

Designing a healthy addition to Winthrop campus

The Lois Rhame West Health, Physical Education and Wellness Center is a building that reflects Winthrop University's unique architectural style as well as its ongoing commitment to environmental stewardship.

This recently completed building includes a blend of spaces for the education of students in health, physical education, sports management and recreational careers in addition to providing general recreation and wellness spaces for the campus community.

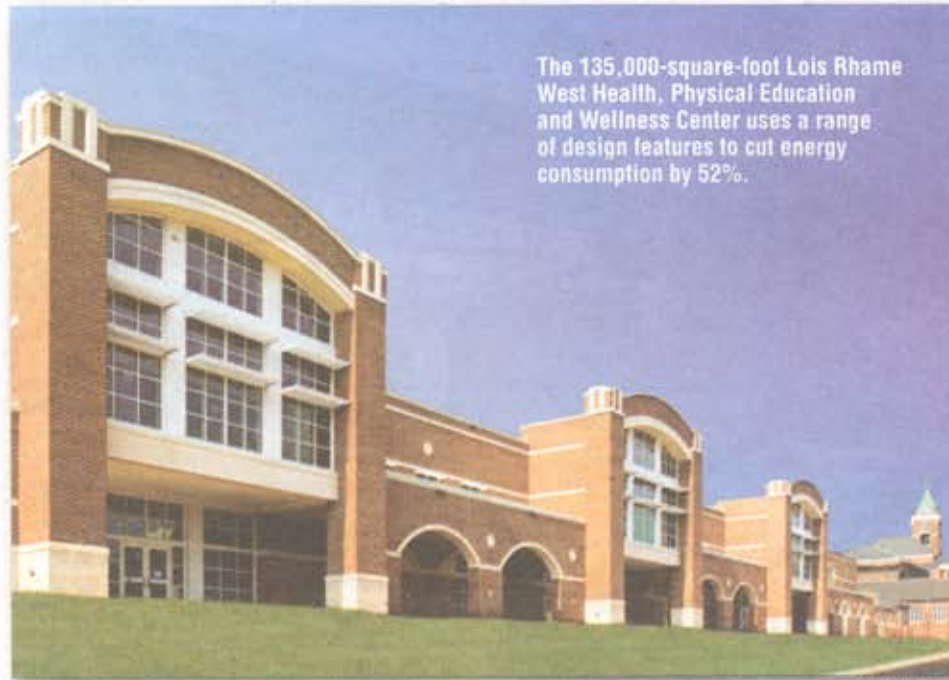
The facility is the largest academic building on Winthrop's campus at 135,000 square feet. The center replaces the 1915 Peabody Gymnasium, which will not be forgotten. Peabody's large arched windows inspired The Lois Rhame West Center's architectural style.

In addition, wood flooring was salvaged and reinstalled in the lobby of the new building as well as the second-floor conference room. The conference room floor retains some of the original game lines. Seating from the original gymnasium was also reinstalled in the lobby of the new building.

Winthrop University President Anthony DiGiorgio has long pursued energy efficiency for campus utilities. The West Center project, under the direction of Walter Hardin, associate vice president for facilities at Winthrop, is the first campus building specifically designed to achieve a LEED rating. When documentation is complete, the building is expected to achieve a Silver rating from U.S. Green Building Council.

The FWA Group established the goal of the Silver rating in conjunction with the university and the design engineers. The building is designed to use 52% less energy than a similar traditional building.

The basic orientation of the building on site, in addition to integration of daylighting and lighting controls, was a major factor in achieving this level of efficiency.



The 135,000-square-foot Lois Rhame West Health, Physical Education and Wellness Center uses a range of design features to cut energy consumption by 52%.

photo FWA GROUP

Early in the project, The FWA Group Architects worked closely with the UNC Charlotte Daylighting & Energy Technology Lab to model daylighting levels in the major spaces and to properly select glazing and shading devices for windows on each particular orientation of the building.

Reducing the use of artificial light during daylight hours greatly reduced the need for air conditioning, which in turn reduced the size of the mechanical equipment.

The natatorium has a cutting-edge filtration system that allows the university to save about 200,000 gallons of water per year. Hot-water demand for the pool is reduced by recirculating as much water as possible and reclaiming heat from the system.

Other water-saving features include the use of waterless urinals and low-flow fixtures that will achieve a further 35% reduction on municipal water demand.



The FWA Group Architects

Project: Lois Rhame West Health, Physical Education and Wellness Center at Winthrop University

Type of business: Architecture firm

Ownership: Private

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Program highlights:

- The integration of daylighting into the building helped reduce light density. Combination daylight and occupancy sensors in the offices help to further reduce the use of artificial light. A unique daylighting feature can be found in the classrooms, which are located in the interior of the building without exterior walls for windows. They are lit by rooftop dormers. The result is a uniformly daylight space.
- Octagonal roof structures with clerestory windows bring daylight into the lobby and weight room.
- The classroom corridor opens to the weight room below, introducing daylight into the corridor and allowing views of students participating in activities in the gymnasium and on the second-level running track.
- A skylight above the 40-foot tall climbing wall in the lobby adds to a dramatic focal point.