

## 2011 November Newsletter Articles

### Fundraiser for Teri Hand's Son and His Family

Teri's son, Barry Lundquest, was injured in a motorcycle accident on September 24th. He has suffered serious brain injuries and faces a long recovery. His diagnosis at this time is really unknown.

Barry is married. He and his wife, Amy, have three children: daughters Harley (5 years old), London (4) and son Hunter (20 months). Barry is employed by the Army National Guard. Amy is still on active duty with the Guard. Many of you have followed Barry through his two tours in Iraq as a Marine. His co-workers have donated 225 hours of vacation time to help the family but that will run out quickly. Luckily, Barry is covered by Amy's medical insurance. Since he is a civilian he will be able to stay in the Banner Hospital – Scottsdale facility which has a highly respected neurology department. Medical expenses are covered but Amy will have to support the family soon on one income.



In appreciation of Teri's 15+ years of service to the Phoenix chapter (President, Treasurer and many other positions), the Southwest region (Regional Director, Treasurer and many other positions) and the Institute (Fellow as of Sep. 2011, Finance Committee and many other positions), the Phoenix chapter is holding a fundraiser to raise cash for the family. We can make a real difference simply by providing cash for groceries, gas and the daily necessities we too often take for granted.

Credit card donations can be made <http://www.barrylundquest.bbnw.org/> This is a special PayPal account set up for the family. You can use any credit card at this site.

Cash or check donations can be at The Reference Library or at the CSI monthly meetings on November 10th and December 8th. Checks should be made out to Teri Hand with a memo indicating the funds are for Barry Lundquest.

Checks made out to "Barry Lundquest Benefit Fund" can be mailed directly, if you prefer, to TruWest Credit Union, PO Box 3489, Scottsdale, AZ 85271-3489.

The fundraiser was kicked off at the chapter meeting on October 13th. ASSA ABLOY made the first contribution of \$1000. Clarice Nielsen, (Coronado Stone) added her winnings from the evening's raffle. An anonymous party added a check for \$100.

We can help a young family who is facing difficult days and possibly years. Every dollar will make a difference!

Please share this information with other people who have been touched by Teri's tireless efforts for CSI and by her constant smile. Tweet a link to the CSI Phoenix home page. Post the link on your Facebook page so other CSI members can see it. Include the information in chapter emails, web sites or newsletters.

If you have any questions, please contact Pamela Bir at Pamela@YourComputerLady.com or 480-929-0335.

**November 2011 President's Message - Why CSI?  
By: Stephen Smith, CSI, AIA, CSI Phoenix Chapter President**

The main portion of this month's message comes from an article written by Mike Young, President of the CSI Denver Chapter. CSI Institute had noticed the article on the CSI Denver's blog and reprinted it in the CSI Weekly dated October 4, 2011. Tim Garver saw the article and alerted me before I had even received the CSI Weekly by email.

This article, though written from Mike's personal experiences regarding CSI, includes many reasons why we are and continue to be members of CSI as I have heard from our chapter members.

CSI Denver Chapter Blog Answers the Question, "Why CSI?"

CSI Denver Chapter President Mike Young, CSI, CDT, posted the following Presidents message on the chapter's blog.

Why join, why renew my membership, why participate in the Denver Chapter, CSI? The answers are as diverse as the membership of CSI. Personally, I believe the answer is the diversity of the membership of CSI. Unlike other design, manufacturing, and construction industry organizations, CSI is not made up of a majority of architects (AIA), engineers (NSPE, ASCE), estimators (ASPE), general contractors (AGC, ABC), hardware manufactures (DHI), coating manufactures (SSPC), etc. etc. etc. While all of these organizations play an important role in strengthening and improving their respective industry niche, they do so by focusing on a specific sector of the construction industry. As a result of this focused approach, members of these organizations tend to be competitors of each other. CSI is different.

CSI's strength and value lies in its ability to organize all of the diverse elements of the construction industry into an integrated organization focused on improving the industry as a whole. A good set of construction documents pulls together and clearly communicates every element of construction in a clear, concise and organized package for the sole purpose of creating a functional facility that meets the long term needs of its owner. Similarly, CSI pulls together and encourages communication between planners, design and engineering professionals, materials experts and product representatives, construction professionals, and other industry professionals for the purpose of forming a functional organization that, I believe, is needed to meet the long term needs of the construction industry. As a member, you have unbiased access to all of these resources and are a resource to others as well.

