CSI Nashville Chapter

Nashville SPECIFACTS

Nashville Chapter of the Construction Specifications Institute Newsletter

Volume 2 - Issue 5

HAYSTACKS
Do construction documents do what they're supposed to do?

FURNISH, INSTALL, OR PROVIDE?

The IMPORTANCE Of Being EARNEST

Time TO BRUSH UP YOUR RESUME?

Rules Of THUMB
- A Collection of Architectual Rules to Follow

President's Message

Hello Nashville Chapter Members

I hope this message finds you & yours all well and doing good, and I can report the same for me !

In case you haven't realized, we've made it through another interesting Nashville winter and it is spring. So Happy Spring to you !

In kind of a late mid-year update of my tenure I want to report the following:

- The annual CSI Region Leadership Conference is in mid April, hosted by the Acadiana Chapter and will be in Lafayette, LA, and our Chapter will be represented.

- We've had some well attended Chapter Meetings and wonderful presentations ! April is lined up with a presentation on Building Commissioning.

- Our monthly Specheads meetings are going really well, with presentations lined up though the rest of this year and attendance has almost outgrown our host space at Southland Brick & Block.

- Its old news, but I want all to know that the Joint Association Holiday Bash was a huge success ! We already have this year's date set for Thursday, December 10th and we're back at the Marathon Village Event Hall. The other groups, AGC, CFMA & ABC are joining us again, so please mark your calendars.

- We continue our involvement with IFMA & IIDA in the monthly Toast & Tour events and if you missed this last one, for a tour of our state capital, if I tell you about it, it will only make you mad that you missed it !

- We just received confirmation that our annual Construction Products Show will be back at LP Field, on Tuesday October 20th. Please mark your calendars and watch for how you can help support our Chapter with this event.

- The 2015 golf tournament is set for Monday June 1st and will be at Brentwood Country Club. We're again joining the fun groups of IIDA & IFMA.

- We hope to work out a tour of our new 1st Tennessee Ball Park in May, so stay tuned.

- And in June we'll have our Chapter awards banquet and you can watch me ride off into the sunset of my tenure as president.

Now after reading all this great news of past, present and future, how can you not get involved, be more involved, or simply just come out and be part of it with us !!

In your service;

Rick Jones

Welcome To The New Specifacts

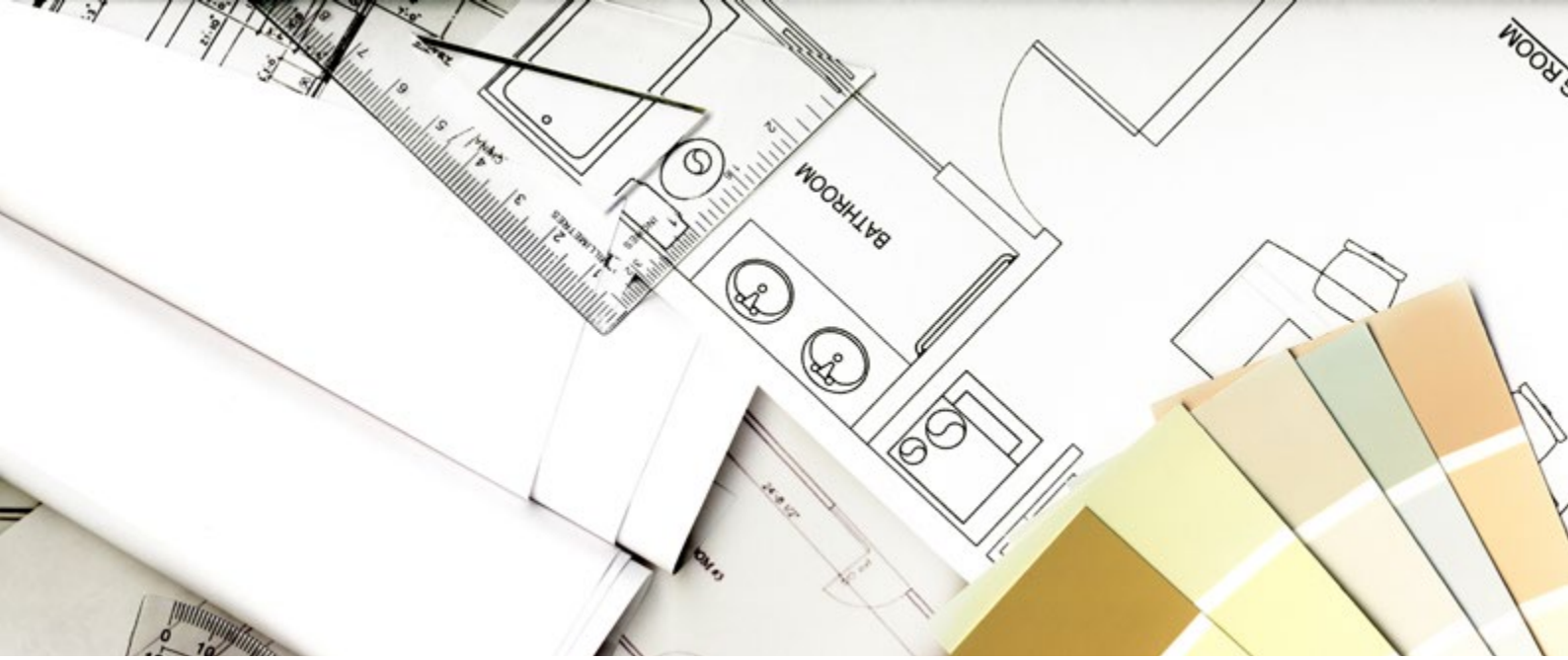
I'm sure you noticed that Specifacts now has a new look to it. We're shaking things up a bit and giving it more of a magazine feel. Everyone likes magazines and using this format will make the information even more enjoyable to read.

