



SPEE.tectonics

CSI Houston Chapter
The Construction Specifications Institute

April 2013

April 22th meeting:

PLACE: See tour announcement this page

TIME:

5:30 P.M. (Registration and mixer)

6:00 P.M. (Evening Meal and Meeting)

COST:

\$35.00 Per Person; Gratis to CSI members.

RESERVATIONS: Go to:
<http://www.csihouston.org>

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CSI Houston Website:
<http://www.csihouston.org>

April CSI Houston Chapter Tour TexRite Factory Tour

For CSI Houston Chapter's April Program on April 22, 2013, we will be touring TexRite, a local manufacturer of products and systems for setting floor and wall tile. Alan Kin with TexRite will be giving a presentation on developments in mortars, grouts, and underlayment materials. He will also be discussing why certain types of setting materials should be used for unusual conditions. After Mr. Kin's presentation, TexRite personnel will escort us on a tour of the manufacturing facility including the mixing process and their quality control procedures.

Alan Kin has 29 years experience working with manufacturing adhesives, bonding mortars, colored grouts, underlayments, waterproofing, epoxies and other construction materials for the ceramic tile and stone industry with more than 17 years experience in Research and Development including forensic testing, destructive testing and analysis. Mr Kin is an active participant in trade groups such as the Materials and Methods Standards Association and the Tile Council of North America.

We will meet at TexRite's offices at 4000 Pinemont, Houston, Texas 77018 at 5:30 pm.

Dinner will be served at the plant facility after the tour.

May CSI Houston Chapter Program New USGBC LEED Program

Our May meeting will be moved back a week because of Memorial Day to May 20th.

Our guest speaker will be Tim Murray with Apollo BBC. He will be speaking about the newest LEED program.

This program should be well attended meeting because of the great interest in LEED and environmental issues in the Architectural, Specification, and Construction community. Please make your reservations early.

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CSI SOUTH CENTRAL REGION (<http://www.scr-csi.org>) / INSTITUTE LEADERS (<http://www.csinet.org>)

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April 2013

President's Message

by Holly A. Jordan, CSI, CCS, LEED AP BD+C, SCIP

President, CSI Houston Chapter

President-Elect, CSI South Central Region

April is a different month for the CSI Houston Chapter. The first week in April, nine CSI Houston Chapter members will be attending the Region Conference in San Antonio. I am sure that Chapter members will come back from the Conference motivated, energized, and excited to share their experiences with everyone in the Houston Chapter.



April also is the month that the Houston Chapter normally has a tour. The Program Committee will be sending out information on a factory tour of Texrite. A brief educational session, informational tour, and dinner will be provided by our hosts. Because we will be having our tour this month, there will not be a Board or Planning meeting in April.

Our May meeting will be moved back a week because of Memorial Day to May 20th. Our guest speaker will be Tim Murray with Apollo BBC. He will be speaking about the newest LEED. I am sure that this will be a well attended meeting because of the great interest in LEED and environmental issues in the Architectural, Specification, and Construction community.

June will round out and finish my presidency with our Annual Awards Banquet. I hope to make this meeting special for everyone. We will have a door prize of a Duck/Goose hunt provided special from Boral Building Products along with other door prizes, thank you's, awards, gifts, etc.

2013 Brian Harrington Golf Classic

By Joey Penna, CSI, CDT, LEED AP



Save the Date: The 2013 CSI Brian Harrington Golf Classic will be held Monday, October 21, 2013.

Golf Course: Falcon Point Golf Club, Katy, TX

Entry Forms & Sponsorship Forms: Go to the CSI Houston Chapter website at <http://www.csihouston.org>. Forms will be available shortly for you to attend and support the CSI Houston Golf Classic.

We hope to see you there!

