



CONNECTIONS

February 2011 Volume 11 Issue 5

Newsletter of the
Structural Engineers
Association of Oregon

SEAO

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Employment Opportunity

Upcoming SEAO Meetings and Events:

Young Member Forum:

This month's happy hour is at Lucky Lab (located on NW Quimby between 19th and 20th) on Thursday, February 17th at 5:30. Hope to see you there! See more info in the committee updates section.

SEAO Scholarship Foundation Tradeshow:

Thursday, February 24. It will be held at the Monarch Hotel in Clackamas, Oregon from 5:00 to 8:00 pm with mini seminars from 12:30 to 5:15 pm. Look for more information in the attached SEAO Scholarship Foundation Newsletter.



February 28th: Seismic Subcommittee Meeting

See committee updates section for more information.

March 16th: Joint SEAO meeting w/ ASCE

Topic: *Concrete Mix design, Mass Concrete and their Relation to a Bridge Investigation in San Diego.*

Speaker: Rene Luft from Simpson Gumpertz & Heger

Location/Time: Governor Hotel/check in at 6:00 pm w/dinner at 7:00 pm and presentation at 7:40 pm.

April 21st: SEAO Spring Seminar

Topic: *Diaphragm Design*

Location / Time: *Abernethy Center in Oregon City, Oregon / 8:30 am to 4:30 pm.*

Note: Sign-up forms will be sent out to members in the next few Weeks. Save the date!

April 27th: SEAO Meeting

Topic: *Seismic Upgrade of a 15-Story Steel Moment Frame Building - Satisfying Performance Criteria with Application of Experimental and Analytical Procedures*

Speaker: James Malley, Degenkolb Engineers

Location/Time: Governor Hotel/ check in at 5:30 pm w/dinner and presentation at 6:15 pm. Committee Meetings will occur prior to the dinner meeting and will begin at the Governor Hotel at 4:30 pm.

May 25th: SEAO Meeting

Topic: *Modern Timber Bridges*

Speaker: Paul Gilham, Western Wood Structures, Inc.

Location/Time: Governor Hotel/ check in at 11:30 am w/lunch and presentation at noon.

Attention Vendors:

Booth space at our monthly meetings is available at a cost of \$150 per spot. Booths can be set up prior to the social time and be left up for the duration of the meeting. If you are interested in taking advantage of this marketing opportunity, please contact Jane Ellsworth at jane@seao.org to make the arrangements.

Structural Engineering Association 2011 NW Conference:

The conference this year is hosted by the Spokane and South Central Chapter of SEAW. It will be held September 22-23 in Spokane Washington. See attached brochure.

National Council of Structural Engineers:

The Association is holding the 2011 Winter Institute from February 25-26 in Amelia Island, Florida. See attached brochure.

CONNECTIONS is a monthly publication of the Structural Engineers Association of Oregon, published to disseminate current news to our membership and others involved in the profession of structural engineering. The opinions expressed reflect those of the author and, except where noted, do not represent a position of SEAO.

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PRESIDENT'S MESSAGE: INDEMNITY BLUES

By: Trent Nagele, P.E., S.E.



If you review contracts and have been following the articles appearing recently in a number of the engineering journals regarding indemnities and several recent court decisions in California, the hair on the back of your neck ought to be standing straight up by now.

In the past couple years, two cases in California have upped the ante with indemnities and duties to defend. I realize it's not Oregon, but conventional wisdom is that as California goes, so goes the nation. But let's hope not.

In *Crawford v. Weather Shield Mfg.*, which went all the way to the California Supreme Court in 2008, the court held that the subcontractor was obligated to pay for the defense costs of a construction defect case involving the subcontractor's scope of work, even though their work was not found to be at fault. The second case, *UDC-Universal v. CH2M Hill* heard in January, 2010, in the California Court of Appeals, upheld a finding that the design professional was responsible for defending the developer in a third-party suit from the homeowners association, even though a jury had found the design professional was not negligent. The California Supreme Court then declined to hear the case, effectively ending the debate, despite numerous letters and pleas from the design community asking that the case be overturned.