So why did I join CSI? Back in 1992, just as today, CSI provided a respected and economical education opportunity. Studying for and receiving my CDT and CCA credentials not only reinforced the relevance of the education I received at CSU (Colorado State University), it provided me with an industry recognized credential from a respected organization. By simply placing CDT after my name, I am able to communicate to my industry peers that I have an understanding of the various components of construction documents.

Why renew my membership? Resources! CSI is packed with resources. The advantages I receive by being part of the CSI network are immeasurable. If I have a question regarding fire

penetrations, assemblies, glazing, masonry, paint, specifications... I know who to ask for an unbiased answer. I need a solution to a problem; I have a list of people I trust to pull ideas from. I want to know what's happening in the industry as a whole or specific to my concentration, I know who to have a conversation with. Simply put, the most valuable resource the Denver Chapter, CSI, offers is its membership directory.

Why participate? CSI is synergy. While I do enjoy the benefits received from all of the various resources CSI offers, there is no greater sense of satisfaction than knowing that you are an active part of something bigger. One major draw of this industry is the sense of satisfaction you feel when you know you were an active contributor in getting a facility built. Knowing that if you didn't do your part in the construction, something would be missing and the end result just wouldn't be the same. This applies to CSI also, from the Chapter level through the Regional level to the Institute level. I can honestly state that until I began actively participating in CSI, I had no idea what I was missing. You are part of a great organization.

Let me close with this challenge – If you're a newer member (5 years or under) or if you're thinking about becoming a member, take a moment to talk to one of our many long-time members (10 plus years). Ask them, "Why CSI"?

If we haven't seen you in a while, come to a Chapter meeting. Say hi to your fellow members. Re-connect. As a Chapter and an organization, we're more effective with you than without you.

Finally, if you are an active member, tell others why. Spread the message of CSI.

Alan Minker recently closed out an email by stating "In your travels, please remember to promote the benefits of a membership in the Phoenix Chapter CSI". I feel this article strongly promotes the benefits of CSI membership.

I'm sure if you sell a product or service to a customer, you have heard the term "Elevator Speech" in the last few years. As defined in Terri Sjodin's book "Small Message, Big Impact", "Elevator Speech is a brief presentation that introduces a product, service, philosophy, or an idea. The name suggests the notion that the message should be delivered in the time span of an elevator ride, up to three minutes. Its general purpose is to intrigue and inspire a listener to want to hear more of the presenter's complete proposition in the near future." Mike's article could easily become the backbone of your own "Elevator Speech" by adding your own experiences with CSI.

Let's all of us create our own "Elevator Speech" and promote the benefits of CSI to those in the construction industry that might not know until we inform them! Increased membership will then follow.

**November Monthly Chapter Meeting  
Thursday, Nov 10**

**Location**

Radisson Hotel Phoenix City Center  
3600 North Second Ave  
Phoenix, AZ 85013

**Schedule**

11:30 am – Networking/Table Tops  
12:00 to 1:00 pm – Dinner/Meeting & Program  
1:00 to 1:30 pm – Table Tops

**Program:** “Light-to-Heavy Media Cleaning Service Industry”

**Presenter:** Jim Harrison, Principal, Soda Strippers International

**Program Description:**

The Light-to-Heavy Media Cleaning Service industry is booming despite the languishing economy. As a safe, dry or wet non-silica approach, the multi-faceted coatings, stains, paint, mold, and graffiti-removal process continues to gain approval across a broad spectrum of regulating agencies. Not only are clients giving referrals, but it has received acknowledgement for being both Kosher and Passover approved! In short, “soda-stripping” is the best thing since sliced bread! One catch: the Technicians need know what they are doing.

Read More...

**The Reference Library November Box Lunch Schedule**

**Understanding the Role of Vapor Permeability in the  
Durability of Commercial Building Enclosures**

By Dr. Maria Spinu, PhD, CSI, LEED, AP

Air Barriers and water-resistive barriers (WRB) are essential components of the building enclosure. Air Barriers protect against air leakage and contribute to energy efficiency, durability, and comfort of the building occupants. WRBs protect against bulk water intrusion. Most often a single membrane performs both air barrier and WRB functions.