CSI CDT Prep Classes for Spring 2013

by Holly A. Jordan, CSI, CCS, LEED AP BD+C, SCIP, President CSI Houston Chapter

In preparation for the CSI CDT Exam during the month of April 2013, CSI-Houston will once again be sponsoring a CDT Prep Class this spring. The eleven week course is scheduled to begin on Thursday, January 17, 2013 at 6:00pm. The class is scheduled for two hours every Thursday evening, concluding on the week of March 25, 2013. Classes are scheduled to be held at Building Exterior Solutions, LLC; 6975 Portwest Dr., Suite 100; Houston, TX 77024

This is conveniently located near the intersection of the Katy Freeway and the West Loop. The cost for students attending will be \$75.00 for CSI members and \$100.00 for non-CSI members. Checks must be made payable to 'CSI-Houston.' In addition, CSI-Houston is also offering to order all study materials for prospective students as a group. This will enable all who order this way to receive a "group discount" and save some money on study materials. Please inform us upon sign-up that you wish to order your materials with the group.

New for this session is that the final class will be held on Monday March 25, 2013 at 4:00pm. This will be just before our monthly CSI-Houston Dinner. All prospective students are invited to join us for dinner without charge that evening. Individuals that would like to sign-up for the CDT Prep Class should contact the local Certifications Chairman, Tim Wilson. His contact information is Cell (832) 289-6765; Email twilson@weatherizationpartners.com



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Division 07 - Thermal and Moisture Protection

Houston Code News and Events

By Di Ann Hassloch, CSI, CCS, CCA, LEED AP

New Electrical Code - Effective 09/01/2011.

On August 10, City Council approved the adoption of the 2011 National Electrical Code and local amendments.

New Commercial Energy Codes - Effective 09/02/2011.

September 2, 2011, commercial buildings and structures shall comply with the 2009 IECC or 2007 ASHRAE 90.1, pursuant to Section 19.53 of Chapter 34, Texas Administrative Code. In accordance with this provision and the rules thereto, the City has reviewed the codes and has proposed amendments for review by the Energy Systems Laboratory.

Please visit the City of Houston Form & Publications Page at <http://www.houstonpermittingcenter.org/code-enforcement/code-updates.html> to access the new Commercial Energy Codes

New Construction Codes—Effective 12/31/10.

On November 3rd, City Council approved the 2006 Code Package to adopt updated Construction Codes. The new amendments are available at our Forms & Publications page.

Texas Adopts New Energy Code 2009 IECC effective April 1st, 2011. The major points to be guided by for the building envelope are:

- All commercial projects will need insulated glass. No more monolithic exceptions for small window to wall ratios.
- All commercial projects will need to exhibit an SHGC (Solar Heat Gain Coefficient) of .25 or less. This is a major revision and improvement to save energy for our building owners. There are exceptions for projection factors i.e. shading.

As published in the Texas Register today: ADOPTED RULES June 4, 2010 35 TexReg 4727


Current codes in the City of Houston include:

- Building Code: 2006 IBC with Houston Amendments.
- Residential Code: 2006 IRC with Houston Amendments.
- Electrical Code: 2011 NEC with Houston Amendments—1st Printing.
- Mechanical Code: 2006 UMC with Houston Amendments.
- Plumbing Code: 2006 UPC with Houston Amendments.
- Fire Code: 2006 International Fire Code



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Contact:  Carl Metzroth, CSI, at 281-610-4854, or e-mail: Metzroth@ppg.com
Deron Patterson, CSI, at 281-841-0829, or e-mail: Patterson@ppg.com

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FEATURE YOUR PRODUCTS WITH A TABLE TOP DISPLAY

At each monthly meeting, the Chapter encourages Industry Members to provide a table top display of their products and services for the inspection and education of those attending the meeting.

The table top display is also encouraged to be presented during the social hour and after the program for any questions by attendees.

The presentation fee for this time is \$200 for members and \$250 for non-members, or free with a Golf Sponsor-

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Contact Don Smith at (713) 688-0092 or don.smith315@sbdglobal.net for more information.

CSI Houston Chapter Board Meeting Minutes

Location: HESS Building

5430 Westheimer Rd., Houston, TX

February 25, 2013

Present: Betsy Finch, Bill Fairbanks, Don Smith, Don Ude, Don Vernon, Doug Frank, Holly Jordan, Joey Penna, Neil Byrne, Robert Byrne, Tom Atwell

President Holly Jordan called the meeting to order at 4:15 p.m.