We will also begin providing new advertising opportunities as well. So if you have something you'd like to promote, please contact us for details and we'll help spread the word about you to over 125 CSI members.

This is your newsletter and we'd love for you to get involved. So if you have an article that you'd like to submit, or suggestions for future issues, don't hide in the back. Come forward and let your thoughts and words be heard.

We're sure you'll like what you see and we're looking forward to providing one of the best CSI newsletters around.

Mike Martin - Specifacts Editor



DO CONSTRUCTION DOCUMENTS DO WHAT THEY'RE SUPPOSED TO DO?

The purpose of construction documents is simple: They tell the contractor what is needed to complete a project. How best to do that has been a subject of debate for a long time, even though a basic set of rules has been used at least as far back as the 1940s. In his "The Case For the Streamlined Specification", published in the July 1949 Construction Specifier, Ben John Small referred to a book titled "Specifications" that was written in 1896; the older book apparently discussed some degree of streamlining.

That's fine as far as it goes, but if the intent is to clearly communicate with the contractor, are we doing as well as we could? Architects and specifiers have a nice collection of rules for organizing information, but do they make sense for the contractor? Our rules are fairly consistent, and they are generally accepted by design firms, but can they be improved? A large project may take a year or more to complete, yet we still have inconsistencies and conflicts. Is it fair to expect a bidder, who typically has only a few weeks to figure out what we want, collect subcontract bids (many of which are incomplete or include qualifications), decide how much to include to cover the inevitable problems, and arrive at a competitive price?

Can we do better than asking contractors to find the critical information in a haystack of information that is less important?

Let's start with what works. Streamlining is the practice of removing many of the words we would use in ordinary conversation, but which add nothing to construction documents. A big step toward simplification is achieved by a simple change of mindset; if you understand that specifications and drawings are instructions written to the contractor, rather than a disinterested explanation of what is to happen, the rest will be easier. When teaching certification classes, I tell the class to write as if they are talking directly to the contractor. If you are talking with a contractor you won't say, "The contractor shall fill the bollard with concrete." Instead, you would say, "Fill the bollard with concrete."

As noted, this is a big first step, one that will automatically eliminate the "shall be" phrases that still are far too common. But even more can be done to reduce the length of specifications without losing critical information. While some things may need something approaching a complete sentence, most requirements can be reduced to what amounts to a checklist. Each item begins with a subject, followed by a colon (defined to mean "shall be" or similar term), followed by the relevant property. For example:

Air content: 5 to 8 percent.

Insulation: ASTM C578, Type IV.

If the property is evaluated by a reference standard,

insert the standard and qualifying requirements before the colon.

Compressive strength, ASTM C109, 28 days: 7,000 psi.

Note that this checklist approach translates very well to properties found in BIM objects.

It's fairly common practice to eliminate the articles a, an, and the. In most cases, this works well, but I retain the article when referring to the Architect, the Contract, the Contractor, and the Work, to take care of those situations when those terms occur at the beginning of a sentence. Otherwise, there is no way to differentiate between the contractor identified in the agreement (Contractor) and a contractor working on the same building but under a different contract.

Even though streamlining is relatively easy to do, many firms - and even commercial guide specifications - do not use it as much as they can. Another common problem is lack of coordination: specifications that conflict with each other and with drawings, drawing notes that appear to have been written without any understanding of what's in the specifications, and drawing notes that ignore the basics of writing specifications. If that's the best we can do, and it appears that it is, we haven't made much progress in the last hundred years.

The Heretic Specifier suggests rearranging the haystack

Consider these words of wisdom regarding PageFormat, and consider applying them to everything we do:

The first concern of the Page Format is an improved and clearer presentation of the construction message. … The writer and the reader were put before the typist, the printer, the equipment manufacturer, but without placing unreasonable demands upon any of them. … The Page Format should then exhibit a reasonable amount of text density, providing visual recognition of the Parts and lesser levels, and arranging the subject matter in a logical, efficient and versatile page.
– excerpts from the CSI Manual of Practice, June 1974

Although specifiers can have an influence on drawings, let's look at how specifications can be changed to improve communication with the contractor. Let me start by saying that there is no excuse for contractors who don't look at the documents; "We don't do it that way" is a non-starter. On the other hand, it's not uncommon to hear "I didn't see it!" as an excuse for non-conforming work. It's easy to point to our rules and principles and say, "Too bad for you!" but in doing so, are we ignoring the problem? There is no doubt that some contractors just do what they're gonna do, but there are many occasions when I can't help but sympathize with a contractor who's trying to do a good job, but doesn't understand the way we do things.

A couple of responses are possible. We can go out of our way to educate contractors, subcontractors, and suppliers about the intricacies of our various formats and standards, but other than saying contractors should join CSI, not much of that happens. And, truth be told, many in the design professions, including our own members, don't follow the very principles we espouse.

Another approach is to reconsider how we do things. At a recent convention, Nashville, perhaps, there were a number of presentations that took this approach. There was healthy discord and disagreement about the proper use of the "Section Includes" article, and about other aspects of writing specifications, as well. Unfortunately, as far as I'm concerned, those discussions did not continue. Why isn't this concept applied

to all construction documents? Until the day that a significant number of contractors are not just CSI members, but CDTs, we can't just sit back and expect the rest of the construction team to understand what we do. If we're interested in progress, if we truly believe in improving communication, shouldn't we consider changing what we do for the benefit of the rest of the team?

This will be a bit off-subject, but bear with me. How many of you use what appears to be a standard format for meeting agendas and minutes? You know, the one with a lot of blank space at the top for the date and subject, followed by a list of those invited or those who attended, which can run to two or more pages, followed, finally, but the information you're really interested in?

If you think about it, that's a dumb way to organize agendas and minutes. The day after the meeting, will you really care who was there or who wasn't? Especially if the agenda or minutes were sent out under a transmittal form, which duplicates the same information?

