Program Information

Tuesday, November 12, 2019

Orange County CSI Chapter
November Meeting

Program: Slip-Resistant Hard Floor and Paving Surfaces

Speaker: John Raeber, FAIA, FCSI, CCS
Independent Specifier

Once again John Raeber joins us to introduce a new approach to the old problem of slip-resistant hard flooring and paving surfaces. John is a “Specifier” with over 40 years successful experience preparing architectural specifications for a wide range of project types, locations, and types of firms.

ABSTRACT/SUMMARY: Slip-resistant hard flooring and paving surfaces took a new turn with the publication of TCNA sponsored ANSI A326.3-2017 (copyright 2018) Test Method for Measuring Dynamic Coefficient of Friction of Hard Surface Flooring Materials. ANSI A326.3-2017 states, “The specifier shall determine materials appropriate for specific project conditions, considering by way of example, but not in limitation, type of use, traffic, expected contaminants, expected maintenance, expected wear, and manufacturers’ guidelines and recommendations.” Initially it appeared as if TCNA was attempting to place blame for slip and fall lawsuits with the specifier and John, as a “specifier” initially thought this was more than a little unfair. However, over time, he realized that perhaps a specifier would be the appropriate member of the construction team to establish a standard of care for making hard surfaces meet the demands of such a complex issue. And, after extensive in-depth research, he has developed a proposal that recognizes the true intent of any code, regulation, or standard is not to establish blame but rather to provide a team process for ensuring the best efforts are being utilized to ensure that hard flooring and paving surfaces are appropriately slip-resistant. And, that the Construction Specifications institute (CSI) offers the best opportunity to review and develop that team process.

This program is intended to:

Introduce a new method of approaching difficult project requirements such as determining appropriate standards for defining slip-resistant hard flooring and paving surfaces by using teamwork in construction rather than attempting to shift blame.

Establish clear responsibilities for the team members of designers, manufacturers, contractors, subcontractors, installers, testing and inspection services, and building owners and managers in determining what defines slip-resistant surfaces.

Provide a table of appropriate ratings for the coefficient of slip-resistance for various hard flooring and paving surfaces that can easily relate lab and field-testing results.

Introduce a clear, concise, complete, and correct standard of care so that each team member can understand and complete their part in the process.

Location: Phoenix Club - Pavilion
1340 S. Sanderson Avenue
Anaheim, California

Time: 5:45 - 6:45 PM Social/No Host Bar
6:45 - 7:30 PM Dinner
7:30 - 8:30 PM Program

Location: Phoenix Club
1340 S. Sanderson Avenue
Anaheim, California

Parking: Plenty of free parking

Dinner Cost: $35.00 cash/check discount for OCCCSI members and nonmembers with reservations.
$40.00 on the website
$45.00 at the door without reservation.
(No-show reservations will be billed)

Tabletops: Product representatives are invited to display at this meeting.
The cost for a tabletop is $80.00.
Contact Dave Brown at 714.329.8498 for information.
The OCCCSI Board of Directors has a fiduciary responsibility to all of its members. Those members and others who choose to purchase events or opportunities by check or cash will receive a discount. Discounted prices will appear in the newsletter and PDF announcements via emails. Those who choose to use their credit cards will be able to purchase at the price printed on our website, occcsi.org. Credit card transactions must be made by the printed deadline in the newsletter or in person at monthly meeting events. Credit card purchase for CPSE trade show registration and exhibit space will NOT be accepted the day of the trade show. This policy is effective on April 8, 2014 by Board approval.

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See our website, occcsi.org, for further disclaimer information.
THE PRESIDENT’S MESSAGE

David C. Brown, CSI, CCS

Dear Fellow CSI Members,

We had our annual board retreat in September to discuss the direction the Orange County Chapter wants to take and it’s future. Our goal is to give the members what they need, not what they want. We discussed our mission statement “to advance building information management and education of project teams to improve facility performance.” We discussed ways to improve our attendance at the monthly membership meetings by having programs that are of interest to our members. We are working on increasing our membership and ways to communicate to our members. Please send me your concerns, needs and issues, relative to CSI, that you are running into during your normal operation of business via email (davebrown.dpe@gmail.com) or call me.