The January 2013 Board Meeting Minutes were approved.

REPORTS

Member Services: Mark Koehler

Programs: J. Peter Jordan

The February program will be on fenestration and will be presented by Greg Roberts, George Wilson and Gary Patterson. Alex Bernard will be in charge of the March program and Pat McIntosh is working on the April program.

Membership: Joey Penna

Joey reported that membership is currently at one hundred and seventy one members, including four new members. He also reported he was asked to attend the next CSI regional meeting to discuss attracting new members and keeping current members within the local chapters.

Awards: Amy Salmeron

Holly reported that she met with Amy and Robert and that Amy is working on the awards and she will be requesting information from Board members. Bill Fairbanks commented that now is the time to start thinking about prospects for the Craftsman Award. Holly asked the Board members to think about this.

Finance/Administration: Neil Byrne

Neil reported he is working with an insurance agent to obtain information regarding director and officer insurance coverage.

Treasurer's Report: Chuck Vojtech

Neil reported the revenue from the table top displays and sponsor tables at the January chapter meeting brought in more revenue than expected. He stated the chapter is currently in a good financial position.

Table Top Display: Amy Peevey

No report.

Personal/Professional Development: Doug Frank/Di Ann Reid

No report.

Publications and Public Services: Don Smith

Golf Tournament: Tom Atwell

Tom reported the golf committee is scheduled to meet on March 1st to discuss ideas for new sponsorships and meeting on February 26th with Bob Cook concerning items for the golf goody bags. He also reported Falcon Point needs a down payment. Joey will handle this with Chuck.

Spec.tectonics: Don Smith

Don reported the February newsletter issue was posted to the website and his target date to post the March issue is March 8th.

Electronic Communications:

Holly reported Logan Vits is now in charge of Constant Con-

tact and sending meeting information out to the members. Holly also reported she has some changes to make to the website and that she will meet with Don to discuss the changes and any necessary updates.

Public Relations: Don Vernon

Don discussed with the Board possible dates for a Product Show/Vendor Night, table tops for vendors, panel discussions, location to hold the show. He stated he would check with AIA about the available dates for the AIA office downtown and if they would be interested in a joint venture with CSI for a Product Show/Vendor Night. Neil mentioned the chapter has some money that could be used to partner up with AIA and do something jointly.

Professional Development: Logan Vits

Continuing Education:

No report.

Academic Affairs:

No report.

Certification: Tim Wilson

No report.

Technical Committee:

No report.

New Business:

Holly mentioned she would like to have a key note speaker at the June chapter meeting and asked the Board members to think of possible candidates. Joey said he would check with Toastmasters and report back to the Board.

Foundation:

Holly discussed financial responsibility for student members attending the chapter meetings. She asked for guidelines as to who is supposed to pay for students; is it the responsibility of the chapter or the Foundation? Holly requested the Foundation members check into this and advise.

CSI Code of Conduct:

CSI Houston By-laws incorporate with a statement from the CSI Code of Conduct from Institute that applies to all members. CSI Houston Chapter Meetings are for Networking and Education. Members and/or guests who do not comply with the CSI Code of Conduct will be asked to leave. Further action may be taken on behalf of the CSI Houston Board. Members who arrive at Chapter Meetings and/or Events who are noticed to be inebriated will be asked to leave via cab or other arranged transportation. If such member is non-cooperative, the authorities will be notified. In addition, the HESS Club has been notified of the CSI policy and they additionally have their own policies to handle such situations. CSI Houston Board and Committee Chairs will not be held liable for individuals who choose to ignore the CSI Code of Conduct. Additionally, members are asked not to purchase alcoholic beverages for anyone who is not in the immediate presence of the HESS Club bartender. The HESS Club as well as CSI Houston reserves the right to refuse service to anyone.

Meeting adjourned at 5:25 p.m.

Betsy Finch, CSI, Chapter Secretary

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Joey Penna
CSI, CDT, LEED GA

for more information.

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National Energy Code Impact on Gulf Coast Construction

By Donald F. Smith, Jr., CSI CCS RA LEED AP

I keep getting questions on use of air barriers versus air/water barriers here in the Houston area.

