Information Commons Reduces Energy Consumption

Loyola University's library in Chicago is setting new standards for environmental friendliness

By Ted Strand
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Conventional wisdom would tell you building an all-glass library on the shore of Chicago’s Lake Michigan is probably not a good idea if your plans call for a high-performance building that is supposed to reduce energy usage. But that is exactly what Loyola University Chicago did with its four-story Richard J. Klarchek Information Commons, an all-digital research library that now is attracting worldwide attention and accolades for its energy-savings realization.

Loyola’s Information Commons is noted as an ambitiously green building. Winner of the 2010 First Place ASHRAE Society Level Technology Award and the 2007 LEAF Award for Best Use of Technology, this four-story, 67,000-square-foot structure integrates architectural and engineering systems to maximize thermal comfort and indoor air quality while reducing energy consumption. The building was designed to create a highly conducive environment for study and research, while ushering in a new era of campus architecture focused on resource conservation.

According to a recent case study published in High Performing Buildings, the Information Commons’ energy consumption is 46% better than American Society of Heating, Refrigerating, and Air-Conditioning Engineers standards.

“We built an all-glass digital library in Chicago on the lake and incorporated cutting-edge energy conservation technology, while not sacrificing design,” says Devon Patterson, AIA, LEED AP principal and lead architect on the project from Solomon Cordwell Buenz (SCB). “People from all over the world are coming to see how we integrated the technology into the building and the resulting energy savings we are experiencing.”

In addition to the high-performance qualities of the Information Commons, the building has become a popular destination for the university’s students. “The Information Commons is much more than a combination of advanced mechanical systems that have been combined to create a high-performance building,” says John Lahey, president of SCB. “We designed the library to be a functional building, providing students with a place where they can interact and meet with fellow students in addition to studying, while incorporating the building seamlessly into the campus and taking full advantage of the great Lake Michigan views.”

As a LEED Silver–certified building, the Information Commons is completely automated with sensor systems that monitor the temperature, humidity, and CO2 levels within the building, while additional sensors monitor the exterior conditions. The windows, shades, and blinds all respond to the climate data and adjust automatically. The building shows forethought and innovation by the design team, the university, and specialized engineering consultants Transsolar, Halvorson and Partners and Elara Engineering; it is a flexible 24/7 library facility that will serve the students and faculty with a high-quality, energy-efficient space for many years to come.