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# Going Green—the Difference Is in the Details

By Steve Lewis



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*This is the second article in a two-part series. In the first article, "The Green Train Has Left the Station," we examined the basics of sustainable design, including LEED certification. We heard SIORs discuss just how ingrained the Green trend has become. It is here to stay, they said, and in the long run, sustainability can actually save money. In this installment we'll take a closer look at several Green projects, to see exactly what makes them so different.*

As more and more tenants demand a Green working environment, developers are responding with building features that probably would have been deemed "pie-in-the-sky" not so long ago.

## CalSTRS Headquarters—Reaching for Gold



Sacramento-based, SIOR Associate member, Panattoni Development Company built a 450,000 square-foot, 17-story building for the California State Teachers Retirement System (CalSTRS). The building was driven from the start by Green considerations and sustainability, says **Michael Diepenbrock**, Regional Partner. "We based our architect and general contractor selection in part on their expertise," he notes, adding that CalSTRS is expected to attain Gold LEED certification. (Please see the first quarter 2008 edition of *Professional Report* for a discussion of LEED requirements and designations.)

The project's Green characteristics include:

- **Sustainable Site:** The building is located a half mile from public transportation and has bike storage and shower facilities to encourage employees to bike to work. Preferred parking will be given to low-emission vehicles.
- **Water Efficiency:** Native plants and high-efficiency irrigation systems will reduce landscape watering needs by at least 50 percent. Inside the building, low-flow fixtures will reduce water consumption by 30 percent.
- **Building Commissioning:** This is a systematic quality control process that ensures—via a third party—that the building systems are all working appropriately and meeting the design standards.
- **Green Energy:** CalSTRS has committed to buying at least 50 percent of the required energy for the building from alternative means of power generation (i.e., wind or water).
- **Materials:** A minimum of 10 percent of building materials will contain recycled content, and at least 20 percent of the materials have been sourced from within a 500 mile radius.
- **Controllability of Systems:** At least 50 percent of the workstations will have individual controls to allow the occupants to decide how much lighting and ventilation they receive.

## ProLogis Project Takes Awards



*Jack Rizzo*

ProLogis, the world's largest owner, manager, and developer of distribution facilities, has been recognized by leading organizations for a sustainable project in Chicago. Its build-to-suit for Anixter International has been recognized for advanced environmental design by the U.S. Green Building Council. ProLogis also received the top award in the category of "Sustainable Architecture, Environmental and Green Design" for the project from the Northeastern Illinois Chapter of the American Institute of Architects. Specific

environmental design techniques employed in the building include:

- Extensive use of recycled and locally sourced materials during construction;
- Skylights and clerestory windows that increase natural daylight to interior areas, reducing usage of electricity;
- HVAC ventilation system that combines reduced power consumption and improved air quality for warehouse personnel;
- Energy-efficient fluorescent lighting with an advanced energy-control system;
- High-efficiency roof insulation for greater resistance to thermal heat transfer;
- Low-maintenance landscaping, bio-swales, and water-efficient irrigation;
- Bicycle racks and on-site shower facilities, as well as an on-site carpooling program.

"ProLogis is committed to becoming the global leader in sustainable warehouse construction," says

**Jack Rizzo**, Managing Director of Global Construction at ProLogis.

ProLogis is also expanding its global headquarters in Denver, in a LEED-certified project that will be seeking Silver rating. It will include improvements in air quality, additional energy efficiency enhancements and more natural light. Additional building insulation and carbon dioxide monitoring in the ductwork will be a feature. A one-story common area will connect the new and current buildings on the first floor and will serve as an expanded dining area for employees. The roof of the connector will feature a “Green” landscaped area with ornamental grass and shrubs.

What follows is an in-depth look at several Green projects—not only from a philosophical standpoint, but from a product and design standpoint as well.

## American Laundry Building—Brownfield Site Goes Green



This LEED-certified project, which involved the renovation of the American Laundry Building in Norwood, Ohio, was a project of LandBank Properties, LLC, of Denver. “Tenants are looking for quality space that works for them

and that is environmentally friendly,” says **D. Andrew Forberg Jr.**, Director of Real Estate for LandBank. Some of the steps that led to LEED certification included:

- Grounds remediated of contaminants (This was also a Brownfield project).

- White roofing was installed to reduce the heat island effect;
- Low-E windows and increased insulation in the exterior walls and roof were installed to save energy.
- HVAC refrigeration equipment and fire suppression systems were installed, with low ozone depletion potential.
- An “underfloor” system was installed that provides clean, conditioned air to occupants by forcing heat and air contaminants toward the ceiling and back through roof-top filters, reducing transmission of communicable viruses.
- Water-saving features and native, drought-resistant plants were used to reduce water consumption.

In addition, the building has a “Green” house-keeping program which includes environmentally friendly chemicals and a staff trained in Green initiatives. LandBank says these design features have led to a 30 percent reduction in water consumption and a 20 percent increase in energy performance.

