

THE STRUCTURAL ENGINEERS ASSOCIATION OF TEXAS

President Vice President Secretary Treasurer Past President Asma Momin, P.E. Jennifer Ray, P.E. Amal Ahmed, P.E. William (Bill) Light John Turner, P.E.

July 2016 Newsletter

Meeting Info

Date: Tuesday, July 19, 2016

Doors Open: 11:30 am Lunch Starts: 11:45 am Program: 12:00- 1:00pm

Location:

Maggiano's Little Italy 205 North Park Center Dallas, TX

Pricing:

- Member Lunch Presentation (1.0 PDH) \$25.00 (USD)
- Non-Member Lunch Presentation (1.0 PDH) \$35.00 (USD)
- Member Presentation Only, No meal (1.0 PDH) – Free
- Non-Member Presentation Only,
 No meal (1.0 PDH) \$10.00 (USD)
- Student Lunch Presentation Only (1.0 PDH) – \$10.00 (USD)

*Late registrants will incur a \$5.00 additional fee

Reservations

Please register by 1:00 pm on **Monday, July 18, 2016.**

*Limited walk-ins available.

Click Here to register on-line.

KLYDE WARREN PARK PROJECT

Brian Kuehl, P.E. – Project Engineer in the Central Texas Bridge Group at Jacobs Engineering

Brian Kuehl serves as a Project Engineer in the Central Texas Bridge Group for Jacobs. He's been with Jacobs nearly 15 years since graduating with a BS in Architectural Engineering from the University of Texas in Austin. Brian is experienced in the analysis and design of transportation structures that include prestressed concrete bridges, straight and curved plate girder bridges, various types of retaining wall, and sign support structures. Brian also has experience with multi-level interchanges, steel radio towers, historic bridge rehabilitation, truss analysis, load rating, and the development of bridge layouts, structural details, quantities and cost estimates. He was a structural task leader for Klyde Warren Deck Park.

Thank you to last month's meeting sponsors:



Keith Bohren – Field Engineer (469) 816-7784 kbohren@strongtie.com www.strongtie.com



Michael R. Miller, P.E. – District Sales Engineer (214) 340-1883

mmiller@vulcraft-tx.com

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Upcoming Events

Next chapter meetings:

Aug 16, 2016

Special Inspections Enforcement

in North Texas

Panel Discussion

Sep 20, 2016

Structural Problems: Common Types and Suggested Solutions

Michael W. Lee, P.E.

Industry Events:

New NCSEA Structural
Engineering Summit
Disney's Contemporary Resort
Orlando, FL
Sept 14 – Sept 17, 2016
Click Here

2016 Texas Wood Solutions Fair George R. Brown Convention Center, Houston, TX Sept 14, 2016 Click Here

President's Message

By Asma Momin, PE

"The secret of change is to focus your energy not on fighting the old, but on building the new." –Socrates.

I am using my recent trip to Greece as an inspiration this month to discuss some of the new happenings at SEAoT.

First, the planning of the SEAoT Dallas Banquet is moving fast and furious. We hope this will be first of many. We will have important registration and sponsorship information on our website soon. So stay tuned.

As you may know, the speakers and topics for the SEAoT meetings are set by the vice-president. As always, the current secretary, Amal Ahmed will move into the vice-president's position after serving her term as the secretary. The process of looking for speakers starts now, so if there is something you would like to hear or if you have any suggestions please talk to her. We will be recruiting someone to fill the secretary position next year. If you are interested, please contact one of the board members. It is an exciting opportunity to make a change and contribute. We are looking for someone to step up and help build a new future for SEAoT's Dallas Chapter.

SEAoT Dallas chapter usually takes a break for the summer and does not hold monthly chapter meetings. This year we are trying something different and will continue to have our monthly meetings. This month, we have Brian Kuehl from Jacobs Engineering presenting on the engineering behind Klyde Warren Park. In August, we are planning to have a round table discussion on the new special inspection requirements for structural engineers that are being enforced in jurisdictions around DFW. We hope you will attend. If you are not going to be here in the summer, I hope you have some exciting vacation plans.

Speaking of trips, as I stated, I recently took an inspiring trip to Greece. We stayed mostly in Santorini, an island off the coast of Greece. We also stayed in Athens for a little while and visited the Acropolis which was built in the 5th century BC. The buildings of the

Acropolis have influenced the development of architecture to this day. These ancient structures were impressive not only in their magnitude and dimensions but how long they survived lootings, wars and even earthquakes through the country's history. As a structural engineer, that is something I could most definitely appreciate, but I also admire the effort and energy it took to build these structures not to mention all the obstacles they would have had to overcome. They showed true faith, dedication and commitment to their cause even though there was no guarantee of success, without ever knowing the impact and impression these structures would make on future generations.

