

**Drinks and light snacks will be provided.**

#### **Abstract**

This month's Business Forum is especially designed for younger members and new project managers. It will also be a great refresher for experienced managers. Please join us as we review and discuss design professional contracts and insurance coverage. Attorney Liam Knepperath-Malone of Collins, Collins, Muir + Stewart, LLP and James Murphy of Dealey, Renton & Associates will lead us in our discussion on design professional insurance coverage, risk management and common contractual clauses.

#### **Speakers**

James joined Dealey, Renton & Associates in 2004 and is currently an Account Executive in the design professional practice. With 14 years of experience in the insurance industry, James is well informed with regards to the unique insurance and risk management needs of design firms. By focusing exclusively on design firms, James is able abreast of important trends impacting the design industry. James is a native of Oakland, CA where he currently resides with his wife and two young boys

Mr. Malone's practice focuses on professional liability and risk management, including representation of architects, engineers, and other professionals. He also counsels his clients regarding service agreements, contracting issues, and general risk management matters.

[REGISTER HERE](#)

### SEAONC SAP/ATC-20 Training: CalOES Safety Assessment Program (SAP)/ATC- 20 Post Earthquake Safety Assessment of Building Training

**Date:** Saturday, May 21, 2016

**Registration:** 8:00AM - 9:00AM

**Seminar:** 9:00AM - 4:00PM

**Location:** Liser Hall, Mills College, Oakland, CA

#### **Registration Fee:**

CURRENT FULL TIME STUDENT	\$ 75.00
CURRENT SEAONC/Reserve Corps (SAP) Volunteer	\$ 100.00
SEAOC/SEAONC member	\$ 150.00
Non-member	\$ 175.00
For all late registrations after May 13, 2016	+\$25.00

**Breakfast, Lunch & an afternoon snack will be served during registration and break.**

The Safety Assessment Program (SAP) utilizes mutual aid resources and volunteers in the form of professional engineers, architects, and certified building inspectors to assist local governments by doing post-disaster building evaluations. The program is managed by the California Governor's Office of Emergency Services (CalOES) with cooperation from professional organizations, including SEAOC. CalOES will issue Disaster Service Workers (DSW) ID cards to all professionally licensed volunteers who have completed the training. Those who are not yet licensed will just receive a certificate and may contact CalOES upon licensure to receive the DSW ID card.

#### **Description and Purpose**

The purpose of the CalOES Safety Assessment Program (SAP) is to help local government perform post earthquake, wind, flood, and blast safety evaluations as quickly as possible. The post earthquake evaluation is based on the ATC-20 document developed in 1987. SEAONC's Disaster Emergency Services Committee has sponsored trainings on a regular basis (typically every 18 months) since then. The training program has evolved and improved over time and currently enjoys a reputation for excellence. Past participants have commented especially on the value of the afternoon case studies, which are led by SEAONC members with post-earthquake safety evaluation experience.

Attendees who are licensed professionals (Civil, Structural, or Geotechnical Engineers; Architects; Geologists; Certified Building Inspectors) may apply for and obtain Disaster Service Worker identification cards issued by the CalOES. Attendees receive a workshop proceedings binder and ATC-20 Documents.

[REGISTER HERE](#)

Informational flyer [here!](#)

Contact [des@seaonc.org](mailto:des@seaonc.org) for additional information.



**KPW Structural Engineers, Inc.**

Job Title: Staff/Project Engineer

Job Description:

Founded in 2007, KPW has experienced steady growth to reach our current level of 23 employees. From our scenic waterfront office location in Oakland's vibrant Jack London Square district, our employees work on challenging projects in the academic, commercial, healthcare, high-tech, life sciences, retail, and residential markets. KPW encourages strong professional and career development while maintaining a healthy work-life balance. We foster a sense of teamwork which is supported through clearly defined and equitable profit sharing, internal training and education programs. Our firm's size enables us to be big enough to handle large scale projects, while remaining small enough to maintain a relaxed and casual atmosphere that allows ample opportunities for personal interaction with our experienced principals and associates. KPW is seeking staff engineers with 0-3 years of experience and licensed project engineers with 3-10 years of experience.

Job Requirements:

KPW is committed to diversity in the workplace and we place particular importance on enthusiastic people who are motivated and dedicated to developing their careers as structural engineering design professionals. Minimum qualifications are a B.S. in Civil or Architectural Engineering. Master's Degree is preferred for entry level positions and PE or SE licensure is a plus. Check out our website at [kpwse.com](http://kpwse.com) or KPW Structural Engineers, Inc. on LinkedIn for more information about our firm.