Why do we write specifications in the same manner? Instead of starting with the important stuff - what's in the section - we ramble on for a page or so, talking about procedural items, then sandwich the good stuff between that and the how-to information. I know, the "Section Includes" article usually has a generic comment or description, but is that what a contractor is looking for? In most cases, the title of the section tells the contractor about as much as the "Section Includes" article.

What if we rearranged things to make it easier for contractors? Keep "Section Includes", but state what's in the section, including basis of design products; then go on to talk about performance standards, options, and the other stuff that directly affects the contractor, subcontractor, and installer. Follow that with special instructions regarding installation (shouldn't be much unless you know more than the manufacturer), then end with an appendix of information about submittals and other procedural matters. If it's easier for contractors, it should be easier for architects and specifiers.

Agree? Disagree? Leave your comments at http://swconstructivethoughts.blogspot.com/

Harmony House By Team Tennessee

Team Tennessee, a coalition of Vanderbilt and Middle Tennessee State Universities, alongside Habitat for Humanity of Greater Nashville (Habitat), aims to solve Nashville's affordable housing crisis, by creating a solar-powered, net-positive home to serve as a model for builders nationwide. This home, Harmony House, will be taken to Irvine, California in October 2015 to compete against homes from 17 other intercollegiate teams from across the country in the U.S. Department of Energy's Solar Decathlon 2015. After the competition, it will be returned to Nashville and re-built on an in-fill site provided by Habitat.

Harmony House is unique among its competitors, in that it is not merely a futuristic house, but rather a blueprint for a home to be created en masse within the next few years. While many past competition homes have been designed as second homes for wealthy retirees, Team Tennessee's entry will be designed for a low-income small family. It will feature two full bedrooms, a kitchen and living space, and a vertical garden integrated into an external wall to provide a small source of nutritious food for a family that might not otherwise have the means to purchase fresh herbs and greens. Inspired by its roots in Middle Tennessee, the home will be laid out in a modified dogtrot style, with separate living and sleeping sections.

Through our collaboration with Habitat for Humanity of Greater Nashville, Team Tennessee will develop a reproducible design plan for building a similar home, using both active and passive solar strategies in the future. Just as Habitat trains their volunteers, the students involved on this project will be trained to create a fully functional home, thus ensuring the home is replicable.

Harmony House will bridge the gap between and blend the past of traditional Southern homes and the future of high technology. Habitat for Humanity has already made great strides in introducing many low-cost, energy-saving innovations into their projects, and Harmony House will serve as a Habitat learning laboratory as well as a test for the hypothesis that a home can integrate more complex and smarter mechanics but still remain economically feasible. The home will serve as a prototype model for the mass production of the latest in sustainable technology in the mainstream construction industry. Additionally this project will train the students involved in many areas crucial to the growing sustainable energy field. In past Solar Decathlon competitions, 76% of students involved continued on to work in the Clean Energy field. As Nashville continues to involve itself in the technology sector, the city will experience an increased demand for students with the skills learned in this competition.

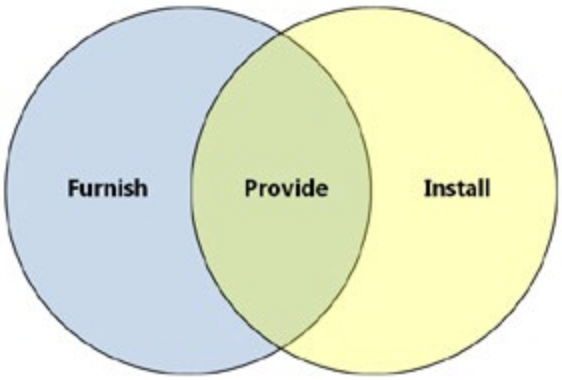
FURNISH, INSTALL OR PROVIDE?

Most architects, I believe, define the terms furnish (or supply), install, and provide, and sometimes those definitions appear in an owner's general conditions. When defined, they are part of the contract documents, and requirements using them are enforceable based on those definitions. In practice, perhaps because the definitions are nearly ubiquitous, I have had few problems with interpretation by contractors, or with enforcement.

Oddly, it's architects who seem to have the most trouble understanding and using these definitions, even though the definitions originate in the architect's own office. In casual conversation, it's common to use furnish and provide interchangeably. This should be no surprise, as the first definition of furnish is either provide or supply in every definition I found, and definitions for provide usually are make available, supply, or cause to be present, all of which also define furnish.

When used in casual conversation outside the office, there usually is no problem, as no further precision is needed, and we aren't concerned about installation. However, when used in casual conversation in the architect's office, or in conversation between architect and owner, there is at least a potential problem.

If a specifier, or an architect who cares about such things, is involved in the conversation, it's likely that



the precise definition will become part of the discussion, and the related contract documents will use the correct definitions. But without the involvement of such a person, it's quite possible that the contract documents will use the wrong, or conflicting, definitions.

A similar problem exists with references meant to indicate either who is furnishing or who is providing something, for example, by owner or by contractor. I have seen countless references of this sort, and each time asked what the intent was. The responses have been inconsistent, sometimes meaning furnished by and other times meaning provided by.

To further complicate the issue, I have seen increasing use of the term vendor. In the context of the construction contract, there typically are two or three defined entities: The owner, the architect, and the constructor (contractor, CM, or design-builder). Everything must be furnished, or installed, or furnished and installed, by either the owner or the constructor. In my experience, a "vendor" is most often a company that works directly for the owner, either furnishing materials for installation by the constructor, or furnishing and installing materials for the owner. In either case, an additional term is not required; a vendor works either for the owner or for the constructor, and a vendor who works for the constructor is a subcontractor.

In casual conversation, incorrect use of defined terms may be an inconvenience, but when defined terms are used imprecisely in conversation with a client, whether in formal or informal communication, incorrect interpretation is almost inevitable.

