

## HEADLINES

**Building for the Future- GSR Leadership Meeting at Little Rock this FY.**

**Little Rock Chapter Annual Golf Tournament set for May 3, 2019**



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# Little Rock Chapter Notes



By: Billy J. Mathis, FCSI, CDT

We are now into FY2019 and our first monthly Lunch and Seminar will be presented on August 8th at Baldwin and Shell's fantastic Conference Room. I know we are all very busy, but would really love to have as many members attend as possible. Also, if you can, bring someone you might feel would benefit from CSI Membership. It never hurts to get them started early and learn just how much CSI brings to the table.

As I stated in the last Newsletter, the Annual Golf Tournament will be held on May 3, 2019. This is our primary fundraiser for Chapter Scholarship and Operations for the Fiscal year. We need plenty of players and volunteers to be out on the course waving the CSI banner and helping people understand just how CSI can help with connections.

Another item for the coming year is our second big event, the Gulf States Region Leadership Conference. Since we are hosting this event this coming FY, we will need some volunteers to help in registration, the hospitality room, monitoring and managing traffic to and from the various rooms, etc. As we get closer to the actual event, we will be putting together the teams and getting people ready to put on the "ole Southern Hospitality" the Little Rock Chapter is known for. Please keep June 7—8, 2019 in your minds and on your calendars as we will need everyone.

You may be asking how you can support the Little Rock Chapter, especially if you are not a member. Well we will be looking for Sponsors to help offset the costs associated with both events. A Sponsorship Package is in development and should be released in the next couple of weeks, so be on the lookout and see where you can fit in. We love our sponsors and hope that everyone will be able to help out and that we can provide them with ample "bang for their buck".

Finally, I am again addressing the fact that the Chapter is facing it's worst crisis since its inception over 50 years ago. We are losing members almost as fast as new members come on board. We need your help, recruitment is key to keeping us alive and getting new, younger members to pick up and take us to the next level. But by the same token, we need our more seasoned members to stay involved and be there to help the new members through their knowledge and leadership. We need everyone to stay active and constantly talk CSI to people around them. We need to get back to the level we once were where being a member of the Little Rock Chapter, CSI., was something people sought out because of our reputation and what we had to offer. All of this is impossible without an active membership, out there in the trenches showing just how CSI helps their careers.

Basically, we need you to get involved.

## CSI Names Award Winners for 2018

*From the Construction Specifier Online Edition - August 2018*

CSI has announced the organization's award winners for 2018, as well as those elevated to the College of Fellows and those named Distinguished Members.

Joining the Ranks of Distinguished Members are **Gregory J. Markling, FCSI, Lifetime Member, CSC, CCS, CCCA** and **Robert W. Simmons, FCSI, Lifetime Member, CCPR**.

The 2018 Class of Fellows includes **Michael G. Young, CSI, CCCA; David A Stutzman, CSI, CCS; Ross Mori, CSI; Gener Fosheim, CSI; Jack Morgan, CSI, CCS, CCCA; Scott M. Conwell, CSI, CDT;** and **Cynthia Belise, CSI, CDT**.

Following is a list of the Service Awards selected this year:

Distinguished Service Award

**Daniel Hargreaves, FCSI, CDT**

Robert P Brosseau Award for the Advancement of CSI

**Shane David, CSI, CDT**

Andrew J. Drozda Mentorship Award

**Sheryl Dodd-Hansen, FCSI, CCS, CCCA**

**Kurt Moehlmann, CSI, CDT**

Norman Hunter Award for Innovative Allied Organization Cooperation

**CSI Chicago's Contractor Engagement Committee**

Ben John Small Technical Writing Award

**Robert Haddock, CSI**

Specifier Article of the Year Award

**Wendy Talarico, CSI**

**Frederick C. Baumert, CCS**

Outstanding Contribution Award

Laura Jean Derrick, CSI

South East Region Training Leadership Committee

Communication Awards: **Jeffrey Parnell, CSI** (Memphis Website); **Robert Bailey, CSI, CCS** (Pittsburgh Chapter Newsletter); **Richard J. Leub, FCSI, CCS, CCCA** (Oklahoma City Chapter Newsletter); **Memphis Chapter** (PerSPECTive Publication); **John Dunaway, CSI, CCS** (Gulf States Leader E-Newsletter); **John Dunaway, CSI, CCS** (Event Promotional Materials); **John Dunaway, CSI, CCS** (Mississippi Chapter Newsletter); **Chicago Chapter** (Chapter Marketing Materials); **Chicago Chapter** (Website Re-Design); **J. Chambers, CSI-EP** (Year in Review—Lehigh Valley Booklet); and **CSINext Chapter** (CSINext Website).



# CONCRETE MOISTURE: KNOW IT'S THERE & KNOW HOW TO DEAL WITH IT

Contributed by Eric D. Lussier  
Let's Fix Construction Blog

I'm quickly approaching eleven years working in and around indoor flooring, focusing mainly on sport and synthetic surfaces. Eleven years of projects of all shapes and sizes ranging from 250 square foot residential basements to 30,000 square foot college field houses. Eleven years of existing conditions, renovations, rehabilitations and new construction and the one constant that rears its ugly head on almost each job are substrate conditions, and especially concrete moisture. Conversely, said moisture issues are seemingly new news to whomever I am working with: whether that is architects, construction managers, general contractors or end users.