Admittedly, from what I can tell in the articles and briefs discussing these cases, in neither instance was the indemnity or agreement to defend language in the contracts something that you'd probably want for your first or second choices. From the descriptions, the provisions causing the tangle do seem rather onerous and one-sided. But, I'm also aware of the realities that can sometimes accompany these contracts. In some instances, it's a take it or leave it contract. The problem is that there seems to be more and more of these contracts—often leaving design professionals with two choices: take some significant risks (that should rightly be the client's) in order to get projects or close the doors. Unfortunately, with the help of the courts, the ultimate outcome may be the same in both cases.

The coverage on these cases—even in the engineering journals—appears to be primarily written by attorneys. Their perspective and analysis from the bleachers is professional and diplomatic. Understandable, especially since they don't have a dog in the fight. After all, it is not rewriting the liability for projects long ago stored in their archives.

I, on the other hand, am not an attorney and don't feel quite so diplomatic or charitable. As one of those people who work hard to create the proverbial pie, I feel a little more strongly about it than those who just fight over how it gets divided. And even more so when I have to pay for their fight. How is it that we've allowed our profession to become the de facto insurance company for all that might ail?

If I hire someone to paint my house and my neighbor sues me because he doesn't like the color—should the painter have to pay for my defense? Not likely, unless maybe I live in California.

I can understand that owners feel like they should have some assurances when they hire professionals to design and build a project. However, there are inherent risks in constructing and owning a building, and those risks need to be fairly apportioned. Design professionals carry professional liability insurance to cover negligence for those things within our scope and purview, but we cannot take on the risks of ownership, providing insurance and paying to defend against every person who thinks it's an actionable offense that concrete cracks and drains clog. Buildings are not perfection wrapped in bliss, and we haven't ever promised they will be, regardless of what an agent or broker might say. They all inherently have some imperfections and require maintenance, etc., etc. Expecting the design professional to take the risks of ownership along with any conceivable expectations is not right.

Yet, there seems to be a shift taking place with owners wanting to place as much risk on the design professional as they possibly can. I recently reviewed a master contract from a large national entity. In addition to several broad indemnity clauses and requirements that we pay for their defense, the agreement also had provisions requiring us to have insurance covering

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COMMITTEE UPDATES

WIND COMMITTEE:

As you all have heard, coming our way is a more simplified design procedure which is only one more step away from the old simple, short and sweet UBC format of wind design and analysis. Not to fret, we've got until 2012 to get ready for the new provisions. In the meantime, please help out SEAO's Wind Committee, other engineering wind committees, and our future codes by reporting any true conundrums or inconsistencies that arise while using the current ASCE 7-05 wind standards. As you may have discovered, inconsistencies occur, for example, with loading at parapets and rooftop mechanical units just below and just above the 60 feet roof height. There are also many interpretations regarding loading onto canopies, what loading to use when dealing with rooftop mounted PV framing, etc. What about constructive proposals to help resolve some of these problems? So please, we're all aware of code-speak, organizational, and other difficulties with the current provisions. At this time, we are looking for important problematic provisions that result in inaccurate and unsound design and should be corrected or improved upon. If such an issue has come up during your design, please feel free to email it to our Wind Committee (email jimr@paceengrs.com) and maybe we practicing engineers can help better shape our future building codes. Thank you!

SNOW LOAD COMMITTEE:

The snow committee, with the SEAO Board's assistance, has completed the white paper that covers the interim use of the current manual and provides new tables for 50 year MRI snow loads for stations around the state. This information has been mailed to everyone who purchased a snow load manual and is now posted on the SEAO web site.

