



Single Family Home Woodhaven, NY



This two-story, two-bedroom, wood-framed home in the New York City Borough of Queens was constructed in 1915.

The Problem:

The senior citizen homeowner lives at home with her daughter. She was spending over \$160 of her monthly income for heating oil and over \$35 for electricity. The old boiler was in disrepair and frequently broke down. It was covered with asbestos, creating a potential health hazard in the home. The floors on the first level were always cold. Damage to windows and the kitchen door contributed to heat loss.



Old boiler covered with asbestos



New energy-efficient gas steam boiler

Project Summary:

Energy-efficiency measures installed:

- ◆ Replace boiler with new, more efficient gas steam boiler
- ◆ Replaced window balances and kitchen door
- ◆ Insulated roof cavity with cellulose
- ◆ Insulated basement ceiling with foam board
- ◆ Install CO and Smoke Detectors
- ◆ Air sealed the house using caulk and weatherstripping

Savings Summary:

WAP Funding: \$6,036

Additional Funds Leveraged: \$12,498*

Cost to Owner: FREE to income-eligible homeowner

Estimated Annual Savings:

Electric Energy Savings: 128kWh

Electric Cost Savings: \$30

Gas Energy Savings: Therms or BTU

Gas Cost Savings: \$570

Estimated Total Annual Cost Savings: \$600

Pre-Weatherization Energy Factor: 23.98

Post-Weatherization Energy Factor: 13.44

* NYC Department for the Aging funding

The Solution:

AEA conducted a complete energy assessment. The kitchen door did not close properly and the windows did not operate properly. The audit revealed a lack of insulation of the roof cavity and between the first floor and basement, and a need for air sealing to reduce heat loss. The house lacked functioning smoke and carbon monoxide detectors. The asbestos condition, although stable, presented a future health and safety risk for the occupants that needed to be addressed.

AEA developed a work scope and project specifications, initiated a competitive bidding process, and chose a qualified and experienced contractor, New York Heating, which replaced the boiler and subcontracted the asbestos removal to a qualified contractor.

AEA's crew installed dense pack insulation in the roof cavity, and foam board insulation in the basement ceiling. The crew replaced the window balances and kitchen door, installed new smoke/CO detectors, and air-sealed the house using caulk and weatherstrip. AEA oversight and quality assurance of the heating system replacement helped to guarantee that the weatherization work scope was completed as specified.

Weatherization is helping this family to enjoy a safer, more comfortable, and more secure home with reduced energy costs. Funding from the New York City Department for the Aging helped to pay for the extensive work required in this property not covered by Weatherization funds.



Weatherization
Works

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