

## Setting the green standard

In a competitive upscale office market, LEED certification is becoming essential to be able to claim your building is green.

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At a cursory glance, the high-rise under construction at 600 Brickell Avenue might seem to be just another in a long line of sleekly modern downtown Miami office towers.

But 600 Brickell is no ordinary building. From its heat-repelling "skin" to its ultra-efficient mechanical guts, the 540-foot tower stands as a bravura demonstration of the latest and highest standards of environmentally friendly building design. It also happens to be the new face of big commercial construction in South Florida.

The tower combines gee-whiz technology and advanced materials — energy-saving reflective roofs and air-conditioning systems, and lights that adjust themselves as daylight streams in through clear, heat-dispersing windows — with some old-school ideas. Rainwater and AC condensation are collected to feed fountains and irrigate trees and landscaping, and its garage features bicycle racks. The tower even has its own recycling center in the basement.

This comprehensive package of eco-features has earned 600 Brickell — the first of two phases in Foram Group's Brickell World Plaza project — the highest initial grade in the Leadership in Energy and Environmental Design (LEED) green-building certification program, which recognizes projects that use less energy and water and produce less in waste and harmful emissions than conventional structures.

While it's the first building in South Florida to be pre-certified as LEED Platinum, it's far from the first to win green-building honors.

*'If you want to be competitive and stay competitive, LEED certification was a must.'*

— John Breistol,  
President of Foram Group,  
which obtained LEED  
pre-certification for 600  
Brickell

In a region where the habitual response to the climate has been to crank up the AC, environmentally responsible construction has rapidly gone from fad to firmly established, if not virtually mandatory.

Just in the past four years, 98 civic and commercial buildings and interiors — ranging from schools to community centers, retail stores and new and retrofitted office buildings — have been LEED certified, with scores more in the pipeline. For many big developers in Miami, LEED certification is no longer just an option: The city's Miami 21 zoning overhaul, which went into effect last year, requires large buildings in and around downtown, as well as civic and park buildings, to be certified for LEED silver.

The trend was pioneered by colleges, public and private schools and government agencies that adopted LEED certification as a requirement for all major construction and renovation projects. But it has now been embraced in a big way by large commercial developers and the corporate tenants they serve, especially in the highly competitive Class A office market. Developers and leasing agents say upscale buildings that can't boast LEED certification suddenly find themselves at a distinct disadvantage.

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Engineering and architectural firms, meanwhile, have scrambled to get their professionals trained in LEED design to keep abreast of the competition.

"It's unbelievable how much the world has changed in three years," said William Holly, who developed Miami's first LEED-certified new office tower, the 14-story Miami Green building next to the Douglas Road Metrorail station in Coral Gables in 2008, only to lose it in the real-estate crash.

"At the time everybody was laughing," said Holly, who as a Cushman & Wakefield vice president is now renting out the building and is wrapping up leases for several floors. "Now many national and international brokers are saying that in the very near future you will not be considered a Class A building



if you aren't green, if you're not LEED-certified."

The reasons are numerous. LEED-compliant design promises substantially lower energy consumption over a building's lifespan — as much as 30 percent less than non-LEED buildings, studies have shown — as well as markedly lower water use. According to some surveys, certified buildings also command higher rents and sale prices.

"If you want to be competitive and stay competitive, LEED certification was a must," said Foram president John Bristol, whose 600 Brickell is covered with insulated pre-cast panels and will top its terraces with green — i.e., turf-covered — roofs. Its computerized energy-management system will reduce power usage at peak times, when electricity costs more, and diagnose energy-wasting malfunctions. "Energy is key. We will be able to monitor energy use to a great degree."

The nonprofit U.S. Green Building Council, which runs the rapidly expanding and constantly evolving LEED system, also contends the superior air quality of advanced ventilation systems produces a healthier environment for workers, especially when combined with the use of nontoxic carpeting, paints, sealants, insulation and interior finishes that emit far-lower levels of chemicals than conventional materials.

Commercial tenants, meanwhile, are increasingly adopting environmental responsibility as a pillar of corporate policy and making LEED certification a must-have item when considering new office space. "It is part of the DNA now," Holly said.

