

GEATAIN ENGINEERING

CASE STUDY - 450 Sixth Avenue



BACKGROUND

The Villager is located at 450 Sixth Avenue in Greenwich Village and is a 109-year old prewar residential building. It has been renovated to be a luxury building with many contemporary conveniences. The building features brick walls and fireplaces inside apartment units, which remain popular features with tenants. However, this building's historical infrastructure and control systems have resulted in inefficient energy usage.

A walk-through survey with property manager was completed to understand existing equipment operations and routines. During recent renovations, boilers were all recently installed within the past 10 years. However, a heavily outdated heat control system was in place. Ventilation and insulation also posed major challenges due to the age of the infrastructure. Geatain helped identify methods for reducing energy consumption while being minimally invasive.

HOW GEATAIN ENGINEERING HELPED

- Completed extensive amperage study of common area and unit electric panels for electrification sufficiency.
- Granular electrification analysis led to new insights regarding capital cost savings and shorter construction schedule.
- Analyzed annual operating and maintenance records to reveal several important trends that lead to increased carbon reductions.

BENEFITS

- Advised ownership of opportunities to delay large outlay of capital while complying with Local Laws.
- Uncovered obscure funding opportunities to decrease burden of equipment improvements.



CHALLENGES

- Insulation limitations due to the age of the building
- Recently installed HVAC equipment connected to obsolete control system

SOLUTIONS

- Advanced Thermostat Controls
- Wall Occupancy Sensors
- Unit AC Replacements
- Reduced Plug Loads
- Envelope Sealing

FIVE YEAR SAVINGS

\$ 312,155

For more information,
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