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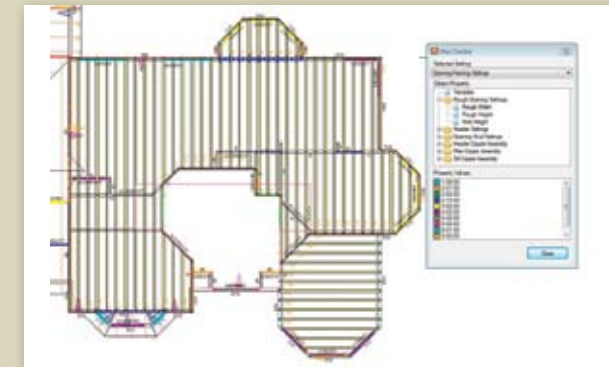
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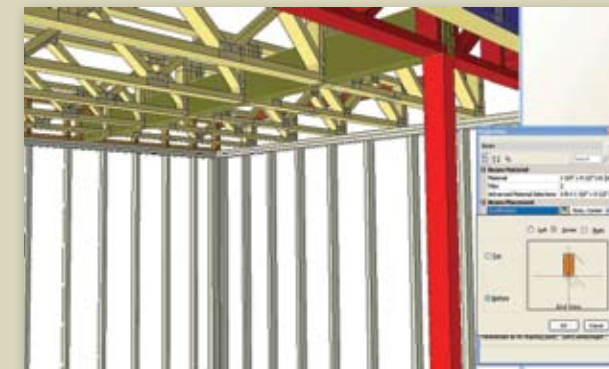
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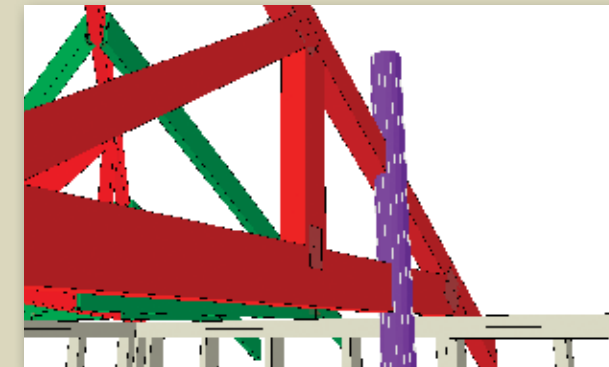
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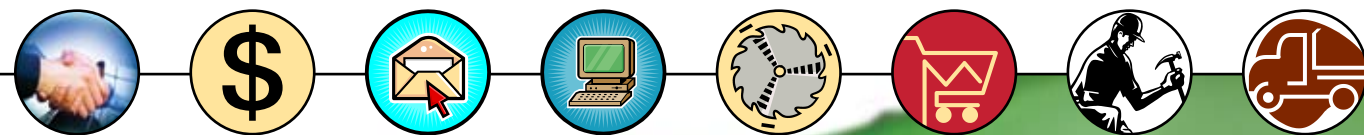
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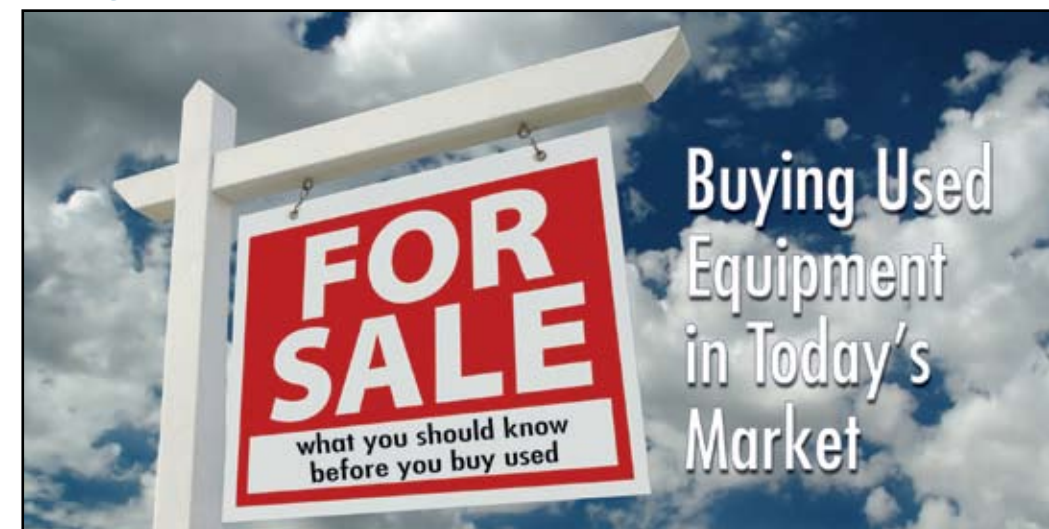


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Constraints Are Opportunities

How recasting a bottleneck can add green to your bottom line

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Editor's Message

Stimulus Money? No Thanks.

by Ben Hershey

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Two things you can do to protect your company...without government intervention!

Are you getting tired of hearing about the stimulus money for this and that, and not seeing any of it in your own pocket? I saw an advertisement the other day for Ford Motor Company touting that they had the foresight a few years ago to shore up their financials, and thus they are operating without government money. I can only imagine the pickup truck many of us are driving becoming a cross between a Smart car and a very small pickup. Not something I would want, but it seems to be the direction GM and Chrysler are going in.

I know that every company associated with our industry has had to go through real change. Not the government kind where programs are added and taxes go up, but real change. People, processes, and how we go to market are all a part of that change. It reminds me of the book, *Reengineering the Corporation*, which was all the rage during the 1990s. I wonder what the name of the best seller will be after this. Maybe you have a title in mind. Regardless of what the Obama "change" brings us, I know our industry will hold our heads high and say, we got through this without stimulus money. I'm certainly glad we're retooling on our own—not the way the government wants us to.

In last month's issue, I hope you read Kent Pagel's article (page 14) about the "golden defense" of SBCA JOBSITE PACKAGES. Are you using them? We have heard numerous occasions where a company was **PROTECTED** because they have consistently used the SBCA JOBSITE PACKAGE material for all jobs shipped. All good lawyers will try to find ways around claims that arise from jobsite issues, but when we as an industry are using the same installation and bracing guidelines every single time, they will no longer have what can be an easy claim against us. There was recently a partial roof collapse in the Phoenix area. The company was protected because they sent the jobsite installation and bracing material contained in the SBCA JOBSITE PACKAGE...and were able to prove the material had been received at the jobsite. No one wants to see a roof or floor collapse; but EVERYONE should want to protect themselves against it in the event it does happen.