There are more than a few instances that can lead to high moisture in a concrete slab. Whether it is an over-watered pour, a lack of a quality vapor barrier, a compromised vapor barrier, or a missing one entirely (either from degradation or lack of placement), a fast track installation with insufficient time for the concrete to dry, an inoperable or missing HVAC system or a handful of other events. No matter the occurrence, it can all equate to the same headaches after the fact. Normally fingers are pointed, voices are raised, materials are ripped out and unnecessary time and money is spent to potentially repair or replace flooring that perhaps should have never been installed to begin with. Industry-speak may call it "flooring failure" but most of the time the flooring is performing exactly as it is supposed to. The adhesive on the other hand, may be completely failing.

New construction technologies have our buildings tighter than ever. With the use of a proper vapor barrier removing the ground from the equation, concrete moisture has no place to go but up and through the slab. When placing a fully adhered, non-breathing floor, such as a heat-welded sheet vinyl on the slab, concrete moisture in an untreated slab travels up and out, trying to push through the adhesive and new floor in the process. Even though the norm in the industry has raised from 3 lbs. of moisture to 5 lbs., as per ASTM F1869-11 (Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride), that limit can take substantial time to achieve when it comes to new construction..

Speaking of norms in the industry, thankfully most flooring manufacturers have moved away from recognizing calcium chloride testing (which is more of a snapshot of what is happening emanating from just the top of the slab) towards in-slab relative humidity (RH) testing (what is going on inside the slab). Testing as per ASTM F2170-11 (Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using In-Situ Probes (has become easier over the last handful of years with developed equipment, including testing probes that can be left in the slab and reusable digital probes. It is always recommended that an independent third-party is specified to test the concrete for moisture and not the General Contractor or flooring contractor themselves. It could be viewed that each party has a vested interest in ensuring that results are swayed their way. If you are looking for a certified concrete moisture testing party, the International Concrete Repair Institute offers a moisture testing certification program and you can search the certified testers here.

What is extremely important to note is that any concrete moisture testing is purely a snapshot in time as to what is going on in (or, on) the slab at that point in time only and passed results does not guarantee that concrete moisture will not become a problem in the future.

Are you looking to cure the concrete moisture blues? There are solutions on the market. The cheapest, yet perhaps slowest solution is normally waiting for the slab to dry, however, you may have heard of the expression time is money. Abrading the top layer of the slab may help speed up this process, however most floor coverings require a smooth, steel trowel finish for installation, so the abrading would have to be treated in some way, which may include being patched with a Portland-based cement. Solutions also include topical moisture mitigation systems (reference ASTM F3010-13 Standard Practice for Two-Component Resin Based Membrane-Forming Moisture Mitigation Systems for Use Under Resilient Floor Coverings) and some of these topical solutions can be installed within days of concrete placement and up to 100% relative humidity. Flooring manufacturers have also adjusted to the moisture issues in the industry by offering solutions such as on slab moisture barriers, flooring with textile-backing & adhesive systems, 98% adhesive free installations or adhesives that allow a very high rate of moisture vapor emissions. One of the newly recognized solutions is what is being deemed a scientifically engineered rapid-drying concrete. Please note that concrete admixtures are not listed as a solution herein, nor are they recommended by this author, nor most flooring manufacturers.

The one true method to ensure a proper floor installation is informing yourself and knowing your trusted advisors. You need to know the flooring you've specified, know the flooring manufacturer's approved adhesive, know the threshold of concrete moisture vapor emissions, know the moisture testing methods and protocols and companies that provide them, know the time constraints and perhaps most importantly, know the flooring manufacturer's representative and the flooring installation contractor. Flooring manufacturers' and professional reputable flooring contractors will have a business reputation and it is in their best interest to uphold it. The manufacturers and contractors should be grilled, have references checked and should be able to corroborate their claims.

There is no tried and true answer or solution when it comes to concrete moisture. Please know that moisture is ALWAYS present in concrete slabs and by accepting it is there and knowing how you can treat it or live with it is your best bet.



# WASHROOM WORDS: CLEARANCE, REACH & PROTRUSION

Contributed by Janis Kent

Lavatories have some of the more involved clearances, below which impact reach ranges above. The question of why is this important to understand might be arising in your thoughts. The answer is the impact on the location of faucet controls, soap dispensers, and any other built-in items including electrical outlets and switches.

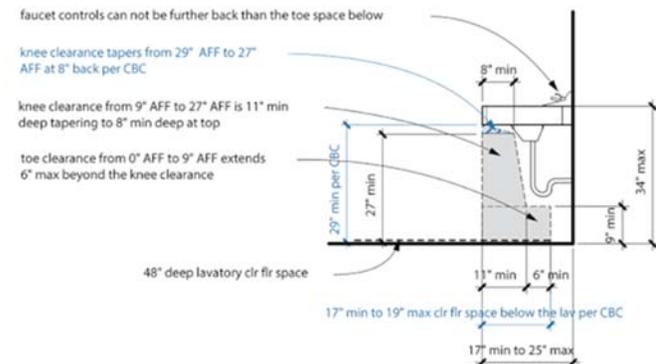
electrical outlets and switches.

