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USGBC's LEED Platinum Headquarters – Washington, D.C.

I've always been a strong believer in immersing oneself into real life examples. You can always learn a lot more through personal experiences and a little bit of travel. Therefore, I decided to base this research paper after a tour I took on October 20, 2007 to the USGBC Headquarters sponsored, in part, by the Delaware Valley Green Building Council.

The United States Green Building Council (USGBC)'s Washington, D.C. headquarters is a Leadership in Energy and Environmental Design (LEED) for Commercial Interiors Platinum office suite located in a LEED for New Construction Gold building. The space is designed to be full of natural lighting, low VOC and toxin-free materials, high air quality, and aims to demonstrate how environmentally friendly “green” products and energy efficient systems can transform an ordinary office space into an exemplary role model. Green



USGBC Headquarters

features include energy efficient windows and lighting fixtures, low-flow plumbing fixtures, access to a green roof, and use of many salvaged, reused and recycled materials.

Background

Formed in 1993, The USGBC is a non-profit organization composed of leaders from the building industry, corporations, government agencies, and universities working to promote buildings that are environmentally responsible, profitable, and healthy places to live and work. More than 11,000 member organizations and a network of 75 regional chapters work to advance the mission of transforming the building industry to sustainability.¹ In 1998, USGBC developed the LEED rating system, the nationally accepted benchmark for the design, construction, and operation of high performance green buildings. The system underwent extensive modifications and revisions, and was officially

released in March 2000². The LEED rating system gives building owners and operators adequate tools to take a whole-building approach to sustainability by recognizing performance in five key areas of environmental and human health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality. Based upon performance, four progressive levels of LEED certification are handed out: Certified, Silver, Gold, and Platinum. Each level is awarded based on the number of “credits” or points achieved in each category.³



Library full of LEED project binders

USGBC developed the LEED system and constantly refines it via an openly discussed, consensus-based process. Project areas that can register for LEED include new commercial construction and major renovation projects, existing building operations and maintenance, commercial interiors projects, homes, LEED for schools, and

LEED for retail. Some programs are still under development in a pilot phase, such as LEED for homes.

The LEED rating system for commercial interiors (LEED-CI) is designed to allow tenants and designers the ability to make sustainable choices for green improvement. This particular standard is applicable to new or existing spaces for offices, retail, restaurant, healthcare, hotel/resort, and educational building applications. LEED for Commercial Interiors projects must be registered using the LEED certification process and must incorporate sustainability factors mentioned previously, plus an area dedicated towards innovation in design.⁴ Successful LEED certification projects are rewarded through recognition by the community and industry, official third party validation, and qualification for federal, state, and local subsidies. Bragging rights is also a factor.

In the case of the USGBC headquarters, the reward here is a classic one for those who often “talk the talk” must show that they can also “walk the walk”. As the developers of the LEED rating system, the USGBC set out to lead by example by completing its own green workspace all within a 30-day construction process from demolition to occupancy.⁵ It was crucial for the organization to do the right thing in terms of their employees and the environment but also to provide members and visitors a physical example of a green

building in action⁶. It doesn't hurt to be in Washington, either, where opportunities almost certainly arise to influence curious nearby politicians. But still, the end goal was to transform the office so that it could achieve the highest rating of LEED certification, platinum.



Mural art at USGBC

Sustainable Site

In terms of site selection, the 22,000 square foot office space includes sweeping views of DuPont Circle and some of Washington D.C.'s landmarks (e.g. *the Washington Monument could be seen off in the distance from atop the building's green roof*). The headquarters is conveniently located near a Washington Metro station and it is reported that over 95% of USGBC employees either walk, bike, or take the train, bus, or metro to work⁷. A mural inside the office suite depicts its own location and

why it adds to the sustainability as part of the green city.

The USGBC office is located inside an existing LEED Gold rated building, the Service Employees International Union (SEIU). Although the entire building does not quite reach the level of LEED as the USGBC suite, it certainly shares some of the same amenities (i.e. *the building's green roof, the lobby area, the building façade*). This can certainly make things a bit confusing when visiting: for instance, during a recent tour of the USGBC office I stopped by the first floor restroom and couldn't help but notice the toilets were not dual-flush, the urinals were not waterless, and the water faucets were not triggered by hand-activated motion sensors. This struck me as puzzling. As the "founding father" of the green building movement, I would have assumed that the USGBC office would share the same amenities as the SEIU. I think a more thorough evaluation, perhaps some modification, of the LEED for Commercial Interiors is in need.

Water Efficiency

Having noted the not-so sustainable water efficiency features of the building's first floor restroom area, the USGBC office suite is said to have all the efficient water designs it touts. Low-flow plumbing fixtures, dual-flush toilets, waterless urinals, and Energy Star appliances are all said to be present in the USGBC suite and contribute to overall reduction

in water usage. The toilets and urinals are said to be 40 percent more efficient than conventional features.⁸ The most impressive feature, the green roof, helps contribute to the reduction of stormwater runoff. Still, for all the hard work and innovation in the construction process, when leaving the building I could not help but notice a maintenance worker powerwashing the sidewalk directly out front of the building. You give a little, you take a little.