But it should not just stop at just sending SBCA JOBSITE PACKAGES. We should also be training our customers on why we send this information. SBCA has the tools you need in this area, including TTWs that provide the continuing education credits (CEUs and PDHs) they need to maintain their licenses. I remember when lawyers were having their "Mold Is Gold" seminars throughout the U.S. Once the lumber industry starting getting out the facts and fighting the issue consistently, that pay dirt essentially disappeared. The reason jobsite-related claims keep coming our way is because we do not use a consistent approach to best practices. If we use these jobsite packages consistently, I believe we can greatly lower the frequency of these claims.

Here's another example of the value of SBCA services. I am proud that my company uses and is qualified under the In-Plant WTCA QC program. Are you? We had a recent incident that pointed out the value of the program. We had a jobsite where, imagine this, a building inspector actually questioned if we met the QC requirement in the city code. We went through all of our reports from the In-Plant WTCA QC

Continued on page 8

at a glance

- ❑ One company was protected following a roof collapse in the Phoenix area because they proved they sent an SBCA Jobsite Package to the jobsite.
- ❑ If we use these jobsite packages to consistently send our message, I believe we can lower the frequency of jobsite-related claims.
- ❑ Certification in the In-Plant WTCA QC program helped our company show our compliance with the quality control requirements of a city building code.

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Editor's Message

Continued from page 7

program with the city inspector and showed documentation above and beyond the city's requirement with our written QC manual and helped them to understand that our product met their standards.

But what was even better was that we had the opportunity to make a box-lunch presentation to the city inspectors using a SBCA TTW program on QC and related industry documents. When you have the database of information we have in the In-Plant WTCA QC, it is hard to refute our commitment to providing a quality product. The program is so important that there are some in our industry, and I am one of them, who believe that the SBCA QC programs should become a mandatory part of the third-party inspection requirements in the code.

The experience was a good reminder that we cannot rest on our laurels; we have to continually train the new generation and those who have not gotten their hands around the value of the best practices and educational programs that SBCA provides.

So here are two things that you can do to provide actual "change we can believe in" and "stimulate" your company for the better, and you don't even need government involvement to do it. The SBCA QC programs and SBCA JOBSITE PACKAGES have very minor costs compared to the benefits you gain. And, if you can show your insurance carrier that you are consistently using these programs and that your company believes in risk management from the top down, you may even be able to keep those premiums from rising. Some companies actually lower their premiums by doing this!

Finally, this is the last issue before the BCMC Show in Phoenix this year. Have you gotten your tickets, your room booked, made plans yet? We all see signs of recovery, so what is holding you back from making sure your company is well positioned for the future? From networking with your peers and learning how to do something differently, better or in a way that allows you to be more profitable, to the educational opportunities with the education tracks and roundtables, to seeing the latest products and service our suppliers are working on, you CANNOT afford NOT to be in Phoenix September 30 to October 2.

Southwest Airlines tells travelers, "Grab your Bag, It's On." I think this is the same attitude we should have. There has been a lot of planning and efforts by our BCMC committee and from many of the exhibitors to make sure we have a robust BCMC Show that reflects the current economy we have. You will not find a tradeshow that provides more value specific to your business than at BCMC. So if you want have a passion for new information that will help you plan for future success, **grab your bag, we'll see you in Phoenix!**

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Do you have an article idea for a future issue or a topic that you would like to see covered? Email your thoughts and ideas to editor@sbcmag.info.



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Thanks to all TCC members for doing their part to foster continued growth of our membership! Check out the full list of prizes and other details at www.sbcindustry.com/memrewards. Contact Anna (astamm@qualtim.com) with questions. **SBC**

by Ryan J. Dexter, PE.

ASCÉ 7 is the standard that defines the minimum design loads that should be placed on a structure regardless of the material used (e.g., steel, wood, concrete, etc.). When it comes to wind load analysis, *ASCE 7-2005* delineates two distinct methods: Main Wind Force-Resisting System (MWFRS) and Components & Cladding (C&C). Many people ask which of these methods should be used when designing truss uplift connections. Let's take a look.

Main Wind Force-Resisting System

ASCE 7 Section 6.2 defines MWFRS as "an assemblage of structural elements assigned to provide support and stability for the overall structure. The system generally receives wind loading from more than one surface." The assemblage of structural elements is defined in the *ASCE 7* Commentary:

"(it) can consist of a structural frame or an assemblage of structural elements that work together to transfer wind loads acting on the entire structure to the ground. Structural elements such as cross-bracing, shear walls, roof trusses, and roof diaphragms are part of the MWFRS when they assist in transferring overall loads."

ASCE 7 makes two main points about using the MWFRS level loads for roof-to-wall connection forces:

- The Commentary clearly states that MWFRS loads are an assembly of elements (i.e., roof trusses) that transfer loads acting on the structure to the ground. Roof-to-wall uplift connections are developed through an assembly of roof framing members caused by forces acting on the entire roof, and this uplift force must transfer down the load path to the foundation of the structure.
- *ASCE 7* states that the MWFRS "generally receives load from more than one surface." This implies that applications where load is derived from only one surface may still fall under the MWFRS method.

Components & Cladding

ASCE 7 Section 6.2 also defines C&C as "elements of the building envelope that do not qualify as part of the MWFRS." The Commentary adds: "Components receive wind loads directly from cladding and transfer the load to the MWFRS, while cladding receives wind loads directly." Roof coverings (i.e., OSB sheathing, roofing membranes, etc.) are an example of cladding. The negative pressures on the roof covering and fasteners should be calculated according to C&C level loads. As an example, a building envelop *component* applies load to the truss chords or web members of a roof truss. These load-resisting members of a roof truss receive wind load and are therefore designed due to applied forces coming from C&C level loads.

An example of a structural element designed for both MWFRS and C&C is roof

decking. When checking out-of-plane forces on the roof deck, C&C level loads should be used, while MWFRS level loads should be applied to diaphragm design. Similarly, trusses should resist C&C applied loads, while using MWFRS applied loads to determine the flow of loads to calculation uplift and bearing reactions.

Typically, the Truss Design Engineer provides the roof truss design. Both building code referenced truss standards *ANSI/TPI 1-2007: National Design Standard for Metal Plate Connected Wood Truss Construction* and *AISI S214-07: North American Standard for Cold-Formed Steel Framing – Truss Design* require the Truss Design Engineer's truss design drawings to provide all reactions on the truss. Furthermore, both standards require the Truss Design Engineer to provide "Truss-to-Truss connection and Truss field assembly" requirements. The roof-to-wall connection is not part of the Truss Design Engineers scope of work. Finally, both standards require the Building Designer to design and detail "all anchorage designs required to resist uplift, gravity, and lateral loads and Truss-to-Structural Element connections, but not Truss-to-Truss connections."

