

Going Green Is Good Business

More developers are looking to make their projects green to save dollars in the long run and create more benefits for tenants.

Jeffrey Hoskin

The astounding growth of the green building and sustainable design movement in recent years has been far less dramatic within the arena of retail development. Governmental agencies, non-profit corporations and educational institutions have traditionally been the drivers for projects seeking green building status. As the benefits for building “green” increase and the component knowledge base of the development community continues to expand, fantastic new opportunities are being created for the retail industry. The challenges that retail developers are now facing, such as increasing material costs, dwindling real estate opportunities, fierce competition for tenants and ever-increasing community demands, certainly warrant a look into the benefits of green development.

Green building, also referred to as sustainable design, entails an approach to projects that is able to do more with less — using less energy to operate, fewer materials to build or less water for irrigation and plumbing needs — while still achieving the same end goals. This provides for a healthier-built environment, resulting in a healthier natural environment. We simply do not have the luxury of unlimited resources and land, and, therefore, should assess the feasibility of development that meets the needs of today without compromising the ability of future generations to meet their needs. From a business perspective, nothing is being sacrificed in this way

of doing things; in fact, much is being gained.

FAST GROWING

The U. S. Green Building Council (USGBC) was founded in 1993 and has grown to nearly 6,000 member organizations. The Leadership in Energy and Environmental Design (LEED) Green Building Rating System was developed by the USGBC to quantify the “green” aspects of buildings. The number of LEED Accredited Professionals has grown from 527 in 2001 to over 18,000 by the end of 2004. Projects seeking LEED certification in 1999 amounted to 1.1 million square feet; by 2004, that number has increased to over 194 million square feet. Analysis of project types entering into the LEED program shows profit corporations occupying 25 percent of the green building market, government buildings 46 percent and non-profit corporations 19 percent.

The LEED program is a voluntary certification system that awards buildings a rating category of Certified, Silver, Gold or Platinum, depending on the number of points achieved. A total of 69 points is organized into six categories: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, and Innovation and Design Process. For a project to qualify as a LEED Certified project, it must achieve a total of at least 26 of 69



Image courtesy of HDR Architecture.

This 55,000-square-foot speculative office building in McKinney, Texas, is being designed to earn a LEED Platinum rating. The building has been designed with overhangs and lightshelves to provide diffused daylighting, underfloor air distribution and energy efficient lighting strategies. The entire southwest façade of the building is lined with private offices to block the low angle sun from penetrating into the rest of the building.

points in any combination of the six categories.

LEED offers various tracks to choose from, depending upon the type of project. Most construction falls under the LEED for New Construction & Major Renovation (LEED-NC) category, where projects typically consist of site, building and interiors. Most developer-driven retail projects where the developer is responsible for the shell and the tenant is responsible for the fit-out will fall under LEED for Core & Shell (LEED-CS) or LEED for Commercial Interiors (LEED-CI). This allows the developer to pursue LEED

certification for the shell of the project through LEED-CS without certifying the tenant's space and/or the tenant to pursue certification of their space through LEED-CI independent from the developers' shell.

OPPORTUNITIES

When a developer decides to approach a project through sustainable methods, new opportunities arise as well as new challenges. Opportunities can include increased marketability, lower operational costs, expedited approval processes and quantifiable quality standards for the project. The increased marketability of a project can make the difference between getting a desirable tenant versus losing that tenant to a competitor's project. Green buildings provide a marketing edge to developers by creating a product that distinguishes itself from others, making it easier to draw — as well as retain — tenants.