Contact us about this job by sending email to [treat@kpwse.com](mailto:treat@kpwse.com)

**Tekla**

Job Title: Account Manager

Job Description:

The role

In this exciting and challenging role you'll need to:

- manage your own time to generate sales opportunities
- arrange meetings with prospective clients at senior level
- establish their requirements and introduce Tekla products
- coordinate technical demonstrations to prove the benefits
- fulfill the sale and cultivate client relationships

We are recruiting for:

- Western USA

Location: Metro Atlanta area, GA or West Coast

Job Requirements:

We're looking for candidates who:

- have a degree in a construction or engineering related field
- have experience in designing building structures and/or industrial structures
- are familiar with BIM or other 3D modeling software
- want to use their experience in a commercial role
- want a challenge and are motivated by success

• are natural and confident communicators  
Contact us about this job by sending an email to [stuart.broomer@tekla.com](mailto:stuart.broomer@tekla.com)

**KPFF Consulting Engineers- Portland**

Job Title: Experienced and Entry-level Structural Engineers

Job Description:

Position Summary

As a Structural Project Engineer, you will work individually and collaboratively in the design and construction process for a wide array of challenging projects. You will work closely with talented engineers, BIM / CAD technicians, architects, project managers, contractors and client teams.

Experienced Structural Engineer:

Apply Here: [http://chc.tb.taleo.net/chc05/ats/careers/requisition.jsp?org=KPFF\\_2&cws=63&rid=73](http://chc.tb.taleo.net/chc05/ats/careers/requisition.jsp?org=KPFF_2&cws=63&rid=73)

Entry-Level Structural Engineer:

Apply Here: [http://chc.tb.taleo.net/chc05/ats/careers/requisition.jsp?org=KPFF\\_2&cws=63&rid=151](http://chc.tb.taleo.net/chc05/ats/careers/requisition.jsp?org=KPFF_2&cws=63&rid=151)

Job Requirements:

Experienced Structural Engineer Preferred Qualifications

- SE licensure
- 2-8 years of experience in structural engineering
- Strong verbal and written communication skills
- Creative, proactive, and detail-oriented individual
- Outgoing individuals who thrive when working directly with architects, contractors and other engineers

Entry-Level Engineer Preferred Qualifications

- Master's Degree Preferred
- Strong verbal and written communication skills
- Creative, proactive, and detail-oriented individual
- Outgoing individuals who thrive when working directly with architects, contractors and other engineers

**WARE**

Job Title: Structural Design Project Engineer

Job Description: Ware Associates is seeking a structural design project engineer with three or more years of experience in the structural analysis and design of building structures. The successful candidate will be responsible for the design and delivery of projects from schematic design through CA under the oversight of a Principal Engineer. At Ware Associates you will enjoy the opportunity to work on diverse and challenging projects in a collaborative and nurturing, professional environment. We support professional growth through on-going education and training. We offer competitive salary and a benefits package including retirement and medical plans.

Job Requirements:

- Master's Degree in Structural Engineering.
- PE Licensed in the State of California
- Three or more years of experience in structural design and analysis
- Knowledge of building systems and ability to design and detail structural

steel, cold rolled steel, concrete and timber structures.

- Working knowledge of codes including CBC, ASCE 7 & 41, ACI 318, AISC, and NDS.
- Knowledge of building non-structural systems.
- Proficient in AutoCAD. REVIT desirable.
- Working experience with structural analysis and design apps (Enercalc, RISA 3D, ETABS, as well as customizing MS Excel)
- Experience designing and detailing in all structural construction materials
- Excellent verbal and written communication skills.
- Commitment to continuing education and professional development.

Email your resume and cover letter to [info@ware-associates.com](mailto:info@ware-associates.com)

**SOHA Engineers**

Job Title: Project Engineers

Job Description: The Project Engineer will perform structural analysis and design of building structures, prepare construction documents including structural detailing and coordination with other disciplines, provide construction administration services, attend meetings and site visits.

Job Requirements:

SOHA Engineers is looking for a Project Engineer with 5 – 10 years of experience in structural/seismic design of buildings. PE or SE license, good technical, verbal and written communication skills, able to work fairly independently, team player with interest in working in a collaborative and technically challenging environment.

Contact us about this job by sending an email to [employment@soha.com](mailto:employment@soha.com)

**Nabih Youssef Structural Engineers**

Job Title: Structural Engineers (Designer, Project Engineer, Project Manager Principal)

Job Description: We are looking for bright, energetic structural engineers to join our growing teams in San Francisco, Los Angeles and Irvine. All offices have immediate openings at all levels. We are currently hiring Designers, Project Engineers, Project Managers, Principals and Revit Coordinators.