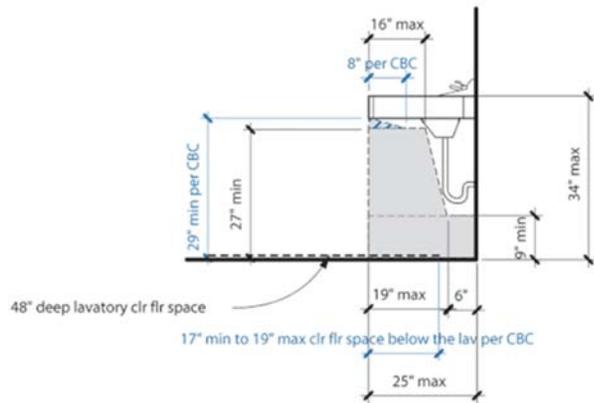
The knee clearance under a lavatory is 27" minimum height above the finished floor (AFF) extending horizontally from the front edge to a depth of 8". If you are working in California, the height clearance tapers from the front edge at 29" AFF, down to 27" AFF at 8" back. The next portion of the knee clearance is tapered from 27" minimum AFF down to 9" minimum AFF at 11" back. The toe clearance requires an additional 6" horizontally beyond the bottom of this taper. This is nothing new, but what we often lose sight of, is this taper is at a rate of 1" depth for every 6" of height – a total of a 3" depth beyond the full 27" clear height. You can increase the depth at the lower portion of the taper more than 3" but the toe clearance is still calculated as starting 3" back from the top of the taper. Another way of looking at this is the furthest point of the toe depth is an additional 9" back maximum from the start of the taper at 27" AFF.

For a lavatory with front approach, you need to remember that you cannot reach beyond your toes. So, if you have the minimum of 8" at the top + 3" of taper (the typical 11" minimum depth requirement) + 6" for your toes, this totals 17". If this is the furthest your toes can go, the faucets and soap dispenser (if fixed) have to have their controls located within reach range. So, 17" maximum from the front edge of the lavatory counter or fixture.

Let's say you want the controls located further back at 19" – the recessed depth at 27" AFF needs to increase to 10" deep. So, you would have the 10" + 3" of taper + 6" for the toes to get you to 19" depth. In California the knee/toe clearance is stipulated to be 17" to 19" deep therefore the faucet controls and fixed soap dispenser always have to be within this reach range .

The 2010 ADA Standards limits clear floor space depth at 25", not 19", which is the maximum reach depth for front approach. So outside California you would need the 27" minimum AFF clear height to a depth of 16" + 3" taper + 6" for your toes totaling 25" in order to get the maximum reach depth if something were to be placed on the back wall such as an outlet or switch.





The California Building Code (CBC) does state you can have more clear floor space beyond, but this cannot be used for the lavatory clear floor space requirements. So, within California, all of the operable parts of a lavatory are required to be 19" maximum from the front edge, presuming you have increased the depth clearance to be 10" from the top front edge.

Another issue, aside from the faucet control location, is if the lavatory is placed adjacent to a bathtub. The tub controls are also required to be within reach range. For instance, if the lavatory or its counter is 22" deep and the tub controls are placed on this back wall to the side of the counter, you would have to consider one of two options.

You would need to provide 22" depth of knee/toe clearance below so that would be 13" deep at 27" AFF + 3" taper + 6" for toe clearance at a minimum. This would be true in California as well as under ADA, but in California you could not use this extra clear depth for reach to the lavatory controls, just the tub.

The other option would be to extend the lavatory countertop to provide a 30" width of counter between the edge of the lavatory to the tub with knee/toe clearance below to the back wall.

So, do be careful of where you place your faucet controls in relation to the clearance below and if the lavatory is adjacent to a bathtub, be aware of providing knee/toe clearance to reach the controls located on the tub end wall.

One more item to consider. If the underside of the lavatory is more than 27" AFF clear height for the front 8" or more of depth, and if the fixture (or its counter) can be reached from the side of the fixture, you might now have a protruding object that is more than 4" from the wall, which would then require a cane detectable barrier. If the front edge of the lavatory is at 27" AFF exactly, this is a non-issue. But if you are in California, the front 8" (to 10") tapers from 29" minimum AFF down to 27" AFF. So, in California, if you can approach the side of the lavatory you will most likely always have a protruding object and a cane detectable barrier is needed. This can be as simple as providing a side piece to the counter, where the leading edge goes down to 27" or less AFF. But keep in mind, this side piece might need to provide 18" minimum clear from the centerline of the lavatory in California if it goes below 27" AFF. So, this sums up why knee/toe clearances, reach ranges, and protruding objects for lavatories are important to understand.

NOTE: Be aware that your local City or County may have additional requirements that are more restrictive than the State or Federal requirements. Also, this article is an interpretation and opinion of the writer. It is meant as a summary – current original regulations should always be reviewed when making any decisions.