*Based on the application method*, there are many types of air and water barrier materials, with the most common being mechanically fastened (building wraps), fluid applied, and peel and stick (self-adhered) membranes. Regardless of their type, all air barriers must meet the following essential requirements:

1. A high level of air resistance - to resist air leakage
2. Continuity across the entire building enclosure and around all joints, transitions and penetrations
3. Structural integrity - to withstand the designed wind loads for the building
4. Durability - to withstand the rigors during construction and continue to perform for the intended life of the building enclosure

In addition, when the membrane also performs the WRB function a high water resistance is required to help protect the wall from water intrusion behind exterior cladding.

*Based on vapor permeability*, the air- and water-resistive barriers can be vapor permeable or vapor non-permeable. The choice of vapor permeable or non-permeable membrane has significant implications on moisture management and must be considered. Moderate to high vapor permeability are essential in promoting drying of incidental moisture intrusion and avoiding moisture related problems in wall assemblies. Yet, vapor permeability is perhaps the most ignored and the least understood even though it could have a great impact on how a wall system performs.

What does **vapor permeability** mean within the commercial air and water-resistive barrier (WRB) category and how should it affect your building practices? The intent of this article is to explain this property so that a better understanding of building physics can be gained.

### **What is Vapor Permeability?**

Vapor permeability (often called breathability) is a material's ability to allow water vapors to pass through. Vapor permeability is important because wall cavities do get wet: roofs leak, rain water can infiltrate behind the exterior cladding, condensation occurs, plumbing leaks, construction materials are often installed wet or can get wet during construction, etc. Regardless of how it happens, moisture intrusion does occur and requires a way to dry out; vapor permeable layers will allow moisture to dry out through water vapor diffusion. When a wall can't dry or drying rates are too slow, it becomes vulnerable to moisture-induced damage including mold, corrosion and rot. The ability of wall assemblies to dry is vitally important in the design and construction of durable walls.

Vapor permeability is measured in perms. 2009 IBC (International Building Code) classifies materials with a minimum of 10 Perms as *vapor permeable* materials. The higher the perms, the faster the diffusion rates for given conditions and therefore the faster the drying rates. High vapor permeability for effective drying is often achieved at the expense of air infiltration resistance and water resistance. The optimum balance of properties must combine **high** air infiltration resistance, **high** water resistance and **optimum** vapor permeability. The optimum vapor permeability is above 20-25 Perms. In order to understand how a material can be vapor permeable, yet resist bulk water and air infiltration, one must understand the different mechanisms by which these occur.

*Water vapor diffusion* is driven by water vapor concentration difference across a material or assembly, and consists of individual water vapor molecules passing through *micropores* in a material. *Bulk water infiltration* is the liquid water transport across a material. Because liquid water consists of hundreds of water molecules associated through polar interactions, a water droplet requires larger *macropores* to pass through. This is why a material could be vapor permeable, yet resist water infiltration. It is the same principle used by Gore-Tex® for many years to provide water resistant, vapor permeable gear for both performance and comfort.

The terminology often used to describe a vapor permeable material, *e.g. breathability* could lead to confusions. Because *breathability* is often associated with air flow, there is a misconception that a vapor permeable (breathable) material can not resist airflow. In order to address this misconception we must consider the mechanism of airflow. *Airflow* is driven by the air pressure difference across a material or assembly and requires large openings (*macroscopic holes*) through which air can pass through. A material can be airtight (no "holes"), yet vapor permeable (*micropores* which allow vapor diffusion of individual water vapor molecules).

In conclusion, vapor permeability is an essential material property which must be considered when selecting an air and water resistive barrier. The best materials are those which achieve an optimum balance of properties, e.g. **high** air infiltration resistance, **high** water resistance and **optimum** moisture vapor permeability for effective drying. Experimental data show that the optimum permeability is above 20-25 perms.

### **Education Committee**

The education committee is looking for committee members. Please contact Jill Anderson at [jill@thereferecnelibrary.com](mailto:jill@thereferecnelibrary.com) if you are interested.

The education committee's goal is to provide additional seminars and demos to educate the construction industry.