Lower operating costs make for a

more desirable leasing situation for tenants, with more costs going to profits instead of overhead. The Weidt Group has been working with owners, utilities and architects on sustainable solutions for over 25 years, and as David Eijadi, AIA, a LEED Accredited Professional and principal with The Weidt Group, states, "The greatest impact any building will have on the environment — with the possible exception of buildings in sensitive habitat or watersheds — will be based on its energy consumption. Nearly every builder, public or private, has a tendency to view energy consumption (utility bills) as the responsibility of someone else down the line. Conservation and efficiency measures like high performance lighting, window improvements or efficient chillers may have an added first cost, but in an owner-occupied building, this is recoverable in 1 to 3 years. The developer may directly benefit from utility rebate programs and with reduced operating costs during periods of low occupancy. However, given the pass-through nature of utility costs, a developer will need to see a market opportunity in attracting the health/environmentally-conscious business owner. In order to offer a healthier indoor environment with reduced operating costs to the first tenant, some lease adjustments may be negotiated to enable conservation and efficiency measures. For example, the tenant may pay more per square foot if it can be demonstrated that they will pay less in energy costs for their healthier environment."

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As the "Not In My Backyard" attitude increases toward any development, a project

that commits itself to environmental responsibility will find less resistance from the public and more cooperation from approval agencies. This leads to expedited approvals and allows retailers to open their doors sooner and owners to collect rent faster. More municipalities will be requiring sustainability principles to be incorporated into projects within their jurisdiction, so it is in the best interest of developers to be prepared for this by determining now what approaches will or will not work in their pro formas; not all sustainable systems and strategies are appropriate for every project. Developers should be aware of available incentives that may offer a boost to their project and, Eijadi adds, "should consider making creative offers such as providing higher energy efficiency for the opportunity to build to a higher density or constructing a transit stop in exchange for municipal extension of public transportation."

Perhaps the greatest challenge to this process is the time and expense of the sustainable design learning curve. For a green development to be successful, it must include the coordinated efforts of the developer, the contractor, the design team and the sales staff. This requires up-front input and cooperation to ensure everyone understands the issues that will help to reduce redundancy and provide integrated systems that work in harmony with each other. This front end investment will expose potential financial risks early on, resulting in a high-quality and high-efficiency building requiring fewer materials, offering a more affordable infrastructure.

COST OF GREEN

One of the main contributing factors keeping more projects from going green is the assumption that a green development costs more up-front than a non-green development. This does not have to be the case if development is facilitated through an integrated systems approach in order to get all parts working together efficiently to minimize wasted energy, wasted materials, or wasted land.



“As we’ve seen in numerous projects,” Eijadi explains, “first time sustainable design attempts often overestimate first costs and underestimate long term operational savings. There are many reasons for these behaviors. The two most important in the overestimating of first costs is the tendency to price only the apparent adds without pricing any of the probable deducts and the tendency to hedge the estimate based on doubt. Underestimating long term savings has the same root cause as overestimating costs, which is failing to adequately analyze the effect of green options.”

One of the most in-depth studies of the cost of green buildings was completed by the California Sustainable Building Task Force in October 2003. This cost-benefit study concluded that the average green building premium for LEED certified buildings is 2 percent in up-front costs. This up-front premium results in an average savings of 20 percent over the initial con-

struction costs within 20 years. The sooner the principles of sustainability are introduced into the project, the lower this “green” premium becomes because, rather than an added expense, it becomes an integral part.

Many businesses or entrepreneurs who are pursuing green design as a practice refer to their “triple bottom line” of economics, environment and community. This approach acknowledges that their projects must be profitable financially while minimizing the negative impacts on the environment and maximizing the benefits to the community in which the project resides.

- *Economic:* The ongoing operational costs of green buildings can be substantially lower than conventional buildings and can demonstrate up to 60 percent energy savings compared to their non-green counterparts. Where up-front costs make the difference between a realized project and

one that is just another scheme to be filed away in the architects’ flat files, green developments can indeed be competitive. The key is to balance the cost of a more expensive system with savings found elsewhere. For example, by reducing water runoff through the incorporation of pervious pavement systems, substantial cost savings can be found by reducing the amount of land set aside for the stormwater management requirements of the project. Then, by collecting water runoff from the roof and then using that stored supply for landscape irrigation or flushing toilets, water usage can be reduced as well while also lowering water control requirements even further.