Nabih Youssef offers a very competitive salary and benefits package.

Please send an email with your resume if you are interested. Thanks for looking.

Job Requirements:

Openings at all levels. Candidates should have excellent communication skills, a sound technical background, and a graduate degree in Structural/Seismic Engineering.

Send resume to [mgemmill@nyase.com](mailto:mgemmill@nyase.com)

**Holmes Culley**

Job Title: Structural Engineer

Job Description: Holmes Group Limited is an internationally recognized company based in California, New Zealand and Australia. Holmes Culley is a leading structural engineering businesses with a reputation for pushing boundaries.



Pushing boundaries means we put no limits on individual potential, basing rewards and advancement on achievements and entrepreneurship, not just seniority. This also means taking an imaginative and resourceful approach to projects, challenging established convention, and using cutting-edge technologies. If you, too, are a person who pushes the boundaries – in your achievements, interests, and abilities – then we want you as part of our energetic and collaborative teams.

We are seeking structural engineers with 5+ years design experience for both our San Francisco and Los Angeles offices; M.S. degree in Structural Engineering and PE license are preferred.

Your work will be diverse, design based, client facing and include all aspects of a "consulting" service. You will be involved with assessing, strengthening and retrofitting existing buildings as well as designing new structures. It is an exciting time for those passionate about seismic design/analysis for buildings.

Check us out at [www.holmesculley.com](http://www.holmesculley.com) and send your resume with cover letter to [hr@holmesculley.com](mailto:hr@holmesculley.com)

#### Job Requirements:

- B.S. and/or M.S. Degree in Civil / Structural Engineering.
- 5+ years working in the field of structural engineering.
- Licensed Professional Engineer (PE) in the state of California.
- Seismic design experience or education.
- Verbal communication skills, including listening and questioning
- Written communication skills, including report writing.
- Coaching/mentoring skills
- Presentation skills to contribute to team talks, technical sessions and project presentations.
- Time management skills.
- Computer software skills: Intermediate MS Word, Advanced MS Excel, Intermediate ETABS, SAP, Risa (or equivalent).
- Problem-solving skills.
- Sound technical skills: understands structural engineering design principles.
- Team player: works with project team.
- Willing to travel to other locations for periods of time to undertake projects.

#### **County of Santa Barbara**

Job Title: Civil Engineer/Plan Check Engineer

Job Description: SALARY / BENEFITS:

Salary: \$88,586 - \$106,823 Annually (amount reflects base salary plus \$5,986 cash benefit allowance)

Benefits: Click on Benefits Tab above or click here.

The County may provide reimbursement for reasonable relocation expenses, and, at the discretion of the CEO, can provide flexible relocation assistance, housing and student loan offsets, cash incentives, and/or vacation and sick leave pre-accruals in the interest of attracting the best talent to the organization.

The Planning & Development Department is seeking a Civil Engineer/Plan Check Engineer for their Santa Maria office to work independently performing detailed review

of building plans for compliance with California codes. Duties may also include advising and making recommendations on complex code issues, supervision or monitoring of plan check technical staff and performing related work as required. For information about the Planning & Development Department, please visit:

<http://sbcountyplanning.org/>

#### **THE IDEAL CANDIDATE:**

Structural design experience

Skilled team player with outstanding customer service skills

Excellent written and oral communication skills

#### **Examples of Duties:**

- Reviews construction drawings and engineering specifications for completeness, accuracy, and compliance with building, structural, mechanical, electrical, plumbing, energy conservation, and disabled access codes and local building regulations;
- Performs complex engineering calculations and analyses to check engineering calculations provided by applicants;
- Recommends plan changes to applicants in order to bring drawings and specifications into compliance with state and local building codes and ordinances;
- Advises professional engineers, architects, and others concerning code requirements, engineering, and planning problems arising in the preliminary design of buildings and structures and plan checkers in the resolution of complex structural, mechanical, electrical, plumbing, energy conservation, and disabled access problems;
- Develops and recommends to the Building Official changes to the Santa Barbara County Building Code to bring it into compliance with changes in the state codes;
- Assists in establishing and/or revising departmental policies due to changes in methods of construction or field applications of the codes;
- Plans, schedules, and evaluates work of assigned staff; trains departmental staff in application of new codes, policies, and procedures.