Let's discuss terminology first. An air barrier is vapor permeable, but blocks air movement. An air/water barrier is vapor and water impermeable.

Where you place a vapor barrier is a very complicated issue. The first things to consider is a project's geographic location and vapor drive. Generally, if your project is located within about 100 mile of the coast anywhere from the Carolinas to Brownsville it is considered tropical exposure primarily concerned with cooling degree days. In this situation you should be concerned with placing a non-permeable vapor barrier toward the predominately warm side of the construction which is the exterior. As you can see, once you move north of about Conroe in our area, your choice of location for the vapor barrier will be wrong part of the year. Then decisions on how the structure is occupied, exterior enclosure wall structure and material chosen to permit the wall to ventilate and dry out become important.

Think about what is going on in the wall of a typical Houston project sixty plus years ago before air conditioning was in wide use. Then, Houston construction had little or no insulation, and no vapor barrier in exterior enclosure walls. Exterior walls back then were designed to breath, both interior and exterior. Monumental buildings had thick masonry construction that was designed shield the building interior from rapid temperature changes and dry out when fair weather returned. Comfort air conditioning consisted of natural ventilation or engineered ventilation consisting rising warm air exhausted near the top of a structure drawing in cool outside air near the bottom, or forced mechanical ventilation, or a combination of these. Compared to today, energy was very inexpensive. The payback for insulation, insulated glass, and air/water barriers did not make economic sense then.

The National Energy Code requires an air/water barrier in our climate zone. We also have Code required insulation goals for our climate zone.

Today, during a typical cooling degree day, once you seal the exterior wall construction and add

air-conditioning, things get complicated. The air-conditioning system can be viewed as a pump of sorts. Warm humid air is recirculated through the A/C cooling coils, excess moisture in the air is condensed and runs down the condensate drain, cool air near 100 percent relative humidity exiting the cooling coil is mixed with return air from the room to raise the air temperature at the room air diffuser to about 68 degrees F and about 50 – 55 percent relative humidity. Any exterior wall construction that has a vapor permeable construction or air leakage, adds heat and humidity making the building less efficient. If you can control moisture entering the exterior building enclosure, the only things left are mechanical heat generating systems like motors, lighting, etc., and the people (building occupants) added heat and humidity. The exterior enclosure wall interior must be left vapor permeable to permit moisture trapped in the exterior enclosure walls to vent to the interior and be removed by the A/C system.

During a typical heating degree day today, things are also complicated. When it is cold outside, warm humid inside air can penetrate into the exterior enclosure walls and come in contact with materials that are at or below the inside air dew point. When this happens, condensation can occur. Fortunately we usually do not have prolonged cold weather here. As the exterior temperature rises above the inside air dew point, any condensed water in the wall will begin to evaporate and move inside. Choosing exterior enclosure wall materials that are not overly sensitive to moisture and vent to the interior of construction will prevent deterioration and mold in buildings in the Houston area.

Special occupancies beyond people loads require special studies. These occupancies include libraries, archival storage, museums, data processing facilities, cold storage facilities, natatoriums, high occupancy rooms, and similar facilities.

"If you don't know where you're going, you might wind up someplace else."

Yogi Berra

... Just my opinion,

Donald F. Smith, Jr., CSI, CCS, RA, LEED™ AP

CSI BOARD MEETING FEB. 23-24, 2013 NEW ORLEANS, LOUISIANA

**By Dorothy Gumm Denison, CSI, CCS, HUB,
WBE, CSI Institute Director**

The CSI Institute Board had a face to face meeting in New Orleans on February 23-24, 2013, with about 25 attendees meeting from 8-5 on Saturday and 8-noon on Sunday.

CSI President Greg Markling led the meeting with discussions on many subjects including Brand Revitalization and its progress and success, update from Executive Director Marlowe, financial review by Treasurer Beauduy.

We had over 20 committee reports presented on Sunday; issues and recommendations for changes and improvements were discussed; open discussion times are always encouraged.

All these meetings are held in strict adherence to Roberts Rules of Orders. These meetings are essential for running CSI and of course the specific information discussed are to be kept confidential between the Board Members themselves.