To eliminate these problems, consider elimination of the term provide, instead, using the slightly longer, but unmistakable furnish and install. Some would argue this is not necessary, and I agree. In balance, though, the advantage of clarity and the elimination of the need to continually discuss the speaker's intent can outweigh the simplicity and elegance of using provide.

How often have these definitions led to problems for you?

Agree? Disagree? Leave your comments at http://swspecificthoughts.blogspot.com/

PHOTOS

January 2015 Meeting

February 2015 Meeting

Capitol Tour 2015

2015 IFMA, IIDA & CSI Golf Outing

at Brentwood Country Club

Monday - June 1, 2015

9:00am Shotgun Start

Sponsorships Available

2015 Team & Sponsorship Information

Premier Sponsors:		
Title-ist Sponsor	$3,000	Includes 4 Free Players , 1 Free Hole Sponsorship and Logo Signage on Carts
Cocktail Sponsor	$1,500	Includes 2 Free Players, 1 Free Hole Sponsorship and Logo Signage
Lunch Sponsor	$1,000	Company Logo on Boxed Lunches, 1 Free Hole Sponsorship and Logo Signage
Beer Cart Sponsors (2)	$1,000 each	Company Name Displayed on Beer Cart (cart driver must be provided)
Snack & Drink Cart Sponsor	$700	Company Name Displayed on Snack Cart (cart driver must be provided)
Hole Sponsors:		
Hole in One Sponsor – Travel Package	$650	Scotland Golf Package, Company Signage - Decorate the Hole as you choose
Hole in One Sponsor – $10,000	$650	Oversized $10,000 Check, Company Signage - Decorate the Hole as you choose
Red Tee "Skirt" Hole	$500	Company Signage at the "Skirt Hole" where all Teams stop for a photo
Closest to the Pin Sponsor	$500	Cash Prize Included, Company Signage - Decorate the Hole as you choose
Longest Drive Sponsors	$500	Cash Prize Included, Company Signage - Decorate the Hole as you choose
Putting Contest	$500	Cash Prize Included, Company Signage - Contest held during Cocktails
Hole Sponsors (10)	$300 each	Company Signage - Decorate the Hole as you choose, giveaways allowed
Pre-Outing Sponsors:		
Morning Refreshments	$200	Company Signage at check-in
Practice Range	$200	Company Signage on the practice range, giveaways allowed
Registration Cost:		
Individual Player	$150	Includes lunch, drinks, hors d'oeuvres, and range balls
Team (4 Players)	$600	Includes lunch, drinks, hors d'oeuvres, and range balls
Mulligan Packages (optional)	$20 each	2 Mulligans, 1 Ball Toss, 1 Raffle Ticket (per player)

Register, Sponsor & Pay Online at http://www.planmygolfevent.com/27142-csi-ifma-iida/

CSI Nashville Chapter | IFMA Nashville Chapter | IIDA International Interior Design Association Tennessee Chapter

Join us June 1st for a great day of golf at Brentwood Country Club!

The Legal Value of the Written Word

January 2015 Chapter Meeting Recap

Submitted by Y. Lynn Jolley AIA CCS CCCA SCIP

CSI Nashville's Chapter meeting presentation was given by Adam Knight of Dickinson Wright PLLC

Adam presented the following ideas:

It is important to get a signed contract no matter how small the project for several reasons including the following: If one party of a deal dies and there is no written contract, there is no way to know what the deal was. Absence of a contract on the front end of a project could result in costly lawsuits. Oral contract can be unenforceable.

There are 4 parts to a contract:

1. Offer: A definite, clear statement that something will be done. For example: A sub-contractor quoting to the main contractor and an offer to lease.
2. Acceptance: An agreement to take the offer exactly as it is offered without conditions.
3. Consideration: What each party gives to the other at the agreed price for the other's promises. Usually consideration is the payment of money.
4. Intent to Be Bound: Parties entering into the contract must intend to create legal relations and must understand that the agreement can be enforced by law.

95% of contracts are signed without being read. Contracts need to be read before signing; however, the fact is that lawyers have made contracts more difficult than they need to be, therefore if the entire contract is not read, the most important things to read are the 1st three and the last three paragraphs. Pay special attention to the price and terms toward the beginning and the default provisions toward the end.

Contracts need to be stated clearly. When contracts are ambiguous, courts will construe against the author. In other words, you could lose a lawsuit because you wrote a contract in part or in whole that is vague.

Timeframes should be written into contracts. For example "Complete construction of swimming pool by July 1, 2015.

In construction one of the most violated parts of a contract are the administration of change orders. A change order is required when the price or time needs to be changed from the original contract. A simple form on site used to address change order items can save parties involved hundreds of thousands of dollars in legal fees.

Record keeping is key to minimizing chances if being sued and chances of losing law suits. Best practices for record keeping include the following: establishing a system for creating and retaining all documents, paying for file storage and being consistent in storing files; being true to the system; maintaining documents electronically (scan everything).

Hiring lawyers to write contracts for legal agreements in many cases in tantamount with spending a dime to save a dollar (possibly many dollars).

Contact Information:
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Nashville Tennessee
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PVC ROOFING SYSTEMS

Even though PVC roofing membranes have been available in the US since the early 1970s, I've discovered that there are some architects that have never use it on their low slope roof designs. The reasoning range from "I'm not sure when to use it" to "I used it a long time ago and it cracked after a few years". So in this article, I'd like to briefly explain what a PVC membrane is, what buildings are best for its installation, and hopefully ensure confidence for those who have had issues with it in the past.

So to begin.....what is a PVC roofing system?

