



University Solves Aging Infrastructure Dilemma While Reducing Carbon Footprint

The University of North Carolina Wilmington is made up of the College of Arts and Sciences, the Cameron School of Business, the School of Nursing, the Watson School of Education and the Graduate School.

Challenge

UNCW is reducing energy consumption, increasing efficiencies and leveraging underutilized central plant assets as part of its conservation commitment and cost reduction efforts. However, aging equipment, obsolete building systems and limited budgets were negatively impacting these efforts, leading to increased use and costs, and negatively impacting comfort.

Solution

To address the aging infrastructure and simultaneously reduce energy consumption, UNCW decided to use performance contracting. This makes UNCW the first campus in the UNC system to include daylighting in a performance contract. The entire project was self-funded and included replacements and upgrades of equipment and systems. Specific enhancements included:

- Digital Dial Controls upgrades
- Central plant utilization and optimization

- New air handlers and VAV boxes
- Daylighting retrofit of Randall Library's second floor
- Lighting retrofits
- Variable frequency drives
- Service and training

Results

Brady provided annual guaranteed savings of \$333,566 as part of the energy conservation measures, which were achieved in energy, operations and water reductions. In addition, the learning and living environments have been enhanced through improved comfort and indoor air quality, along with brighter classrooms and hallways and daylighting on Randall Library's second floor.

“Saved CO2 emissions equivalent to 562,484 gallons of gasoline consumed”