But this was a very productive meeting. Our next board meeting which will be a webinar is scheduled for March 21. Our next face to face meeting is scheduled to be in June at Atlanta.

We will be looking forward to Mitchell Miller, CSI, CCS, Institute Vice President, and his wife Debby attending our South Central Region Conference in San Antonio.

SPECIFYING ABUSE OR IMPACT RESISTANT GYPSUM BOARD? HOW TO KNOW THE DIFFERENCE By Scott Hughes

Remember when it was easy to write a gypsum specification? All you needed to worry about was what thickness and core type to specify. In a relatively short time, that has changed. There are so many products to choose from, it's difficult to know when to specify what product. Just as important, you need to understand what performance features are compromised if a lower cost product is substituted for the higher performing product.

One of the biggest concerns is determining when to specify an abuse resistant "AR" or impact resistant "IR" product. There are real performance differences between these two product categories that need to be defined. Let's see if we can get a better understanding of when you need to specify abuse resistant or impact resistant gypsum board.

Abuse resistant gypsum boards are designed for use in wall assembly areas where surface abrasion is a concern. Abuse resistant products are excellent at preventing surface damage due to abrasion or scuffing in high traffic areas during standard use, and indentation of the wall surface from low impact accidental or occasional impact. Impact resistant gypsum boards do all of this with the added feature of reducing penetration damage due to intentional or continual force that would break through standard gypsum board into the stud cavity. Manufacturers add fiberglass mesh reinforcement to the gypsum core to help reduce penetration damage. Abuse resistant products do not have additional reinforcement.

When the impact resistant gypsum board specification is not clear or a contractor tries to substitute abuse resistant gypsum board for impact resistant gypsum board, it is important to understand that you are giving up significant performance. The dollars saved may be spent making repairs for years to come.





ASTM C 1629 is the standard used to qualify abuse and impact resistant gypsum boards. ASTM C 1629 has four specialized tests. Each Classification Level is based on specific minimum or maximum results depending on the test. A product may meet Level 1 on one test and Level 3 on another test, which means that each performance characteristic should be specified based upon the desired Classification Level. Gypsum manufacturers report these values in both product literature and website product pages. Here are the tests and Classification Levels for ASTM C 1629:

continued on page 10

Continued from page 9

Chart A

ASTM C 1629
Classifications and Performance Requirements

	ASTM D 4977 Surface Abrasion	ASTM D 5420 Surface Indentation Resistance	ASTM E 695 Soft Body Impact	Annex A1 Hard Body Impact
				
Classification Level	Abraded Depth Maximum	Indentation Maximum	Impact Minimum	Impact Minimum
1	0.126"	0.150"	90 ft.-lbs	50 ft.-lbs
2	0.059"	0.100"	195 ft.-lbs	100 ft.-lbs
3	0.010"	0.050"	300 ft.-lbs	150 ft.-lbs

Looking over Chart A, you can see that in some tests, like the Hard Body Impact test, the differences between Classification Levels are significant. Did you know that the result of Annex A1 testing for standard gypsum board is 35 ft.-lbs.? That means that a Classification Level of 1 for this test only improves performance by 15 ft.-lbs. Abuse resistant gypsum boards do not test in this category because they are not designated as impact resistant. When tested, abuse resistant products usually score a Level 1. If you are concerned about penetration into the stud cavity, impact resistant gypsum products must be specified and installed.

There are choices when it comes to abuse resistant and impact resistant products including the facing material and additional attributes such as mold and moisture resistance and GREEN-GUARD certification. The current abuse and impact product offerings include paper-faced, non-faced and fiberglass-faced products. The fiberglass-faced products offer an extended exposure warranty that enables the products to be installed prior to the building being dried in.

The chart below illustrates the abuse and impact products available. The biggest difference in abuse and impact resistant products is the fiberglass mess reinforcement embedded in the core of impact resistant gypsum.