We also went to Santorini where we stayed in a resort built along the side of a cliff. Some of the resort room walls were the actual outside face of the volcano. The rooms all had views of the Meditterranean Sea facing west. During sunsets we would have front row views to some of the most spectacular sunsets while we sipped coffee on our patio. We would walk to town when we wanted to eat and browse through the town

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shops. Although people say you can't do "nothing" forever and it would become tiring, I am not sure I believe it. That was the closest I have been to the concept of paradise. The awe inspiring views left me feeling blessed, lucky and made me speechless. I believe you should never take more that you give. In these quiet moment, I could hear a voice in the back of my head saying, it is time to give back. My term as the president for the Dallas Chapter of SEAoT will end at the end of this year. I looking forward to moving on to something else-another opportunity to give back.

I loved the Greek people, their hospitality, their honesty, and most definitely their optimism. When things did not always go well and the end was unclear, we would hear them say, "Everything will be perfect." I believe that about the future of SEAoT. I will leave you with one last thing I learned from the Greeks.

A society grows great when old men plant trees knowing that they will never sit in the shade of those trees. -Greek Proverb

Recap of Last Month's Meeting

In the June 21st meeting **Jim Cornell**, a General Superintendent from the Beck Group talked to us about "Specifications for Structural Concrete for Buildings". He is an active 25-year member of the American Concrete Institute, he has served on ACI Committee's 15 Construction Liaison, 301 Specifications for Structural Concrete, 305 Hot Weather Concrete, 308 Curing, 347 Formwork, Publications, TAC Concrete Terminology, TAC Construction Standards, and E707 Specification Education.

Jim graduated from Texas A&M with a B.S. in Civil Engineering in 1977. He is a Professional Engineer licensed in Texas. He earned LEED AP in 2005.

Welcome New Members

Say hello to our new members!

Mr. Chad Olsen Affiliate Connect Structural Engineering, Inc.

Sponsors

The Dallas Chapter of SEAoT would like to thank all of the advertisers that have contributed to the newsletter. We appreciate your support.

You may support SEAoT by advertising in the newsletter. Space is available to structural engineering firms, vendors and suppliers starting at \$125.00 for one year of advertisement (8 newsletters). If interested, please contact David Parkin at (214) 221-2220 or via e-mail at dparkin@ppoinc.net.

Technical Activities Committee

Special Inspections in North Central Texas

(Prelude to August Chapter Meeting SI Panel Discussion) Written by, Technical Activities Chair, Brad Cheshire, P.E. Page

Special Inspections are nothing new. They have existed in U.S. building codes for many decades. What has changed significantly in recent years is both the enforcement and scope of these "Special" inspections (SI). As stated in the CASE Guidelines for International Building Code-Mandated Special Inspections and Tests and Quality Assurance "Since a Building official cannot be expected to be an expert in all of the technical building systems contained in a modern structure, Special Inspectors are needed who have 'special' expertise to inspect critical building components."

The North Central Texas Council of Governments (NCTCOG) has actively promoted regional building code standardization since 1967. In August 2015, the Regional Codes Coordination Committee of the council published a set of "regional amendments" to the model building codes that includes changes to Chapter 17's special inspection provisions. In addition to the proposed amendments the NCTCOG has developed a set of standard forms and a "Procedures" document for special inspections. These standard forms, which are to be filed with the Authority Having Jurisdiction (AHJ) at various project stages, in part define a process for special inspections. Additionally, the various roles involved in the process are named and their responsibilities are defined. The NCTCOG regional amendments and standard forms are provided to the building departments of North Central Texas jurisdictions as a recommended procedure and building code amendment. It is up to each jurisdiction to determine what building codes they will enforce and how they will amend them. With the regional amendments and the set of forms as a starting point for area jurisdictions, it is anticipated that many AHJs will eventually be enforcing similar SI provisions.

The parties involved in the process are listed below with brief paraphrased descriptions of their roles:

Owner – The owner is generally the entity that owns the property and is paying the contractor. The owner or his representative are required to pay for the special inspections. The IBC as well as the amendments indicate the inspectors cannot be retained by the contractor.

RDPiRC – The Registered Design Professional in Responsible Charge (RDPiRC) is one or more Engineers and/or an Architect that coordinate the Special Inspection program.