**This article originally appears on the contributor's website as 'The Lavatory — Clear Floor Spaces, Reach Ranges, & Protruding Objects'**

*Janis Kent, FAIA, CASp is a licensed California Architect, and has been involved with Access in the built environment since the mid-1980's. She is designated a Subject Matter Expert (SME) by the California Division of the State Architect, a Certified Access Specialist, and participates in developing the state CASp exams.*

LITTLE ROCK CHAPTER  
CONSTRUCTION SPECIFICATIONS INSTITUTE

**LUNCH AND A SEMINAR—WEDNESDAY, AUGUST 8, 2018**

Lunch 11:30 am  
Seminar 12:00 p.m.



Please make reservations online at  
[Http://littlerock.csinet.org](http://littlerock.csinet.org)

Cost of the Meal is being Sponsored by  
Mays, Maune, McWard

Questions or Problems should be sent to  
Billy Mathis - [bjmathis@taggarch.com](mailto:bjmathis@taggarch.com)

**LOCATION:**

Baldwin & Shell Construction Conference  
Room

1000 West Capitol, Little Rock, AR  
72201

**Reservation Deadline: Please RSVP  
by Noon, Tuesday, August 7, 2018**  
(LRCSI must guarantee meal count  
for the Presentation)

**SPEAKER:**

**Andy Mays, Mays, Maune, McWard**

**PROGRAM:**

[Code 10 - Opening Doors to Design Opportunities](#)  
[\(1 AIA LU/HSW\)](#)

**Learning Objectives:** This 1-hour seminar is structured to acquaint the design team with basic building code requirements that drive the use of Fire and smoke rated wide span opening protectives.

1. Participants will be able to differentiate between fire walls and fire barriers.
2. Learners will understand the regulatory standards governing the use and application of wide span opening protectives.
3. By examining numerous case studies participants will learn the fundamental code requirements that drive the placement of fire walls and fire barriers, their openings and opening protectives.
4. By way of slides, discussion and case studies, participants will see the direct correlation between life safety, product application and open design.

If you are interested in following the Little Rock Chapter, our links are as follows (*for Facebook and LinkedIn look for the CSI Little Rock Chapter*):

**Website:** <https://csilittlerock.org>

**Facebook:** [www.facebook.com](http://www.facebook.com)

**LinkedIn:** [www.linkedin.com](http://www.linkedin.com)

If you are interested in Joining CSI or if you are just interested in keeping up with the information provided by CSI, follow this link to the Institute Website Membership Pages:

For Membership Information:

<https://www.csiresources.org/communities/membership/individual-membership>

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To See what CSI is all about:

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# KNOWLEDGE, INNOVATION, COLLABORATION - CONSTRUCT 2018



Excerpt from Let's "Fix Construction Blog"

Registration is now open for CONSTRUCT 2018, our MUST attend construction industry conference of the year.

The co-founders of Let's Fix Construction, Eric D. Lussier and Cherise Lakeside met at CONSTRUCT in Phoenix in 2012 and have returned in each successive year since. AT CONSTRUCT 2017 in Providence, RI, Eric and Cherise were invited to participate on the CONSTRUCT Education Advisory Council with a group of other industry professionals. This effort has continued for the 2018 Conference and much work has been done to put together a dynamic program for the conference this coming October 3-5, 2018 in Long Beach, CA.

In addition to the Education Advisory Council, CONSTRUCT 2018 will be keeping Eric and Cherise busy on all three days of the conference.

On Day 1, they are both involved in the fourth annual Young Professionals Program, Cherise will be moderating the Archispeak Interactive Luncheon titled 'Real Talk About Challenges, Opportunities & Innovations Surrounding AEC

Teams' and later that day, the Let's Fix Construction interactive problem-solving workshop will return for a second consecutive year.

On day 2, Eric and Cherise will co-host a new program 'Facing Danger: Public Speaking for

Non-Public Speakers' and the evening will conclude with the 2nd annual Let's Fix Construction 'Partners & Pints' party, sponsored by ClarkDietrich.

Day 3 will feature a new addition to CONSTRUCT in 2018, as Cherise will moderate the 'Millennial Power Panel' session, with more details below.

While Cherise and Eric (Let's Fix Construction) will be busy this year at CONSTRUCT in their continuing total world domination effort, there are a host of great educational sessions from many well respected members of the AEC Community in addition to project tours, networking events, parties, show floor education, product information and much more. Check out the official CONSTRUCT Press Release below and register soon and save up to \$230 with Early Bird Pricing when you register by 06/13.

CONSTRUCT, the only national show dedicated to commercial building teams that spec and source materials, has announced a slight change in the show's format for 2018. CONSTRUCT is introducing Thought Leader and Power Panel Sessions this year, replacing the Keynote Speaker and Game Changer Speaker. These four new sessions will feature key industry leaders speaking on trending topics that are affecting the AEC industry today. The Thought Leader speakers include Rosa T. Sheng, Brok Howard, and Paul Doherty. The Power Panel session will involve successful millennial professionals.

Rosa T. Sheng, FAIA, LEED AP BD+C, is a Principal and Director of Equity, Diversity, Inclusion at SmithGroupJJR and AIA SF President 2018. She is also the Founding Chair for Equity by Design, which has launched a national movement for achieving equitable practice and design in architecture since 2018. Rosa's session, titled 'Why Equity Matters for everyone – A New Value Proposition for Design', will frame the discussion on how we can adopt a culture of equity, diversity and inclusion.

