

GEATAIN ENGINEERING

CASE STUDY-THE NEW YORKER



BACKGROUND

The iconic Wyndham New Yorker situated in Chelsea is located at 481 8th Avenue. The hotel is a 42-story building, constructed in 1929 and is renowned for its Art Deco architecture and legacy. Three natural gas Federal FST 500 Steam boilers provide steam to two shell and tube heat exchangers to produce hydronic heating supply to all air handling units and fan coil units. Cooling is provided by two chillers and there are two cooling towers on the roof connected to the chillers. Domestic hot water is generated by ten steam to hot water heat exchangers with pneumatic controls. The building is ventilated using various fans. One challenge is that many guest rooms are primarily lit by CFL lighting.

HOW GEATAIN ENGINEERING HELPED

- Analyzed building operations to determine precise recommendations to improve occupancy comfort, streamline operations and lower carbon emissions.
- Determined building envelope tightness with several different tests to determine building specific heat loss.
- Control algorithms offer multiplicative savings opportunities.

BENEFITS

- Provided several alternative paths to comply with LL97-Carbon Emissions law.
- Advanced heating controls show real time energy usage and historic trends to help identify savings opportunities.



CHALLENGES

- The building is over 90 years. Remaining original and upgraded equipment are showing their age.

SOLUTIONS

- LED Replacement.
- LED exit signs.
- Lighting delamping.
- Occupancy sensor.
- Steam trap maintenance.
- Plug load reduction.
- Heating control.
- Seal vertical shaft.
- Domestic hot water upgrade.

For more information,
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