It doesn't come cheap. Registration, review and certification alone can cost around \$30,000 for a building with more than 50,000 square feet. Combined with green materials, the expense of LEED compliance increases total building costs from 2 percent to 10 percent over conventional construction, depending on the level of certification sought.

But the energy savings can equal or exceed those costs over the building's lifespan. And the cost premium of LEED certification, which once discouraged many builders from adopting green building practices, has dropped as makers of high-efficiency mechanical and plumbing systems and eco-friendly materials have rushed to meet growing demand with a broad array of products at competitive prices, developers say. Many of those products incorporate recycled materials and are, in turn, made to be recycled.

"Carpets, paints — all those materials are changing," said Thorn Grafton, a board member of

#### • TURN TO COVER, 14G

USGBC's South Florida chapter and director of sustainable initiatives at Miami's Zyscovich Architects,

where he heads a team of 23 LEED-accredited professionals that did not exist five years ago. "No one was asking for environmentally friendly materials until LEED came along."

When Miami law firm Bilzin Sumberg began looking to move out the offices it had occupied for 25 years at the Wachovia Center downtown, LEED certification was high on their checklist, said managing partner John Sumberg. Last October, the firm moved 230 people into three and half floors at 1450 Brickell, the first office tower in Miami to earn LEED gold. The firm built out its offices to comply with LEED standards because its partners believed doing so would produce a better work environment.

"You have probably sat in an office space where you get an odor from a copier or the carpet and you think, 'That can't be good,'" Sumberg said. "You don't smell that stuff here. The light is so much better than the lighting we installed 25 years ago. We're able to not only use less electricity but get better light."

"We think our people are happier and healthier. Even the building's cleaning crew use only environmentally friendly, nontoxic materials. It's really a hand-in-glove kind of thing."

#### LEED'S HISTORY

From its inception in 1998, the LEED program was intended to get the construction industry to adopt green-building practices and establish common, quantifiable standards. Those standards have since been revised and expanded several times, with different sets applying to schools, office buildings, interiors and

renovations, for instance. Designers receive accreditation from the USGBC, and projects are scored by review committees on a scale covering energy and water consumption, use of eco-friendly materials, recycling of construction and demolition waste as well as location — a factor that favors those close to mass transit, bicycle routes and other urban services that reduce automobile dependency. The scale runs from basic certification through silver and gold up to platinum.

There are other sets of standards as well, including Green Globes and the federal government's Energy Star ratings for buildings, similar to those well known to buyers of appliances. But LEED has become the defacto industry standard and the USGBC, which earns substantial fees for LEED accreditation and project reviews, an influential behemoth.

South Florida had been slow to join the LEED bandwagon, in part because the standards — originally developed for northern climes — favored strategies that use sun for passive winter heating.

"Our problem is not heating buildings with the sun, but how to cool them. That's not easy to do," Grafton said.

Since 2009, the list of LEED-certified buildings across South Florida has ballooned. It includes two new research buildings at the University of Miami's medical campus at Jackson Memorial, Bacardi's new U.S. office interiors in Coral Gables, several Kohl's department stores and Office Depot's global HQ in Boca Raton.

## PLAYING BALL

Even baseball's Florida Marlins have joined in. Their new Little Havana stadium is seeking to be the first in the country to win LEED certification, at the silver level, accumulating points in part by recycling 90 percent of construction waste and incorporating concrete chunks from the demolished Orange Bowl into its support beams.

The Zyscovich firm became an early South Florida adopter when it was approached in 2005 by the Palm Beach county public schools to design a new magnet elementary to LEED standards. The firm had to hire a Pittsburgh consultant accredited for LEED.

The result was Florida's first LEED Gold school, Pine Jog Elementary, an award-winning, 150-acre campus that also includes a Florida Atlantic University environmental education center and a nature preserve. The school, with an environmental education focus, fuses its building's eco-friendly features into the curriculum, with monitors that al-

low students and teachers to track its energy use.

The firm now has more than 20 other green-building projects completed, under design or construction, including a new student-services building at Miami Dade College's downtown Wolfson campus.

## POTENTIAL PITFALLS

The LEED system is not without its pitfalls and its critics, and it still covers but a fraction of all new construction across the country. Some critics say the standards favor costly, high-tech gadgetry at the expense of

less-sexy but simpler techniques — such as preserving buildings, orienting new structures to face away from the sun, or providing the straightforward ability to open a window and shut off the AC.

