## Retailers Embrace LEED Standards

Stores reap environmental, financial rewards



omeday soon, the sun may be streaming in on the produce section of your local grocery. Visiting a hair salon or bank won't expose you to potentially harmful chemicals in carpets or building materials. And whether you realize it or not, your favorite new department store may have chosen its location to protect the environment and give employees access to public transportation.

That's because retailers nationwide are slowly but surely recognizing the ecological and financial benefits of these and other approaches. Many of them are applying for a new retail-oriented certification through the Leadership in Energy and Environmental Design (LEED) program run by the U.S. Green Building Council (USGBC).

"I think it's pretty simple," says Ashley Katz, the council's communications coordinator. "Owners are really seeing how they can do things that are great for the environment and for the bottom line. They're saving energy and operating costs."

LEED has become the country's benchmark for how buildings are designed, built and operated. Certification — whether basic, Silver, Gold or Platinum — indicates a building is better for the environment, healthier for employees and the public, and more efficient in its use of energy and natural resources.

Twenty-five retail projects have registered for the year-old LEED for Retail: New Construction pilot program, which recently entered the public-comment period. Certified retail projects run the gamut in terms of type and location. They range from Giant Eagle Market in Brunswick, Ohio; to a Wainwright Bank & Trust branch in Brookline, Mass.; to a Toyota dealership in McKinney, Texas; to the Desert View Public Library in Phoenix, Ariz.

"Ever since 2000, we've been evolving based on what the public is looking for," Katz says. "REI was the first retail project to be certified, back in the fall of '04. All of these other projects followed suit, and we realized it's a niche market that has special purposes and needs."

So the USGBC created LEED for Retail: Commercial Interiors. About 15 projects are applying for certification under that program, launched this summer, which allows a retailer in a non-certified building to make sure its own space is healthy and efficient.

KBS is the construction manager for Forest City's White Oak Village (at left and bottom). The 136-acre lifestyle center, under construction in Eastern Henrico County, is using recycled materials from the industrial building that once stood onsite.





## A Runway Inside Wal-Mart?

There's new life for an old airport runway and vegetable oil used to fry chicken at Wal-Mart's new experimental store in Aurora, Colorado.

More than 500 tons of Denver Stapleton Airport's runway, crushed up and recycled, has been used in the store's foundation. The used vegetable oil from the store's Deli and used motor oil from the store's Tire and Lube Express will be burned to help heat the store.

This supercenter still offers a full line of groceries, bakery goods, deli foods, meat and dairy products, fresh produce, a Tire Lube and Express and a vision center just to name a few, but it also reveals that Wal-Mart is another company working towards a more energy-efficient buildings.

"Wal-Mart wants to be a leader in corporate responsibility for the environment and our shareholders," says Pat Curran, executive vice president of Wal-Mart Stores USA. "We want to continue our efforts and education about environmental sustainability and how it applies to our business. We believe that being a good steward of the environment and operating an efficient and profitable business are not mutually exclusive."

The goals for Wal-Mart's experimental stores, this store and another in McKinney, TX, were to reduce the amount of energy and natural resources required to operate and maintain the stores, reduce the amount of raw materials needed to construct the facility, and substitute, when appropriate, renewable materials.

In Aurora, Wal-Mart is proud to have taken part in what has been labeled "The World's Largest Recycling Project" in Colorado. The retail giant worked with a local recycling company to recycle 518 tons of material and concrete from the old Stapleton runways to build the foundation for our Aurora supercenter.

As Wal-Mart's President and CEO, Lee Scott has stated, Wal-Mart is committed to building a new prototype that will be 25–30 percent more efficient and produce 30 percent less greenhouse gas emissions than current stores.

Some of the key experiments include solar and wind power, waste oil boilers, porous pavements, radiant floor heating that will help keep pedestrian areas clear of snow, and unique fabric duct air systems to heat and cool the building efficiently. There will even be a tall grass prairie on site and a place to welcome RV visitors as they stop off I-70.

Still, business is business. The warm-and fuzzy feelings created by being kind to the earth won't convince every owner to go green. But LEED certification, despite the time, effort and paperwork involved, looks far more attractive when it can save or earn a retailer more money in the long run.

Certification, for example, often qualifies a business for tax rebates, special zoning and other governmental incentives.

"And what people forget is that green buildings have better air quality," Katz says. "So the people in them have higher rates of productivity and fewer sick days."

Certain steps in the certification process may even boost revenue.

Adding windows and skylights, for instance, can improve sales and employee morale, says Bryna Dunn, director of environmental planning and research for Mosely Architects in Richmond. She points to "significant differences between what people are willing to buy and how hard people will work in a day-lit section" as opposed to a retail area with artificial light.

"Produce looks better under full-spectrum daylight," says Dunn, who also chairs the James River Green Building Council and serves on the board of the Virginia Sustainable Building Network. "And even if it's subliminal — even if customers don't understand why they want to purchase something — I think retailers are tapping into that."