SEISMIC COMMITTEE:

Attention Committee members, we have a Seismic Committee meeting:

Date: February 28, 2011
Time: 4:00 p.m.
Location: KPFF, 111 SW 5th Ave, 25th Floor, Portland, Oregon
Agenda: -Review of ASCE 7-10 chapters 11 & 12
-“Seismic Quiz” content for March newsletter
-Brainstorm public outreach

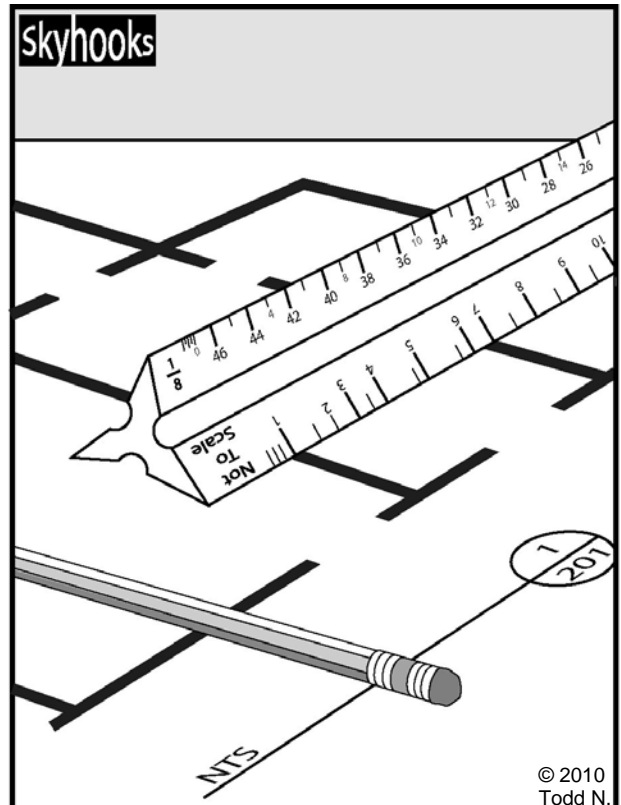
YOUNG MEMBERS FORUM:

Each month, the Young Member Forum gets together with their AIA counterparts for an informal happy hour at a downtown Portland location. This month's happy hour is Thursday, February 17th at the Lucky Lab Beer Hall (on NW Quimby between NW 19th and 20th). We'll meet around 5:30 p.m. Lucky Lab has a small parking lot in the rear and street parking is free in this area. We hope to see you there!

In addition to our monthly happy hours, we plan on volunteering at a Habitat for Humanity jobsite in the Summer and Fall. We are also hoping to organize an educational outing later this year, similar to the tram tour and steel fabricator's tour of years past. If you'd like to be added to the Young Member Forum mailing list, please contact Ciera Speer and Aaron Rudis at SEAO.YMF@gmail.com.

SEAO ANNUAL DUES

ATTENTION: If you have not paid your annual dues yet, you have until February 24th to do so or your name will be dropped from our roster which will be published March 1. Please contact Jane Ellsworth at jane@seao.org to renew your membership today.



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Detailing Load Bearing Masonry Buildings for Crack Control and Structural Performance

Presenter: Susan M. Frey, PE, SE, LEED® AP

By: David Tarries, PE

Sue Frey is a principal structural engineer at CH2M Hill in Corvallis, Oregon. She teaches courses on masonry design at Oregon State University and has put on masonry seminars for NCSEA. She presented detailing techniques to mitigate cracking in concrete masonry construction at the January lunch meeting.

Below are some of the key points of her presentation:

- Many masonry reference materials provide information on cracking of unreinforced brick veneer. The behavior of brick veneer and structural CMU are not identical and different rules apply. The information in this presentation is primarily applicable to structural CMU.
- Joints in masonry are most commonly provided to allow for temperature changes and to control cracking. Occasionally joints are added to create specific load paths within a structure.
- Temperature and shrinkage cracks primarily occur in the vertical direction. Horizontal cracks from temperature and shrinkage are generally controlled by the self-weight of masonry.
- Temperature and shrinkage cracks are not usually a structural concern, though they can be an aesthetic concern to the owner.
- Settlement cracks, boundary element cracks, pier cracks, and overload cracks are a structural concern.
- Vertical Cracks:
 - Hairline vertical cracks are common temperature and shrinkage cracks. They can appear at different times during the life of the structure. Shrinkage cracks occur shortly after construction. Temperature cracks can develop over time as a result of temperature variations within a wall or adjacent elements.
 - Restrained movement cracks are typically wide at the top and narrow at the bottom and run all the way through the wall. They occur where an adjacent wall or pilaster restricts contraction or expansion.
 - Material interaction cracks occur at locations where two different materials are in contact. Common locations include where brick is supported on top of CMU and where CMU is supported by steel members.
 - Settlement cracks can occur over time, and frequently occur at building corners resulting from poor soil compaction. If a heat source cannot be determined as a source of apparent temperature cracks, settlement could be the cause.
- Horizontal Cracks:
 - These cracks are typically structural in nature, such as out-of-plane flexural cracks and in-plane shear cracks. A good structural design with adequate reinforcement should prevent this type of cracking.
- In the Pacific Northwest, standard reinforcing bar is usually used at a maximum spacing of 4 feet vertical and horizontal on center spacing. On the east coast, wire mesh joint reinforcement is standard. The more steel reinforcement in a wall, the fewer and smaller the cracks. The best design for crack control includes a mixture of reinforcing bar and horizontal wire mesh joint reinforcement--though this mixture is seldom specified.
- Vertical control joints are used to limit cracking due to temperature and shrinkage. Expansion joints are seldom used in CMU.

(Continued on page 5)

JANUARY MEETING RECAP

(Continued from Page 4)

- The table below indicates practical limits for vertical control joint spacing:

Masonry vertical joints

| Wall Type | Maximum L/h | Maximum Length |
|---|-------------|----------------|
| Fully grouted CMU w/ 48" o.c. horiz. bond beams | 2.5 | 40' |
| Partial grouted CMU w/ 48" o.c. horiz. bond beams | 3 | 46' |
| Brick Veneer | 1.5 | 26' |

L/h is length of wall between joints (including restraint points such as pilasters) divided by the story height. Decreased spacing of horizontal bond beams can increase the maximum length between joints.

- Vertical joints should be coordinated with architectural features, openings, pilasters, and corners. Joints at openings and corners should take into account the development length of the lintel and bond beam bars. It is also important to note that joints break the length of shear walls and overturning capacity should be considered.
- Dowels across control joints are not common in CMU construction but they can be used to transfer load if required. Chord steel should not be cut at control joints.
- Walls with many openings could use bond beams at closer spacing to reduce the number of vertical joints.
- Joint spacing and wall dimensions should take into account standard block sizes for ease of construction.
- Chapter 1 of the MSJC code has coefficients for thermal expansion of masonry.
- Bricks shrink as they dry out on a job site. CMU can swell when in contact with moisture in the field, such as grout. Typically a 3/8" control joint is adequate.
- Specification Suggestions:
 - CMU:
 - CMU strength is typically 1900 psi.
 - It is best to allow the manufacturer to develop proportions based on specified strength and ASTM standards (C90).
 - Medium weight block is standard for West Coast construction.
 - A 0.065 shrinkage limit is recommended instead of the older Type I and Type II designation.
 - Mortar:
 - Mortar strength is usually 1800 psi.
 - Type S mortar is best for West Coast construction. Type M is brittle and should not be used for structural applications.
 - Grout:
 - Grout strength is typically 2000 psi.
 - Masons frequently obtain grout from a local redi-mix provider and strengths provided can be above 5000 psi. Strengths of more than two times the specification strength are not recommended as they could increase the potential for cracking and alter the design characteristics of the wall. Substitution of fly ash for cement could be considered.
 - Admixtures such as water reducers are not recommended as they reduce the volume of water available to be pulled from the grout and into the dry CMU. Admixtures specifically designed for masonry construction are an exception.
 - Reconsolidation of grout is highly recommended as there are generally voids that the first pass of a vibrator does not remove.
 - Special inspection is required for non-essential and essential buildings.