#### Job Requirements:

Possession of a bachelor's degree in civil engineering or architecture and possession of a Professional Civil Engineer or Architect registration in the State of California, and:

Three years of increasingly responsible professional residential and commercial building design experience; or, a combination of training, education, and experience that is equivalent to the employment standards listed above and that provides the required knowledge and abilities and professional registration. Additional Qualifications: Possession of a valid California Class C Driver's License. Knowledge of: principles and practices of civil engineering with emphasis in structural engineering; advanced mathematics and their application to structural engineering and plan check work; applicable residential, commercial, and industrial building construction

codes; structural, electrical, plumbing, mechanical, disabled access, and energy conservation requirements; and building construction practices, methods, and materials; computer applications related to area assigned.

Ability to: read, interpret, and apply building codes and regulations to architectural drawings and engineering specifications; analyze and evaluate facts and exercise independent judgment to solve or recommend effective solutions to building and code problems; establish and maintain effective working relationships and communicate effectively orally and in writing with architects, engineers, builders, inspectors, and the general public; prepare clear and concise reports, correspondence and other written materials; make structural calculations necessary to determine the adherence to structural plans to code requirements; plan, assign, coordinate, organize, and prioritize work; train and supervise staff; operate a personal computer including specialized software application programs; and supervise the work of subordinates.

#### **DeSimone Consulting Engineers**

Job Title: Project Engineer

Job Description: Take your career to the next level. DESIMONE, an international structural engineering firm is looking for sharp, capable, energetic, and highly motivated engineers that want to design world-class buildings. We are working with the world's best architects creating landmark buildings throughout the US and internationally. We have openings in great cities such as Miami, San Francisco, and New York. Currently we are seeking a Project Engineer for our San Francisco office.

The candidate will provide structural engineering design, working with a project manager, for the design of mid to high rise building projects. Work will require independent problem solving, decision making and the implementation of standard engineering procedures to direct the flow of engineering work. The qualified candidate will coordinate structural engineering design with other design team members. The candidate will provide input to the project manager regarding project planning and scheduling of project components and milestones. Will keep clear records of all design decisions, calculations, and project related documentation.

#### Job Requirements:

- Minimum requirements are a Bachelor of Science Degree in Structural or Civil Engineering, Masters in Science preferred
- Three to five (3 – 5) years of relevant experience in structural analysis and design
- Extensive knowledge of local and national building codes and design practices
- Knowledge of standard construction practices and the ability to work with contractors to address construction issues
- Proficiency in ETABS, RAM, RISA, and SAFE
- Ability to work in AutoCAD and



- Revit a plus
- Strong verbal and written communications skills
- Detail oriented with strong people and team skills

If you're interested please send your resume and cover letter to [CA-Resumes@de-simone.com](mailto:CA-Resumes@de-simone.com)

#### **SOHA Engineers**

Job Title: BIM/CAD Operator

Job Description: This position will provide general BIM/CAD support for creating, editing, and revising structural construction documents. The BIM/CAD Operator will work under the direction of the CAD manager.

#### Job Requirements:

The ideal candidate should possess strong detailing capabilities and a working knowledge of steel, concrete, and wood materials. A minimum of 2 years of experience in structural BIM and/or CAD is required. Experience with Microsoft products and PDF applications are highly desirable. Must be a team player with a positive attitude.

Interested? Email your resume and cover letter to Bernard Wong at [bwong@soha.com](mailto:bwong@soha.com)

#### **Louie International, Inc.**

Job Title: Structural Design Engineer

Job Description: Louie International Structural Engineers provide comprehensive structural engineering services for large, new commercial buildings, and the upgrade/re-use of existing buildings. Project types include high rise commercial and mixed use buildings, multi-unit residences, science and technology buildings, hotels, sports and cultural facilities and other complex projects.

In addition to working on challenging projects, our staff enjoys a strong salary and benefit package.

Analysis and Design of major Type I buildings. The Structural Design Engineer reports directly to the Project Manager, and is expected to run a variety of modeling programs and some Construction Administration assistance.

#### Job Requirements:

- MSCE Degree
- 1-3 years experience on commercial buildings.
- Good skills with design software such

as ETABS, SAP, etc.

- Experience with Autocad and/or BIM programs such as REVIT is a plus.
- Send resume to Wendy Castillo [wcastillo@louieintl.com](mailto:wcastillo@louieintl.com)



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  - Durability tested
  - Mechanical properties evaluated after coating
  - Corrosion effects of fire-retardant coating
- Allows all the benefits of TimberStrand LSL Rim design properties, including fastener values with no reductions required
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Save the Date! SEAONC Summer Seminar:  
Practical Seismic Design Guidance for Steel and  
Concrete Structures

Wednesdays, June 15 and June 22, 2016

6:00 – 9:00 p.m.