A conflict may arise when the Truss Design Drawing includes end reactions that are different than the Building Designer's calculation of roof-to-wall anchorage forces. In some cases, building departments faced with this conflict in loads have required the use of Truss Design Drawing anchorage forces in lieu of the Building Designer's design forces. This should not be necessary since it is within the Building Designer's scope of responsibility per *TPI 1-2007* and *AISI S214-07*. The Building Designer reserves the right to use the truss design anchorage forces, but any discrepancies in force must be resolved by the Building Designer.

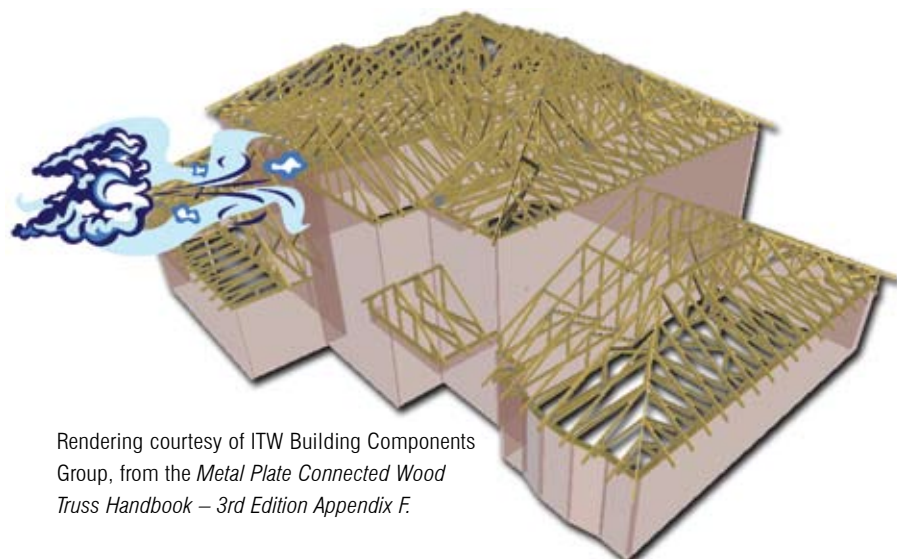
We recommend that the Building Designer develop a relationship with the Truss Design Engineer to provide Truss Design Drawings that include end reactions based on MWFRS level loads and that the truss member design uses C&C loads. Moreover, the Building Designer should resolve any difference in the forces that they have calculated and those that the Truss Design Engineer have reported.

SBCA, in partnership with its Chapters, has created a new Tech Note, "MWFRS versus C&C for Truss Uplift Connection for Wind Design Method" to summarize information in this article. SBCA *Tech Notes* can be viewed online at www.sbcindustry.com/technotes.php.

The *SBCA Load Guide* also provides insight into the issue of uplift connections as well as specifying and applying loads to structural building components. The *SBCA Load Guide* can be downloaded at www.sbcindustry.com/loads.php. **SBC**

To pose a question for this column, call the SBCA technical department at 608/274-4849 or email technicalqa@sbcmag.info.


When to use the MWFRS and C&C methods for analyzing wind loads.



Rendering courtesy of ITW Building Components Group, from the *Metal Plate Connected Wood Truss Handbook – 3rd Edition Appendix F*.

at a glance

- ❑ Truss or rafter uplift connections should be designed for wind load using *ASCE 7* MWFRS method, while the member design of the individual truss should use C&C loads to generate member forces.
- ❑ Visit www.sbcindustry.com/technotes.php for SBCA's Tech Note on this issue.
- ❑ The SBCA Load Guide also contains information about uplift connections for structural building components.



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Safety Scene

Understanding Heat Stress

by Molly E. Butz

A few reminders to help keep workers safe during the dog days of summer.

Hot, sticky summer days and strenuous activities can be a dangerous combination for your employees, whether they're working outside or inside. Without the appropriate preventative measures, this risky mixture can quickly lead to heat stress or one of several serious heat disorders including heat exhaustion and heat stroke.

The body can gather heat in two ways: heat is either generated through activity or absorbed from a source in the environment, such as the sun. Under normal conditions, excess body heat is naturally shed through the sweating/evaporation process and by increasing blood flow to the skin. However, many factors can cause this internal temperature regulation system to fail. This condition is called heat stress. If allowed to progress, a person suffering from heat stress can rapidly deteriorate to heat exhaustion, or worse, heat stroke.

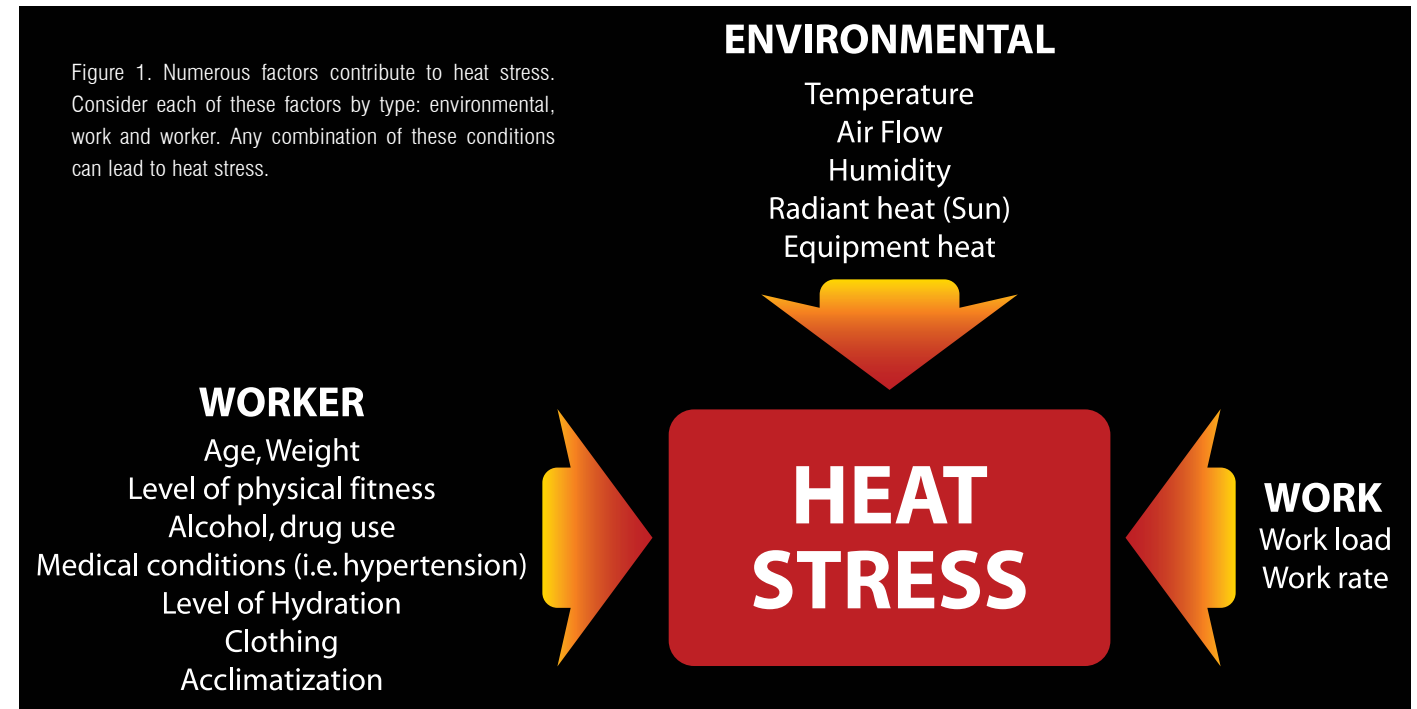
Thankfully, a worker experiencing a heat-related illness usually responds quickly to treatment, so learning to recognize the onset of heat stress is important. The early symptoms can include headache, fatigue, lethargy, poor judgment, irritability and lack of coordination. As heat stress progresses to heat exhaustion or, heat stroke, the symptoms get more serious, such as dizziness or lightheadedness, vomiting, fainting or passing out and pale, clammy skin. (See **Support Docs** at www.sbcmag.info for a complete list of heat-related illnesses and their accompanying symptoms.)

