

SURVIVING IN A DOWN ECONOMY

By Doug Hartman

Almost without fail, in casual conversation with clients this past year, the topic turns to the economy. Perhaps because we work with so many different architectural and owner clients, the perception is that we may have a better feel for where the construction industry is heading. Well, I can tell you we are as mystified as you trying to predict when and where a strong resurgence will occur. For what it's worth, though, here is what I think I know:

- Unless new leadership in the house digs their heels in over balancing the budget, federal government spending on projects, especially COE and VA will continue to be significant.
- Higher education projects will continue to dominate publicly funded construction projects in Texas.
- HUD backed funding for multi-family projects will dominate multi-family housing expansion.
- Projects not requiring borrowed or donated money will continue to be out-pace speculative development and non-profit construction.
- Only the strongest developers will continue to build speculatively, with banks now requiring 20% or more equity from borrowers.
- Like it or not, design-build is here to stay, even for publicly funded projects.
- As us "boomers" move into our 60's the need for assisted living and health care projects will continue to be strong.
- As tempting as it is to find a niche and excel in that area, diversity in client and project types is critical to consistent cash flow.
- Trust your gut feel. If a client, project, or fees appear too good to be true, they probably are.
- When the economy does finally turn the corner and most all of us are once again busy, we will likely be doing so with reduced staff. 8-9% unemployment may very well be the new norm until the unemployed are re-trained in other fields.

TIMES THEY ARE A CHANGIN'

By Mike Ranalletta

It's official. The 2010 ADA/ABA guidelines were published in the Federal Register in September of this year and will go into effect on March 15, 2012 as the 2010 SAD (Standards for Accessibility Design), replacing the 1991 ADA guidelines. This is a major change to the format and I urge everyone to visit the DOJ (www.ada.gov) and Access Board (www.access-board.gov) web sites, download a copy of the new guidelines and get familiar with the new layout.

For now, the TAS (Texas Accessibility Standards) are in effect in the State of Texas until TDLR adopts the new standards and receives certification from the U.S. Department of Justice. Hopefully, that will be within the timeframe that the 2010 SAD goes into effect. Let's hope the State of Texas adopts the federal design standards with no amendments. This would simplify compliance for not only architects and designers but also manufacturers of equipment and national store chains.

One interesting note about the new 2010 SAD; There is no mention about the surface of a curb ramp. No domes, grooves or other tactile elements. No contrasting colors. PS: Email me and I will send you editable Inspec's Project Submittal form and TDLR forms needed to register a project.

ADHERED STONE APPLICATION OPTIONS

By Doug Hartman

Adhered stone (or as it is sometime called "simulated stone" or "sticky stone") has been a popular material since it's advent about 20 years ago as a less expensive (and reduced weight) option to conventional stone veneers requiring foundation ledges for support. Typical installations require sheathing over studs, followed by a moisture barrier, metal lath, setting mortar, and then the stone pressed into the mortar.

We have recently found an installation option that utilizes a cement board (rather than gypsum or plywood sheathing), followed by a proprietary fluid applied waterproof barrier, and then adhering the stone with a high strength proprietary mortar and pointed with a proprietary grout. The system qualifies for a 15 year full system warranty (25 years over masonry or concrete substrates) against water intrusion and adhesion of the stone. The additional benefit to this system is that moisture is stopped before it can penetrate all the way through the system, potentially corroding the lath. Laticrete has pioneered this system, and you can learn more at <http://www.laticrete.com/mvis/>.

INSPEC ASSISTS IN ACHIEVING LEED CERTIFICATION ON 4 PROJECTS IN 2010

By Doug Hartman

INSPEC staff (primarily Allen Cornett and Mike Smith) have facilitated LEED certification on a of projects this year, including:

Spiors Engineering Office Building, Plano, TX (Silver)
RM Crowe Spec Office Building, Plano, TX (Silver)

Heights of Park Lane Residential, Dallas, TX (Silver)
Motel 6, Northlake, TX (Certified)

SOLID PLASTIC PARTITIONS

By Kevin Wang

When it comes to toilet partitions, most of us understand the pros and cons of the available choices. Prefinished steel units are somewhat durable and affordable. Plastic laminate clad particleboard units allow many color/pattern options for a more refined appearance. Stainless steel units provide very good durability with a clean look. Then, there are plastic partitions.