PVC, or Polyvinyl Chloride, is a single-ply thermoplastic roofing membrane primarily used on commercial and industrial roofing systems. PVC in general was discovered by Henry Victor Renault back in the early 1800s, however, it wasn't used as a roofing membrane until the 1960s in Europe. The U.S. then adopted it in the early 1970s. Unfortunately, when we brought the technology here from Europe, we continued to use the European PVC formulation. And as you may know, Europe has fewer sunny days than the U.S. which caused our early membranes to fail due to having inefficient UV protection. The UV rays would break down the PVC and cause the plasticizers (the chemicals used to make the PVC flexible) to leach out and leave behind a rigid membrane. This is why you would hear the stories of a PVC roof cracking into pieces when you walked on it a few years after the installation.

PVC ROOFING SYSTEMS - CONTINUED

Thankfully, great strides have been made with not only the plasticizers, but also the weathering packaging and UV protection included in the PVC. In fact, many manufacturers are now adding Evaloy (or KEE) to their plasticizer formula which creates an even more durable, reliable, and easier to weld membrane. Gone are the days of the difficult to install, smoky and smelly PVC sheets. Today's formulations have significantly reduced the amount of smoke when hot-air welding. And unlike the old PVC membrane, roofing contractors do not have to be as precise with their hot-air temperatures and welding speed when welding the seams, reducing the number of cold welds. And as you know, if a roof is going to leak, it's usually because of the seams.

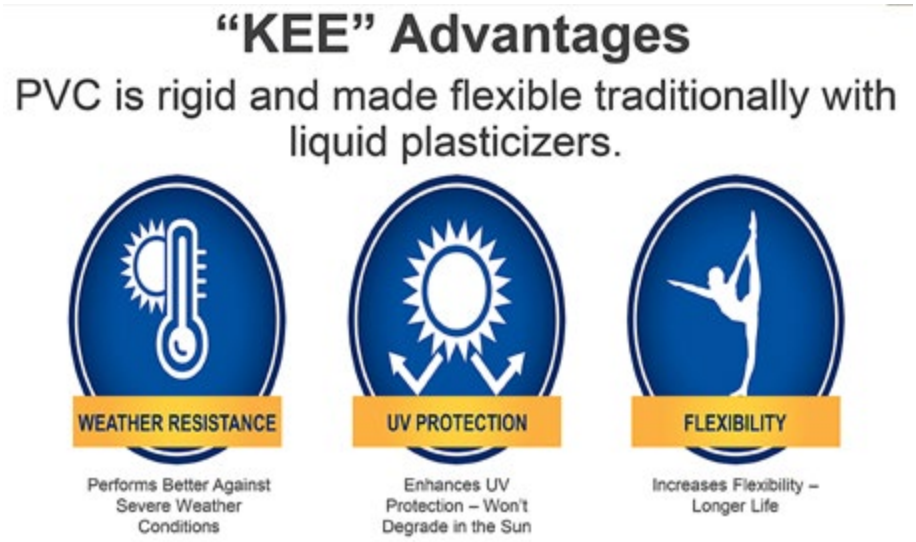
So now that PVC is manufactured at a higher standard today, here are just some it's benefits…..

1. Even though custom colors can be made, PVC membranes are usually white which provides thermal resistance and reflectivity making them more energy efficient in hotter climates.

2. PVC is fire resistant. When PVC burns, it releases hydrogen chloride and water. The water immediately puts the fire out.

3. PVC is extremely durable against animal fats and chemicals providing a longer lifespan of the membrane.

4. PVC uses hot-air weldable seams which creates a solid monolithic field sheet when completed. No more worrying about seam tape.



5. PVC can be recycled which helps the environment and reduces landfill waste.

So that brings us to what type of buildings can benefit the most from using a PVC membrane. The simple answer is this. If the building will be subjected to harsh outside environments, then PVC is recommended. Now when I say "harsh outside environments", I'm talking about manufacturing plant chemicals, airplane fuel and exhaust, animal fats, and any other destructive liquids, gasses, or materials.

To be more specific, restaurants, manufacturing facilities, gas stations, buildings located near airports, or any building that is subject to heavy foot traffic or requires lots of HVAC maintenance (because you never know when someone will throw a cigarette butt on the membrane).

So there you have it. I gave you just a taste of what PVC is and why to use it. I'll write about it in more detail in future articles and discuss other topics on commercial roofing as well. But until then, I hope this article will make you consider or reconsider using a PVC membrane on some of your future low slope projects.

Mike Martin – South East Associates….a commercial roofing manufacturer representative.
www.southeastassociates.com

January Anniversaries

Randy Hoffman
Daltile
34 Years

R. R. (Rick) Jones
T.W. Frierson Contractor, Inc
31 Years

David Scott
McCarthy Jones & Woodard
27 Years

Gerald Sullivan
Gerald M. Sullivan, Inc.
21 Years

F. Odell Pullen
Pullen F. Odell Pullen, Architect/Sculptor
19 Years

Timothy Yoko
Thomas, Miller & Partners
13 Years

Darren Patton
Isenhour Door Installation Solutions, LLC
5 Years

Sonny McKellar
Carlisle SynTec Systems
3 Years

Cindy Searcy
McGraw-Hill Construction
2 Years

February Anniversaries

Tom Williams
Williams Coating Consultants
26 Years

Eric Lundquist
Atas International, Inc.
8 Years

Ryan Bell
Royal Adhesives
2 Years

Anthony Collins
InPro Corporation
2 Years

New Members

Jeffrey Casella
Gilbert McLaughlin Casella Architects PLC

Matt Bettinson
Pella Windows and Doors

Warren Kirkland
Kingspan Insulated Panels North America

Become A Sponsor!

INTRODUCING THE CSI NASHVILLE GOLD LEVEL SPONSOR!

Your company name and logo displayed on screen during lunch at all monthly meetings and on the CSI Nashville website. CSI will also give verbal thanks to these sponsors at every meeting.

To become a Gold Level Sponsor, you must commit to $1,000 dollars of sponsorships of your choice from the three opportunities listed below by April 1st 2015 for the calendar year 2015.