If any of these signs or symptoms is present, it's important to take action immediately. Begin by moving the victim to a cool or shady environment. Using a cool, wet towel or sponge, slowly wet his/her skin to help with the cooling process. If the victim is not vomiting, give him/her clear, non-carbonated liquids to help replace the lost fluids. If the heat illness has progressed to heat stroke, proceed as above and call for emergency medical help immediately.

Numerous factors contribute to heat stress. Figure 1 reveals each of these factors by type: environmental, work and worker. Any combination of these conditions can lead to heat stress.

The best way to control heat stress is through prevention. In many regions, working when it's hot and humid outside is inevitable, but there are plenty of steps you and your employees can take to keep heat stress at bay.

- Update, revise and change worker procedures to put as little stress on the body as possible.
- Use air conditioning or increase ventilation.
- Add fans in strategic places for spot cooling.
- Schedule work-rest cycles to keep employees rotating in and out of strenuous jobs.
- Schedule the hardest projects and task for the coolest parts of the day.
- Mandate working in pairs at a minimum.
- Encourage your employees to wear cool, light-colored clothing. (Cotton, for example)



- Provide plenty of cool water and encourage your employees to take frequent, brief water breaks.

Even at its mildest, heat stress can result in workplace accidents. Early recognition and treatment is critical for your employees' safety and health, as heat stress and its related

symptoms can swiftly become very serious, or even fatal. Simple prevention methods and work practices can lessen or even eliminate your risk and increase overall productivity. Safety first! **SBC**

To pose a question for Safety Scene, contact Molly at mbutz@qaltim.com.

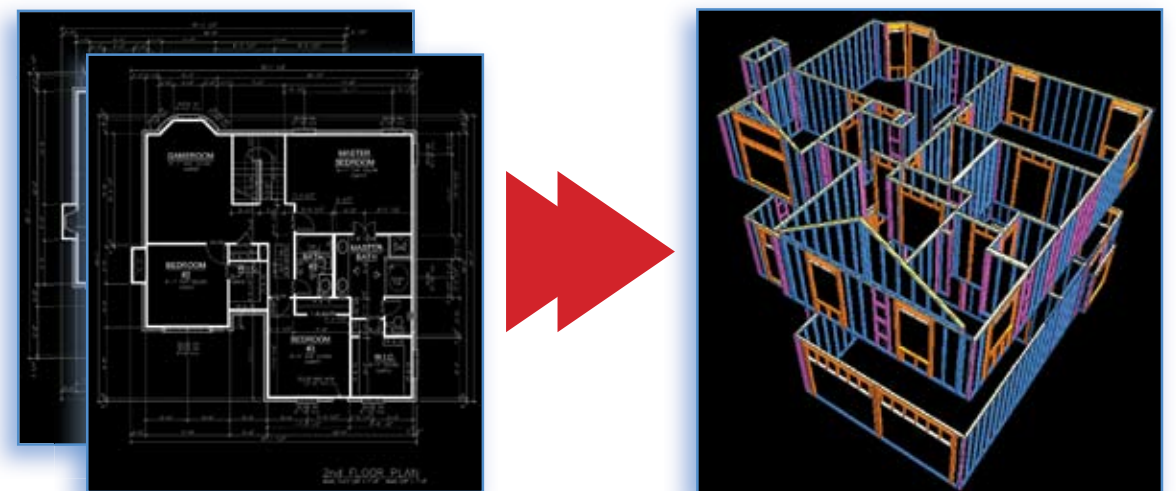
at a glance

- ❑ The body can gather heat through physical activity or environmental factors.
- ❑ Learning to recognize the onset of heat stress; a worker experiencing a heat-related illness usually responds quickly to treatment.
- ❑ The best way to control heat stress is through prevention.

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Constraints Are Opportunities