INDEMNITY BLUES

(Continued from Page 2)

these obligations. Neat. But there's a problem. Professional liability insurance, at least as far as we've been advised, doesn't cover some of these provisions, including paying for their defense. In short, as far as we could tell, it wasn't a contract we could insure—at least not in any reasonable way. My response back was a request that we put our heads together to achieve an insurable contract. But since I'm up against Goliath on this, I'm not holding my breath. In all likelihood, the project will probably be awarded to a firm that doesn't understand what they are agreeing to in the contract.

But why do owners want a contract that can't be insured? Wouldn't it be in their best interest to have an insurable contract? As engineers, we ought to be upset about these issues, we ought to be informed, and we certainly ought to be careful in reviewing contracts and pushing back against these provisions—including when they come from other design professionals (ahem, Architects!). Maybe we should be seeking other remedies too? Legislation can combat court rulings, but it's a long road. One writer suggested that we push insurance carriers to expand professional liability coverage to include contractual defense obligations. It's not a solution I like, or even really the right place for it, but maybe it's needed. If owners (or their attorneys) are going to insist on these provisions, perceiving that it provides additional protections without additional cost, maybe insurance companies should offer the coverage, complete with stated liability limits and appropriate fees. I'd be happy to return a signed contract to Goliath noting that the additional fees to insure paragraphs A, B and C in their agreement will be X dollars. Just another cost of the project, and not much different than what we do now when they request higher E&O limits.

JOB OPPORTUNITY

KGA has an immediate need for a Project Engineer capable of project design and day-to-day affairs for projects of a broad range of structural systems and materials. Primary responsibilities will include: design development, oversight of technical staff, project management, and client relationship development.

For a more complete description, visit KGA's website at www.kga.cc, or contact Debbie Whitcomb, KGA Human Resources. Phone 360-693-1621, Email debbiew@kga.cc.



Deferred Submittals: What the EOR Needs to Know and Show From Design to Construction

Omni Amelia Island Plantation Resort



Friday, February 25

8.0 Professional Development Hours

Deferred Submittals Gone Wrong

Introduction of topic and personal experiences. *Ben Nelson, Martin/Martin, Inc., Lakewood, CO, Tom DiBlasi, DiBlasi Associates, P.C., Monroe, CT, and Tom Grogan, Haskell, Jacksonville, FL.*

Building Officials Have Their Say

Can SE's get themselves into trouble by improperly dealing with deferred submittals? No question, according to these building officials. Take this opportunity to gain a better understanding of the permitting process using deferred submissions. *Ron Lynn, Clark County, NV, and Jim Schock, Jacksonville, FL.*

Non-Standard Steel Joists

What are the responsibilities of the project registered design professional and the joist manufacturer for non-standard steel joists? What do you know about steel joist calculation submittals? *Tim Holtermann, Canam Steel Corporation, Washington, MO.*

Design Responsibility for Engineered Precast Systems

How do you divide design responsibilities when specifying precast concrete components and systems? Discussion will include how best to convey necessary design information in the contract documents and how to deal with issues related to precast concrete lateral load resisting systems, as well as approaches to avoid RFIs and design omissions. *Tim Salmons, Salmons, P.C., Albuquerque, NM.*

Moderated tours of the Canam Steel Joist Facility and the Gate Concrete Products Facility, Jacksonville, FL

Saturday, February 26

7.5 Professional Development Hours

Specifying Wood and Cold-Formed Steel Trusses – Avoiding Pitfalls and Unnecessary Liability

Pre-manufactured trusses: Who is responsible for what, when it comes to the SER, the truss industry, contractors, and the building department? What are some of the pitfalls of specifying pre-manufactured trusses? *Ed Huston, Smith and Huston, Inc., Seattle, WA.*

Cold-Formed Steel Submittals – Expectations and Performance of Structural and Specialty Engineers