PG&E Auditorium, San Francisco

The seismic design of concrete and steel structures is an intricate and meticulous process. Code provisions can be ambiguous and open to interpretation, leaving structural engineers challenged to ensure that their designs meet the intent of the code. The SEAONC Summer seminar will focus on providing guidance to structural engineers on how to address these ambiguities and provide attendees with practical guidance for the seismic design of steel and concrete structures. Five NEHRP (National Earthquake Hazards Reduction Program) Technical Briefs will be presented: Steel Special Moment Frames; Concrete Diaphragms, Chords, and Collectors; Concrete Walls and Coupling Beams; Composite Steel Deck Diaphragms; and Steel Buckling Restrained Braced Frames. Many of these briefs are undergoing updates to reflect the latest in research and design techniques and the latest findings will be presented. In addition, there will also be a presentation on retrofit of non-ductile concrete buildings. The recent ordinance in Los Angeles has emphasized the hazards that these types of buildings present. This presentation will discuss challenges to safely retrofitting these buildings and present solutions by highlighting a few case studies.

[REGISTER HERE](#)

The Importance of Earning Your SAP Evaluator  
Certification

By SEAONC Disaster Emergency Services Committee

With SEAONC's biennially-administered ATC-20 Training seminar coming up on Saturday May 21, it's important to remind our membership of how certification as a California Safety Assessment Program (SAP) Evaluator both enhances your professional development and impacts the ways you can serve your broader community as a professional engineer.

In the event of a large earthquake, there may be a significant need for rapid evaluation of buildings' safety. This is the famous red-tag/yellow-tag/green-tag system, rooted in the structural assessment principles of ATC-20, and targeted at quickly identifying potentially dangerous conditions (red tags) or getting occupants back into their homes and businesses as quickly and safely as possible (yellow/green tags).

In preparation for the aftermath of a significant earthquake, the DES committee manages SEAONC's Reserve Corps, a roster of trained SAP Evaluators who would be eligible to volunteer to deploy and help meet the urgent need for structural engineering expertise in evaluating buildings damaged by an earthquake. Earning your SAP Evaluator certification makes you eligible to enlist in the Reserve Corps and to serve this critical role in safely and efficiently getting people back into their homes and businesses after a major seismic event.

Certification as a SAP Evaluator also qualifies you to work as a structural inspector for a building precertified through San Francisco's innovative Building Occupancy Resumption Program (BORP). Rather than having to wait for volunteer engineers to arrive to evaluate their structures after an earthquake, building owners can privately contract with licensed professionals/SAP Evaluators to develop an inspection plan and assure prompt structural evaluation after an earthquake.

For some, certification as a SAP Evaluator may be the first step toward earning certification as a Structures Specialist with one of FEMA's Urban Search and Rescue (USAR) task forces. These highly trained teams are comprised of emergency personnel, first responders, and structural engineering advisors. There are a number of SEAONC members who serve on these task forces, all SAP-certified (among several other credentials).

Lastly, certification as a SAP Evaluator represents a commitment to serving our communities as trained professionals. You may not ever deploy to an earthquake-ravaged jurisdiction, nor write/execute a BORP inspection plan, nor be a part of a USAR task force, but as professional engineers we have an obligation to use our expertise to provide for public safety. Earning your SAP (re-)certification keeps you up to speed on ATC-20 evaluation principles, enables you to provide valuable expertise in critical post-earthquake scenarios, and represents a commitment to meeting our duties in protecting the general public.

For all these reasons, the DES Committee strongly encourages all SEAONC members to earn or refresh their certification as CalOES SAP Evaluators.





## CQA - FAQ

### FAQ 10.003

#### PREQUALIFIED COLUMN SPLICE

**Q** Does anyone have an opinion on whether Figure 1 below would be a pre-qualified joint per AWS (American Welding Society) D1.1? Note there is only a weld access hole in the top tier column, and thus the backing bar does not actually lap past the joint. D1.1 is silent on the actual width of backing. All of the pre-qualified joints with backing shown in the Figures 3.3 and 3.4 show the backing lapping past the joint in butt joints (see prequalified joint B-U4a from Figure 3.4 shown below), but no minimum dimension is ever shown or discussed. In a Tee joint the backing of course stops right at the edge of the joint, but there is continuous base metal along that edge in that case. In the configuration shown below, except at the column web there is nothing behind the intersection of the corners of the backing and the bottom tier column flange.

