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The Greening of Texas

By Eileen Schwartz

Houston recently joined Austin and Dallas in adopting resolutions calling for LEED certification of new or replacement facilities for city-owned buildings.

LEED has been a building-industry buzzword for the last several years. In Texas it is becoming part of the permanent vernacular.

LEED stands for Leadership in Energy and Environmental Design. It is also the name of a green-building rating system created by the U.S. Green Building Council in 2000. Owners choose to apply for LEED certification for many reasons, including good public relations and environmental stewardship. Aesthetics and sustainability also make green building attractive to owners, and in a growing number of communities, green building is a requirement.

Another benefit, which is being proven as LEED buildings are used over time, is the health and productivity of the building occupants. "The materials encouraged by LEED not only tend to be naturally attractive, they reduce the amount of toxic chemicals inside the building, contributing to healthier indoor air," said Aide Uzgiris, an Austin-based LEED-accredited professional.

Texas Cities LEED the Way

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While green building is primarily voluntary, three major cities in Texas have resolutions requiring that municipal buildings be LEED certified. When Austin passed such a resolution in 2000 it was the first city in the United States to do so. Dallas followed in January 2003.

In June Houston got into the act, authorizing the LEED standard for new or replacement facilities and renovations of city of Houston buildings and facilities with more than 10,000 sq. ft. of occupied space.

City of Austin projects are beginning to come online, and they range from large to small. The Austin City Council recently moved into its new home, a \$49 million city hall built by the Southwest office of Greeley, Colo.-based Hensel Phelps. The project is seeking a silver LEED certification.

Barr Construction of Austin recently completed the \$1.5 million Far Southeast Emergency Medical Services Station No. 28. Uzgiris was the LEED consultant for the architect, Austin-based Architecture Plus.

"This was a small-scale project in terms of size and cost. But it presented the architect with the opportunity to develop an efficient system for working with future LEED projects of this size," Uzgiris said. "The contractor was on board with LEED from the get-go."

On a larger scale, White Construction of Austin recently broke ground on the Dell Children's Medical Center in Austin. The \$200 million project is aiming for a platinum LEED rating. "It couldn't be a more appropriate application for LEED strategies," Uzgiris

said. "Children, especially sick children, are more sensitive than adults to the effects of chemicals."

Provided all prerequisites are satisfied, the LEED certification rating is determined by the number of credits achieved. The different levels range from certified projects, which must achieve at least 40 percent of the core credits, to platinum projects, which must achieve more than 80 percent of the core credits.

Whatever level of certification a project seeks, the rating system keeps team members motivated and encourages a healthy level of competition. "Everybody likes to save energy and protect the environment," said Paul Westbrook, sustainable development manager for Texas Instruments' Dallas-based Worldwide Construction group. "But when you can score a point for doing it, people get really excited."

Texas Contractors Follow Suit

Two Texas-based contractors-SpawGlass, which has offices in Austin, Houston, San Antonio and Harlingen, and Zachry Construction Corp., headquartered in San Antonio-have each built their own headquarters as a showcase for LEED expertise.

SpawGlass' corporate headquarters was the first occupied building in Houston to receive LEED certification. The headquarters received a silver LEED rating and had to qualify in several areas to become certified, including water efficiency, energy and atmosphere, materials and resources and indoor air quality.

The building was designed by Houston-based architectural firm Kirksey and includes a white roof for reflectivity, the use of natural light to reduce energy costs and the use of low-E glass to reduce heat gain, glare and energy loss.

Zachry Construction is in the planning stages of an addition to its corporate home office in San Antonio with a new LEED-registered training wing. The project is in the running to be the first major certified project in San Antonio.

Corporations Catch On

Around the state, corporations have begun taking the green building plunge. Projects in Texas registered with LEED and pending certification include a new Lowe's Home Improvement store under way in Austin, Texas Instruments' new \$3 billion chip plant known as RFAB (Richardson Fab) that recently broke ground in Richardson and RadioShack's recently completed \$200 million corporate headquarters in Fort Worth along the south bank of the Trinity River.

RadioShack employees enjoy waterfront views through ample glass and balconies and a healthy indoor environment provided by LEED guidelines. The general contractor of the project was The Beck Group of Dallas.

Green Talk

A Conversation on LEED Building

Sam Kumar, president of Austin-based Journeyman Construction LP, provided Texas Construction with a contractor's first-person perspective on green building. The company recently completed its first LEED project, the \$5.3 million Austin Resource Center for the Homeless, a city of Austin project.

TXC: *What are your general thoughts on LEED building?*

Kumar: Sustainable design for the good of the environment is excellent. However, some of the impractical aspects of LEED, although to promulgate Green Building practices, have caused more pollution, such as transporting Forest Stewardship

Council-certified lumber across the country. The extra expense of getting FSC certified lumber could have been invested in planting new trees. The LEED issues should be adopted to local environment. Overall, this is a great initiative for our country.

TXC: *What would you have done differently with the ARCH project? How will you approach future LEED projects?*

Kumar: Education and communication of suppliers and subcontractors in a much more significant manner would have helped us expedite and achieve LEED-related goals more smoothly. Also, we probably should have budgeted enough dollars to allocate for administration of LEED-related work. On future LEED projects, we will consider and rectify such issues.

TXC: *What issues are most crucial to address at the beginning of the project to ensure LEED certification and that the project goes smoothly?*

Kumar: Education and communication to suppliers and subcontractors about LEED requirements is the most crucial thing.

TXC: *Which LEED credits are toughest to achieve and why?*

Kumar: Higher percentage of fly ash in concrete increases the finishing time by more than 15 hours. Constant checking on wood and paint products to ensure correct usage is also hard. Also, waste management - achieving 80 percent recycling of the project's construction waste.

TXC: *Which LEED credits are easiest to achieve and why?*

Kumar: Getting materials from within 500 mi. of the project. Using recycled products such as gypsum board manufactured from the Galena Park plant in Texas. Using low VOC (volatile organic compound) paint and adhesives, which are readily available from local suppliers.

TXC: *What would you say to fellow contractors regarding LEED projects?*

Kumar: Take it seriously. Communicate and educate subcontractors and suppliers.

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