How recasting a bottleneck can add green to your bottom line

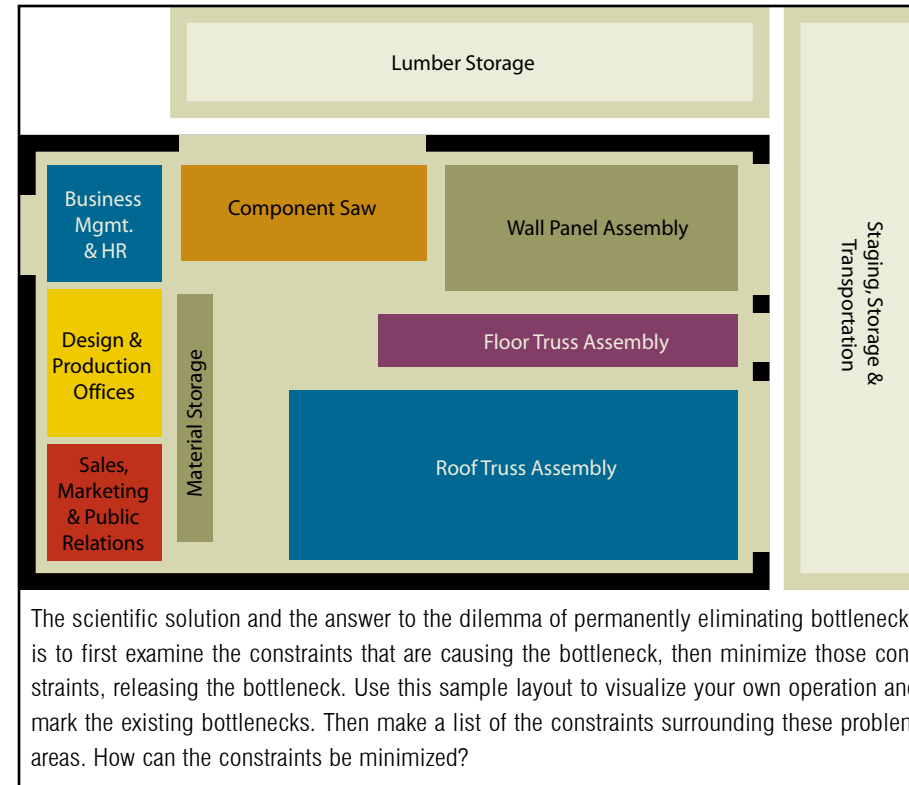
These are unprecedented challenging times for the structural component industry and for homebuilding in general. Every corporation, company and stand-alone operation in our industry is looking for answers. What makes it even tougher is that most of us don't even know the questions that are driving this search for elusive answers. We all seem to be looking outward to the government, to world leaders, to crystal balls for those ethereal questions and answers. But, history has taught us that when times get tough the first place to look is inward, not outward. Real change always starts from within. Ideas, attitudes, even the basic fabric of our motivating spirit needs to change; and that always comes from within. Along the same lines, we need to look inward at our companies to better understand what needs to change and how we go about changing it. That means dissecting every person, process and procedure comprising the system that is my company.

In his landmark book, *The Goal*, Eli Goldratt introduced a concept that he calls *The Theory of Constraints*. This theory implies a direct correlation between maximum output coming off the end of a production process and the throughput at the primary constraint on that process. In other words, I can only expect to produce the same number of widgets that can pass through the narrowest bottleneck in my entire production process. Goldratt's idea does not seem to be rocket science. Experience and simple observation prove the point every day. A simple example puts his theory into practice. If we try to funnel the output of a hose through a straw to fill up a swimming pool, the time it takes to fill the pool will be limited by the volume the straw can handle, regardless of the aggressive flow coming out of the hose.

by Philip J. Zurawski



In this age of computerized accuracy and precision, there's no excuse for not knowing precise costs right down to the pennies spent to sweep the shop floor at night.



The scientific solution and the answer to the dilemma of permanently eliminating bottlenecks is to first examine the constraints that are causing the bottleneck, then minimize those constraints, releasing the bottleneck. Use this sample layout to visualize your own operation and mark the existing bottlenecks. Then make a list of the constraints surrounding these problem areas. How can the constraints be minimized?

It all seems simple and logical, until we apply Goldratt's second idea. In logical sequence, Goldratt profoundly states that the only true measure of throughput (rate of flow at a specific station in a process) is dollars—revenue. It makes total sense, because dollar value, not the number of widgets produced, is what directly affects the bottom line. Measures like feet per man-hour or units per shift, though easy to discern, are only inferences of profitability. They are abstract representations of value. Measurements of dollars produced per shift may be more elusive, but they are the only true assessment of the profitability of any production process. Taking it one step further, we can assert that net margin measured as throughput is the only true measure of a process's profitability. At the end of the day, it is revenue minus cost to produce that revenue that tells us if we're making money.

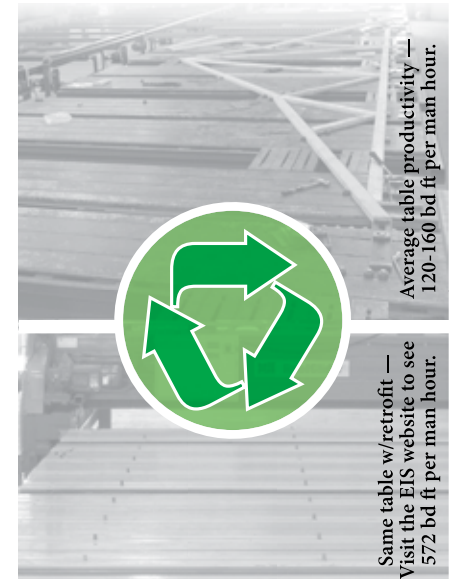
So why do so many companies continue to dutifully record their production statistics in terms of abstract measurements rather than concrete dollars? Usually, the answer is because they don't know their real costs of production. In this age of computerized accuracy and precision, there's no excuse for not knowing precise costs right down to the pennies spent to sweep the shop floor at night. At any moment in the day, if I knew that a particular crew, station or bottleneck was losing \$2 per minute, wouldn't I immediately do something to stop the bleeding? If I think they should produce 100' per man/hour to break even, and they're producing 110' per man/hour, can I really be sure that I'm making money without knowing the cost and revenue related to that volume? The answer is a bold, loud no! Feet per man/hour is just an abstract estimate of my profitability. Plus or minus dollars per man/hour is "in your face" concrete.

Looking at roof truss production, throughput for a truss line is traditionally measured in board feet, lineal feet, number of trusses or number of pieces per minute, hour, man/hour or shift. Through trial and error (sometimes called experience), the industry has established unscientific standards that estimate the ideal level of throughput required to achieve profitability. I say these standards are unscientific because no two companies are the same in terms of their cost structure, nor should they be. Cost controls, relative to revenue produced on the line, are what make us profitable. It's the real stuff that produces a competitive edge.

Continued on page 16

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CONSTRAINTS: the limiting factors, internal or external, that affect the rate of flow through a process.

Constraints Are Opportunities

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Bottlenecks Are Not Constraints

It's important here to note that there is an important distinction to make between "constraints" in Goldratt's theory and "bottlenecks." Constraints are the limiting factors, internal or external, that affect the rate of flow through a process. If the constraints restrict flow at any point in the process so flow at that point is restricted to less than the average across the entire process, a bottleneck occurs. This distinction is important because the common track for fixing bottlenecks is to focus on the bottleneck. We often replicate the bottleneck in

an attempt to increase flow through the affected station in the process.

This effectively doubles the constrained flow so output may increase, but the problem still exists. The other downside of bottleneck logic is that costs are also increased. As efficiencies ahead of and behind the bottleneck increase, the replicated problem station becomes a bottleneck once again. Another bottlenecked station is added to the process, and so it goes.

The scientific solution and the answer to the dilemma of permanently eliminating bottlenecks is to first examine the constraints that are causing the bottleneck, then minimize those constraints, releasing the bottleneck.