While some cold formed steel (CFS) products require specialty engineering, others do not. What are the responsibilities of all members of the construction team, particularly the Structural Engineer of Record and the Specialty Structural Engineer? Who assumes liability for design? *Steve Walker, Light Gauge Steel Engineering Group, Inc., Oakland, Florida.*

Current Trends in Professional Liability & Risk Management

What are the duties and limitations when providing construction phase services? Which contract provisions are frequently the subject of difficult negotiations? How can poorly worded provisions impact the design professional? *Brian Hadar, Suncoast Insurance, and Colleen Palmer, Beazley Insurance.*



Ron Lynn



Jim Schock



Tim Holtermann



Tim Salmons



Ed Huston



Steve Walker

Lunch Presentation

Sponsored by Fyfe Company

How do you avoid deferred submittal problems when specifying fiber reinforced polymer for the structural upgrade of concrete?

Scott Arnold, P.E.

Deferred Submittal Documentation – What You Really Need to Show Regarding Deferred Submittals

Why is it important to clearly identify, in the contract documents, what scope is covered by the EOR and what scope requires design by a specialty engineer? How can you avoid unnecessary risks? *C. Ben Nelson, Martin/Martin, Inc., Lakewood, CO.*



Brian Hader



Colleen Palmer



C. Ben Nelson

Register at
www.ncsea.com

Deferred Submittals – Panel Discussion of Lessons Learned

Problem prevention, pre-engineered metal buildings, incorrectly-prescribed foundations, inordinate numbers of changes, and more.

Networking Opportunities:

Reception Thursday evening, February 24, 6:30 p.m. – 7:30 p.m.
Reception Friday evening, February 25, 6:00 p.m. – 7:00 p.m.
sponsored by the Florida Structural Engineers Association

Cost and Registration:

Breakfast, lunch, breaks and receptions included in price:
\$350 per day, or \$595 for both days

Accommodations:

Omni Amelia Island Plantation Resort
Amelia Island, FL 32035
NCSEA Winter Institute rate until February 9: \$149
Reservations: 1-888-261-6165
Group number: 022011NCSEAWINT or National Council of Structural Engineers Associations
Free roundtrip airport transportation to/from Jacksonville airport, provided you reserve 72 hours in advance.

Upcoming NCSEA Webinars:

- January 25, 2011:** Heavy Timber Connections: Mistakes and Lessons Learned – *Ben Brungraber*
- February 10, 2011:** Detailing of Unbonded Post-Tensioned Structures to Minimize the Effects of Restraint to Shortening – *Bryan Allred*
- March 1, 2011:** Building Information Modeling in Structural Engineering Practice Today – *David J. Odeh*
- March 10, 2011:** Post-Tensioned Slabs on Ground Design – *Bryan Allred*
- April 19, 2011:** Code Issues in Existing Buildings: Archaic and Obsolete Structures – *Donald Friedman*
- May 17, 2011:** AISC T.R. Higgins Lecture–The AISC Seismic Design Provisions: Past, Present and Future – *James O. Malley*

NCSEA/Kaplan Structural Engineering Exam Review Course

Obtain two weekends (12 hours each) of targeted review, sitting in front of your computer, with 24/7 playback. Review anytime. Instructors are knowledgeable, hand-picked and recommended by your peers:

January 29-30: Vertical Forces Review.

February 12-13: Lateral Forces Review.

Visit www.ncsea.com and follow the “Hot Topics” link for the NCSEA/Kaplan SE Exam Review Course, to register and for more information on the course and the instructors.