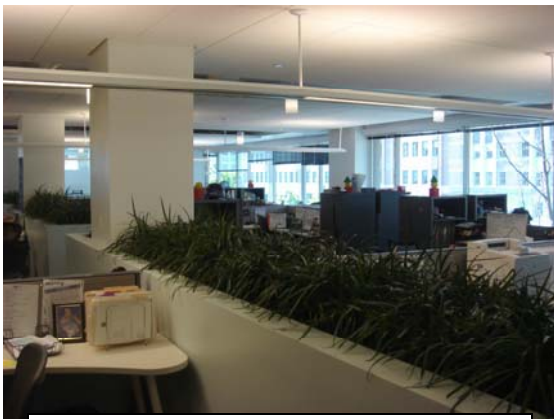
Green roof shared by SEIU and USGBC

Energy & Atmosphere

Large panoramic windows allow natural light to enter the office which provides employees with increased levels of worker productivity. It is reported that there was an immediate positive reaction to the daylighting and open floor plan.⁸ Many of the rooms are cross functioned. The eating area, or “café”, serves as a kitchen, library, workspace and recycling center. Reading material can be found throughout this area, with many eclectic green building magazines easily accessible. Most electrical equipment and appliances display the Energy Star logo, although some copiers and printers were in question during the tour.

Materials & Resources

Recycled materials constitute the majority of the building materials in the office. Cork floors, countertops, and workstations all had some type of connection to something previously discarded or salvaged. Most of the standard office equipment was brought over



Plant dividers and natural daylighting

from the old USGBC office. Large wood beams help to create a room divider and provide a bit of ambiance. Even ceiling material and ductwork was reused to bypass having to purchase new objects. Recycling is encouraged through a blatant display in the kitchen area.

Indoor Environmental Quality

All paints, sealants, and adhesives used contain little or no volatile organic compounds (VOCs). Carpet tiling and the cork flooring were selected from components designated with a CRI Green Label.⁸ This helps guarantee a safer workplace for all employees.

Innovation in Design

Much of the office area is wide open and expanse. Instead of having drywall or cubicles to divide up office space, the use of red, yellow, and green colored props are



utilized to signal how busy an employee is. Large rectangular planters are used to help create a natural atmosphere. The layout is designed to keep the space as a learning environment. Each appliance and piece of furniture is labeled with why it is sustainable and how it benefits the environment. Framed pictures of other LEED-certified buildings adorn the walls and hallways.

Impressions

Beneficial qualities After touring the USGBC headquarters, I couldn't help but feel there was just something missing. I understood that the USGBC had accomplished just what they set out to do- to build an office space that would achieve the highest level of LEED certification possible so that it could set an example. It was just that I was expecting to get completely blown away by the design and environmental fortitude. But I did not see any evidence of photovoltaics or a solar thermal system. I kept questioning why the exit signs did not appear to be LEDs. I later asked a couple of green architects what they had thought of the headquarters. Apparently, I was not the only one that was not impressed. The “wow” factor was just not there.

I do know that the building definitely had a lot of strong points to either continue to build on or that could be taken away. To reiterate, the green roof was probably the building's most impressive feature. There was good use of recycled materials. Everything was labeled so you knew exactly what you were looking at. And the site location was envious as almost all USGBC employees use a transportation method other than a car.

Perhaps my visit to the USGBC really enforced something that I have known all along. ***It's really not that hard to be green.*** One can create sustainability through common sense and with just a little more careful planning and design.

Sources:

¹ <http://www.usgbc.org/DisplayPage.aspx?CategoryID=1>. U.S. Green Building Council. Accessed October 22, 2007.

² U.S. Green Building Council. (2006) *LEED for Commercial Interiors Reference Guide*. Third Edition. Washington, D.C.

³ Holowka, Taryn. (July 2007) *USGBC: LEED – Immediate Savings and Measurable Results*. The LEED Guide: Environmental Design and Construction. pp.8-14.

⁴ U.S. Green Building Council. (December 2005) *LEED for Commercial Interiors, Version 2.0*. Accessed at <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=145>.

⁵ <https://www.usgbc.org/ShowFile.aspx?DocumentID=745>. U.S. Green Building Council. Accessed October 23, 2007.

⁶ Katz, Ashley. (2007, June 4). *New Headquarters Helps USGBC Advance Green Building*. Environmental Design and Construction.

⁷ Personal tour of the U.S. Green Building Council headquarters in Washington, D.C. on October 20, 2007.

⁸ Kieran, Christopher. (2007, February 12) *USGBC's New D.C. Headquarters Goes Platinum*. Greensource. Accessed at <http://greensource.construction.com/news/070212USGBC.asp#>.

**All pictures were taken from a personal tour of the U.S. Green Building Council Headquarters on October 20, 2007.*