Abuse Resistant	Impact Resistant
Enhanced mold and moisture resistant gypsum core with abrasion, mold and moisture resistant facings.	Enhanced mold and moisture resistant gypsum core with abrasion resistant face paper and fiberglass mess reinforcement embedded in the core.
Enhanced mold and moisture resistant gypsum core with abrasion resistant fiberglass faced mats.	Enhanced mold and moisture resistant gypsum core core with abrasion resistant fiberglass faced mats and fiberglass mess reinforcement embedded in the core.

Call your local rep below or 1-800-NATIONAL for the information you need to choose the right product and write an accurate specification.

Joey Penna
CSI, CDT, LEED Green Associate

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“Strictly SMITH-ly”

Use of the Design Development Outline Specification

By Donald F. Smith, Jr., CSI CCS RA LEED AP

Using either the UniFormat or MasterFormat DD Outline Specification can be especially useful for defining overall project goals and for individual team assignments for both architects and team consultants. A UniFormat based outline describes the project by construction physical parts or element assemblies and sub assemblies. A MasterFormat based outline describes the project by CSI Divisions and Sections.

The outline can be used for either large or small projects and can be used to make sure every team member is looking at the project from the designers point of view rather than an individuals point of view. Actually, having either of these two outlines can help define roles and responsibilities even before consultant responsibilities are written into professional service agreements.

The big concept which is often overlooked or not looked at in enough detail to make sure all disciplines are working together and no parts of the design no matter how small do not have someone's attention.

Delegation begins with defining the scope of the project. If the scope cannot be defined in sufficient detail, that portion that cannot be defined cannot be delegated to others. Delegation without defining is abdication. If the manager delegates without defining the assignment, he is really abdicating responsibility for that portion of the work.

When you first meet with your consultant you will probably discuss the overall concept for the project, budget goals, and specific assignments. If the assignments span multiple disciplines and agreement must be achieved on how and what portions of that work must be coordinated and match for design consistency, agreement must be reached on how to achieve these goals. For example, landscape may need a wood deck with a certain variety of wood species, cut, and finish. Architecture may need the same wood species, cut and finish for seat wall benches, column covers and soffits. If several different Sections are

written for very similar work, the odds of it being acquired, fabricated, installed and finished to look the same is not good. On the other hand if the architect and landscape consultant can agree on what is required for the work early and who is in the best position to specify it, the chances of it all matching and achieving the design goal improve dramatically.

The UniFormat outline specification is especially a good tool for examining and managing this type of design problem because the Work is described by assemblies. These assemblies by design have to match, therefore the materials, fabrication, installation and finishing must be the work of a common entity.

Other uses for the outline specification are preliminary pricing, conveying information and terminology, recording change and shortening the specification process.

Every team member has differing levels of education and professional experience. The outline specification can be tough of as sheet music for the orchestra. It is the briefest way to convey individually what is required of each team member. If it doesn't seem to make sense, it becomes the agenda for discussion and resolution. By distribution copies of the outline to all team members, each person will know what material names are being used and where they are used.

The Architect is required by contract to prepare estimates of probable construction cost near the conclusion of each project phase to determine if the project as designed conforms to the client budget goals. By analyzing costs by trades, overages can be found by comparison with historic norms for the building type. Design changes can be recorded in the outline specification and drawings for all to see and make the same adjustments.

This seems to me a great deal of benefit for the 8 to 10 hours of specification work required.

"Begin with the end in mind."

Stephen Covey

... Just my opinion,

Donald F. Smith, Jr., CSI, CCS, RA, LEED™ AP

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April 2013 Through May 2013

Sun	Mon	Tue	Wed	Thu	Fri	Sat
<i>Mar 31</i>	<i>Apr 1</i>	2	3	4	5	6
7	8	9	10	11	12 Planning Mtg; Jackie's Kitchen 7 am	13
14	15	16	17	18	19	20
21	22 CSI Houston Chapter Tour — TexRite	23	24	25	26	27
28	29	30	May 1	2	3	4
5	6	7	8	9	10 Planning Mtg; Jackie's Kitchen 7 am	11
12	13	14	15	16	17	18
19	20 CSI Houston Board / Chapter Meeting—HESS	21	22	23	24	25
26	27	28	29	30	31	June 1