Golf Tournament * Product Show * Holiday Party

Contact Melanie Kenney
mkenney@southlandbrickandblock.com
615-979-9497 to sign up!

CSI PRODUCT SHOW – TUESDAY, OCTOBER 20TH @ TITAN'S STADIUM

This show is very well attended by designers, architects, engineers, and various other commercial construction persons. Many sign up for our seminars throughout the day. Forty commercial vendors exhibited with us in 2014. More than 250 design professionals attended.

Show Sponsors (2) $500 Company name and logo printed on a large poster board and will be prominently displayed at the entrance to the show floor. Advertisement in Specifacts and on all the closed circuit TV's on show floor day of event. Logo on our website.

Seminar Sponsors (4) $250 Company name and logo printed on a large poster board and will be prominently displayed at the entrance to the seminar you are hosting. Advertisement in Specifacts and on all the closed circuit TV's on show floor day of event.

Lunch Sponsors (unlimited) $100 Company logo printed on 8 ½ x 11 paper and placed on Hi Boys near the lunch buffet – tables will be out entire length of show. Advertisement in Specifacts.

Printing Sponsor (1) For providing all our printing needs, your company name and logo printed on a large poster board and will be prominently displayed at the entrance to the show floor, Advertisement in Specifacts and on all the closed circuit TV's on show floor day of event. Logo on our website.

Become A Sponsor!

JOINT HOLIDAY BASH – THURSDAY, DEC. 10TH @ MARATHON MUSIC WORKS

CSI partners with AGC, ABC, and CFMA on an event that is so much fun it is not to be missed!

Holly Jolly Sponsor $1,200. Your Company logo prominently displayed on invitations, at registration table, and on the buffet line during the event.

Your Company website link will be on the Holiday Bash website.

Your Logo will also be projected on the back stage wall.

All members of your company are invited to attend.

Santa's Sips Sponsors $800. Your Company website link on the Holiday Bash website and on the bar at the event.
All members of your company invited to attend.

Reindeer Games Sponsors $500. Your Company signage at your choice of either the Photo Booth or at the Toys for Tots Donation area.
Your Company website link on Holiday Bash website.

Sleigh Sponsors $200. Company signage on table tops at event.
Company website link on Holiday Bash website.

TIME TO BRUSH UP YOUR RESUME?

It's been ten years since my firm took the plunge and began moving from AutoCAD to Revit. There was a lot of behind-the-scenes research and discussion in the preceding year, after which a test team was assembled and trained. A real project was selected for live-fire testing, and we were on the way. About two years later, we did our first all-discipline project. In the next two years, the entire production staff received a full week of training. By the time the economy collapsed in 2008, Revit was our primary program, and today, it is used for virtually all of our work.

When the decision was made to commit to Revit, a few of our users made a presentation to the rest of the office, showing some of BIM's capabilities. Many of those who watched were impressed by a simple demonstration that showed simultaneously a plan, an elevation, and an isometric view of part of a model. The presenter showed that moving a door in any one of the views changed the other views in real time.

As I watched, I remember thinking, "Someone is going to be out of a job." It should be no secret that, as firms become more familiar and more efficient in their use of BIM software, they will no longer need those people who formerly translated the changes made on one drawing to related parts of other drawings. From there, it's not difficult to imagine a program, or a collection of integrated programs, that would allow a single designer to operate without any support staff.

Carry that thought a bit further, and it is quite possible to do away with structural, mechanical, and electrical engineers.

We all like to think we're essential, but computers and automation have been putting people out of work for a long time, and it seems the rate is increasing. And, even though many people accept this as fact, it's common for them to believe that their jobs are safe. But are they?

Nearly anything that is repetitious is now done by machines, controlled by computers. Entire factories now require only a few humans to watch the process, and even their jobs are in danger. It's interesting that many of the jobs left to humans are basic services, or manual jobs that are too varied or complex for computers - at least for the moment. In high school, I worked in a Ward's warehouse, a huge building full of thousands of products. At the time, it would have been difficult to conceive of a way that machines could find, select, and deliver those products as well as a human. To see how even these jobs are being replaced, watch this video about Amazon's new warehouse: http://youtu.be/6KRjuuEVEZs?t=10s. The only humans still at work are stuffing shipping boxes, something a computer will probably be able to do within a couple of years.

Some people argue that all of this automation frees us from menial work, and will allow us to pursue more interesting work. That may be true, but in most cases, the people put out of work

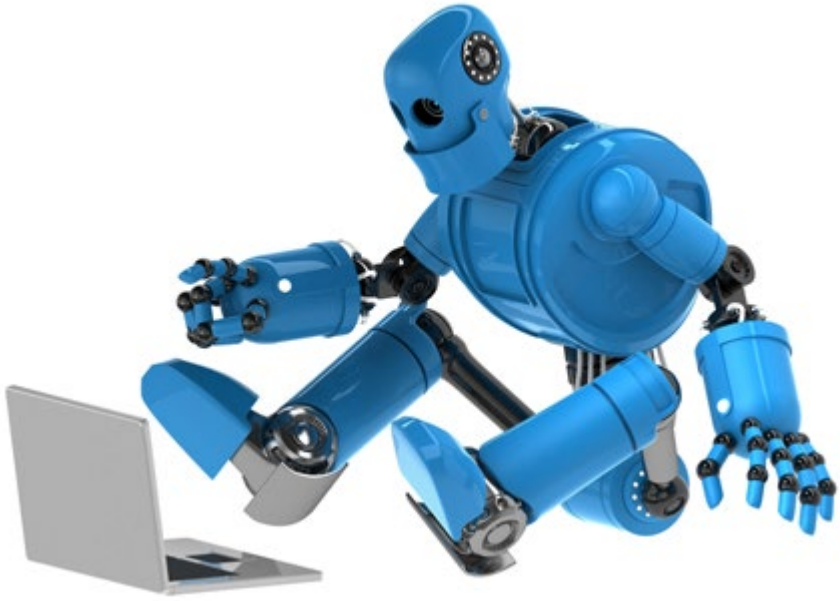
cannot simply move on to a job that requires more education and experience. That's clear in the case of those who work in warehouses or factories, but it's also true of people with years of college education and experience. Will the staff architect move on to become a programmer for AutoDesk? Possibly, but not without more education.