## Distribution Centers: Buildings with an “Attitude”



DP Partners not only builds “Green,” but the construction of their buildings is based on its overriding Green philosophy that guides all aspects of development, notes **Marc Markwell**, Partner-Reno in Nevada.

“We call it our ‘4 Green’ initiative,” he explains. “It has four key goals: Design Green, Build Green, Work Green, and Save Green.” That entails using environmentally friendly materials and energy-efficient systems; reducing construction waste by promoting recycling during construction and using Green design criteria; creating worker-friendly environments that increase

employee productivity; and reducing operational costs through “judicious” selection of building materials and systems.

“We see this not so much as a ‘feel good’ approach as one that has real benefits for our clients,” says Markwell.

Two projects currently underway by DP Partners illustrate exactly how the “4 Green” initiative plays out. The first is a 496,260-square-foot, rail-served distribution center in the 325-acre LogistiCenter at Sauk Village industrial park in Illinois. This is the first facility in the Chicago area to be developed within the “4 Green” guidelines. Slated for completion in the second quarter of 2008, the building includes:

- **Native Landscaping:** Detention ponds and surrounding areas are being landscaped with native plants designed to aid in treating storm water run-off, to reduce potable water usage for irrigation purposes, and to preserve the surrounding property’s natural appearance.
- **Lighting:** State-of-the-art T5 fluorescent lighting system, pre-wired for motion sensors, was selected to reduce the building’s electrical requirements by turning on lights only when needed.
- **Natural Light:** Use of clerestory windows will increase natural light in the building. DP will also paint the warehouse walls white to increase light reflectivity and boost the efficiency of the lighting system.
- **Recycling:** DP mandates the recycling of debris generated during construction. Whenever possible, it specifies recycled or environmentally friendly materials to be used in finished space.

DP Partners is also developing more than one million square feet of distribution space in its 72-acre Logisti-Port at Savannah project. The Georgia facility is just four miles from the port of Savannah. There are two cross-docked distribution

centers under construction: One is 689,400 square feet and the other is 347,280 square feet.

Specific Green applications at the distribution center include:

- **Preservation of trees:** Oak trees that are between 90 and 130 years old have been preserved through careful site preparation.
- **Open space:** The site plan allows for approximately 18 acres of open space, with a moat and a landscaped buffer between buildings and adjoining properties.
- **Parking:** Parking spaces for alternative-fueled cars are provided, in addition to two bike racks.
- **Exterior lighting:** Light pollution guards focus the illumination from light poles directly onto the site.
- **Canal treatment:** A landscaped buffer and a tree line between the historic Savannah-Ogeechee Canal and the new buildings will be added to shield the facilities from the view of hikers and walkers on the towpath.

## Green Roof Design

OPUS built a structure for the United States General Services Administration in Birmingham, Alabama, that includes a 1.2 million-square-foot parking deck with a “Green” roof featuring a full-blown garden that uses a sophisticated water collection system. Opus is currently seeking gold LEED certification for the building.

With Opus’ pipeline of 20 million square feet of sustainable development underway or in the planning stage, the company strives to incorporate

sensible sustainable design practices into all projects. In Seattle alone, Opus is developing projects in accordance to the city's new downtown zoning regulations. "Clients, as well as city officials



are requiring sustainable development and we are proud to offer low-cost or no-cost solutions to comply with government regulations while also considering clients' budget guidelines and business ideologies," said **Mark Ruhl**,

Vice President of Real Estate for Opus-Seattle. One project, 7th & Madison, will seek LEED Gold certification when complete in early 2009.

Because of the requirements for LEED certification, these projects have much in common and can incorporate such items as native vegetation, natural light, accommodations for bikes and energy-efficient vehicles, individual climate and light controls for optimal employee comfort, etc.

The design-build process requires collaboration with clients—corporate and/or city officials—from project inception through completion. This approach offers efficiencies for all projects, especially as cities across the country are implementing building requirements for adherence to development practices that minimize natural resources and environmental impact during the construction of and long-term maintenance of buildings.

Whatever the locale, clients and their employees are clearly drivers for the selection of sustainable products. OPUS reports that as it was preparing to build a facility for United Healthcare. The insurance firm surveyed its employees about their preferences—and the number one request was that the facility be Green.

These projects do more than just satisfy owners, tenants, and employees: they are actually having a positive impact on productivity. OPUS reports that in an EPA regional headquarters facility in Denver, which opened about a year ago, they have already seen a positive return on investment due to reduced absenteeism. The HVAC system, they say, has helped reduce allergy-related sick days.

This should be good news for SIORs and developers, as the pressure to provide a sustainable working environment is likely to continue to grow. "Some clients are coming right to the table and saying, 'I want my facility to be LEED Gold and Platinum,'" says **John R.**



**Patelski**, Executive Vice President with A. Epstein and Sons International, a Chicago-based SIOR Associate member firm of architects, engineers, interior design managers, and construction managers for institutional, commercial, and office facilities. In fact, he adds, "Some tenants do not even consider leasing space in a facility that is not LEED accredited."

## SIORs

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