Registration Form:

Registration fee: \$350 per day

Registration Fee for both days: \$595

NAME _____

COMPANY _____

ADDRESS _____

CITY _____

STATE / ZIP _____

TELEPHONE _____

EMAIL _____

Friday (\$350) Saturday (\$350) both days (\$595)

Visa MasterCard American Express

CREDIT CARD NUMBER _____

EXPIRATION DATE _____ SECURITY CODE _____

SIGNATURE _____

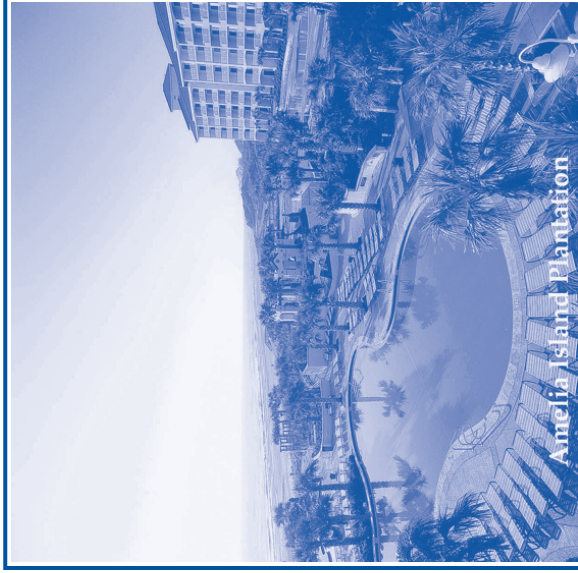
Mail this completed Registration Form with check payable to NCSEA to: NCSEA 645 N. Michigan Ave., Suite 540, Chicago, IL 60611.

Fax this completed Registration Form with credit card information to: NCSEA 312.649.5840.

Online registration at: www.ncsea.com.

Questions: Call Jan Diepstra at 312.649.4600, ext. 202.

Accommodations:



The Amelia Island Plantation

Amelia Island, Florida 32035

RESERVATIONS:
1-888-261-6165

Group number: 022011NCSEAWINT

or

National Council
of Structural Engineers Associations

Mention NCSEA Winter Institute
for a special \$149 room rate
until February 9.

This rate includes the resort fee
and round-trip airport transportation,
which must be reserved 72 hours in advance.



National Council of Structural Engineers Associations

2011 Winter Institute
February 25 & 26, 2011

The Amelia Island Plantation
Amelia Island, Florida

A two-day seminar featuring
Deferred Submittals: What the EOR
Needs to Know and Show from
Design to Construction.

Included in the program Friday are tours
of the Canam Steel Joist Facility and
Gate Concrete Products.

DEFERRED SUBMITTALS: What the EOR Needs to Know and Show from Design to Construction

Friday, February 25

8.0 Professional Development Hours

7:00 a.m.–8:00 a.m. REGISTRATION/CONTINENTAL BREAKFAST

8:00 a.m.–8:30 a.m. **Deferred Submittals Gone Wrong**

Introduction of topic: *Ben Nelson, Martin/Martin, Inc.; Tom DiBlasi, DiBlasi Associates, P.C.; Tom Grogan, Haskell*

8:30 a.m.–9:45 a.m. **Building Officials Have Their Say**

The complexity of deferred submittals is not often appreciated by the structural engineer, nor fully comprehended by the contractor. There will be a case study and the pros and cons of deferred submissions, and concerns building departments encounter during the permitting process when deferred submissions are used, will be discussed.

Ron Lynn is president of the ICC Board of Directors and a certified building official with the Clark County, NE, Department of Development Services—Building Division.

Jim Schock is chairman of the Structural Technical Advisory Committee to the Florida Building Commission and a certified building official with Jacksonville, FL.

9:45 a.m.–10:00 a.m. BREAK

10:00 a.m.–11:15 a.m. **Non-Standard Steel Joists**

The communication between, and the responsibilities of, the project registered design professional and the joist manufacturer for non-standard steel joists will be reviewed. IBC section 2206 will be discussed, along with types and formats for steel joist calculation submittals.

Tim Holtermann, based in Washington, MO, is the corporate engineering manager for the Canam Steel Corporation.

11:15 a.m.–12:30 p.m. **Design Responsibility for Engineered Precast Systems**

Discussion will include how best to convey necessary design information in the contract documents and how to deal with issues related to precast concrete lateral load resisting systems, as well as approaches to avoid RFIs and design omissions.