- *Environmental:* The U.S. Department of Energy cites that buildings use 60 percent of the nation’s electricity and more than 30 percent of our total energy needs. As costs for resources and energy supplies increase, so too will

building costs. Conventional commercial construction creates 2.5 pounds of solid waste per square foot of floor space. Paying closer attention to the environmental health of buildings will create improved air, water and soil quality for the land owner, resulting in lower potential risks and improved property values. Poor indoor air quality, resulting in sick building syndrome and mold growth, is a major concern for building owners.

- *Community:* By taking sustainability principles beyond the economic and environmental and into the realm of community, green design offers yet another clear advantage. A project seeking an identity which resonates with its target demographic will find placemaking techniques to be within the repertoire of sustainability concepts. Local materials, regional architectural features and watershed protection will emphasize the connection to the community while providing environmental benefits by reducing transportation requirements, reduced energy costs through sun shading and cleaner waterways. As basic as these ideas sound, such are the very foundation of green building and sustainability principles.

STRATEGIES

- *Site:* Site selection and the way the development is configured play an important role within sustainable projects. Brownfield redevelopment projects offer economic advantages over greenfield development, including pre-existing infrastructure and government grant and incentive programs. The concept of reusing a site and its infrastructure strengthens the community without harming sensitive environmental areas. Where brownfield developments are not feasible, strategies include minimizing disturbance to the natural landforms and waterways through more compact developments to maintain as much open green space as possible. These compact and efficient land use layouts also minimize the amount of infrastructure re-

quired while still preserving leasable square footage.

Perhaps the greatest site challenge to large developments is efficient stormwater management methods. In addition to pervious pavement systems and rainwater collection, bioswales and vegetated (green) roofs offer further water runoff reduction solutions.

- *Building:* Building strategies involve reductions in water use, energy consumption and material usage. Water needs can be reduced through rainwater reuse or efficient plumbing fixtures,

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such as double flush toilets or waterless urinals. By minimizing the usage of heat-absorbing materials like black roofs or asphalt drives, cooling loads for buildings can be reduced. Vegetated roofs reduce structural heat gain and absorb 80 percent to 90 percent of all rain events. Where vegetated roofs are not practical, roofing systems with high reflectivity characteristics offer energy savings. Energy consumption can also be reduced by the use of on-site energy sources, such as geothermal or solar panels, depending on the location of the project.

Use of daylighting within retail spaces provides reduced lighting requirements, as well as the noteworthy added benefit of increased sales for stores incorporating features such as skylights. At the Wal-Mart in Lawrence, Kansas, a 40 percent increase in sales was found — due in large part to the daylighting designers, The Weidt Group.

"We have worked with grocery stores where the annual cost of ener-

gy typically equals the annual profit margin," says a Weidt Group spokesperson. "Nearly every sustainable thing we do with grocery stores can go straight to the bottom line within a year."

GOING FORWARD

In November 2004, *Fast Company* magazine rated green building design as the Number 6 trend out of 100 for 2005. The spectacular momentum generated in the last few years is sure to continue and will alter the way most projects are approached.

Clearly, any development affects the environment; the larger the development, the greater the impact. Approaching this wisely, the impact can be a positive one. Eijadi concludes "the biggest do-differently" is to believe differently.

"It is to comprehend that how we construct and operate our buildings changes the environment," Eijadi says. "The earth is a closed and self-renewing system — but only up to a point. Where and when we exceed the rate of ecological renewal the dependent economy will collapse. This has been a recurrent, though localized, phenomenon throughout history. Now, with a global culture and its attendant economy, the where and when may be greater than ever."

A typical large-scale development with cost-driven results, accelerated timeframes, and many tenants, each with their own project requirements, makes for a complex process in a financially competitive environment. By creating developments through the use of sustainable and green design methods, projects can be profitable to developers, tenants, the community and the environment. **SCB**

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