I know I’ve asked you this in my last two letters and I did get a couple of responses, but I still need to hear from you. If you want to get involved we have a committee for you. We need someone who is interested in furthering our education and certification programs and our monthly membership meeting programs. I am giving you another chance to tell us what direction you want your chapter to take in the future. We are here to listen.

Our November meeting features John Raeber, FAIA, FCSI, CCS, on Slip-Resistant Hard Floor and Paving Surfaces. He will show us a new approach to the old problem of slip-resistant hard flooring and paving surfaces. December 4th is our annual Holiday Dinner Party at the Anaheim White House. January is our joint meeting with the Los Angeles Chapter. We are working on getting a speaker from Johnson-Fain Architects to talk on the renovation of Christ Cathedral in Garden Grove.

On February 25th we have our annual Products Show at the Chuck Jones Event Center in Costa Mesa. It was such a big hit last year with our new format and it sounds like it will be a sell-out crowd, so get your table tops early. This is a big opportunity for you as members to view all the products you specify or use during your normal course of business. They are all located in one place. For our Industry members, this is an excellent opportunity to display your products to architects, specification writers and public business members, all located in one place. Come one, come all to the “Greatest Show in Orange County.”
Let your life shine as an example! Wow! It is almost 2020! Times flies while we are all working and having fun. Have you lived as a positive example this past year? Every day you serve as an example to others. You observe others as well. We live by example. Everyone is watching everyone else. What type of an example are you?

"Let your life shine as an example!" There are many good examples around us. They are business persons, laborers, teachers, firemen, policemen, rescue workers, doctors, nurses, farmers, mothers, fathers, sisters, brothers and many valuable others. You and other good decent, law abiding citizens of this country need to rise up in your own way and provide good examples for our children. We need to nurture children and positively guide them. Children are sponges and “soak” up their daily experiences. You can be a positive example for all people by choosing to live in integrity, be a good friend, honor your commitments, and keep good counsel with others. You are a one of a kind creation so be a unique example of character!

Let your life shine as an example! One of our chapter members is a true example of someone who shines with integrity and honor. On November 22, Jan Piccola, FCSI will be retiring from Behr Paint. Jan has done a phenomenal job in her career representing and selling her brands. Jan has put in long hours at work and with CSI. Jan is a treasure to her chapters. What a loss this will be for our coatings industry. Not for CSI! Fortunately, she will find time to volunteer and continue to empower CSI. There is only one Jan. In fact, recently a design professional from the East Coast stated her first name only in a discussion and everyone knew without question if was our "Jan". Her life shines as a great example!

Let your life shine as an example! I have written many times that the quality of your life can speak for you. Keep your standards high. You can live your life and conduct your business in a positive manner. You do not need to do be famous or do extraordinary things to be a good example. Respect yourself and those around you. Be tolerant of others and their unique ways. Be yourself and choose to be part of the solution on this planet. Be your BEST self. Choose to be an exemplary human being by living your life with integrity, dignity and grace. Let your life shine as an example!
Many of you will recognize this equation even if you haven’t used it since your last structures class in architecture school. But where did it originate? I’m not sure why I started thinking about this, the formula for the bending moment in a uniformly loaded beam, but at some point I began trying to figure out where it came from and when it and other structural equations were developed. I was surprised to find that, although men have been building structures for over 5,000 years, structural design as we know it today is less than 200 years old. A lot has been built without benefit of this equation and others like it.

It’s easy to find textbooks and websites that explain how structural equations were derived and how to apply them, but I wasn’t able to find anything describing their origins until recently when I read an article about a book, “The History of the Theory of Structures, From Arch Analysis to Computational Mechanics” by Karl-Eugen Kurrer. At 848 pages, this is not a book most people would sit down to read cover to cover. But if you happen to have a question about the history of structural design, this would be a good place to begin. Before we get to that, and my equation, it might be helpful to start at the beginning of construction in the western world, in Egypt and Mesopotamia, just to put things in perspective.

