

COMMERCIAL BUILDING PRODUCTS – 2004

PROJECT SHOWCASE: BALTIMORE'S REVITALIZED WEST SIDE TURNS GREEN

In an effort to restore the city's West Side retail and financial district, the area's renovation includes various green aspects.



All-but-forgotten department stores, financial institutions, and office buildings from the last turn of the century are once again alive and contributing to an attractive urban district on Baltimore's West Side. This time, these buildings are housing city residents, university staff, and students, along with new retailers and offices—and attention is being paid to making them green.

Design Collective, Baltimore, faced a multifaceted challenge—to define a strategy that would reverse decades of decline; satisfy a diverse group of stakeholders; and attract developers and investors with a realistic, market-driven, and mixed-use plan. The result is a plan that recommends adaptive reuse of more than 250 historic structures; 2,400 residential units; 700,000 sq. ft. of higher education and medial system facilities; 400,000 sq. ft. of office space; 250,000 sq. ft. of retail and entertainment space; an 850-room convention headquarters hotel; and important public transportation, open space, infrastructure, and streetscape improvements.

Baltimore's historic retail district is a 24-block area within the roughly 100-block West Side. Between 1920 and 1960, the area surrounding the intersection of Howard and Lexington Streets, along with the adjacent Lexington Market, was the hub of Baltimore's shopping district. The bustling West Side served all of Baltimore's neighborhoods through a vast public transit network of busses and trolleys. But in the post-World War II era, the middle class began its exodus to the suburbs, as they did in so many other industrial cities. With the loss of its primary use, and with functionally obsolete building stock, the West Side fell into general decline. Activity on the streets in the West Side virtually came to a halt, department stores and banks closed, buildings were abandoned, and criminal activity rose.

One of the retail spaces renovated for adaptive reuse is the former Stewart's Department Store, which sat vacant for 20 yr. It is gaining prominence, not just as another key project within the West Side renaissance, but also as a green building. The project, which was completed in September 2003, is both preservation awards and LEED-certified. The LEED (Leadership in Energy and Environmental Design) rating, given by the U.S. Green Building Council, Washington, recognizes achievements in sustainable design, indoor air quality, energy efficiency, water savings, use of recycled materials and Smart Growth. The \$24-million renovation, funded by The Harry and Jeannette Weinberg Foundation, Baltimore, blended historic preservation and sustainable design into the creation of 175,000 sq. ft. of Class A research, academic, technology, and telecommunication offices, supported by 30,000 sq. ft. of ground-level, neighborhood-oriented retail to support area residents, office workers, and visitors.

Conversion of the retail space into a thriving technology center was Design Collective's first LEED-certified project. Excellent access to pre-existing infrastructure and public transportation;

innovative mechanical, electrical, and plumbing systems; careful attention to indoor environmental quality; and the use of large quantities of recycled content and locally produced materials are all hallmarks of this project.

Working within the existing urban environment afforded the design team a number of unique opportunities. Typical of these is the building's use of the city's chilled water to provide cooling to the building, similar in concept to district steam heating that is frequently found in downtown business districts. Use of district chilled water proved to be a success in many ways. Comfort Link, the district chilled water utility, uses remote redundant central chiller plants to produce and store ice during off-peak hours, reducing the cost of the electricity used to produce the cooling and reducing the peak load on the electrical utility during the heat of the day. The building owner, The Harry and Jeannette Weinberg Foundation, reduced its up-front costs by purchasing a simple plate-and-frame heat exchanger in lieu of investing in all of the cooling towers and chillers required for a traditional standalone cooling system.

The design team achieved greater flexibility because the footprint required by the mechanical system was greatly reduced and rooftop mechanical equipment was eliminated. The installed system can deliver anywhere between 400 and 1,600 tons of cooling without changing out any significant pieces of the mechanical system. This affords tenants greater flexibility by accommodating changing cooling requirements over time, and should prolong the service life of the base building mechanical system, as the flexibility to meet a variety of cooling loads is designed into the system and there are very few moving parts to wear out.