Tim Salmans is a precast design engineer who worked 10 years for various precast concrete manufacturers before co-founding Salmans, P.C. in Albuquerque, NM, in 1997.

12:30 p.m.–1:00 p.m. LUNCH

1:00 p.m.–1:30 p.m. **Moderated Discussions En Route to Facility Tours**

1:30 p.m.–2:30 p.m.

Tour of Canam Steel Joist Facility

See and learn about joist fabrication and metal decking; then view a film on standard load testing and BIM. *Tim Holtermann*, chief engineer, Canam Steel Corporation

3:00 p.m.–4:30 p.m. **Tour of Gate Concrete Products Facility**

Tour the facility and lab to see pretest of design mixes, production of hollow core slabs and load testing. *Tom Newton*, vice president operations, Gate Concrete Products

6:00 p.m.–7:00 p.m.

RECEPTION—

Sponsored by the Florida Structural Engineers Association

Steve Walker is the principal engineer of the Light Gauge Steel Engineering Group, Inc. (LGSEG), experienced in the design of structural framing systems and a member of the subcommittee that developed and periodically updates the AISI Code of Standard Practice for the Cold-Formed Steel Structural Framing Industry.

11:00 a.m.–12:30 p.m. **Current Trends in Professional Liability & Risk Management**

The focus will be on duties and limitations when providing construction phase services; important contract provisions that are frequently the subject of difficult negotiations, and how poorly worded provisions may impact a design professional.

Brian Hader, Suncoast Insurance, is a specialist in professional liability insurance and loss prevention education for architects and engineers.

Colleen Palmer, Beazley Insurance, an industry professional and, formerly, a practicing attorney, specializes in providing risk management services to design professionals and conducting risk management seminars.

12:30 p.m.–1:30 p.m. **LUNCH & PRESENTATION—Sponsored by Fyfe Company.**

How to avoid deferred submittal problems when specifying fiber reinforced polymer (FRP) for the structural upgrade of concrete. *Scott Arnold, P.E.*

1:30 p.m.–2:45 p.m.

Deferred Submittal Documentation—What You Really Need to Show Regarding Deferred Submittals

Why is it important to clearly identify what scope is covered by the EOR and what scope requires design by a specialty engineer? IBC requirements for deferred submittal documentation will be reviewed, along with common problems and the avoidance of unnecessary risks with various deferred submittal items.

C. Ben Nelson, Martin/Martin, Inc., has structural engineering experience with a wide variety of materials and building types, many of which include some aspect of deferred submittals.

2:45 p.m.–3:00 p.m. BREAK

3:00 p.m.–4:30 p.m. **Deferred Submittals—Lessons Learned**

Panel Discussion:

- Prevention of problems
- Pre-engineered metal buildings
- Foundations not correctly prescribed
- An inordinate amount of changes

Saturday, February 26

7.5 Professional Development Hours

7:00 a.m.–8:00 a.m. REGISTRATION/CONTINENTAL BREAKFAST

8:00 a.m.–9:30 a.m. **Specifying Wood & Cold-Formed Steel Trusses—Avoiding Pitfalls and Unnecessary Liability**

This session will explore some of the pitfalls of specifying pre-manufactured trusses, including the very different expectations of “who is responsible for what” on the parts of the SER, the truss industry, contractors, and the building department.

Ed Huston, principal in the firm of Smith and Huston, Inc., Seattle, WA, is a licensed civil and structural engineer in Washington, experienced in structural design, evaluation, investigation and code standards development.

9:30 a.m.–9:45 a.m. BREAK

9:45 a.m.–11:00 a.m. **Cold-Formed Steel Submittals—Expectations and Performance of Structural and Specialty Engineers**

The responsibilities of all members of the construction team with respect to the use of cold-formed steel products, and with particular emphasis on the roles of the SER and the specialty structural engineer and the liability for design assumed with each of these arrangements, will be discussed, along with recent case histories.