

# siteelines

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## Green is Golden

*Matt Mullins*

Sustainable design and green development have gained momentum into the mainstream building and development industries. What started out as a grassroots movement not so long ago has made its way into the development community. Interest in sustainable design has been boosted by the recent increases in rising gasoline and energy prices. As a result, what was once considered "alternative," has now become the buzz word in the development community today.

In 2005 alone, the number of green home builders in the U.S. increased by 20% and according to a survey by the National Association of Homebuilders, one-half of its members will include green building practices in their home building projects by the end of 2007. Consequently, green building is no longer a fad and is becoming the norm among many builders and developers.



*Minneapolis Public Library with Green Roof*

### Leadership in Energy and Environmental Design (LEED)

Green design "officially" commenced through the Leadership in Energy and Environmental Design (LEED) program, which sets national standards for sustainable buildings and performance standards. The system was put into place in 1998 and has grown substantially with minimal public funding. The LEED approach to sustainability is based on the following five areas: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality. To earn LEED certification, buildings must meet certain prerequisites and performance benchmarks to earn "credits" for each category. Buildings are then awarded Certified, Silver, Gold, or Platinum certification based on the number of credits the building project achieves. LEED provided benchmarks for measuring nearly every type of building and a buildings lifecycle. LEED programs range from new commercial construction and renovations, to single-family homes, to entire neighborhood developments.

Governmental entities have taken an active role in meeting LEED criteria. The U.S. General Services Administration now mandates all new federal buildings meet criteria for LEED certification. Furthermore, a number of states are working on passing legislation requiring state buildings to meet minimum LEED certification levels. On a local level, cities such as Portland, Oregon and Austin, Texas have enacted green building mandates for municipal or city owned properties. Vancouver, British Columbia is even requiring some private developments to adhere to green requirements and the City of Minneapolis recently approved a resolution that requires all city-financed buildings to obtain LEED certification levels.

### Cost Benefits

Although the perception of green buildings among most people is they need expensive and new technologies, developing a green building is simply using fewer resources while providing a healthier environment. The benchmark that architects and developers use today when attempting to meet basic LEED certification raises the overall building costs by about 3% to 5%. According to the US Green Building Council (USGBC), there is a 2% up-front investment, which results in a 20% life-cycle savings on average. The benefits of going green show up in the building's life cycle, with cost savings in lower energy costs (up to one-third savings), waste disposal, water, and operation and maintenance expenses.

Studies have shown that LEED certified buildings also contribute to happier and more productive workers. According to one study, a 15% increase in worker productivity was found. Companies find that workers are more comfortable in a sustainable design workplace. Not only is there a higher air-quality, worker absenteeism has been lower which results in increased bottom-lines in health care costs to companies. Workers are also happier and employee retention is higher. Going green is a branding opportunity and is especially important to some companies who want to attract and retain top talent. According to a recent study by Turner Construction, 84% of companies involved in sustainable building believe that green construction will yield higher property values. Furthermore, 75% of those companies believe their building will earn a higher return on investment than traditional buildings.

The following points illustrate other incentives for sustainable design projects:

- ♦ The Energy Policy Act of 2005 made federal tax credits available to businesses for energy efficiency measures;
- ♦ Tax abatements;
- ♦ Utility programs to offer incentives and grants;
- ♦ Permitting - development incentives that will accelerate the permitting process with local municipalities;
- ♦ Insurance industry is considering better premiums for businesses located in green buildings;
- ♦ Cost savings for water, energy, and maintenance, as well as faster product sales and increased asset value.

