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OCTOBER 2008  
WWW.EDCMAG.COM

A bnp PUBLICATION

*commercial buildings and  
sustainable homes*

FALL REPORT: COOL ROOFING



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**ON THE COVER:** Dunham Associates' LEED-CI Silver office is generating positive feedback. See page 58 for the full story.



# SILVER OFFICE

THE STORY BEHIND DUNHAM'S NEW LEED-CI SPACE.

BY PEGGY BIRLER



*The new LEED-CI Silver office space for Dunham engineers features low-emitting paints, coatings and carpet systems.*

With the end of an existing lease approaching, Dunham (a mechanical and electrical engineering service provider) decided to look for a new office space in downtown Minneapolis to take advantage of mass transit options for employees and to be closer to more of the company's clients. Although the former office was located in the southwestern suburbs, Dunham employees live all around the metropolitan area.

Founded in 1960, Dunham delivers client-based mechanical and electrical engineering service. The company's core expertise is in mechanical and electrical consulting engineering, but also has teams which specialize in indoor air quality (including thermal displacement ventilation and computational fluid dynamics (CFD) modeling), sustainable design, LEED certification, energy modeling, telecommunications and commissioning.



*Windows and the interior building layout provide natural light and exterior views to virtually all workspace areas in the office.*

**DUNHAM OFFICE****SIZE:** 26,000 SQUARE FEET**LOCATION:** MINNEAPOLIS**CERTIFICATIONS/RATINGS:** LEED-CI SILVER,  
ENERGY STAR**GREEN PRODUCTS IN THE  
DUNHAM OFFICE****CORK FLOORING** – DURO DESIGN**WORKSTATION FURNITURE (HIGH RECYCLED  
CONTENT)** – HERMAN MILLER**LOW-EMITTING PAINT** – PRATT AND LAMBERT**LOW-EMITTING CARPET** – INTERFACE, MASLAND  
AND TANDUS**LOW-FLOW PLUMBING FIXTURES** – GROHE  
AND KOHLER**DISPLACEMENT VENTILATION DIFFUSERS** –  
HALTON**LED LIGHTING** – COLOR KINETICS AND IO  
LIGHTING**LIGHTING CONTROL SYSTEM** – LUTRON

“We wanted to use the same design principles in designing our own office space that we offer our clients: energy-efficient systems with high indoor environment quality,” said Jay Rohkohl, PE, LEED AP, executive vice president, electrical engineer-of-record. Dunham has 48 LEED Accredited Professionals on staff and is involved in more than 20 LEED projects to date.

**TRANSPORTATION**

Located on the 11th floor of 50 South Sixth Street on Nicollet Mall in downtown Minneapolis, Dunham's new 26,000-square-foot headquarters is surrounded by shops, restaurants and theaters. It is also only one block from the light rail system and on major bus routes allowing employees to access more environmentally-friendly modes of transportation. Dunham subsidizes the full monthly cost of the unlimited-ride transit pass, providing a financial benefit to employees while reducing the use of individual vehicles. The firm's efforts to promote its commuter program earned the company the “Rookie of the Year Award” at the 2007 Metro Transit Commuter Choice Awards.

“Our move downtown affected all employees,” said Katy Kolbeck, PE, LEED AP, president and CEO. “We wanted to provide an alternative to driving that would encourage environmental responsibility. Now that commuters at the firm are more familiar with their transit options, they use Metropass for trips beyond work, riding on evenings and weekends.”

**SHOWCASING DESIGN GOALS**

Dunham set the following goals for its new office space:

- Create a healthy and pleasing work environment.
- Centrally located for employees and clients.
- Select a building with an exemplary ENERGY STAR rating.

The result of these goals is a base building that has earned an ENERGY STAR rating of 97.

“Like any other project we do for our clients, our firm's leadership was actively involved in the detailed design of our office space, down to the smallest detail of the performance of the lighting system, balancing the HVAC system, and ultimately creating an environment that is comfortable for employees and welcoming for clients and guests,” said Kolbeck.

In addition, Dunham wanted to showcase innovative design features and materials. LEED provided an established, effective framework for achieving goals. The office achieved LEED for Commercial Interiors (CI) Silver certification by reducing energy, water and material use,

and incorporating a variety of other sustainable strategies.

Dunham addressed the category of Energy and Atmosphere through Lighting Controls, for example, resulting in a space that is 75 percent daylight. A combination of daylight/occupancy sensors controls the lighting for the private offices and conference rooms. Local switches control light levels, but after a period of inactivity, the sensors will override the lights, turning them off. Dimming fluorescent lighting with daylight sensors automatically reduces the artificial illumination of all open office areas during daytime hours to reduce energy consumption. The main office area lighting is controlled by a Lutron lighting control system via a time schedule.

Other areas to note include:

- Water efficiency (Dunham achieved a 41 percent reduction in water usage);
- Recycled content (22 percent);
- Regional materials (more than 70 percent of building materials were manufactured within 500 miles); and
- Construction waste management (more than 55 percent was diverted from landfill).

**SUSTAINABLE RESULTS**

During the corporate relocation process, a culture change in the firm was made from a suburban “drive to work” mindset to a downtown environment in a major metropolitan area with mass transit, proximity to clients, and the amenities and energy level of a central business district.

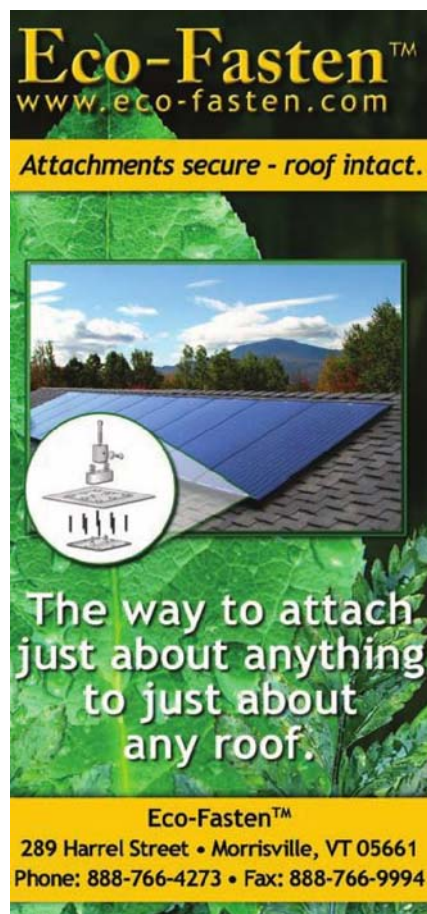
In December 2007, Dunham adopted the 2030 challenge. “We recognize ecological stewardship to be a fundamental responsibility of the engineering profession, and will work with our clients to promote the construction of buildings with reduced energy usage and reduced carbon footprint,” said Randy Olson, PE, LEED AP, senior associate, mechanical engineer-of-record.

In addition, Dunham purchases Green Energy Credits to offset 100 percent of energy usage with renewable sources.

Dunham Associates' LEED-CI Silver rating is generating new client inquiries and receiving positive feedback from employees, including 26 percent employee growth in two years. With the number of new employees hired since the move in November 2006, Dunham began a 6,000-square-foot expansion in 2008 (total office square footage is 32,000 now).

For more information, visit [www.dunhameng.com](http://www.dunhameng.com).

*Peggy Birler is the marketing manager for Dunham Associates, Inc.*



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