

ARE WE HAVING FUN YET?

By Doug Hartman



Seems like today, just keeping your doors open is a success story in itself. What other industry has taken a +40% hit to its labor pool in the last 5 years and managed to survive? It pains me to see well qualified design professionals out of work or under-employed for extended periods of time, and the light at the end of the tunnel seems to keep getting farther away. The sad part about the unemployment rate is that it is not likely to get any better as we continue to outsource manufacturing overseas and continue to automate our businesses. But, even the post office, with their highly automated systems, can't seem to make ends meet even with stuffing your box full of junk mail every day. Why? Because they are not as efficient as the Internet.

Many of our clients are doing well, and some even adding staff, having stayed diversified as they pull of this recession. Others are struggling, and some have been left with no alternative but to shutter their businesses. Sadly, this is the nature of our business – when times are good, we are all busy, and when times are bad, even the strong struggle to survive. No other industry is so closely tied to the whims of the economy as building construction.

As a “boomer”, having officially joined the ranks of the “almost” senior citizens this past year (not 50 as AARP defines it, but 60), I find myself looking back as much as I do forward, acknowledging past accomplishments and planning for a semi-retirement. That's one of the great things about being an architect – as long as the mind and eyesight are good, we can continue being productive in some fashion. I am reminded of a phrase I recently heard when someone complained that at the end of a challenging period in their life, things were not as they anticipated, or the end of an accomplished career was not as fulfilling as they thought it would be, the saged counselor admonished them to not focus so much on the results of your labor, but to “find joy in the journey”. Kind of changes your perspective.

KEEPING UP WITH INDUSTRY CHANGES

By Doug Hartman

Just as important as keeping our specifications current relative to industry standards, keeping our lists of manufacturer's current is a big challenge. Contractors love to point out specs where the list of manufacturer's is not current. But when is the last time you got a call from a product representative saying “hey, were declaring chapter 13 today, so don't specify our products any more” Not.

And changing company names as they are absorbed into other companies or are looking to “re-brand” themselves creates even more confusion. Does anyone remember when Johns-Manville changed their name to Schuller and within 2 years changed it back because they lost name recognition. I now have been informed that Glidden Professional is the new name for ICI-Dulux, and before that, it was just Glidden. I wonder how long it will take Oldcastle Building Envelope to change back to Vistawall?

Keeping manufacturers and products current is a challenge, but there are valuable resources. MasterSpec, our master specification system of choice, updates every section in their library every 3 years, with quarterly updates. Checking news articles and joining discussion groups on the construction materials search engines (like arcat.com, 4 specs.com, and sweets.com) is a good way as well. Lastly, in attending AIA and CSI product shows, we learn a lot about new products and companies. At the CSI show in Chicago, I learned that US Aluminum and Raco are no longer defunct and have been bought out of bankruptcy by CR Lawrence. In our effort to give preference to local manufacturers for local projects, this was good news.

WALL TIES AND WEATHER BARRIERS

By Steve Brown



For architects, masonry cavity wall construction (typically brick veneer over cold-formed steel framing backed gypsum sheathing) is one of our favorite building cladding systems. The recent introduction of Code required “prescriptive based” solutions for continuous insulated cavities has prompted several interesting new challenges. One in particular is the foam board insulation in the wall cavity and the resultant new style of masonry wall ties.

Accessory manufacturers have introduced wall ties that accommodate the foam insulation boards’ thickness by providing “legs” that penetrate the insulation and sheathing and support the ties anchor plate using the face of the cold-formed framing, and “screw fastened” wall ties with “barrels” or “sleeves” that do the same for support of the wall ties’ anchor plate.

These long reach-penetrating wall ties have been key to making the new insulated cavities practical, however there is an important consequence to be addressed when using these wall ties in that the weather barrier installed over the face of the sheathing is also penetrated by the wall ties’ legs or barrel. These penetrations need to be sealed or flashed using the weather barrier manufacturer’s composite, self-adhesive, flashing or liquid flashing products intended for this purpose. In addition, if using a liquid applied air barrier, confirm the manufacturer accepts the use of penetrating wall ties with their product even though the product data states the air barrier is “self healing.”