The problem is, computers are not limited to simple jobs. If you can define how to do something, you can program a computer to do the same thing. Watching robots in an assembly line, it's clear they can perform complex operations. And while computers and robots once were built to do just a few things, current models can be reprogrammed as required for different jobs, and some now are able to learn and reprogram themselves.

What about your job? We talked about staff architects already, but what about engineers? They already rely on computers to do all the calculations that were done manually many years ago. Don't you think it's possible for a computer to analyze a BIM model, evaluate various structural systems, and choose the one that's best for the project? Couldn't the computer also be able to compare several HVAC systems, plumbing designs, and electrical options, and choose the best? Someone may have to tell the computer if cost or performance is more important, but even that decision could be automated. Hardware specifiers amaze me with all they know, but again, if you can describe how they decide which hardware to use, a computer can do the same thing - and it can be done in the architect's office.

Surely, there is no way to completely eliminate architects! Don't be too sure. Early in October, I watched an interesting video (http://vimeo.com/107291814) that discussed the possibility of a computer completely designing a building based on program requirements, site conditions, and building codes. I'm sure architects will object, saying there's no way a machine could infuse the building with the subtle expression and style that could come only from a human. Well, maybe, except that the majority of buildings don't have much style, or have a style that strongly suggests use of a cookie cutter. Throw in some of that innovative design that is indistinguishable from the aftermath of a tornado, and I'm not sure architects we would know if a building had been designed by an architect or by a computer. Furthermore, I suspect that the program could contain several recognized style options, so a given building could resemble Gothic, Romanesque, Chicago, Art Deco, Postmodern, or any of the Revivals.

What about construction workers? In the past, everything was done in the field, but more and more work is moving into factories. Modular construction further reduces the need for on-site workers, and 3D printing may eliminate more. With the right information, we won't need estimators or schedulers, and driverless trucks are in our future. Sensors on building components and maintenance items will tell computers what needs to be done, and robots will do it.



The bottom line is - the bottom line. Companies don't exist to hire people; they exist to make money for their owners. At first glance, robots look expensive, but if a robot costs $25,000 and must be replaced after two years, the cost works out to about $6.00 per hour - if it works only eight hours a day. No one knows how all this will play out, but it's sure to be interesting.

So maybe it's time to update your resume - or have a computer do it for you.

Agree? Disagree? Leave your comments at http://swconstructivethoughts.blogspot.com/

THE IMPORTANCE OF BEING EARNEST

A couple of months ago, in "Your slip is showing!", I mentioned that I had been specifying slip resistance for a very long time, but only recently became aware of a serious problem: Even though codes other regulations require a "slip-resistant" finish, there is no definition of what that means. I encountered a similar situation recently while reviewing the titles of the many standards cited in our specifications: I discovered that ANSI (the American National Standards Institute) produces no standards!

While looking up hardware standards, I saw reference standards with the number 115 in virtually every hardware and hollow metal specification I found. Sometimes the 115 was preceded with an A, other times not. But it's only one letter; what's the big deal if it has an A or not?

The reference numbers I found were inconsistent, so I set out to discover exactly which standard or standards were intended. As we so often find in the world of construction, there is a lack of consistency. I saw titles of some standards appear both with and without ANSI, titles that appear with only ANSI, and titles that have only a number, with no indication of the issuing organization. I found titles with different combinations of ANSI with another organization, and I found references to standards that have been withdrawn or replaced.

Many of these specifications referred to ANSI A115, but others, including manufacturers' guide specifications, refer simply to "ANSI 115", for what appeared to be the same standard. My first step was to visit the ANSI website, which allows a search of their records. I found no standard titled ANSI 115, but as I expanded my search I found references to several standards related to doors that include A115 in their titles.

- ANSI A115 Hardware Preparation in Steel Doors and Steel Frames
- ANSI/BHMA A156.115 Hardware Preparation in Steel Doors or Steel Frames
- ANSI/DASMA 115 Standard Method for Testing Garage Doors
- ANSI/DHI A115 Specifications for Hardware Preparations in Standard Steel Doors and Frames.
- ANSI/DHI A115.IG Installation Guide for Doors and Hardware
- ANSI/SDI A115.1 (no title specified)
- BHMA A115 Specifications for Steel Door and Frame Preparation for Hardware
- BHMA A115 Steel Door Preparation Standards

With the exception of the ANSI/DASMA standard, it appears all of these may be the same. Is it possible that they're all correct? The most interesting thing I learned was that ANSI does not produce standards. Rather, it accredits the procedures of organizations that develop standards, verifying that they meet certain requirements. During more than thirty years as an architect, I have seen countless standards with designations such as ANSI/ACI, ANSI/BHMA, ANSI/DASMA, and so on. I also have seen many standards that did not include ANSI in the title. My perception was that those standards with ANSI in the title were jointly issued by ANSI and the other organization, while those that did not include ANSI were issued solely by the indicated organization. And, because I saw many standards that included only ANSI, I assumed those standards were issued by ANSI.

My investigation revealed that references to standards are far too casual, and too often incorrect. However, despite the many incorrect titles used, it seems there have been few problems, probably because the people who write and use these sections are familiar with what's in the standards. Even so, manufacturers should cite only active standards, and use the proper titles and revision dates in their guide specifications and other publications.

One letter can make the difference between being Ernest, and merely being earnest.

