

BUILDING OPERATING MANAGEMENT – NOVEMBER 2004**RENOVATION PROVES HISTORY NO OBSTACLE TO GREEN**

Baltimore. During the first half of the 20th century, the Stewart's Department Store Building was a keystone in the historic retail district of Baltimore's West Side neighborhood. But after World War II, as the city's middle-class began its exodus toward the suburbs, the neighborhood fell into decline and many businesses closed. The building, constructed in 1899, had stood vacant for more than 20 years until a recent plan to rejuvenate the area included a \$24 million renovation of the Stewart's building as well. The result was a project that blended historical preservation with sustainable design, specifically a LEED certified rating.

The renovated structure includes 250,000 square feet of research, academic, technology and telecommunications space, with 30,000 square feet of ground-level retail space.

Even though renovation projects present different challenges than new construction to obtaining a LEED rating, one of the biggest challenges for the design team was completing the documentation and paper work for LEED certification, says Tom Liebel, project manager and senior associate at Design Collective.

"It's a fallacy to assume that obtaining a LEED rating for renovation projects is inherently more difficult," he says. The designers just focus more on materials, indoor air quality and site sustainability credits than on the energy and atmosphere ones, he says.

The building's urban environment provided an unusual opportunity to take advantage of existing infrastructure, most notably, the building's use of district chilled water to provide cooling. The district chilled water utility uses remote redundant central chiller plants to produce and store ice during off-peak hours. This will reduce peak-load demand and thus the cost of electricity required for the building's cooling.

The outside plate-and-frame heat exchangers provide a flexible system that eliminated the need for additional cooling towers and chillers. The flexibility of the system, which can deliver between 400 and 1,600 tons of cooling, allows tenants to change cooling requirements over time, reduces the footprint of the mechanical system as a whole and prolongs its life.

The building was commissioned as well, which Liebel sees as an opportunity to verify what has been designed and ensure that the owners get what they pay for. "Commissioning is not an added cost," he says. "It's an added value to the building."

Liebel says he believes the building's aesthetics were also enhanced by the design team's commitment to LEED. To match the regional architecture, and to help achieve the LEED point for local materials, a dense, black slate from Virginia and a sandstone from eastern Ohio were used in the building's lobby.