Research done a few years ago supports Dunn's perspective. "Daylight & Retail Sales," a study by Heschong Mahone Group for the California Energy Commission, concluded that daylighting in stores is "strongly associated with increased sales."

Daylit stores in the study experienced up to a six percent spike in sales compared to stores in the same chain with artificial lighting. Some stores saw sales jump by as much as 40 percent. The chain's owner had shifted to daylighting to reduce energy costs — and was, in fact, saving 24 cents per square foot. According to the study, however, "the profit from increased sales associated with daylighting is worth at least 19 times more than the energy savings ..."

Ideally, a retailer can view LEED certification as a beneficial blend of responsibility, good business and some positive public relations.

Dunn notes that she recently received a Pottery Barn Kids catalog printed on paper certified by the Forest Stewardship Council. The choice of paper showed the company's environmental interests, while the certification label highlighted its understanding of good PR.

"That's a small step," Dunn says, "but if you think of how much paper an establishment uses to send out catalogs, that's pretty significant."

It seems a growing number of individuals and companies are beginning to take these initial steps towards a greener lifestyle. Forest City Enterprises, a national real estate

developer, is taking a close look at sustainable options with their White Oak Village project.

The approximately 900,000-square-foot lifestyle center, located in eastern Henrico County, will include several retail shops as well as heavily landscaped park-like areas. KBS is the construction manager on the project.

The Shops at White Oak Village is being designed in accordance with LEED standards. A key element of the sitework was the demolition of the former Viasystems building at the intersection of I-64 and Laburnum Avenue.

The massive industrial building had become an eyesore standing empty for many years. Forest City found a way for the old building to make a positive impact on the new center by recycling its materials.

"Forest City strives to include green building principles and standards in all of its new developments and White Oak Village will be no exception. We use LEED throughout our organization as a mechanism to achieve objective targets," said Charles Rulick, Forest City Commercial Development Associate. "This allows us to make decisions that are appropriate to the local environment and we hope to certify the projects. White Oak Village is a redevelopment of a brownfield site and is a responsible re-use in an area that has historically been underserved by retail."

Forest City reports that approximately 77,000 tons of concrete have been crushed onsite and reused for foundations, sidewalks and structural support for the center. In addition, 7,500 tons of aluminum, steel, iron, copper, and other ferrous and non-ferrous metals have been recycled and reused.

While certification for White Oak Village is not definite, the developer's efforts are notable steps to sustainability within the Retail market.

As Forest City steadily gains experience in the green building market, their services will become more appealing to others looking to "go green." They are another example of how being sustainability can benefit business.

As a developer especially, Forest City's decision to explore green options is keeping the company on the cutting edge of their business. Forest City earns respect in the field and the retailers at White Oak Village benefit from attractive shops. Everybody wins.

"LEED is a way for stores to embody their values," says Katz, with the U.S. Green Building Council. "If they're selling organic produce or organic clothing, they can be in a space that's sustainable and energy efficient. That way their whole organization, from the top down, can embody their values."

Many of these retailers also emphasize their environmental and health commitments on their Web site.

"They're capitalizing on it," Katz says, "and they should. Hopefully more retailers in the next few years will jump on the bandwagon." ■



## The Green in Food Lion's Freezer Aisle

The recently constructed Montpelier Food Lion boasts a new refrigeration technology — one that uses naturally occurring CO2 gas to refrigerate food products. The store is among the first to use a natural ingredient as the coolant in its refrigeration units.

KBS constructed the 52,000-square-foot Montpelier Shopping Center anchored by Food Lion and located near the intersection of Rt. 33 and Rt. 54 in Hanover County, Virginia.

The store uses a refrigeration system fueled by CO2 gas instead of refrigerants — as the secondary heat transfer fluid. When pumped through the store, the CO2 removes heat from display cases and walk-in freezers, eliminating the need for refrigerants. CO2 is a natural component of the environment, is inexpensive and readily available and has excellent thermodynamic and transport properties.

Food Lion recently became one of the first U.S. grocery chains to join the Environmental Protection Agency's new GreenChill partnership, an initiative through which companies pledge to go above and beyond regulatory requirements in protecting the ozone layer and reducing greenhouse gas emissions.

For a sixth-consecutive year, the EPA has recognized Food Lion LLC with an ENERGY STAR® partner award.

The award recognizes Food Lion's energy efficiency in its retail stores. Food Lion also earned the award in 2004, 2005 and 2006.

Since 2000, through new technologies for refrigeration, heating and cooling, new lighting, and company-wide energy management efforts, Food Lion has trimmed energy use by more than 27 percent.

Additionally, Food Lion announced in late-2006 that more than 600 of its stores (more than half of the chain's stores) had earned the prestigious ENERGY STAR designation from the EPA.

Based on EPA calculations, each of Food Lion's energy efficient stores save as much as 86,000 kWh per year — enough to power nine American homes for an entire year.

The energy savings at each store also prevent 190,920 pounds of CO<sub>2</sub> emissions per year, equal to removing the pollution of 19 cars or planting nearly 26 acres of trees.