"It's based completely on a gizmo-green premise," said Miami Beach architect Steven Mouzon, author of

*The Original Green Book*, which champions traditional, low-tech eco-friendly building practices like preservation. "It gives you little incentive for preservation, when not throwing out a building is one of the most sustainable things you can do."

The system can also lead to absurd results, Mouzon and others say. Projects receive almost as many points for installing bike racks and showers than they do for preserving existing structures, he said. And no one checks to see if the bike racks are used once the building is finished, or whether occupants are really riding rail to work.

Moreover, it's possible to get LEED certification for a massive home or office complex out in the boon-docks, where users must drive miles to reach it, obliterating any energy savings from high-efficiency management systems, Mouzon said. Studies show that the single greenest thing developers can do is to build in dense, urban areas, where carbon emissions are dramatically lower, mainly because city dwellers drive less.

Some also question whether LEED actually delivers the promised savings and environmental benefits. Some studies suggest that one-quarter of certified

buildings use more energy than comparable non-LEED structures.

## LEED EVOLVES

The USGBC is responding. Mouzon helped the council develop new LEED standards that rate sustainable design for an entire neighborhood. Swire Properties' Brickell CitiCentre, a planned 9-acre, pedestrian-friendly and mixed-use development west of Brickell Avenue, will be among the first in the country to adhere to those new standards.

The USGBC also is developing a new version of LEED that will track the energy performance of certified buildings.

But some developers say LEED does encourage green construction in urban centers. Because urban projects get built-in points for the location, it's not a huge stretch to spring for the energy-management systems and low-flow plumbing needed to reach LEED certification.

Developers of the 396 Alhambra project in downtown Coral Gables are renovating a 1963 Modernist bank building and adding a Mediterranean tower. At first, they planned to have only the tower LEED certified, at the gold level. But they soon realized they could get the '60s building

certified as well, at the silver level, by installing new efficient plumbing systems, lighting and windows.

They found the cost of LEED-compliant features added no more than two percent to the project cost, said Brian Gitlin, a director of Agave Holdings, a joint-venture partner in the project. And because the developers will retain ownership, they also plan to closely monitor operations to ensure the promised cost saving are realized.

"The leases require tenants to do certain things to follow through," Gitlin said. "You can certainly get a building LEED certified, but unless you follow through, it's not going to mean anything."

That's not to say that winning certification is easy, especially when the goal is platinum — which 600 Brickell's Breistol said is "exponentially" harder to attain than gold.

About a third of credits applied for are rejected by USGBC's reviewers, Grafton said.

"Getting those points is a lot like chasing grades. It's a lot of extra work," he said. "But I don't think the market would have embraced this without LEED."



MARICE COHN BAND/MIAMI HERALD STAFF

**GREEN GIANT:** 600 Brickell, left, has applied to be South Florida's first to receive platinum LEED certification — the highest level of the green building seal of approval.



PHOTOS BY MARSHA HALPER/MIAMI HERALD STAFF

**ORANGE AND GREEN:** In a lab at University of Miami's new Life Science & Technology Park, Julie Medley, director of Urban Land Institute's Southeast Florida/Caribbean council, talks with Bruce Retsch of ULI, left, and Joe Reagan, right, project manager with Wexford Science + Technology, developer of the new pre-certified LEED Gold facility.





MARSHA HALPER/MIAMI HERALD STAFF

**EDUCATED ENVIRONMENT:** Joe Reagan, above, points out environmentally-smart elements of the mechanical room and climate control system at University of Miami's new Life Science & Technology Park. Below, Pine Jog Elementary in Palm Beach County, with its 150-acre campus, is Florida's first LEED gold school.



ZYSCOVICH ARCHITECTS



1450 BRICKELL

**FRESH AIR:** 1450 Brickell's sky terrace reflects how LEED buildings can improve urban landscapes.



SWIRE PROPERTIES/ARQUITECTONICA

**URBAN CORE:** The 9-acre Brickell CitiCentre project is planning open-air pedestrian bridges shielded by a translucent, cooling canopy snaking through three blocks of residential, hotel, office and retail buildings.