Brok Howard, is a Technical Account Manager at dRofus Inc. where he leads the effort in implementation, training, and support for all North America. He has over 20 years of experience in the AEC industry, including teaching at Washington University in St. Louis and as a BIM Manager at HOK. Brok's session titled 'Knowledge Transfer – An Ethical Responsibility for AEC Professionals', will focus on our responsibility and duty to prepare the next generation with the knowledge we share.

Paul Doherty, the President and CEO of the Digit Group, is an award-winning architect, specifier, and adviser to Fortune 500 organizations and government agencies. He is also one of the co-founders of the AEC Hackathon. His current work is focused on Smart City real estate developments for the USA and abroad. Paul's session titled 'The Digital Transformation of Specifications' will discuss a new age of specifications driving digital transformations that could only have been dreamed about just a few years ago.

The Power Panel session will be moderated by Cherise Lakeside, Specifier at LSW Architects and co-founder of LetsFixConstruction.com. She will be leading a panel of four millennials through an in-depth discussion where they will dispel some commonly held beliefs about their generation, and what they want for the future of the industry. The panel will consist of Tiffany Coppock from Owens Corning, Cam Featherstonhaugh from TruexCullins Architecture & Interior Design, Kyhla Pollard from Juneau Construction Company, and Michael Riscica from the YoungArchitect.com.

The change in format, initiated by feedback from our participants, allows for more in-depth discussions in a more intimate setting. "Education has always been key for our participants, and we are excited to be able to provide them with multiple sessions from key industry leaders," said Keith Huegel, Associate Director for CONSTRUCT. In addition to the Thought Leader Sessions, CONSTRUCT will feature over 50 accredited educational sessions, technical tours and live product demonstrations. Attendees will be able to earn 18 plus hours of CEU's.

In addition to our thought leader speakers, we have a number of notable industry professionals that will be presenting on topics that are current to the AEC industry." Said Jennifer Hughes, Sr. Education Manager for CONSTRUCT. "With the help of our 2018 Education Advisory Council, we have created an exciting program that will provide solutions to the challenges facing AEC professionals today."

CONSTRUCT 2018 is being held October 3 -5, 2018 in Long Beach, CA at the Long Beach Convention Center. Registration is now open, and Early Bird pricing ends on June 13, 2018. To register or for more information, visit [www.CONSTRUCTshow.com](http://www.CONSTRUCTshow.com).

“ Additional show information:

- Facebook at <http://www.facebook.com/CONSTRUCTShow>
- LinkedIn at <https://www.linkedin.com/company/construct-show/>
- Twitter at <http://www.twitter.com/CONSTRUCTShow>
- Instagram at <http://www.instagram.com/CONSTRUCTevent>
- YouTube at <https://www.youtube.com/user/hwconstructshow>
- #CONSTRUCT #CONSTRUCT2018

#### About the Event

CONSTRUCT is your most cost-effective strategy for combining educational opportunities with practical, real-world, product and service solutions for your business success. This event is dedicated to the institutional, industrial and commercial building industry. If you design, build, specify, engineer, renovate or operate in the built environment, this is your event. The show is owned and produced by Informa Exhibitions U.S., Construction & Real Estate. For additional information, contact CONSTRUCT at P.O. Box 612128, Dallas, Texas 75261-2128; call the main show line at (866) 475-6707 or (972) 536-6450.

#### About the Construction Specifications Institute (CSI) – Official Partner

Founded March 1948, the Construction Specifications Institute ([www.csiresources.org](http://www.csiresources.org)) is a national association of more than 7,500 members dedicated to improving the communication of construction information throughout continuous development and transformation of standards and formats, education and certification of professionals to improve project deliver processes. CSI members work tirelessly to effectively communicate the designers' vision, the material producers' solutions and the constructors' techniques to create outstanding facilities that meet facility owners' objectives.

#### About Informa Exhibitions U.S., Construction & Real Estate

Informa operates at the heart of the Knowledge and Information economy. It is one of the world's leading business intelligence, knowledge and events businesses with more than 6,000 employees in over 100 offices across 25 countries. The Dallas Exhibitions team produces a portfolio of 15 trade shows in various sectors of the construction and real estate industry. To learn more, visit [www.informaexhibitions.com](http://www.informaexhibitions.com).

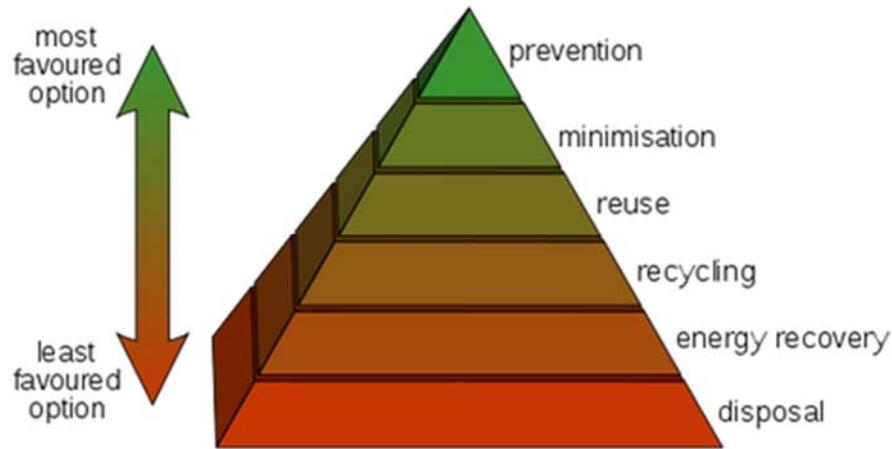
# Little Rock Chapter Website has Moved

The Little Rock Chapter Website is currently up and running at it's new location (link <https://csilittlerock.org>). There were several reasons for the move but the primary reason was that Institute is no longer able to support the old Microsite we have been using. Please check us out and continue to come back periodically as new features will be added. The old website has ceased to function so please go ahead and move your favorites link to the new website.



