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## Green Building Takes Root in Commercial Sector

by Rob Curran

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Despite the recent shrinkage in commercial construction in Austin, green building continues to heighten its profile among the general contractors, developers and architects shaping the city's office and retail landscape.

The Austin Energy Green Building Program, which helps developers build sustainable, energy-conserving structures, reviewed nine commercial projects in 2000, 10 in 2001, eight in 2002 and already five requests in the first five months of this year.

"The scale of those [commercial] projects varied quite a bit," says Lee Gros, an architect with the Austin Energy program, "but the number of projects reviewed has not been impacted by any slowdown in the economy."

Gary Nauert, a regional manager for DPR Construction Inc., in Austin, concurs.

"We've actually seen an increase since the beginning of this year in owners requesting information on environmental certification on buildings," he says. "A major retailer sent us requests for proposals on two projects that they wanted to be green."

Nauert says the retailer, one of the biggest discount merchants in the country, is exploring green building methods for two 200,000-square-foot stores.

"We live in an ever-shrinking world," says Steve Paulson, an environmental consultant with ACI Consulting in Austin. "It's a question of treading as lightly as possible."

While green building initially took root here in the residential market, its popularity in the commercial sector is starting to thrive. Three factors may have catalyzed this increased interest -- the narrowing price gap between green building materials and traditional building materials, the increased evidence of building operations efficiency, and the City of Austin's incentives for using green methods -- up to \$6,000 for high green ratings.

Gail Vittori, co-director for the Center for Maximum Potential Building Systems in Austin, is pleased to see more business owners and developers who are energy and materials conscious when planning their sites. She planted the seed that eventually became the Austin Energy Green Building Program.

"The business case for green building is becoming more defined," says Vittori, who was the first chairperson of Austin's Solid Waste Advisory Commission and played an instrumental role in expanding the city's curbside recycling program. "We are now seeing examples of very solid green building projects in both the public and private sector that have little if any price premium."

Commercial green building in Austin began in 1975 when Pliny Fisk III, an award-winning Austin architect, broke ground for the Center for Maximum Potential Building Systems, the headquarters for his ecological design experiments. Fisk, who co-directs the center with Vittori, says he views buildings as part of the wider ecosystem. Fisk and Vittori's center on FM 969 -- comprised of locally harvested straw, clay and earth -- is an organic symbol of this philosophy.

In the past five years, there have been numerous green building projects cropping up in the commercial sector - American YouthWorks, at 216 E. 4th St.; Austin Lyric Opera, at 901 Barton Springs Road; and CarrAmerica's Braker Pointe commercial complex, at 10801 N. Mopac Expressway, to name a few.

In December 2002, the U.S. Green Building Council awarded the Tivoli Systems building on Burnet Road its prestigious Leadership in Energy and Environmental Design certification -- the first edifice in Austin to win the honor.

Janet Hughes, president of Janet's Electric Inc., which specializes in electrical work for solar and other alternative generators, says her business soaked up the green building boom in 2000, when she kept up to 10 electricians on her payroll.

Though Hughes employs only five workers these days, she says it's not because the demand for service has diminished - only the scale of her projects. At present, her team is installing a solar power unit in the Palmer Events Center parking garage. She says she agrees that energy consciousness has spread to the mainstream, particularly with recent spikes in oil and fossil fuel prices.

"Among people who have been in the green building market for a while, there's a big push to find out ways to lower the cost," Hughes says.

High demand for certain green building materials has made them cheaper than their conventional rivals. James Hardie Industries' Hardiplank siding, made from sand, water and recycled cement, sells at an Austin lumber store for 87 cents per square foot, compared to \$1.57 per square foot for traditional pine. James Hardie touts that the planks last longer, hold paint better and are less likely to burn than solid wood.

Recycled strand board, a relatively new product that lumber companies make from the shavings and odds and ends that were once considered sawmill scraps, is on average 25 percent to 30 percent cheaper than sheets of plywood.

Gros, the city architect, argues that nothing could be better for the bottom line than sustainable resources.

"Green building is more economical by definition," Gros says. "Typically we see mechanical systems oversized by up to 200 percent for the size of the building. That's a lot of wasted capital upfront."

Gros points to the St. John Community Center and J.J. Pickle Elementary School, an 115,000-square-foot complex on St. John's Avenue, completed in January 2002, as an exemplary model of maximum output from minimum materials.

At St. John, collected rainwater makes up 50 percent of the water stored in the giant urns, which provide water for the building's air-cooling system. Additionally, windows open up half the walls on each side, allowing natural light to illuminate the rooms. Low-wattage fluorescent light bulbs -- which cost more than regular bulbs, but require less electricity -- are used throughout the building.

"A one or two percent up charge is very little compared to the savings that will accrue through the life of a building," Vittori says.

The decision makers at, DPR Construction Inc., believe so strongly in this message that the company's newest office in Sacramento, Calif., will follow green building guidelines. Nauert expects the company to recoup the extra expense in two years through water and electricity savings.

Similarly, Guy Dawes, project manager at the Lower Colorado River Authority's fleet service center, the M.C. Dalchau Center on Montopolis Drive, says the water reclamation system for the on-site truck wash - which cost between \$50,000 and \$60,000 - was a sound investment.

He expects to recoup that money within five years by re-using millions of gallons of water.

Like the St. John Community Center, the Dalchau Center takes advantage of natural light in its vaulted glass-ceiling lobby and adjoining service bays, where workers repair company vehicles under 184 plastic skylight panels.

Gros, the city architect, says studies have shown that people working under natural light are more likely to be productive and less likely to call in sick.

"When you look at people-side savings, it dwarfs even the energy savings," he says.

Dick Anderson, a partner with commercial developer Hill Partners Inc., says green is the inevitable tint of the real estate business in a town that values its natural resources.

"I don't agree that it costs more to build green," Anderson says. "There's a lot more paperwork to get classifications and rebates. But I don't buy that it takes substantially more time or money."

Austin Energy's green building program requires that the architect, building owner and general contractor meet regularly to discuss the fulfillment of checklist items, from site selection to solid waste reduction. The completed building earns a star rating based on the number of items fulfilled.

Chris Ellis, a principal with Endeavor Real Estate Group LLC, says his company chose to take its 250,000-square-foot Wal-Mart through the city's green building program because the site location at Mopac Expressway and Slaughter Lane was close to the Edward's Aquifer.

"There's a different set of rules over the recharge zone, but participation in the green building is not required," he says. "Endeavor is requiring our client to go over and above what is permitted because we feel it's the responsible thing to do in this location."

Ellis says he thinks commercial builders and developers traditionally have been wary of the green building trend that swept Austin's homebuilding industry; however, he says he believes the city's collaborative approach in its green building program will bring more commercial developers on board.

"When you try to change people's business practices, they're apprehensive about it," he says. "It's like using a computer. When someone first threw a computer in front of me, it scared me. With the city, we are getting feedback throughout the process. There are no surprises or different levels of expectations."