Sometime between 6000 and 3000 BC, man began to settle down and grow crops for food. This occurred first in the valley of the Tigris-Euphrates Rivers, in what we know today as Iraq, and in the Nile Valley in Egypt. In addition to building houses, agriculture necessitated the construction of dams and canals for control of irrigation water. Until 3000 BC most knowledge was passed on by word of mouth from one builder to the next. (Paper wasn’t in wide use in Europe until the 16th Century.)

Mathematical calculation began as early as 3000 BC although it was used mostly for weighing things for commerce, and for measuring and calculating areas and volumes. The right triangle was understood in Mesopotamia as was the concept of “level”.

As villages grew to cities, wealth increased. Tombs, temples, and palaces were “engineered” and constructed, e.g., the pyramids in Egypt from 2700 to 2200 BC. Craftsmen began to emerge for working with clay bricks and stone. Roads, (some paved with stone), and bridges were built for commerce and to transport building materials. The earliest significant bridge, (400 ft. long over 7 piers), was built in the 6th century BC. It was made of mud brick piers with short timber beams supporting the roadway. The Great Wall of China was started in 200 BC, and the Walls of Babylon were constructed in about
MEMBERSHIP REPORT

By Joe Esquer, CSI
Membership Chairman

Welcome to our NEW MEMBER!

Joel Martinez - CSI Electrical Contractors, Inc.

Thank You to our RENEWING MEMBERS!!

David Brown - DPEnterprises

Stuart Fricke - Port of Los Angeles

Lisa Fyke - MAPEI Corporation

Michael Granatowski - MAPEI Corporation

Steven Kendrick Lionakis

Arturo Ortiz, Jr. - Carisle Syntec

Janet Piccola - Behr Paint Company

Tom St. George - Hager Companies

David Walsh - David Walsh Architect
The Orange County Chapter of the Construction Specifications Institute

Invites you to the White House for our Annual Holiday Dinner

On Wednesday, December 4, 2019

Join us for a wonderful dinner at the Anaheim White House Restaurant, a national historical landmark, in the West Wing Dining Room. We are thrilled to return to this rebuilt one of a kind restaurant. This is the only restaurant in the World that serves 4000+ free dinners to homeless children every night through Caterina’s Club. For many years, our chapter has supported this charity, and we dedicated a section of our website (https://occssi.org/caterinas-club.html) to their work. We will be “passing the hat” for donations to Caterina’s Club at this dinner.

The dinner menu includes the White House Salad and a choice of three entrees.
The entrée choices are
- Hanger Steak
- Chicken Tarragon
- Salmon Signature Dish

Our dessert will be the Jackie O Assortment. Our entertainment will be Yester Year with leader, William McLaughlin. You may know him from the Retail Design Collaborative.

Time:
- 6:00 PM – 7:15 PM Social
- 7:30 PM – 9:00 PM Dinner

Location: Anaheim White House Restaurant
The West Wing Dining Room
887 S. Anaheim Boulevard
Anaheim, California

Directions: Take the 5 Freeway and exit at Harbor Blvd. Go north on Harbor Blvd, then east (right) on Ball Road. The second signal is Anaheim Boulevard, go left again. Pass the first signal, which is Vermont, and the restaurant is the second building on the left.

Parking: Valet Parking

Dinner Cost: $65.00 per person by check or
$70.00 on the website

MAIL YOUR CHECK with your entrée choice TO: OCSSCI, Post Office Box 8899, Anaheim, CA 92812. Reservations MUST be with your check and received at our Post Office Box or website by November 29, 2018. For questions, please call Dana Thornburg at 714-907-3981.
Orange County Chapter of the Construction Specifications Institute

2020 Products Show

NEW Exclusive Format
By Invitation Only

FEBRUARY 25, 2020

Chuck Jones Center for Creativity
Costa Mesa, California

Trade Show: 4:00 to 6:00 pm
Dinner: 6:00 to 7:00 pm
Keynote Speaker: 7:00 to 8:00 pm

