



Cutting Utility Costs

The Residences at Wood Street, Pittsburgh, Pa.

The investment of a mere \$1.25 million in energy and water retrofit improvements at a 91-year-old, 16-story mixed-use building in downtown Pittsburgh, Pa. is already generating substantial savings from reduced utility costs, while providing more comfortable living conditions for the residents.

ACTION-Housing, Inc., a Pittsburgh-based regional nonprofit affordable housing developer, property manager, and social service provider, directed the retrofit project at the former Wood Street Commons, which was originally constructed in 1923 as a YMCA. The YMCA had sold the property many years earlier, but the building had continued to provide single-room occupancy housing for formerly homeless and near homeless individuals of very low-income up until it was acquired in 2009.

The 110,000-square-foot building has 258 SRO units on floors 7-16 and commercial space on floors 1-6. Steam from a downtown municipal steam system has provided heat for the building as well as domestic hot water.

Mission-Driven Acquisition

In 2009, ACTION-Housing, together with some local partners, created a new nonprofit corporation that acquired the building with the intent to renovate it and preserve the SRO units for homeless and near homeless persons. "The goal was to preserve this housing for this at-risk population," says Christov Churchward of ACTION-Housing,



*The Residences at Wood Street
Pittsburgh, Pennsylvania*

who described the retrofit project in a presentation April 3, 2014 at the National Housing & Rehabilitation Association's *Preservation Through Energy Efficiency Road Show* in Philadelphia.

Partners included Community Housing Services, a nonprofit social services provider; the Urban Redevelopment Authority of Pittsburgh; the Allegheny County Department of Economic

Wood Street, continued on page 21



Wood Street, continued from page 20

Development; the Pennsylvania Housing Finance Agency; and a representative from the foundation community.

In many ways, the YMCA building had become a white elephant.

“When we acquired the property,” says Churchward, “it had an \$800,000 annual operating deficit and was at risk of foreclosure. This was because the commercial tenants, who had been subsidizing the single-room occupancy tenants, had moved out.”

The new nonprofit, called The Residences at Wood Street, began a rehab of the building, focusing first on the residential floors. “The point in doing the rehab,” said Churchward, “was to reduce the energy costs, then fill the tenant space back up, get the commercial space renovated and fill that up again, and then have the commercial space subsidize the residential.”

The initial \$2.9 million price tag for acquisition and \$4.2 million for rehabilitation of the property included \$1,250,784 – the actual cost – for energy and water retrofit improvements on the residential floors. These upgrades, completed in February 2012 after 14 months, have reduced utility costs, specifically for electricity, water, and purchased steam.

Retrofit Improvements

Churchward said the nonprofit agreed, as part of a requirement, to keep the building on the downtown steam system rather than change over to a new heating and cooling system. But he said that the inefficiency of the steam system was offset to a large degree in the retrofit project by an “innovative solution” that involved installing water source heat pumps in all of the units. These pre-heat water and thereby reduce the amount of steam that has to be purchased.

Wood Street, continued on page 22



FOR DEVELOPERS

Christopher Long - Vice President
415-983-5443
cjlong@aegonusa.com

FOR INVESTORS

Christoph Gabler - Senior Vice President
415-983-5441
cgabler@aegonusa.com



Transform Tomorrow

USA Realty Advisors

We're invested with you.

Community Investments | 505 Sansome St., Ste. 1700 | San Francisco, CA 94111

www.aegonrealty.com/en/Home/Investment-approach/Tax-Credit-Investing





Wood Street, continued from page 21

Prior to doing any work, the nonprofit commissioned an energy audit to assess the building's current energy and water usage and costs and identify which improvements should be made as part of a retrofit project.

The retrofit improvements made for the residential floors included:

- Replacing the inefficient thermostatically controlled radiators with highly efficient water source heat pumps in each room, controlled by a wall thermostat;
- Increasing insulation within walls using open-cell spray foam, upgrading from R-2 to R-11. "The open-cell spray foam allows you to both insulate and air seal," says Churchward;
- Installing more efficient fluorescent lighting, replacing T12 bulbs with T5 bulbs; and,

- Installing low-flow water fixtures, replacing 3.4 gallon per minute fixtures with 2.2 GPM aerators and 2.5 GPM showerheads.

Separate from the retrofit component, the nonprofit installed an air conditioning system (the tenants previously had none), replaced the existing cast iron pipes throughout the building with new piping, and put in new hallways.

Funding Source, Results

The retrofit improvements were funded entirely by a grant from the Pennsylvania Housing Finance Agency's Preservation Through Smart Rehab (Smart Rehab) program. Funding sources for the other renovations were soft loans from the city and county and a grant from a foundation.

Despite retaining the steam heat system and adding to the electrical load with the installation of the air conditioning system, Churchward said that the retrofit project has already cut the utility costs for the building significantly. Annual savings are:

- \$70,285 in steam costs, a 52% reduction
- \$5,723 in water costs, a 17% reduction

The estimated payback periods for the different improvements that were made range from a low of just over six months for the low-flow water fixtures to a high of 23½ years for the water source heat pump system, the latter needed because of the addition of the air conditioning equipment. The others range from 6.3 to 9.1 years.

"Water is by far the easiest thing, the lowest hanging fruit that you can do in a building that we have found," said Churchward.

As a measure of the increased overall efficiency, Churchward said that the building's post-retrofit EUI (Energy Per Square Foot Per Year) is now 82, or 34% better than the pre-retrofit level of 124.

As of early April 2014, the SRO units were fully occupied. "We've renovated the residential space and the tenants are back," said Churchward. "We're currently in the process of renovating the commercial space. Those tenants will be coming in during this spring and fall." **TCA**

The Complete Package.
for your LIHTC Application

Market Studies, Appraisals, & CNA's

Lowest Price ... Fastest Turnaround ... Most Experienced ... Nationwide Coverage

Gill Group, Inc.
Nationwide Valuation & Market Feasibility Experts

Jana Jones • (800) 428-3320 • jana.jones@gillgroup.com • www.gillgroup.com