

## **MEP Design – Multifamily Vacant Building Rehabilitation Multiple Projects New York City**

EME Group has rehabilitated 20+ multifamily buildings in New York City through a variety of affordable housing programs. We have provided full engineering design services including mechanical, electrical, plumbing and fire protection system designs with drawings and specifications.

### **Locations**

- 660-666 Willoughby Avenue, Brooklyn, New York
- 421 Smith Street, Brooklyn, New York
- 1509 Lexington Avenue, New York, New York
- 2240 Amsterdam Avenue, New York, New York
- 457 West 166<sup>th</sup> Street, New York, New York
- 165 East 115<sup>th</sup> Street, New York, New York
- 1664-1666 Park Avenue, New York
- 1755-1757 Madison Avenue, New York, New York
- 1509 Overing Street, Bronx, New York, New York
- 2521 Westchester Avenue, Bronx, New York
- 367 East 10<sup>th</sup> Street, New York, New York
- 239 East 2<sup>nd</sup> Street, New York, New York
- 191 East 3<sup>rd</sup> Street, New York, New York
- 537 East 11<sup>th</sup> Street, New York, New York

EME Group has provided engineering design services to fully rehabilitate more than 20+ multifamily buildings in New York City. These buildings have typically been abandoned for many years and are in poor condition with no working systems when we began our work. The buildings have ranged in size from 5-unit walk-up townhouses to elevator buildings with 150 apartments. Since these projects are publicly funded, the work is done with stringent budget constraints and tight time schedules.

Working with the Project Architect we prepare the schematic design to confirm that there is adequate space for the new mechanical, electrical and plumbing systems. We also perform a code review to identify the health and safety equipment required for the project such as automatic sprinkler systems, fire alarms and smoke detectors. Heating load calculations are performed using the Elite CHVAC software package to accurately size required fin tube baseboard lengths and boiler size. Mechanical ventilation is specified for areas that do not offer means of natural ventilation. Plumbing design is based on New York City code requirements with piping designed to provide required flows and minimize noise. Electrical designs conform



### **Pre-Construction View of Typical Vacant Building to be Rehabilitated**

with National Electric Code and City code requirements and provide the necessary circuiting for appliances including kitchen equipment and window air conditioning units. All new multifamily construction must be fully sprinklered so these projects include automatic sprinklers systems designed in accordance with the National Fire Protection Association and City codes.

The project was designed along the conventional pathway of schematic design, design development and construction document phases. After the schematic design submission was reviewed and approved we completed the design development and construction document phases. We assisted in the bidding phase by attending the project walk-through, respond to questions and make any required changes to the documents prior to the contract. We provided full construction administration services including attending meetings, performing inspections, reviewing submittals and approving contractor requests for payment.

We completed the designs for a City Pilot that incorporated a variety of energy conservation and sustainable design elements into the rehabilitation of seven buildings including high efficiency boilers, efficient lighting, ENERGY STAR® listed refrigerators and cellulose wall and roof insulation.