Keynote Speaker:
TBA

Exhibitors go to our website to register at: https://occcsi.org/trade-show.html
Orange County Chapter of CSI thanks the following sponsor/exhibitors and exhibitors (as of October 31):

Major Sponsors:

**TUFFLEX Polymers**  
**Behr Paint**

Exhibitors:

Angelus Block Co. Inc.  
Flexco  
Omega Products International Corporation  
Regupol  
Seaman Corporation/FiberTite Roofing Systems  
Schluter Systems  
Siena Tile & Stone  
Stego Industries LLC  
Tnemec - TPC Consultants, Inc.  
Vista Paint  
W. R. Meadows of Southern California
Lorne W. Bell Jr.

Lorne W. Bell, Jr. passed away peacefully on September 4, 2019 at the age of 97 at Oakmont of Chino Hills where he had recently resided. He was born February 8, 1922 in Long Beach, CA to parents Lorne W. Bell, Sr. and Marion Lazenby Bell. He grew up in Long Beach and attended Los Angeles High School. Upon graduation from Pasadena City College, he married Constance Hawkins and joined the United States Army Air Corps, serving during World War II. After completing his time in the service, Lorne returned to Southern California where his two sons, Gregory Erroll and Douglas Richard were born.

During the years following the war, Lorne worked at Crown City Lumber & Mill and Custom Wood Products in Pasadena developing his many woodworking skills. In 1962 Lorne married Marguerite Treat and moved to Upland, California where they lived and became a part of the community for almost 60 years. He worked for K & Z Cabinet Co., as an estimator and as an inspector for the Woodwork Institute of California. He was a valued member of WI and CSI, both well known woodworking organizations.

Throughout their years in Upland, Lorne and Marguerite enjoyed traveling the world with the goal of visiting every continent. He loved hiking the peaks of Southern California and on the eastern side of the Sierra Nevada mountains. Lorne enjoyed other hobbies including photography and later in life, golf.

Lorne was a long time member of First Presbyterian Church of Upland where he served on many boards and used his woodworking skills to build and repair many items for the church. Lorne was preceded in death by his parents, Lorne Sr. and Marion Bell, his sister Barbara Morris and his grandson, Aaron Bell. He is survived by Marguerite, his wife of 56 years, his sons Greg (Anita) and Doug (Paula), four grandchildren and eight great grandchildren.

There will be a Celebration of Life service on September 21st at 4:00 p.m. at First Presbyterian Church of Upland. Memoriam gifts may be made to the American Cancer Society or to the charity of your choice.
Greek architects and engineers learned by doing, and doing it over again. The Greeks took the post and beam, developed first in Egypt, and the Mycenaean corbelled arches and refined their proportions and details. Archimedes (267 – 212 BC), developed the principle of the lever and lever arm, and Euclid developed geometry in 300 BC. Elementary statics was understood by the Greeks and the concept of equilibrium was expressed mathematically. The Greeks were great scientists.

In contrast to the Greeks, the Romans were great engineers but not great scientists. Romans refined the techniques developed by others before them. Roman engineers were precise and understood economy in the use of construction materials. They understood the forces in stone arches and developed pozzuolana from combining lime powder, volcanic ash, and sand for use in making masonry mortar. However, it wasn’t until the 15th Century that geometry and trigonometry were used in Italy. Roman aqueducts and buildings still stand today due to their being over designed, or having an extra factor of safety sometimes also known as the “margin of ignorance”.

Both Leonardo da Vinci (1452 – 1519) and Galileo (1564 – 1642) experimented with the tensile strength of wire. This was the beginning of the strength of materials science. There is evidence of structural theory in Leonardo’s late 15th Century drawings. Galileo developed equations for bending and published them in 1638 in his Dialogue Concerning Two New Sciences. But it wasn’t until 200 years later that a theory of bending was fully developed by the French engineer Navier. In the interim, structural design was performed using empirical methods, members were sized on the basis of “custom”, i.e., repeat what had been done before in the same situation. The first evidence of structural analysis was for the repair and retrofitting of the dome at St. Peter’s Basilica in Rome in 1742. Here, scientific methods were used for the first time in a structural application.