Get at the root cause and fix the problem. That's why I think of constraints as opportunities. Process constraints almost always exist. The trick is to deal with the constraint before the flow becomes obstructed.

Truss Design as an Example

Here is an example from the wood truss industry. It's generally agreed that the design process can be a bottleneck in truss production. Constraints on flow through the design process run the gamut from inexperienced truss technicians and antiquated design tools all the way to the technician's mental capacity on any given day. But, nothing flows down

Continued on page 18



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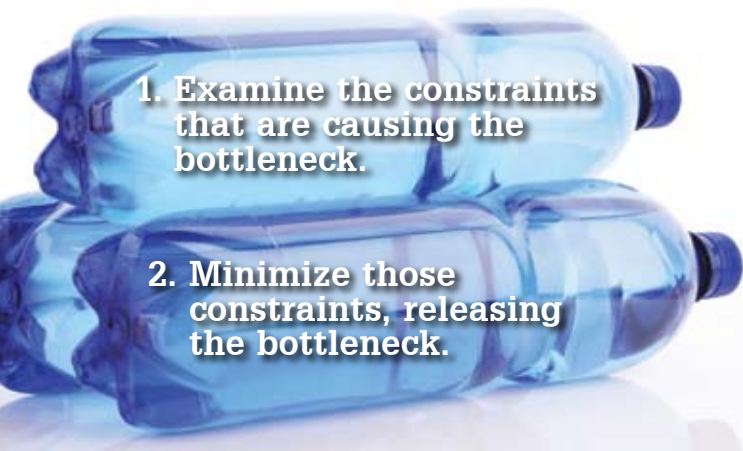
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1. Examine the constraints that are causing the bottleneck.

2. Minimize those constraints, releasing the bottleneck.

Constraints Are Opportunities

Continued from page 16

stream until the truss designs are completed, sealed and sent to the production floor. These three factors—design, seals and delivery—represent the primary constraints on design flow. A common, logical remedy is to add more designers to the process. That's expensive and risky, since no two technicians are alike; and you really don't know how productive a specific technician can be within your operational flow until they actually get to work. A better solution is to develop a single technician into a truss design superstar. Training and empowering that person is far more effective than using bottleneck logic. Ongoing, convenient training (at the desk,

online training), whole house design software, supercharged computer hardware and elimination of procedures through integration all dramatically improve productivity at the design station. Before adding additional technicians, I want to make sure that my existing technicians are as productive as they can possibly be.

Another example of constraint as opportunity can be seen at the truss table. Suppose I have a couple of fully empowered, stellar technicians that can pump out accurate designs faster than I know what to do with them. I've got a servo-powered, fully automated robotic saw continually fed by an overflowing live deck that in four hours pumps out all the parts I need for eight hours of truss building. But, carts loaded with parts are backing up in the staging area. I can't build trusses fast enough. The congested staging area is constricting flow to the tables, so my table production is less than ideal. Bottleneck logic implies that we should add another table to accommodate the flow from the saw. If I have the floor space, adding another line will indeed facilitate flow of the bottlenecked parts in my staging area; but, I have more than doubled the cost and have done nothing to relieve the constraints at the tables. Casual observation of the work flow on my tables reveals that set-up is a serious constraint.

There are numerous other constraints on flow through the tables. Paper drawings, continual jumping on and off the line

We can assert that net margin measured as throughput is the only true measure of a process's profitability. At the end of the day, it is revenue minus cost to produce that revenue that tells us if we're making money.

to retrieve tools and parts, waiting for the truss to be transferred to the conveyor, clearance time for the gantry head, etc. are all manageable constraints. It's just a matter of applying the right technology that works for my specific company. Then, I need to re-engineer my processes and procedures to accommodate the increase in flow. By focusing on the constraints, not the bottleneck, I can retrofit my single line to flow equal to the saw output. That's where the solution lies, and the increased efficiency drops right to the bottom line.

Incidentally, there's no need for paperwork on the shop floor anymore. There's no need to manually measure anything, other than to confirm accuracy from time to time. Laser projections of truss patterns and fully-automated setup tables directly address the constraints and release the bottleneck. Simple networking technology used in many homes today can help facilitate the elimination of paperwork on the shop floor. Integration of data throughout the plant is the key.

This can be an exciting time in the building components industry. The sky is the limit. We can crash through bottle-

neck logic like "we've done it this way for twenty-five years, so why change now?" We can leave that kind of antiquated thinking in the dust by forging ahead with lean thinking and just-in-time sensibilities. We have to blow away stagnant old ideas. The current economic climate demands it. Our industry is poised on the threshold of unprecedented productivity at a time in history when every dollar must be spent wisely. Nurtured by the success of applied technologies, innovative ideas are simmering the brains of engineers around the world. It's exhilarating to think of the possibilities lying just around the corner, and it all had its genesis in a simple idea – production systems produce dollars, not statistics.

Understanding and relieving constraints before they become bottlenecks is the key to ensuring production efficiency. The primary constraint might just be in our minds. **SBC**

Philip J. Zurawski is Director of Innovations at PFS Framing Systems in Charlotte, NC. He previously worked as Director of Manufacturing Systems for Wickes Lumber.

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Buying Used Equipment in Today's Market

by Libby Maurer

These days, the old adage "one man's trash is another man's treasure" is playing out before our eyes. It's become commonplace for consumers to save a buck or two by reusing what someone else doesn't want, and our industry is no exception. It follows then that the sharp increase of component plant closures since the housing market collapsed has made way for a virtual flea market of used equipment. Used equipment is an attractive option for companies looking to upgrade, reduce labor or automate. But buying used can present a unique set of challenges that companies should be aware of.

The Changing Landscape of Used Equipment

The market for pre-owned component manufacturing equipment ebbs and flows based on market conditions just as new equipment does. There is always someone looking for used equipment, even though the audience may change slightly. Since the 2008/2009 contraction, said Rod Wasserman of Wasserman & Associates, there's been a shift in the type of client interested in buying used. "When times were really good, we were selling to a lot of start-ups with budget challenges looking for more manual systems. Now we're seeing a different group...long-term companies looking for 2004 and newer equipment," he said.

Jay Halteman, President of Wood Truss Systems, said recent consolidation has positively affected the availability of used machinery. "[Before the downturn], you had the occasional plant that would go out of business, but it was rare. Today what's changed is obviously the tremendous number of plants closing or consolidating," he said.

- Map Out Long-Term Goals
- Touch It
- Get Buy-In

Used equipment is an attractive option for companies looking to upgrade, reduce labor or automate. But buying used can present a unique set of challenges that companies should be aware of.