Submitted by Art Dell, P.E. in San Francisco, California

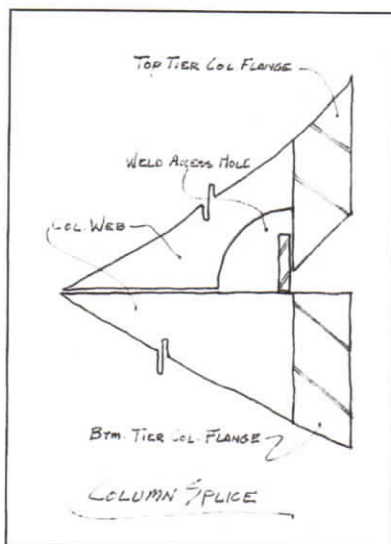


Figure 1

"Got a question, comment or tip?  
E-mail it to: [cqa@seaonc.org](mailto:cqa@seaonc.org)"

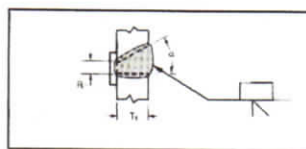
**A** **Informal Response Submitted by Andrew Davis**  
"This does not constitute an official position of the American Welding Society or the D1 Committee on Structural Welding"

The code is silent on minimum edge overlap of backing. However, no overlap is not permitted. The overlap should be at least the thickness of the backing bar.

I am told that accepted practice would be to put a weld access hole in the lower shaft web and center the backing. One could also cut a tight notch in the backing to "swallow" the web and center the rest of backing bar at the root opening (see Figure 2 below). However, the EOR (Engineer of Record) should review and approve this approach.

The joint as shown in Figure 1 is not prequalified.

**Andrew Davis** is the Director, International Activities with AWS American Welding Society. He can be reached at [adavis@aws.org](mailto:adavis@aws.org)



Prequalified Joint B-U4a from Figure 3.4

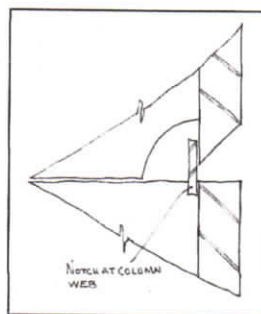


Figure 2

Published by STRUCTURAL ENGINEERS ASSOCIATION  
OF NORTHERN CALIFORNIA  
Construction Quality Assurance Committee in cooperation  
with California Council of Testing and Inspection Agencies

The views or opinions of our guest/authors are their own, and do not necessarily represent those of SEAONC or CCTIA. Information presented is not intended as and should not be considered engineering advice.

Committee approved March 16, 2016



## Structural Engineers Association OF CALIFORNIA

### SEAOC Legislative Alert: SB 885 - Duty to Defend legislation

If you live or work in one of seven particular State Senate districts, SEAOC needs your help.

SB 885 (Wolk), the ACEC-sponsored bill to prohibit "duty to defend" clauses in public and private contracts, is expected to be heard May 3 in the Senate Judiciary Committee. Please, if you are represented by one of the eight Senators who serve on the committee, SEAOC would appreciate your calling that Senator's office in Sacramento to urge their support of the bill on May 3.

Here's what you do:

- 1) Enter your home and/or work address in this [legislator search page](#).
- 2) If your Senator appears on this list, please call their Capitol office and urge the Senator's support for SB 885.
  - **Chair: Senator Hannah-Beth Jackson (District 19:** Santa Barbara County and a portion of Ventura County) - (916) 651-4019
  - **Vice Chair: Senator John Moorlach (District 37:** most of Orange County) - (916) 651-4037
  - **Senator Joel Anderson (District 38:** inland San Diego County) - (916) 651-4038
  - **Senator Robert Hertzberg (District 18:** eastern San Fernando valley) - (916) 651-4018
  - **Senator Mark Leno (District 11:** San Francisco and extreme northern San Mateo County)- (916) 651-4011
  - **Senator Bill Monning (District 17:** Santa Cruz and San Luis Obispo Counties) - (916) 651-4017
  - **Senator Bob Wieckowski (District 10:** southern coastal East Bay and parts of Silicon Valley) - (916) 651-4010

Under current law an indemnification provision in a contract can leave a structural engineer liable for the legal defense costs of the project owner even if the structural engineer is found to have no legal fault. Worse, such defense costs are not covered by professional liability insurance. This uncovered risk would be a problem for any firm -- and it could cause a small to medium size firm to go out of business. The situation is unfair, and ultimately leaves cities, counties, other jurisdictions, and the public on the hook for legal costs that would bankrupt the design professional.

Here's a link to the [amended version of SB 885](#) as it will be heard May 3.

The opposition to SB 885 from cities, counties, special districts is formidable. Here is a sample of some of the [opposition letters](#), which we think are mostly groundless and often misleading (as when they contend that there is no problem, since design professionals agree to duty-to-defend clauses all the time).

