

Southworth School Apartments



Date completed: 1896
Most recent major renovation: 2004, by Black River Design, Montpelier, VT
Renovation cost: \$5,500,000
Function: Old school house converted into Williams faculty apartments
Fuel oil (#2) use in 2006: 6,557 gallons
Square footage: 33,106 ft.²
Fuel oil use per square foot: 0.198 gal/ft.²

Southworth School History and Design

Built in 1896, the Southworth School has served as both high school and most recently, a grammar school for Williamstown. A lovely turn of the century building with elegant brickwork, slate roof, and quarry-faced stone foundation, the fate of the old schoolhouse was uncertain with the construction of the new Williamstown Elementary School. Eventually Williams College decided to purchase it and use it as faculty apartments, thus recycling the building and saving it from demolition.

In the 2004 renovation, the College and Black River Design turned a drafty old schoolhouse into wonderful faculty apartments that are sunny, spacious, and energy efficient, making them both highly desirable to young faculty tenants and to the College in terms of their low energy consumption. In the redesign, they even kept the original slate blackboards and turned them into kitchen counter backsplashes and used the original wood flooring.

Southworth School Energy Use

The renovation made the building energy efficient through the use of compact fluorescent lighting, low flow faucets, Energy Star appliances, and a tight building envelope, as they sealed and insulated the building with beautiful and huge (but still highly efficient), low-E insulated windows and liquid foam (urethane) insulation in all exterior walls. As a result, the building passed the Energy Star blower test that measures a building's leakiness with flying colors.

Southworth uses high efficiency Buderus oil-fired boilers to produce hot water for the building's heating and domestic hot water. These boilers also save energy by automatically adjusting the temperature of their water output according to the outside temperature. The basement level apartments feature an efficient radiant flooring heating system to make these apartments comfortable. Day lighting is maximized with large windows and "light shelves" mounted on the windows that bounce sunlight up to the ceiling. The building also has an elevator and several of the 15 apartments are handicap accessible.

The Center for Ecological Technology certified it as an energy star building, and the apartments received a Home Energy Rating System (HERS) score of 89.7. A score of 80 represents meeting 1993 code, and every point increase represents a 5% increase in efficiency over that code. A score of 86 is necessary for Energy Star certification (30% more efficient than 1993 code), and the Southworth building is thus 11.1% more efficient than required to be an Energy Star building, a fantastic success for the College – and for the faculty tenants that get to live in the Southworth building with its high ceilings and sunny atmosphere.

Sources:

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