### What is Sustainable Design?

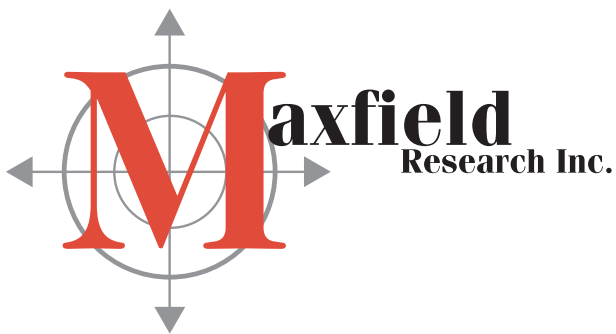
Sustainable design/green design/high-performance/healthy. All of the previous terms are used interchangeably and essentially are tools to minimize environmental impacts from traditional building construction. A sustainable building is a structure that is built, designed, renovated, operated or re-used in an efficient manner. Simply stated, the building is striving to maximize operational energy savings while minimizing any environmental impacts and providing an overall healthy interior atmosphere. Sustainable projects can be achieved in all real estate uses; from a single residential home to a master-planned green community.

### Twin Cities Examples of Sustainable Design

A number of sustainable projects have been, or are planned to be developed throughout the Twin Cities Metro Area.

Reflections at Bloomington Central Station  
Reflections at Bloomington Central Station is the first multi-family residential project in Minnesota, as well as the nation, to seek LEED certification. The Reflections Condominiums is the first component of the master planned Bloomington Central Station transit-oriented development. The two 16-story condominium towers include 267 units with purchase prices ranging from about

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\$180,000 for a one-bedroom unit to over \$700,000 for a penthouse unit. The two condominium towers are distinguishable from their all reflective glass exterior. The buildings meet sustainable requirements in a number of areas, including: proximity to transit, recycled content, daylighting, sound control, among others. McGough Construction is in the process of refining plans for Phase II of the Reflections at Bloomington Central Station. Phase II will begin with the development of 150 condominium and townhome units, in addition to a 350-room hotel and central park.



Reflections at Bloomington Central Station

#### Minneapolis Central Library

The new Minneapolis Public Library, which opened in Spring 2006, was constructed with an 18,500 square-foot green roof. The green roof landscaping includes a variety of plant species which reflect Minnesota's changing seasons and the Mississippi River's influence on Minneapolis' street grids. The grid concept reflects the impact of the green roof as it mitigates the effect of storm water runoff on the Mississippi River. The green roof conserves energy by reducing the library's heating and cooling costs, improves air-quality, reduces the "heat island" effect, and increases the longevity of the roof system.

#### Portico Condominiums

The Portico is a 30-unit condominium building to be constructed on the corner of Irving and Lagoon Avenues in the Uptown area of Minneapolis. The building will feature units ranging from 700 to 3,500 square feet with pricing starting at approximately \$250,000. The building will be LEED certified and will feature two rooftop terraces that will have planters to reduce storm-water run-off. The building will also feature individual high-efficiency heating and air-conditioning units, efficient plumbing fixtures and appliances, low-emitting paints, recycled materials, and

day-lighting throughout. The project is slated for occupancy in the Fall of 2007.

### Final Thoughts

Although green design has gained strong momentum in the past few years, it is estimated only 5% of all commercial construction today adheres to sustainability practices. Most of the sustainable design in the United States is being developed on a piece-meal basis, which in essence defeats the holistic approach of sustainable practices. However, as green development becomes a more common practice, whole developments can be created utilizing these practices which will contribute to the overall health of the community. As the green movement expands into the mainstream it could very well surpass standard construction methods in the next decade.

For additional information regarding green design and sustainable development, please see these sources:

[www.usgbc.org](http://www.usgbc.org)  
[www.bloomingtoncentralstation.com](http://www.bloomingtoncentralstation.com)  
[www.mpls.lib.mn.us](http://www.mpls.lib.mn.us)  
[www.portico-uptown.com](http://www.portico-uptown.com)  
[www.nahb.org](http://www.nahb.org)



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*Matt is a graduate of St. Cloud State University with a degree in Urban Studies and is a licensed Real Estate Broker in the State of Minnesota. Matt has also completed the Mini-Masters of Real Estate Development from the University of St. Thomas. Matt is a member of the Urban Land Institute (ULI), Sensible Land Use Coalition (SLUC), National Association of Realtors (NAR), Minnesota Association of Realtors (MAR), and the Minneapolis Association of Realtors (MAAR).*



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