Please, SEAOC asks that those of you who are represented by a Senate Judiciary Committee member to call ASAP and ask them to vote yes on SB 885. Stress the importance of fair contracting, the importance of their support for small businesses in their district, and the importance to the public of encouraging a large pool of bidders on public contracts.

Early next week we'll send info on how to attend and take part in the hearing on the afternoon of May 3. We're hoping a strong contingent of structural engineers can participate.

Thanks for the help!

### 2016 SEAONC Scholarship Program

Beginning in 2001, SEAONC has provided support to outstanding and high-achieving university students pursuing a career in structural engineering. SEAONC provides these students \$5,000 scholarships for use toward tuition, books, supplies and living expenses. To date, SEAONC has awarded nearly \$200,000 in scholarships. Participation in the scholarship program is offered to candidates chosen by the following Northern California universities:

- Cal Poly at San Luis Obispo
- San Francisco State University
- San Jose State University
- Santa Clara University
- Stanford University
- University of California at Berkeley

Candidates are evaluated on the following criteria:

- Classes taken and GPA
- A two-to-three page essay
- Participation in extra-curricular activities
- Career aspirations
- Ties to the Northern California region
- Recommendations from faculty

Based on the evaluation of this year's candidates, the SEAONC Board of Directors decided to award scholarships to the following students:

- Jamie Brownell, San Francisco State University
- Joyce Fung, Santa Clara University
- Angelica Quach, Cal Poly at San Luis Obispo

Two of the scholarships are funded from the SEAONC general fund. A third scholarship is funded through the SEAOC Foundation. The SEAOC Foundation receives tax-deductible donations from members, and donations are used to support ongoing education and research in structural engineering. If you would like to make a donation to the SEAOC Foundation to support programs like the SEAONC Scholarship Program, please contact the SEAONC office for more information.

SEAONC would like to congratulate each of the winners and would like to thank all the candidates as well as the Northern California universities for participating in this year's program!



## Sustainability Terms Decoded: LCA

Have you ever had a conversation about sustainability, with an architect, client, or MEP engineer, and encountered terms and acronyms you did not know?

In an effort to make sustainability topics more accessible to all structural engineers, and to encourage broader inclusion and adoption of sustainable design strategies, the Sustainable Design Committee has created a Sustainability Glossary. This glossary defines sustainability-related terms and acronyms, ranging from green rating systems and methodologies to innovative materials and techniques.

This month, we are sharing our knowledge of all things LCA:

Term / Acronym	Definition / Discussion
Life-Cycle Analysis / Life-Cycle Assessment (LCA)	<p>LCA provides a methodology for how to quantify the environmental impact of a product, typically a structure in our case. This enables the engineer to measure how design decisions influence the total effect of the building on the environment, with the goal of producing a greener structure. Note that LCA differs from LCCA (Life Cycle Cost Analysis) in that it considers only environmental measures, not cost. Another term used to discuss environmental impact is LCIA (Life Cycle Impact Assessment). LCIA delves further into the relatibility of different LCAs based on boundary conditions and methods for calculating different impacts.</p> <p>LEED V4 includes a newly added credit for whole-building LCA, which considers the following different environmental impacts:</p> <ul style="list-style-type: none"><li>• Global Warming Potential</li><li>• Depletion of the Stratospheric Ozone Layer</li><li>• Acidification of Land and Water Sources</li><li>• Eutrophication</li><li>• Formation of Tropospheric Ozone</li><li>• Depletion of Nonrenewable Energy Sources</li></ul> <p>To earn the credit, a project must show 10% decrease in three or more impacts, one of which must be Global Warming Potential.</p>
Global Warming Potential (GWP)	<p>GWP is a measure of the total heat energy that can be absorbed by a greenhouse gas. To simplify comparisons, all such gasses are normalized by the heat energy absorbed by carbon dioxide, considering both how actively the gas traps heat and how long the gas persists in the atmosphere. For example, methane absorbs energy much more effectively than carbon dioxide and has a GWP of about 30, meaning that releasing one ton of methane to the atmosphere has the same global warming impact as releasing 30 tons of carbon dioxide.</p> <p>In the context of an LCA, GWP is a measure of the total warming potential of all gasses produced or released in the building's life cycle.</p>
Stratospheric Ozone	<p>Ozone in the stratosphere occurs high above the ground and accounts for 90% of atmospheric ozone. This ozone layer makes the earth habitable by absorbing UV radiation before the radiation reaches the earth's surface. Depletion of the stratospheric ozone layer, sometimes referred to as the "hole in the ozone layer," results in an increase in the amount of harmful UV light reaching the earth.</p>