In fact, companies upgrading to new technologies and looking for a means to dispose of their old systems urged brokers like Wood Truss Systems to expand their used equipment business. "The existence of used equipment in the previous decade was primarily a function of buying new," remembered Halteman. "[Plants] were looking to dispose of their old equipment. That's really how the used market developed."

Motivated to Buy Used

The decision to buy used machinery is typically motivated by cost. That's good news for companies looking to replace or add a piece of equipment, because they now have opportunities to do so for far less. "In 2004, people were paying \$220,000 for an automated component saw; that same 2004 saw can be purchased for \$60,000 today," said Wasserman. "They're getting a great opportunity to get a high level of automation for a highly discounted price."

Though there's no denying the deals out there, price isn't always the only motivator. "A lot of times people are looking for used equipment to address a bottleneck situation," said Greg Pritchett, Sales and Service Manager for MiTek Industries. In these situations, it's important to analyze more than just cost.

Things to Keep in Mind

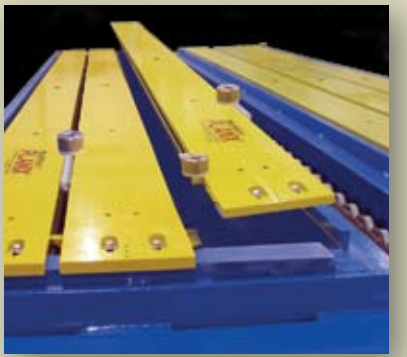
Map Out Long-Term Goals. Sometimes the styles of automation and existing, less automated equipment don't match up. So it's critical to evaluate whether the new equipment will work with the existing set-up to reduce labor and increase efficiency. "If someone is going to make a decision to buy, in addition to price, it's important to consider how it fits into the long-term productivity goals of the specific operation," said Gregg Renner, MiTek's VP, Marketing. Also consider how an automation upgrade in the shop will affect the design, inventory or "picking" processes.

Touch It. "Some people go out and buy an \$80,000 machine without seeing it. That scares me," said Wasserman. He encourages buyers to spend some time looking at the piece and talking directly to the person or people who were responsible for its maintenance if at all possible. "Wouldn't you want to see it? Touch it?" he said.

Get Buy-In. Humans are creatures of habit—no one likes change. If you don't have buy-in from your production staff, you may experience some resistance. Explain the

Continued on page 23

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Used Equipment Auctions: Do They Really Have the Lowest Prices?



1. Know/research what you're buying.
2. Understand the costs, including purchase price, buyer's premium, software agreements, set-up, rigging and transport fees.
3. Contact the OEM for operation, maintenance and safety information.

When going out of business, companies may have financial restrictions, obligations or lease terms that require them to liquidate equipment, and at times quickly. One way to do this is to use an asset valuation service. These companies come in and help the company appraise and sell off equipment in a given timeframe, often by holding an auction.

While auctions are typically viewed as having competitive prices and can be helpful for the liquidating party, buyers considering an equipment purchase at an auction should be mindful of a few added risks.

First, auction companies tend not to have intimate knowledge of component industry technology. "The downside is there are no auction companies dedicated to our industry. While it's not rocket science, component equipment is unique to us as a small niche industry," said Halteman. This means there's a good chance the personnel running the auction may not be able to speak to the condition, history or quality of the merchandise. Further, since the component manufacturer's management is generally gone by the time the auction is held, they can't advise you on the specifications and performance of the piece. "For instance, you don't have the opportunity to speak to the maintenance operator or ask about the history of the machine," he said. You can see that going blindly into a used purchase in this way may have negative consequences.

Wasserman cautions buyers to assess whether they're really getting a better value at an auction. On top of the final selling price, the auctioneer may add a premium to the cost of the machine, often called a buyer's premium. This is essentially the auction company's cut of the sale, which can range anywhere between 13 and 18 percent, he said. The other thing that often catches people off guard is that they're responsible for dismantling and transporting the machine to their operation. "At an auction, you're going to incur what people call a 'rigger expense.' It tends to be substantially higher than you might think," Wasserman warned. Adding these miscellaneous expenses up may surprise you. "I've talked to people who said that the total cost was higher than they expected. So it's very important to understand all the costs," added Halteman.

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Buying Used Equipment in Today's Market

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goal you're trying to reach with the new machine to the people who will be impacted by it. "People tend to reject what they don't understand," Wasserman said.

Engaging the Original Manufacturer

The original equipment manufacturer (OEM) can be a critical source of information and support as you get to know the new machine. "We think it's a good idea to engage the OEM in a used equipment transaction," said Halteman. For instance, he noted in many cases buyers have to work out software licenses with the original manufacturer. It also gives the buyer the opportunity to ask questions about possible warranties and the availability of parts.

Many OEMs have programs designed to ensure buyers of used equipment know how to use the product safely. "You should always contact the original manufacturer when you purchase [used] equipment. Safety is critical," advised Pritchett. "We have a program where we will come in to inspect the set-up, check that all safety precautions are in place, train the operator and other personnel how to safely operate it, and go over the operator's manual," he said.

Halteman said interaction with the OEM on highly automated machines is important for maximizing its efficiency. "For anything high-tech or computer-related, it's a good idea to work with them to make sure you get the best performance out of it," he said. Jack Van Cleave, Sales Manager of Alpine Equipment (ITW Building Components Group), strongly recommends having the original manufacturer take a look at it in the context of the new operation. "OEMs have experience that will help you avoid common mistakes. We work with you to adjust your overall production systems and get the most value from any added equipment," he said.

He emphasized that it is very important to package automated equipment correctly for shipment—another area in which the OEM can be a valuable resource: "It is critical to package sensitive automated equipment correctly to avoiding costly damage."

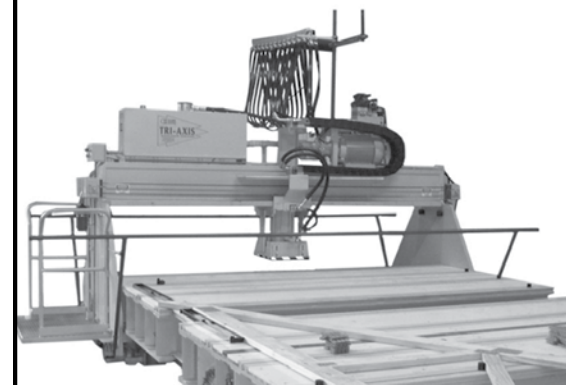
Nearly all OEMs have a record of any maintenance on the machine. Van Cleave said most OEMs can trace the maintenance history of a particular machine by serial num-

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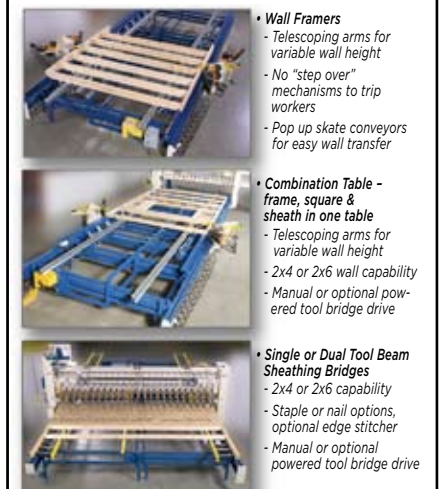
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Chapter Corner

For more information about SBCA Chapters and how to become more involved, contact Anna L. Stamm (608/310-6719 or astamm@qualtim.com). Contributions to Chapter Corner, including pictures, are encouraged. Submissions may be edited for grammar, length and clarity.