# REPURPOSING: THE INTERSECTION OF AFFORDABILITY & SUSTAINABILITY

Contributed by Randy Nishimura



A cozy group gathered at the Eugene Builders Exchange this past Thursday for the May chapter meeting of the Construction Specifications Institute-Willamette Valley Chapter. The topic for the meeting was repurposedMATERIALS, the successful enterprise at the vanguard of the rapidly growing materials repurposing industry.

CSI-WVC member Alorie Mayer, who has a background in energy and resource conservation management, organized the presentation of a webinar

by repurposedMATERIALS president Damon Carson. Damon founded the company in 2011, and it has only grown by leaps and bounds since then. In Damon's words, repurposing occupies the intersection of affordability and sustainability. The repurposedMATERIALS business model involves taking byproducts out of the waste stream and extending their maximum practical benefit while minimizing waste and the expenditure of new energy to ready them for new uses.

Damon introduced the topic of repurposing materials by having us think about what many of us did naturally as preschoolers: taking an empty Quaker Oats canister and transforming it into a drum or a container for Lego blocks, or reimagining a Maytag refrigerator shipping box as a medieval fort or a space-age rocket. This, in his words, was our "substitutionary thinking" at work. Repurposing isn't a new concept; fundamentally, it is an innately human behavior.

Damon cited the waste hierarchy pyramid and how reuse occupies a perch near its peak. Repurposing is not the same as recycling, which typically involves energy-intensive processing of the materials (e.g. chipping, shredding, grinding, or melting) before reuse is possible. Repurposing is a means to extract the maximum practical benefit from products while minimizing the cost to the environment. As a waste-management strategy, repurposing minimizes emissions of greenhouse gases, reduces pollutants, saves energy, conserves resources, creates jobs, and stimulates the development of green technologies. Repurposing rather than reprocessing previously-used items also saves time and money, making quality products available to people and organizations who may be of limited means.

Of course, repurposing isn't a new concept. Artists (like my friend and former co-worker Rosie Nice) have long fashioned sculptures and other works out of what most people would consider junk. Habitat for Humanity ReStores and Eugene/Springfield's own BRING Recycling sell salvaged materials but tend to emphasize reuse rather than repurposing. For example, salvaged doors or windows sold by Habitat for Humanity ReStores or BRING are typically used by the purchasers for the same ends they originally were originally intended for. What distinguishes repurposedMATERIALS is its procurement of large amounts of discarded products no longer suitable for their original purposes but are otherwise practical for altogether different uses.

Damon cited the following mnemonic device to explain his company's criteria for selecting the materials it chooses to procure and resell:

S.A.V.E.it

The materials should be Standardized, readily Available, Versatile, and well-Engineered (possessing desirable characteristics or attributes).

At its core, repurposedMATERIALS is a thrift store on an industrial scale, with branch offices/warehouses in Denver, Chicago, Dallas, Atlanta, and Philadelphia. The company conducts online auctions as well as selling products directly to customers at preestablished prices through its website. Recently, repurposedMATERIALS expanded its mission/concept to include the repurposing of things like chemicals and other ingredients (as opposed to finished products), and even real estate. Anything that is obsolete to its primary industry is of interest to the company.

Damon described how his customers have imaginatively found new uses for old stuff. The products repurposedMATERIALS regularly procures and stocks include salvaged heavy timber beams, industrial storage tanks, and worn gymnasium floor boards. Some of the other used construction materials currently available include rubber playground tiles, salvaged wood from bleachers, 500-gallon propane tanks, concrete barrier blocks, and galvanized steel cable. The company also specializes in “all kinds of crazy” as well—offbeat industrial castoffs like aircraft wheel chocks, conveyor belts, used truck tires, and pool covers to name a few.

To Damon, much of the satisfaction he derives from his business comes from seeing how creative his customers can be. repurposedMATERIALS doesn't always know how the materials it procures might be used. Street sweeper brushes enjoy a second life as backscratchers for horses and cattle. Old escalator handrails (which are made of thick rubber with reinforcing cables) become loading dock bumpers. Retired military cargo parachutes are used as wedding party tents. Used billboard vinyl (which is tremendously tough and intended to handle the worst Mother Nature can throw at it) is normally just thrown away, but Damon discovered the vinyl can be reused not only as drop cloths but also as hay covers, pond liners, and even slip n' slides. He sold ten to a U.S. Army Ranger battalion for use as curtain walls in a training maze.

