



**DHB PROFESSIONAL OFFICE BUILDING
(BLUEGRASS EYE CENTER)
CRESTWOOD, KENTUCKY**

75% construction waste diverted from landfills

40% recycled content (as % of contract value)

75% regionally sourced materials

LEED® Facts

**DHB Professional Office Building
Crestwood, Kentucky**

LEED for Core & Shell
Certification awarded April 2010

Silver 30 points*

Sustainable Sites	5/15
Water Efficiency	4/5
Energy & Atmosphere	4/14
Materials & Resources	7/11
Indoor Environmental Quality	5/11
Innovation & Design	5/5

**Out of a possible 61 points*

The information provided is based on that stated in the LEED® project certification submittals. USGBC and Chapters do not warrant or represent the accuracy of this information. Each building's actual performance is based on its unique design, construction, operation, and maintenance. Energy efficiency and sustainable results will vary.



DHB PROFESSIONAL OFFICE BUILDING (BLUEGRASS EYE CENTER)

Focusing on an Integrated Approach

Long Term Environmental Planning as Part of a Sound Business Plan

PROJECT BACKGROUND

When the owners of DHB Properties and Bluegrass Eye Center (BEC) decided to relocate to Crestwood, Kentucky the decision was made to explore design and construction strategies that would minimize the environmental footprint of the new facility. The new building would provide medical, office and retail space for BEC in an 8,000 square foot portion of the building. The remainder of the space would provide both an immediate income through appropriate tenant leasing and the potential for Bluegrass Eye Center to expand their practice as needed without outgrowing a newly designed facility quickly. This long term planning was explored as both a sound business plan and an environmental strategy. In exploratory discussions with the architects, engineers and others it was determined that the project should pursue a minimum silver rating through the US Green Building Council's LEED for Core and Shell. At the time of the initial planning this was the only LEED CS project known to exist in the Louisville region.

STRATEGIES AND RESULTS

During initial design discussions the owners communicated a clear understanding of environmental design. They were interested in construction that would result in a minimal energy footprint, native landscaping with low water demand and high wildlife benefit, natural lighting, good indoor air quality, green interior design, reduced water consumption, and other high profile elements of environmental design. Through an integrated design approach that pulled together the various members of the design team early in the project, a number of design options were explored for feasibility, cost/benefit, appropriateness to the goals of the project, and environmental soundness.

A geothermal field was determined to be an appropriate energy reduction strategy for the project. Solar photovoltaic panels were explored along with solar hot water heating options. The building envelope was designed to provide a building that connected the occupants to the outside while still maintaining an efficient thermal package. Site attributes including existing trees and drainage patterns were considered throughout the process. Through multiple design discussions the project maintained a focus on the most environmentally sound set of strategies that the available resources would allow.

Design discussions resulted in a 19,500 square foot two story office building with 7,200 square feet initially devoted to Bluegrass Eye Care. The primary environmental design features of the building include (but are not limited to):

- Anticipatory design that accounts for present and future needs
- Energy efficiency assisted by geothermal, solar hot water, lighting decisions and a well designed building envelope
- Efficient HVAC and electrical system design backed up by commissioning
- Water reduction strategies built upon fixture selection
- Native landscaping design that provides beauty and water efficiency
- Cool roof design using highly reflective TPO roofing membrane
- Commissioning by knowledgeable engineering partners with LEED experience
- Reduction or elimination of harmful refrigerants
- Minimization, collection and diversion of waste
- Requiring regionally harvested and manufactured materials

"I love working here because the overall effect of the building is calming. I never feel rushed. The light-wells are a major impact. I think the building has a positive effect on everyone- staff and patients. Compliments everyday!"

Dr. Ann Hunington, Bluegrass Eye owner



Architect: H&H Design Build
Civil Engineer: BTM Engineers
Commissioning Agent: CMTA
Contractor: H&H Design Build
Landscape Architect: BTM Engineers
LEED Consultant: Generation 14
MEP Engineer: CMTA
Interior Design: Swope Design Group
Project Size: 19,500 sf
Total Project Cost: \$3.1 million
Cost Per Square Foot: \$158

Photographs Courtesy of: Rachel Worley

ABOUT KENTUCKY USGBC

Our goal is to improve the health and welfare of all Kentucky citizens through a sustainable and responsible built environment. Through education and awareness we encourage the use of sustainable practices that provide our residents with a healthy environment in which to live, work and learn.



KENTUCKY CHAPTER
Greening the Bluegrass

www.usgbkentucky.org
888-KY-USGBC