Term / Acronym	Definition / Discussion
Acidification	<p>Acidification is when a body of water becomes more acidic, primarily due to the water absorbing carbon dioxide from the atmosphere. As human activities have increased the concentration of carbon dioxide in the air, more of this gas is available to be absorbed, especially by the oceans. Acidification alters the basic chemical composition of seawater and can interfere with sea life, particularly coral species.</p> <p>Acidification differs from Acid Rain, which occurs when sulfur dioxide and nitrogen oxides from combine with moisture in the atmosphere to create acidic precipitation. Acid rain can cause freshwater, rain-fed lakes to become more acidic, but this is a separate phenomenon from acidification.</p>
Eutrophication	<p>Eutrophication is the enrichment of an ecosystem with chemical nutrients, typically compounds containing nitrogen and/or phosphorus. Eutrophication can be a natural process in lakes, occurring as they age through geological time, but it is more often caused by human processes and interactions. Algae blooms caused by fertilizers washing downstream from farmland, as in the Gulf of Mexico around the mouth of the Mississippi River, are the result of man-made eutrophication.</p> <p>Though we often think of enrichment as a positive thing, eutrophication can severely disrupt the balance of an ecosystem by artificially favoring one organism, such as algae, to the detriment of other organisms.</p>
Tropospheric Ozone	<p>Tropospheric ozone, unlike stratospheric ozone, occurs at or near ground level. Ozone is harmful to biological membranes, such as in the lungs, and can cause asthma and decreased lung capacity. Ozone in the troposphere is typically produced from the reaction between volatile organic compounds (VOCs) and nitrogen oxides (NOx) from vehicles and industrial operations at ground level in the presence of sunlight.</p> <p>Tropospheric ozone is the same chemical compound as stratospheric ozone, just occurring at a lower layer in the atmosphere where it comes into contact with people.</p>
Nonrenewable Energy Sources	<p>Nonrenewable energy sources are finite, and once they are used up, they cease to exist. Examples include oil and coal, which, though seemingly plentiful currently, do not replace themselves at a rate comparable to the rate at which we mine and consume them. Eventually, these resources will run out.</p> <p>In contrast, renewable energy sources such as solar or biomass, are either infinite (the sun will continue producing vast amounts of energy for the foreseeable future) or renewable (new plants grow each year and replace those used for fuel).</p>



## Free design and engineering support for wood buildings



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- Application of advanced building systems and technologies



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# *I have a Dream...* *That in the not-so-distant future...*

Structural Engineers are broadly recognized and admired by the public for saving lives, protecting property, preserving the past, and building the future.

Structural Engineers are sought out as policy leaders and problem solvers in all matters of the community.

Structural Engineers initiate and lead the development of emerging and exponential technologies.

Structural Engineers celebrate their profession with high-profile events where they cultivate passion and enthusiasm for what they do.

Structural Engineering education includes public speaking, marketing, human psychology, and the arts.

Structural Engineering attracts the most talented and brightest students from leading institutions.

Structural Engineering fees and compensation reflect the profession's immeasurable contributions to humanity.

Structural Engineers appear as inspiring characters in popular culture.



Ashraf Habibullah





# CALIFORNIA COUNCIL OF TESTING AND INSPECTION AGENCIES

## 2016 Meeting Schedule

(Items in red have been revised)

<i>Date</i>	<i>Description</i>	<i>Location</i>
February 25, 2016	BOD Meeting (1:00 pm)	Four Points, Pleasanton
	General Meeting (3:00 pm)	
March 24, 2016	General Meeting (3:00 pm)	Four Points, Pleasanton
April 28, 2016	General Meeting (3:00 pm)	Four Points, Pleasanton
May 19, 2016	General Meeting (1:00 pm)	Hilton, Stockton
June 16, 2016	Meeting w/DSA (12:00 pm)	Four Points, Sacramento
July 28, 2016	Meeting w/DIR (12:00 pm)	Four Points, Pleasanton
August 25, 2016	General Meeting (3:00 pm)	Four Points, Pleasanton
September 23, 2016 (Friday)	Meeting w/DSA (12:00 pm)	Four Points, LAX
October 27, 2016	BOD Meeting (12:00 pm)	Four Points, Pleasanton
	General Meeting (3:00 pm)	
November 17, 2016	General Meeting (3:00 pm)	Four Points, Pleasanton
December 15, 2016	General Meeting (3:00 pm)	Four Points, Pleasanton
January 21, 2017 (Saturday)	Annual Business Meeting	Four Points, Pleasanton
	Installation Dinner	McNamara's, Dublin

*Note: World of Concrete – January 17-20, 2017, Las Vegas, NV  
Super Bowl LI – February 5, 2017, Houston, TX*