Given that 40% of the materials in the nation's landfills can be attributed to construction waste, the key takeaway from the presentation is how significant our attention toward managing the waste hierarchy can be when viewed from a holistic, green perspective. Construction should be defined by good engineering and efficiency. Many salvaged or recovered materials are heavy duty and are ready for the tough jobs. It behooves architects to consider the possibilities inherent in the significant resources available from repurposedMATERIALS, and other similar vendors. We should use our imagination and creativity to help the construction industry minimize its environmental impact through repurposing.

# (GLAZIERS') ROADMAP TO SUCCESSFUL SUBSTITUTION REQUESTS

Contributed by [Joe Schiavone](#)



(Editor's note: While addressed to glaziers, this article is ideal for any building product representative or manufacturer) Substitution Requests are prevalent in construction projects of all scales. They offer several benefits to glazing contractors, such as helping them win a job; however, there is a right way and a wrong way to submit them. A firm understanding of the procedures involved in Substitution Requests can increase the likelihood of the product being accepted, and of repeat business as a result of building a favorable reputation. With architects facing increasingly tight schedules, the submitter should be aware that the odds of success often depend on how clear and concise the Substitution Request is.

## The Basics

Substitution Requests are simply proposed changes in products, equipment, and/or methods of construction from those that are specified by the architect. Nearly every project—regardless of project delivery method—encounters product substitutions so opportunities are abundant.

The most opportune time in the project lifecycle to submit a Substitution Request is during the bid phase when the general contractor is seeking out a glazing contractor. This creates a level playing field amongst bidders. It's possible to submit a Substitution Request during construction, but the process can be more complicated and should only be pursued when certain issues arise such as material unavailability, excessive lead times, or a change in code requirements.

There are several scenarios where substitutions are practical and feasible. CSI's *Construction Contract Administration Practice Guide* identifies key areas in which a Substitution Request should be reviewed. They include:

- Shorter Construction Schedule
- Lower Overall Cost, Including Operation and Maintenance
- Improved Quality and Performance

- Superior Sustainable Features
- Enhanced Aesthetics
- Better Warranty and Manufacturer Reputation

The substitution should add value and present clear advantages to the architect, and ultimately the owner, if it's to be approved. It must also be equal or superior to the specified product, and cannot adversely impact the project cost or schedule.

When submitting a Substitution Request, glazing contractors and product manufacturers should work directly with the bidding general contractor. Not doing so can be detrimental to the team dynamic and slow the project's progress. Although contacting the architect is possible, you risk immediate rejection. You also risk building a detrimental reputation for not following established protocol, which can cost you future work

In some cases, a designer without formal Contract Document training writes the specifications. They may also be written in haste because of rushed schedules. This means that an experienced glazing contractor has more opportunities to spot potential conflicts that are overlooked, and suggest substitutions that will improve quality or reduce risk.

### **Submitting a Substitution Request**

The best way to submit a Substitution Request is by reviewing the Contract Document and following the procedures set forth in Section 01 25 00 of Division 01. This includes filling out a Substitution Request Form, such as CSI Form 1.5C. If the general contractor does not readily provide the Contract Document at bid time, be sure to request it.

Substitution Request procedures vary from project to project, especially during the construction phase. Some don't allow substitutions altogether. It's critical that you read the procedures in Section 01 25 00 carefully to avoid incomplete or inapplicable submissions. These are some of the most common Substitution Request deliverables:

- The Substitution Request Form found in Division 01 of the Contract Document.
- Detailed comparison between the substitution and the specified product that clearly outlines advantages in performance, quality, aesthetics, sustainability, installation, lead time, etc.
- Product data including manufacturer name, test reports, drawings, and fabrication and installation procedures. This information should clearly show that the substitution meets specs. The test reports must verify that the product complies with local codes. In some jurisdictions, it may be beneficial to review substitutions with the Authority Having Jurisdiction.
- List of Contract Document revisions needed to accommodate the proposed substitution. Note: The less revisions needed the better.

- List of completed projects where the substitution was used. Projects should be similar to the one in question.
- Warranty and service information from the manufacturer. Must be equal to current specification.

When submitting a Substitution Request, it's very important to be thorough, concise, accurate, and clear. This is particularly critical because of the tight schedules that architects face. You should clearly point out where the substitution adds value, and where it's superior to the specified product. If the substitution does not meet the specs, do not proceed with the request.

A Substitution Request is an involved process, which is why it becomes necessary to seek the assistance of a product manufacturer representative. An experienced representative will quickly respond to questions, and can supply all the documentation needed for the Substitution Request. This includes test reports, drawings, fabrication and installation details, performance data, LEED Statements, costs, and lead times. They will make sure there's no guesswork involved at any point in the process.

### **The Architect's Perspective**

Architects regularly look for ways to reduce lead times and costs, while improving performance and aesthetics. This is why Substitution Requests are distinctly relevant. The purpose of a Substitution Request is to convince the project architect(s) to accept your product. In order to do so, you must understand what the architect is looking for.

Architects use several methods to specify products. For example, they can list performance criteria, industry standards the product must meet, or they can name a specific product and manufacturer. Understanding these methods can help you and the manufacturer representative identify in what areas the substitution is superior. Interestingly enough, the more control the architect demonstrates in the selection of a product, and the more detailed they are, the more opportunity there is for a substitution.