Claude-Louis-Marie-Henri Navier was born in Lyon, France in 1785. He grew up with his uncle who was a high French government civil engineering official. Navier began work in the government’s bridges and roads department. Construction in France at the time used mostly masonry and stone materials unlike England where cast iron was becoming prevalent. Navier travelled to England in the 1820s to study this new material and published his theory of chain suspension bridges in 1823.

In 1826 Navier, now a professor at the Ecole de Ponts et Chaussées, combined statics and strength of materials to form the unified theory of structures that he published in his Resume des Lecons. He built on the studies of Galileo, and on the later theoretical work by F. J. von Gerstner, of Bohemia, and the Prussian engineer J. A. Eytelwein. Navier’s practical bending theory enabled engineers to reliably predict beam performance. His structural theories were also applied to the design of retaining walls, masonry arches, columns, and elastic slabs. As a result, Navier is considered the father of modern structural theory and the author of the equation at the top of this article.

In addition to the book, “The History of the Theory of Structures, From Arch Analysis to Computational Mechanics” by Karl-Eugen Kurrer, that is the basis for most of this article, I also used the book, “Engineering in History” by Kirby, Withington, Darling, & Kilgour, (published by McGraw Hill in 1956, with 530 pages), for information on ancient construction. There is a new and enlarged edition of “The History of the Theory of Structures, Searching for Equilibrium”, although as you can see it has a slightly revised title. It was published in 2018 by Ernst & Sohn, Berlin, and has 1,212 pages. Both editions trace in great and interesting detail the history of structures and structural design from their beginnings in Galileo’s time up to the computational statics used today. Biographies of important engineers are presented along with a history of engineering education in Europe and the USA. The book is enhanced by many photographs, historical drawings, and diagrams.

Ed Buch, FCSI, CCSI, AIA, LEED AP
Los Angeles, CA

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**Our Past Presidents**

* Lynn Muir, CSI 1965-1967
* Howard Beal, CSI 1967-1968
* Carl Carlson, CSI 1968-1969
* Robert Hernandez, CSI 1969-1971
* Lloyd Schumann, CSI 1971-1973
* Howard Dedrick, CSI 1973-1975
* Bill Sharp, CSI 1975-1976
* George Daws, CSI 1976-1977
* Malcolm Love, CSI 1977-1979
* Frank Dave, CSI 1979-1980
* James LeNeve, CSI 1980-1981
* Mike Geraghty, CSI 1981-1983
* Annette Wren, FCSI, CDT 1983-1985
* David Lorenzini, FCSI, CCS 1985-1986
* Mike Lytle, CSI 1986-1988
* Richard Carrasco, CSI, CCS 1988-1989
* Dell Griger, CSI 1989-1991
* Gerald Staake, CSI, CCS 1991-1993
* John Regener, CSI, CCS, CCCA 1993-1995
* Jackie Carr, CSI 1995-1996
* Kimberly Claus, CSI 1996-1997
* Ed Brannen, CSI 1997-1998
* Pete Thomsen, CSI 1998-1999
* Royce A. Wise, CSI, CCS 1999-2001
* Mark H. Niese, CSI, CDT 2001-2003
* Gary M. Kehrner, CSI, CDT 2003-2006
* Mark H. Niese, CSI, CDT 2006-2008
* Michael D. Baker, CSI 2008-2010
* Steven Olitsky, AIA, CSI, CCS, RA 2010-2012
* Michael D. Baker, CSI 2012-2013
* David C. Brown, CSI, CCS 2013-2015
* Bryan Stanley, CSI 2015-2018
* Dana Thorngb, CSI, 2018-2019

* deceased

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## MEETING SCHEDULE AND INFORMATION

Make reservations by the Friday preceding the meeting.
Call the Chapter Hotline at (714) 434-9909

### UPCOMING MEETINGS:

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<td><strong>OCCCSI Board Meeting (5:30 p.m.)</strong></td>
<td>Phoenix Club, 1340 S. Sanderson Avenue, Anaheim, California</td>
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