



**Green School Building**  
Renovation/Addition/  
Restoration

**DLR GROUP**

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**ADAMS CRAFT HERZ  
WALKER, INC. (ACHW)**  
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**DESIGN TEAM**

DLR Group, Architecture,  
Design, Interior Design

DLR Group, Structural,  
Mechanical,  
Electrical Engineering

ACHW, Associate Architect,  
Civil Engineering

Heery International,  
Project Manager

Messer Construction, Contractor

**OWNER/CLIENT**

Oak Ridge Schools  
Oak Ridge, TN

Dr. Thomas Bailey,  
Superintendent  
865/425-9001

Type of School  
and Grades Served:  
High School, 9-12

Capacity: 1,700 students

Size of Site: 58.5 acres

Area of Building:  
346,400 square feet (180,000  
renovation/166,400 new)

Volume of Building:  
1.7 million cubic feet

Space per Student:  
204 square feet

Cost per Student: \$35,882

Square Foot Cost: \$176

Cost of Construction: \$50 million

Total Project Cost: \$61 million

Contract Date: Sept. 2004

Completion Date: Aug. 2008

Percent of Completion: 100%

**GREEN | HIGH SCHOOL**

**Oak Ridge High School**  
*Oak Ridge, Tennessee*

**DLR Group**



EXTERIOR—MAIN ENTRY AT NIGHT

The dramatic transformation of Oak Ridge High School has created a community icon that reinforces the research-centered area’s emphasis on culture and learning. The 1950s-era school needed significant improvements to continue providing students with educational opportunities commensurate with its tradition of excellence.

Overall goals, established through a series of interactive community charrettes, were to create an inspiring, state-of-the-art learning environment that supports the school’s educational vision; fosters strong community connections; increases the school’s visibility; and promotes sustainability with pursuit of LEED Silver certification.

Sustainability was a central component of the design. Rather than develop a green-field property, the school was modernized and nearly



INTERIOR—PERFORMING ARTS/AUDITORIUM



INTERIOR—SCIENCE ROOM



INTERIOR—MEDIA CENTER



INTERIOR—COMMONS

doubled in size on the existing 58.5-acre site. To accomplish this the multistory design stacks educational spaces to create a smaller building footprint.

The innovative lighting design uses classroom occupancy sensors and controls that allow selection from three light levels; nearly two-thirds of all corridor lighting automatically shuts off while classes are in session. More than 85 percent of the core learning spaces benefit from daylighting. The geothermal mechanical system reduces overall energy usage by approximately 26 percent.

To enhance the school's prominence in the community, the entrance was reoriented to face Oak Ridge Turnpike. It features a new arched entry plaza and a 50-foot glass atrium that welcomes visitors to the facility. Inside, a two-story grand stair leads to the new 185-seat amphitheater, which



INTERIOR—GRAND STAIR

PHOTOS: ALUSTAIR TUTION PHOTOGRAPHY

mimics a college lecture hall and is used for classes, staff meetings, and community presentations.

Students participate in one of five career academies, which are now the central organizing structure of the learning center. The programs were relocated from separate buildings on the campus into the existing two-story classroom wing. A new three-story classroom wing wraps around the academies

and is organized around a state-of-the-art media center with a large clerestory. The spatial layout supports the career academies and promotes interdisciplinary learning between math and science and English and social studies. For example, the medical technology and engineering academies are located adjacent to the science labs and math classrooms.

The community is home to Oak Ridge National Laboratory,

and Oak Ridge students regularly win state and national science competitions. The school's curriculum and design reflect the highest emphasis on science instruction. The new science instruction areas include modern laboratories and classrooms with 21st century equipment; review spaces to facilitate project-based group learning; and resource areas to promote student/teacher interaction. ■