As previously mentioned, one of the most important things in a Substitution Request is to be thorough, concise, accurate, and clear. Explain exactly how the product meets specs and provide supporting documentation. If the architect does not have enough information to evaluate the substitution, or if the information is poorly organized, the request will be rejected. Make it easy for the architect to find the key information they need to compare the substitution and send a recommendation for approval to the owner.

"Making the comparison of products as easy and straightforward as possible for the architect increases your chances of approval," said Brian McClure, Associate, RA, CSI, CCCA at Stantec. "The information provided should be complete and presented in an orderly fashion. Avoid conflicting test data because it makes it more difficult to determine equivalency between products."

When reviewing a Substitution Request, architects typically ask:

- Does the product manufacturer have a good reputation?
- Does the product comply with Contract Documents?
- Will there be any issues with schedule or installation?
- Is the warranty and service comparable?
- Does it meet sustainability objectives and code?
- Is the product compatible with other trades?

Becoming familiar with, and addressing the questions an architect asks will help a glazing contractor put together an effective Substitution Request. Remember that the less time-consuming it is to review, the more likely it will be approved.

AIA Document A701-1997, *Instructions to Bidders*, provides basic requirements for submitting Substitution Requests in Section 3.3. The procedures defined therein essentially give architects only six days to review substitutions, which is not a lot of time. That's why it shouldn't be left up to the architect to research the product. The burden of proof lies with the submitter, and they must ensure that their submittal is clear and concise to give architects enough time to make informed decisions.

"We don't have much time to review Substitution Requests because of demanding schedules," said Cherise Lakeside, Specification Writer, CSI, CDT, SCIP at LSW Architects, and co-founder of Letsfixconstruction.com. "If you submit a side-by-side comparison of the products with your request, it will save us valuable time and significantly increase your chances of getting the approval." Be aware that Substitution Requests often translate to additional services and billable hours on behalf of the architect. Because of this and strict schedules, it isn't possible for the architect to research every substitution to determine if it can be used in the project.

## **Conclusion**

Product substitutions are commonplace in construction. General contractors and architects are well aware that substitutions can have a positive impact on costs, lead times, and quality. When submitting a Substitution Request, be sure that your product meets specs, and can clearly benefit the project. Architects are facing tighter schedules so make it as organized and concise as possible to save them time.

It's very important that a glazing contractor carefully follow the Substitution Request procedures set forth in Division 01, Section 01 25 00 of the Contract Document. They should also seek the assistance of the product manufacturer when organizing all deliverables. Reducing costs, lead times, or increasing performance can help them win a job. It can also get the product included in the specs of a future project.

With every successful Substitution Request, a glazing contractor builds a stronger reputation because they've shown they can add value to projects. As a result, they have the opportunity to establish favorable relationships and increase the likelihood of repeat business.

# LetsFixConstruction.com

## What is it?

Let's Fix Construction is an avenue to offer creative solutions, separate myths from facts and erase misconceptions about the architecture, engineering and construction (AEC) industry.

Possessing hundreds of years of combined experience in all facets of construction, the contributors of 'Let's Fix Construction' demonstrate the way things are supposed to be in AEC. It is sometimes too easy to offer complaints without offering a resolution and that is why 'Let's Fix Construction' was born.

While we aren't here to offer solutions to *all* of the problems you face, we are here to let you know that you aren't the only one seeing issues in the office or in the field. We are here to offer a new point of view, our thoughts on what we see and perhaps an answer or two along the way that you may be able to use.

**Would you like to contribute your voice? Read here for how**

## WHO?

Let's Fix Construction was co-founded by two opposing coast AEC professionals.

Eric D. Lussier of [Precision Athletic Surfaces](#), hailing from the East, just outside of Burlington, Vermont and Cherise Lakeside, Specifier for [LSW Architects](#) of Vancouver, WA and representing the West.

Having met through the Construction Specifications Institute and keeping in touch through social media, Eric and Cherise decided to do more than just gripe about issues plaguing the industry, and created [LetsFixConstruction.com](#) on August 15, 2016.

# LITTLE ROCK CHAPTER INFORMATION

## Chapter Officers

President:		Garrett Shaffer, CSI
President-Elect:		Open
Immediate Past President:		Clark Wood, CSI
Secretary:	T	Clark Wood, CSI, CDT
Treasurer:		Billy J. Mathis, FCSI, CDT
Directors		
Operations		Rachal Belanger, CSI
Honors		Melissa Aguiar, CSI, CDT
Membership		Carlie Massery, CSI
Education / Certification		

## Chapter Info

<b>Chapter Website:</b>	<b><a href="https://csilittlerock.org">https://csilittlerock.org</a></b>
<b>Chapter Newsletter:</b>	<b>SpecWork</b>
<b>Chapter Meeting Day and Time:</b>	<b>2<sup>nd</sup> Wednesday of Each Month unless otherwise specified by the Chapter President</b>
<b>Chapter Board Meeting Day and Time:</b>	<b>1<sup>st</sup> Friday of each Month unless otherwise specified by Chapter President</b>

If you are interested in Joining CSI or if you are just interested in keeping up with the information provided by CSI, See the slides shown from the “Why CSI” presentation