

Multifamily Case Study: 250 Cabrini Boulevard

While many buildings install advanced boiler control panels, 250 Cabrini Boulevard, a seventy-seven unit coop, decided to fix the real issue: the steam distribution piping. This pre-war building is heated by a two-pipe steam distribution system, and experienced classic overheating and comfort issues. The coop board and Century Management hired Steven Winter Associates, Inc., a New York City full-service building consulting firm, to design and commission a comprehensive heating system upgrade. After conducting an ASHRAE Level 2 energy audit, the building added equipment and air vents to improve the steam distribution, inserted radiant barriers behind every radiator to reflect more of the heat into the building, and coupled the changes with a new boiler control and sensors that respond to interior apartment and outdoor temperatures.

The building now saves approximately \$11,000 per year in operating expenses, and has reduced maintenance costs due to eliminating the need for nearly all of the steam traps that remove condensation without loss of steam. Residents now enjoy greater comfort, and the coop is expected to comply early with LL87 by building off these efforts. The second year of benchmarking data, which includes only a few months of usage after the upgrades, shows a six percent reduction in fuel oil consumption. Current data shows further reductions in fuel oil consumption (15 percent), leading to a 21 percent decrease in heating fuel usage over the entire 2011-2012 heating season, and a nine percent decrease in source EUI.

“We can now easily monitor the aggregate temperatures of interior apartments by use of wireless sensors strategically placed within the property. Based on this empirical data, the boiler automatically adjusts its steam output. This function drastically reduces the guess work and outside temperature anticipation. From these sensors and our own careful monitoring, we can see the results of decreased energy use and fuel consumption in the benchmarking data.”

- Jacob Sirotkin

Property Manager, 250 Carbrini Blvd



\$11,000

saved in operating costs per year

15%

reduction in fuel oil consumption

9%

decrease in source EUI