Some of us think that all plastic partitions are the same. There are actually two main types that are readily available, and they are indeed different enough in price and performance. Most of you are probably familiar with high-density polyethylene (HDPE) partitions. These are the solid, through-color partitions more commonly used. HDPE is dent and corrosion-resistant. For reference, plastic milk jugs are made of the same material, though much thinner. The other main type of plastic partitions is the phenolic core type, which is comprised of melamine facing sheets bonded to a core of rigid, (usually black) high impact phenolic resin. The resultant partitions are extremely durable, and the best choice where vandalism resistance is a consideration. Phenolic core units are more expensive than HDPE units, especially when opting for colored cores matching the partition facing. While HDPE can be scratched or gouged, phenolic core units are denser and much more resistant to gouging. Ultimately the choice is up to you and your clients' needs. The more information you have, the better choice you will be able to make.

WHO IS ASSIGNED TO WORK ON THAT CREDIT?

By Allen Cornett

How many of us have ever had a disconnect between LEED credits being attempted and services requested? While the requirements and assignment to team members for most credits are easily determined, there are some credits that services and potentially related fees are overlooked. Below can be found 10 of the most common credits that often do not have a team member assigned.

EAc1 Optimized Energy Performance

The energy model takes the building envelop and energy system information of the designed building and compares it to a baseline building. With the 2009 version of the LEED rating systems having up to 19 points available, it is more important than ever to start running the energy model in the design development phase or at the beginning of construction documents as opposed to waiting until after construction documents have been completed.

EAc3 Enhanced Commissioning

The commissioning agent will now be involved in design, submittal, construction and post-construction activities. This is not a credit you want to miss the timing on, since depending on the rating system utilized it is worth from 2 – 5 points.

EAc5 Measurement & Verification

In addition to providing the necessary items in the design, a measurement and verification plan needs to be developed. The metering installed and the procedures in the measurement and verification plan work together to allow a building owner to narrow down the source of irregularity when there is a spike in utility bills.

EQp2 Environmental Tobacco Smoke (ETS) Control

Though this is simple for non-smoking buildings, and easy enough to address in buildings with smoking rooms, it is much more involved for multi-family residential and lodging building types. Blower door testing is required and 1 out of 7 living units/guest rooms entry doors must be tested and pass.

EQc3.1 Construction IAQ Management Plan – During Construction

The IAQ Management Plan, typically included in the project manual is developed by a third party (and often times, this is the commissioning agent). The general contractor will take photos of procedures during different levels of construction completeness to confirm compliance with the IAQ Management Plan. Though some of the processes are not required until the building is closed in, the chances of success are greater if the requirements are enforced from the beginning of construction

EQc3.2 Construction IAQ Management Plan – Before Occupancy

This credit involves testing which validates that the IAQ Management Plan was implemented correctly. The test results for EQc3.2 confirm that the care taken in the photos was carried out from the beginning to the end of construction.

EQc7.2 Thermal Comfort – Verification

In addition to installing a permanent monitoring system, a survey along with a corrective action plan needs to be developed. This credit cannot be earned unless LEED credit EQc7.1 Thermal Comfort, Design is earned.

IDc1 Green Housekeeping Program

This credit can be attempted by contracting with a service or developing a plan to be followed by a service contractor or in-house staff.

IDc1 Community Awareness Program

The approach should be ACTIVELY instructional and include two of the following three elements; a comprehensive signage program, the development of a manual, guideline or case study, and/or an educational outreach program or guided tour. This can be fairly expensive to implement.

IDc1 Organic Landscape Maintenance Plan

The requirements for this have been expanded to include all the requirements of LEED for Existing Buildings: Operations & Maintenance credit SSc3 Integrated Pest Management, Erosion Control and Landscape Maintenance Plan. Again, someone (typically the Landscape Architect) needs to develop this plan.