Iowa Truss Manufacturers Association

The Iowa Chapter welcomed Brian J. Kurtz, an attorney from the Chicago law firm of Ford & Harrison, as guest speaker at its June meeting at River Valley Golf in Adel, IA. Delivering a presentation on labor and employment law, Brian covered: a legislative and government update under the Obama administration, including COBRA, EFCA, FMLA, Ledbetter Fair Pay, PATRIOT Employer Act, RESPECT Act, and activity at the NRLB and DOL; an organized labor update on recent union activity with an emphasis on building and trades unions in the Midwest; labor and employment issues arising from the challenges of the present economy; and questions and answers from chapter members. This presentation was well-received and timely considering present construction industry economic conditions.

An afternoon of golf was enjoyed following the meeting. A special thank you was given to the associate members for their generous support of the event: ITW Building Components Group, MiTek Industries, Simpson Strong-Tie Co., USP Structural Connectors and Wasserman & Associates.

Mid Atlantic Structural Building Components Association

The chapter's busy educational schedule was high on the agenda at the spring Mid Atlantic meeting in Trenton, NJ. They delivered a presentation for the PA Housing Research Center (PHRC)'s Annual Housing & Land Development Conference in February, were working with the PA Association of Code Officials (PACO) on scheduling presentations, and were fielding requests from a few local fire departments for tours.

Mailing the chapter's educational brochure to engineers in PA, NJ and DE was promoted, and the members also discussed reaching out to home builders associations to provide more information on our industry. In addition, a member of the green council from a PA home builders association provided an update on the ins and outs of green building and how to comply.

At the meeting, the chapter officers were elected: Ken Slotter, President; Keith Myers, Vice President; Kent Terry, Treasurer; and Erin Barker, Secretary. The chapter's next meeting will be held on November 12 in Adamstown, PA.

Wisconsin Truss Manufacturers Association

The Wisconsin Chapter held its spring meeting at SBCA in Madison, WI. With a presentation on green building, the guest speaker was Libby Maurer from SBCA staff. Members learned more about LEED and NAHB Green certification, chain of custody, and achieving points for being "green" without using certified lumber.

Under new business, members discussed a proposed ordinance in the Town of Belleville that would have effectively eliminated the use of engineered components in building construction. Several members attended the town meeting and found that the ordinance was stricken from the proposed changes but that a notification of the use of these materials is being given to the local fire department as information.

The 2009 – 2011 Board of Directors slate was approved at the chapter meeting. The complete list of Board members and officers is posted on the chapter's website at www.wiwtca.com. **SBC**

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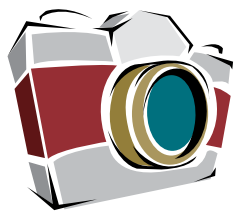
Buying Used Equipment in Today's Market • Continued from page 23

ber. "We have records of any work our service technicians have done. You should always contact the OEM and ask for a history report," he said.

The Future of Used Machines

Not ready to buy used? Don't expect the used equipment market to dry up any time soon. Wasserman believes that similar to the inventory of new homes on the market, the surplus of used machines will have to be bought up before the demand for new equipment picks up. "There's so much inventory out there that in the next 18 months to 2-year period there will be a tremendous opportunity for used material sales," he said.

Halteman concurs, noting that given the depressed new equipment market, the trend of extreme value in used equipment will continue well into the future. "If you do your homework and understand your needs, now is a great time to buy used," he said. **SBC**



Parting Shots

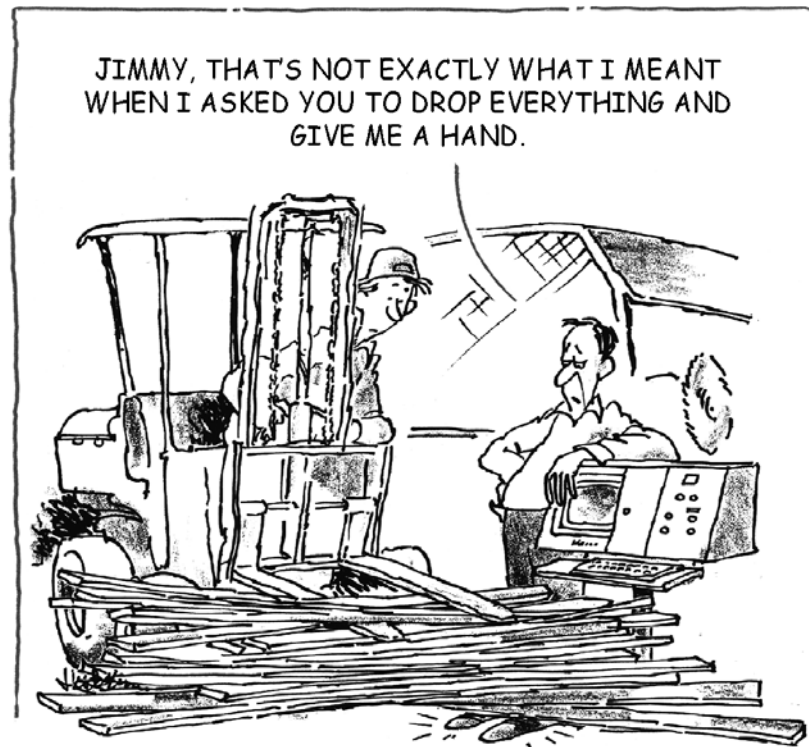
Share your stories and photos with us! Send submissions to partingshots@sbcmag.info.



SBCA President Missing!

SBCA President Ben Hershey was last seen grinning like a fool in this unmarked white pick-up truck on the Alliance TruTrus grounds. He appears to be pointing west. Another UFO crash at Area 51? Flashing a secret gang symbol? Off to Vegas to bet the fortune he's made in the

truss business? Or...headed for BCMC 2009 in Phoenix? If anyone has any information on his whereabouts, contact missingpresident@bcmcshow.com. Or come to BCMC to see if he shows up. **SBC**



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