Agree? Disagree? Leave your comments at http://swspecificthoughts.blogspot.com/

2015 CONSTRUCTION PRODUCT SHOW – EXHIBITOR INFORMATION

Tuesday, October 20 10:30 – 3:00

LP Field East Club Level One Titans Way, Nashville, TN

We are pleased to announce that the CSI Nashville Chapter's annual Construction Product Show will be returning to LP Field, home of the Tennessee Titans. We will be providing four *complimentary* Educational Seminars, with AIA credit, through-out the day for the design community. Lunch will be provided to attendees and vendors at no charge. Drink stations with tea and water will also be available throughout the day. Coffee and pastries will be served from 8:00 till 10:30 am.

We again expect this year's show to be very well attended and hope you will join us! We hope our vendors will provide at least one nice Door Prize in order to generate excitement throughout the day. In order to secure your booth space, please complete the attached form and email ASAP with your desired booth number(s). We will work with you to secure a great spot! Payment is required by July 31st to hold those spots.

Single Booth space is $600. After September 1st, if we have not received your payment, your desired booth could be taken by another vendor *and* the booth cost will go up to $650.

Early bird special: If payment is received before May 31st, booth rate is $575.

Set Up: Mon., Oct. 19th 4:00pm till 6:00pm
Tues., Oct. 20th 8:00am till 10:00am

Tear Down: Tues., Oct. 21st 3:00 pm till 5:30pm

You MUST be completely out of LP Field by Tues., Oct. 20th at 5:30pm

Exhibitors must enter and exit LP Field through the Stadium Club Entrance East Side. This location is on South 2nd Street. No forklift service is available. You may use unloading/loading zone in front of the Stadium Club Entrance on **EAST SIDE**. Parking is available in lots C and D. Exhibitors may not sell, resell, offer for sale or merchandise any goods, wares, or services at this event without express written consent from the CSI Nashville Chapter. No alcohol shall be brought into the building. Helium balloons are prohibited. No communications equipment may be utilized if it interferes with other LP Field communications systems or telephony. Exhibitors may not place or make holes in any part of the Facility for any purpose. Take care to avoid damage to grass, plants, tress and other landscaping, the asphalt, parking lot markings and all other appurtenances of the Facility.

I am excited to again be this year's Chairman and look forward to another great show!

Melanie Kenney Booth Sales 615-979-9497 mkenney@southlandbrickandblock.com

Other Show Contacts:

Tiffany Goulet	Booth Sales & Sponsorships	615-423-8321	tiffany@nexgen-cr.com
Jerilyn Green	Co-Chair	615-238-2170	jgreen@kmbs.konicaminolta.us
Loretta Baltz	Attendee Registration	615-969-4890	loretta.baltz@mhfi.com

Rules of Thumb

A huge problem that continues to grow is that we have too much information. When American architects formed AIA, 150 years ago, construction was much simpler; mechanical systems hadn't changed much since the Romans used them 2,000 years ago. Since then, countless new materials and processes have been introduced.

Life was simple for architects of those early years, much of their time being spent detailing ornamentation. In 1905, a local university building of 112,000 square feet was built using a steel frame, with brick, marble, granite, and terra cotta. The construction documents comprised 58 drawing sheets and a 51 page project manual. By today's standard practice, hundreds of pages of drawings and a project manual of at least two volumes.

We all know that, at least in theory, today's designers must understand and comply with a growing collection of building codes, local regulations, and zoning requirements; they must keep abreast of the latest in building materials; and they must know what's in the standards published by many organizations. No easy task, this - in fact, it's impossible - so we focus on the big things and hope for the best. To keep things moving, we must carry in our heads the really important stuff, the rules of thumb. Following is a collection of such rules I have offered to young professionals for many years.

What to draw. If it comes in a box, don't waste time detailing it. Do spend time showing how it fits in. Example: Don't draw detailed sections of windows, with all of the pieces that make up the sash and frame; do make sure to detail how the window fits in the opening and how it is flashed.
Draw only what is needed; but draw everything that is needed. This takes a little thought, but helps the drawings get done right the first time. And, it helps the bidders, who don't have to wade through a lot of information that isn't necessary to find what it is we really want.

Where does the information go? People who work at the site don't even carry specs, let alone read them. Put the information they need on the drawings, and everything else in the specs.

Defined terms. If defined in the contract documents, the terms furnish, install, and provide can have distinct meanings. While the difference between furnish and install is fairly obvious, the common definition of provide is not, so avoid problems by using furnish and install rather than provide. In a single-prime contract, there is only one

contractor, but there may be many subcontractors.

Drawing notes. General drawing notes often repeat, and often contradict, each other, as well as the project manual. Eliminate redundant notes. Use the same term for a given product throughout; use the same term that appears in the specifications. Used too often, "Unless noted otherwise" suggests you don't know what's in your own documents; how can the contractor be expected to know? Why preface some notes with the word "Note"? Ask yourself what each note means. Example: "Fill with concrete and paint." Notes such as "fasten securely" and "see specs" are unnecessary. Don't use brand names. There is no need to say "Provide countertop" or "Install trim"; just indicate what the product is.

Assignment of work. That's part of the contractor's job.

Spelling.

I have a spelling checker, it came with my PC.
It plainly marks four my revue, mistakes I cannot sea.
I've run this poem threw it, I'm sure your please two no;
Its letter perfect in it's weigh, My checker tolled me sew.

Agree? Disagree? Leave your comments at http://swspecificthoughts.blogspot.com/

How do you keep up with what's going on in CSI NASHVILLE...

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CSI NASHVILLE CHAPTER CALENDAR OF EVENTS

Visit our webpage at
http://www.csinashville.org/events.php

This calendar is a live Google calendar so anyone using an Android smartphone or iOS (Apple) can link to it quickly and get chapter events on their calendars and agendas. Please contact Devin Righter with any questions.

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