ENERGY CONSERVATION IN BUILDINGS

By Kevin Wang



Energy conservation in buildings is a current issue that affects everyone in the architectural business. As more efficient design continues to be incorporated into code requirements, sometimes requirements will clash with one another and create situations previously not encountered.

Such is the case with the current International Energy Conservation Code (IECC) requirement for continuous insulation on exterior walls. Among the standard solutions to this requirement has been the

addition of a layer of foam plastic insulation (extruded or expanded polystyrene) in the wall cavity.

However, the International Building Code (IBC) also requires that exterior wall assemblies (Building Types I – IV) of any height also comply with the National Fire Protection Association (NFPA) 285: “Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components.” On the surface, this seems simple, but the key to this situation, as it is with many others where compliance is concerned, is that approval does not hinge on the individual components, but on the entire assembly, including insulation and air barriers. This standard is particularly critical where foam plastic insulation is part of the exterior assembly.

So, when designing exterior walls, it is important to keep in mind this requirement and look into approved assemblies. Many manufacturers of foam plastic insulation and metal panels have gone through the process of having standard assemblies tested. Taking this extra step could end up saving a project a great deal of unnecessary cost.

TAS SET TO CHANGE MARCH 15, 2012

By Mike Ranalletta

Usually I struggle to find something interesting to write about this time of year, but not this year. Hopefully you are aware that the current 1994 Texas Accessibility Standards (TAS) will be replaced with a 2012 version which goes into effect on March 15, 2012. That same day the 2010 ADA Standards for Accessible Design (SAD) also goes into effect nationwide.



I urge each of you to follow the links below where you will find the 2010 ADA Standards as well as a draft of the proposed TAS 2012. They’re downloadable and the 2010 ADA Standards are formatted for double-sided printing. Better yet, just bookmark the links and save the nearly 500 sheets of paper!

2010 ADA Standards:

<http://www.ada.gov/regs2010/2010ADASTandards/2010ADASTandards prt.pdf>

Draft of TAS 2012:

Space prohibits me from giving you a summary of the differences between the old and new TAS. I have put together a Power Point presentation that compares and contrasts. If you’d like a copy please email me at

mranelletta@inspeconline.com

As of September 1, 2011 the City of Dallas has delegated the plan review and inspections associated with the Dallas Green Ordinance 27131 to registered third party providers. The Green Ordinance applies to residential and commercial construction projects that are new construction or additions. The Green Ordinance does not apply to renovations that do not add new square footage to a project.



Requirements for the Green Ordinance are determined based on your project category. The three project categories are; Residential (single family and duplex structures), Commercial less than 50,000 sq. ft., and Commercial 50,000 sq. ft. and greater. An amendment to the Dallas Green Ordinance was issued on September 29, 2011. Below is a summary of the requirements for each category:

RESIDENTIAL (single family and duplex structures)

Plan Review

Water Efficiency – Use 20% less water than baseline calculations for interior plumbing fixtures in accordance with Dallas Plumbing Code or by using the water efficiency requirements of Green Build Texas, LEED for Homes, or the International Green Construction Code, and utilize drip irrigation for landscaping bedding areas, or met the flow or flush rate for 4 of the following 6 items: 1) lavatory faucets, 2) shower heads, 3) Toilets, 4) dishwasher, 5) cloths washer, and 6) drip irrigation (mandatory selection if applicable to project).

Optimized Energy Performance – Meet the minimum provisions of Chapter 4 of the Dallas Energy Code or Chapter 11 of the Dallas Green Ordinance. Provide one of the following as documentation: 1) Use of IC3 Software by Energy Systems Laboratory; or 2) Use of accredited energy code compliance software and the results of a HERS index of 85 or less; or 3) Installing systems that have been certified by a national, state or located accredited energy efficiency program and approved by Energy Systems Laboratory EPA's ENERGY STAR Program certification of energy code equivalency shall be considered an approved program.

Inspection

Water Efficiency – Verification that the following selected items are in compliance: 1) lavatory faucets, 2) shower heads, 3) toilets, 4) dishwasher, 5) cloths washer, and 6) drip irrigation.

Optimized Energy Performance – Verification that the Post Construction certificate has been obtained.

COMMERCIAL LESS THAN 50,000 SQUARE FEET

Plan Review

Checklist – Submit a checklist from a green building standard. The City of Dallas Commercial <50,000 square feet is an acceptable checklist. NOTE: A minimum number of points nor formal certification with USGBC, Green Build Texas or an equivalent is not a requirement.