MORE CHANGES COMING TO LEED

By Mike Smith

Just when you think you are starting to understand the changes from version 2.2 to version 2009, more changes are coming. At the Greenbuild Conference in Chicago this year, USGBC announced that work is well under way on the 2012 version. If you are a USGBC member, a draft copy is available on their website (www.usgbc.org). LEED is moving to be a more performance based system rather than a prescriptive based system. In version 2009 owners are required to allow access to energy consumption data. In the 2012 version, information on water consumption data will also be required. Available today are credits called "Pilot Credits". These are credits that USGBC is looking at for possible adoption in the next version. Today, you can use these credits in the Innovation in Design portion.

Also coming are versions of LEED for Warehouses, Distribution Centers, Data Centers, Hospitality, Volume (Prototypes) and Retail. USGBC has started to understand that it is hard to combine functions of buildings or facilities under a single rating system. These systems will most likely be under the Building Design and Construction category just as New Construction, Schools, and Core & Shell are today.

FIRE PROTECTION RATED GLAZING

By Steve Brown

Recent changes in building codes regarding energy conservation and the related use of "day-lighting" have focused increased interest on the use of fire rated glazing for addressing the challenge of providing natural lighting and energy efficient temperature control within the building envelope, while maintaining fire and smoke compartment integrity.

For many years wired glass was the architect's material alternative where fire rated glazing was required. This was no longer the case after changes to the 2003 IBC ended the use of wired glass for educational occupancies because of perceived issues with breakage. The move away from wired glass by building officials caused glass manufacturers to look more closely at existing "rated non-wire glass" products, and to expand development of new products. Today the architect has a vastly improved array of rated glass products to select from in addressing fire protection rating requirements.

Fire rated glazing is currently available as several different products based on construction including the following general product categories; "film faced ceramic glazing", "laminated ceramic glazing", "laminated tempered glass with intumescent interlayers" and "gel-filled double and triple glazing." Fire rated glazing falls into two major categories based on testing, use and performance. Testing for fire rated glazing is by NFPA 252 for use in door assemblies and NFPA 257 for window assemblies.

"Hose stream tests," where the glazing assembly must be able to resist the impact of a fire hose stream, are a part of "code/standards" based requirements for fire rated glazing, and serve the purpose of maintaining fire and smoke compartment integrity. NFPA 252 exempts "20 minute rated" doors from having to pass the "hose stream test" requirements, and the IBC does not require compliance for 20 minute rated door assemblies, however IBC requires side-lights and transoms on 20 minute rated doors to meet hose stream test requirements. All 45 minute, 60 minute, 90 minute and 120 minute rated door assemblies must pass "hose stream test" requirements, therefore the architect must be sure to select a glazing product that will meet these requirements as some ceramic based, non-laminated fire rated glazing does not meet hose stream testing requirements.

With regard to windows, NFPA 257 requires compliance with both rating and hose stream testing requirements without exemption, therefore the architect must again be sure to specify fire rated glazing that can meet both sets of requirements.

In addition to "hose stream test" requirements, another building code design requirement to be considered is "temperature rise limitations," or the radiant energy blocking capabilities of the glazing. When required, the architect needs to be sure that the selected fire rated glazing can handle a 450 degrees F temperature rise on the "fire side" of the glazing and not transmit the heat to the opposite side of the glass. Fire resistant glazing manufacturer's offer laminated glazing with an intumescent interlayer as well as gel-filled double and triple glazed "heat absorbing glass" products that can meet mandated temperature rise requirements. Another important consideration, the architect should research these fire rated glazing products carefully when specifying them since they often require window frame systems supplied by the glazing manufacturer.

Fire rated glazing can be used today for both interior and exterior applications. Ceramic laminated fire rated glazing can be used in an insulated glazing frame, in lieu of one of the monolithic lights, to provide a fire rated assembly (assuming a fire rated frame is used), thus an energy efficient exterior window system can be provided that also meets fire resistance requirements. Fire rated glazing can also be provided as impact resistant glazing, bullet resistant glazing, and as patterned glass where "obscured" glass is required thus allowing a wide range of use and design flexibility.