Special Inspector – The special inspectors are the individuals that have "specialized" training to inspect and test specific types of construction. Generally, a project will have many special inspectors involved to address all of the different material types and systems included in the project scope. The special inspectors are most often employees of a testing and inspection agency but the code allows a design professional to act in this role if they possess the required inspection credentials.

Contractor – The entity responsible for constructing the work, coordinating the testing and inspection services, and providing the special inspectors access to the work. The NCTCOG procedures also require the contractor to maintain a Special Inspections Log at the job site.

The special inspection process can be simplified into the following steps:

Design Phase - During the design process the various design professionals determine what types of special inspections and testing are required for the scope of the project. Generally, these requirements are captured in the project specifications as well as notes on the drawings. With the increasing enforcement of special inspections, It is very important that the budget and schedule impact of the required inspections and tests are understood by all parties, particularly the owner, during the early design stages.

Plans Submission - Prior to submitting the construction documents for permit the "Statement of Special Inspections" is prepared by one or more RDPiRC(s). This statement is a standard form that is to be filled out by a registered design professional, listing all required special inspections for which that design professional will be responsible for tracking.

Permit Issuance - Prior to issuance of the permit an additional form is to be filed with the AHJ and is to be kept up to date throughout the construction process. This form is the "Roster of Special Inspectors/Agencies" and includes a list of all required inspections along with the names of the special inspectors and/or their agencies. Documentation of the special inspector's qualifications are to be submitted with this form.

Construction - During construction the special inspectors/ testing agencies conduct all required inspections and testing as defined in the project specifications. Requirements for reports and their distribution are defined in the amendments.

Completion of Construction - At the completion of each special inspector's scope of work, they are to submit a "Report of Special Inspections" to the RDPiRC and building official attesting to the completion of their inspection services with no open items. This report is expected to be provided in the special inspector's standard format.

Close Out - The RDPiRC(s) collect the Reports from all of the inspectors verifying all required special inspections have been completed. Upon verifying no open items exist the RDPiRC(s) are to issue the "Final Report of Special Inspections" to the Building Official.

It is important to note that the NCTCOG amendments, procedures and standard forms are published and available to the AHJs in the region, but they are being reviewed and updated. Representatives from SEAoT, AIA, testing agencies, and the NCTCOG are working together with a goal of establishing a special inspections program that is effective, consistent, and does not place an onerous burden on the design professionals or testing agencies.

Though it is not the intent of the special inspection process, care must be taken to avoid having a design professional assigned the responsibility of accepting or approving any as-built construction. The use of properly worded standardized forms can be beneficial, avoiding language that could unintentionally change the standard of care required of the design professional. Modifications to the NCTCOG forms are currently being discussed with this goal in mind.

The NCTCoG Special Inspection procedures/forms set forth certain tasks and responsibilities that likely are beyond the scope of services that has been historically provided by design professionals in the North Central Texas area. Each design professional should assess the potential impact of the NCTCoG procedures/forms on the effort that will be required on a project-specific and jurisdiction-specific basis. If compliance with an AHJ-mandated Special Inspection program is expected to require rendering of services beyond the scope of Basic Services as defined in AIA B201 or similar agreement, the design professional should consider advising their client of the need for either additional services under an existing agreement, or creation of a separate agreement solely related to Special Inspections.

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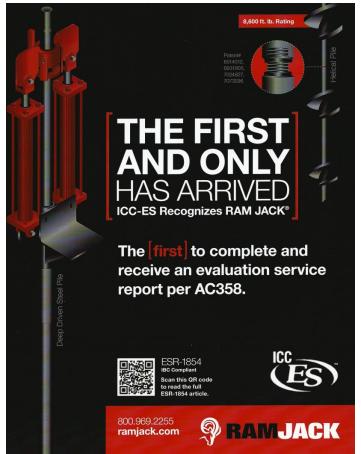
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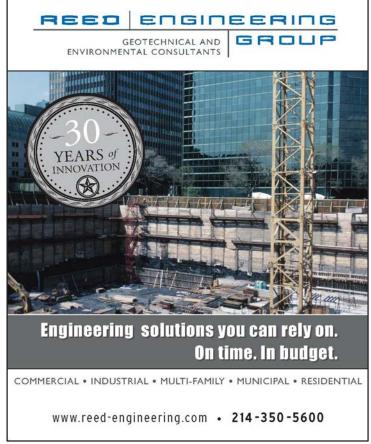
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