Energy Usage – Demonstrate compliance with Dallas Energy Code Chapter 5 through Energy Systems Laboratory approved software, Comcheck or install systems certified by an accredited energy program and approved by the Energy System Laboratory. The Energy Star program certification of energy code equivalency is an approved program.

Water Use Reduction – Use 20% less water for interior plumbing fixtures than required by Dallas Plumbing Code. Meeting the water efficiency requirements of LEED NC, LEED CS, LEED for Homes, LEED for Schools, LEED for Healthcare, LEED for Retail, or Green Build Texas is acceptable.

Cool Roof – All low slope roof products are to meet the EPA Energy Star qualified low slope roof products requirements.

Outdoor Lighting Restriction – Lighting in applicable areas is to be pointed straight down and have full cut-off unless the fixture does not exceed 900 lumens in which case non cut-off fixtures are acceptable. Maximum lamp wattage is 250 watts. See checklist of exceptions.

Inspection

Cool Roof – Provide warranty information including SRI values and a copy of the roofing material invoice.

Light Pollution Reduction – Verification that installed exterior lighting fixtures match cut sheets provided and that they are aimed properly.

Water Use Reduction – Verification that installed interior plumbing fixtures match cut sheets provided.

Optimized Energy Performance - Verification that the Post Construction certificate has been obtained, includes the score rating, program used, and version.

COMMERCIAL 50,000 SQUARE FEET OR GREATER

Plan Review Only

A USGBC or equivalent checklist is to be submitted, though formal certification is not required showing the minimum number of points documented for the selected rating system list below:

- LEED NC (new construction) rating system: 22 points minimum.
- LEED CS (core and shell) rating system: 22 points minimum.
- LEED for Retail rating system: 22 points minimum.

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- LEED for Healthcare rating system: 25 points minimum.
- LEED for Schools rating system: 25 points minimum.

Of the minimum number of points to be documented, Water Use Reduction is a mandatory point.

Water Use Reduction requires that water usage be 20% less than Dallas Plumbing Code or by using the water efficiency requirements for LEED NC, LEED CS, LEED CI, LEED for Schools, LEED for healthcare, or LEED for Retail.

NOTE: Points labeled PR (plan review) are to be documented and submitted at the time a building permit is applied for, and points labeled FI (final inspection) are to be documented and submitted prior to final inspection. There are no site inspections associated with the Green Ordinance for commercial project 50,000 sq. ft. or greater, just documentation of the credits.

NOTE: Multifamily developments have the option to use LEED NC, LEED for Homes, Green Build Texas or an equivalent green building standard.

Phase 2 of the Dallas Green Ordinance will go into effect on October 1, 2012.

Phase 2 requires that all residential (single family and duplex structures) projects must be LEED-certifiable under the LEED for Homes rating system, Green Build Texas-certifiable, or meet an equivalent green building standard. If using the LEED for Homes rating system projects must achieve 1 point for "Indoor Water Use" and a minimum of 4 points in (HERS rating of 83 or less) in "Optimized Energy Performance". If using the Green Build Texas system, water use must meet the water efficiency requirements of Green Build Texas or meet a minimum of 6 water efficiency points under the LEED for Homes rating system and meet the energy use requirements by providing an International Code Compliance Calculator (1C3)-Energy Systems Laboratory certificate to the building official showing 17.5 percent less energy consumption than the minimum requirements of Chapter 11 of this code or Chapter 4 of the Dallas Energy Conservation Code; or a HERS index of 83 or less.

Phase 2 requires that all commercial projects be LEED certifiable, Green Build Texas certifiable, or certifiable under an equivalent green building standard. In addition, all commercial projects must achieve a Water Use Reduction of 20% and Optimized Energy Performance of 17.5% better than ASHRAE 90.1- 2007.

NOTE: The City of Dallas website and Green Ordinance documents have been referenced for this article.

See links below for additional information:

http://www.dallascityhall.com/building_inspection/greenBuilding.html

http://www.dallascityhall.com/building_inspection/greenBuilding_thirdParty.html

http://www.greendallas.net/pdfs/Green_Building_Ordinance_Amend27759.pdf

INSPEC
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