

Our Lady of Grace Village

Location: Newark, DE • Units: 60 • Project Cost: \$12 million • Developer and Owner: Felician Sisters • Development Consultant: NCALL • Architect: Haley Donovan • MEP: Summit Engineers • General Contractor: Hamel Builders

PROJECT BACKGROUND

Our Lady of Grace Apartments is a new construction project composed of 60 affordable apartments in 12 townhome-style buildings and a community building, located in Newark, Delaware. The owner enrolled the property in the Energize Delaware Affordable Multifamily Housing Program, which enabled New Ecology, Inc. (NEI) to provide design support and testing and verification through construction to achieve ENERGY STAR certification and enhance the property's energy performance and durability while reducing the utility costs for the owner and residents.



Process

Working alongside the project architect and engineer, NEI provided peer-review of the plans and specifications and energy modeling analysis to assess different envelope, mechanical, and ventilation options. The collaborative process helped the team assess their options and select a cost-effective package that exceeds the energy code requirements and includes novel additions, such as pre-wiring and plumbing for the subsequent addition of dehumidification equipment should the need arise in small apartments. While

such equipment was not a requirement, dehumidification can be a challenge in this climate, and with HVAC equipment that is often designed for larger living spaces. Balancing design options and costs through multiple plan reviews and iterative modeling, which provided the utility allowance analysis, NEI helped the project finalize its construction and financing plans.

Each home is served by a gas-fired condensing furnace and central AC. Instantaneous gas-fired units provide hot water. A supply-side fresh air ventilator is also provided for each home, a rarity in the local market. After construction completion, NEI conducted a series of training sessions with management staff and created educational materials for residents regarding the operation of their homes.



NEI recently performed an analysis showing metered property-wide energy savings of 23% relative to the modeled performance of these homes meeting the baseline energy code. This improved performance delivers lower utility bills to households, enabling them to meet other critical needs. In addition to the savings delivered to tenants through the ENERGY STAR program, NEI was pleased to facilitate the procurement and installation of a solar PV system which offsets the owner-paid electric costs at the property. It is among the first renewable energy systems installed on affordable multifamily properties in Delaware. The current inflationary market, and the escalation of utility costs in particular, underscore the importance of building efficient homes from the start.

Solutions and Features:

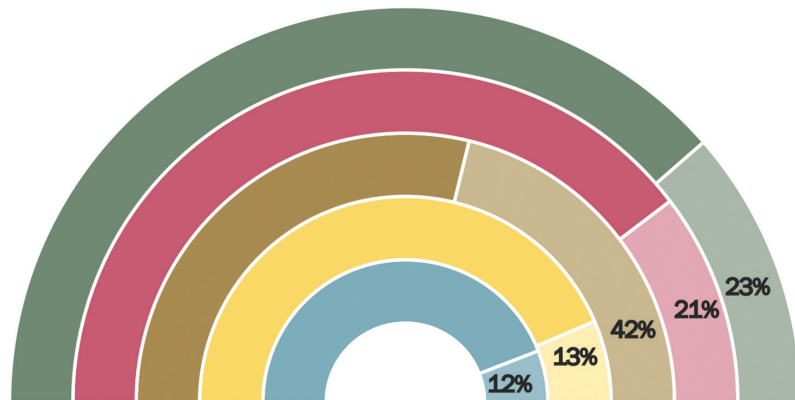
- Gas-fired condensing furnace and central AC serve each home;
- Instantaneous gas-fired hot water heaters in each home;
- Supply-side fresh air ventilator in each home;
- Solar PV system which offsets owner-paid electric meters;
- Staff training on operations and maintenance of new equipment;
- Creation of a Resident Green Guide to help residents navigate the green features of their home and to partner effectively with management.

SAVINGS*

- Annual property wide resident savings: \$10,423.26
- Annual savings per apartment: \$173.72

* Analysis based on April 2020-March 2021 data and utility rates.

Energy Savings Over Baseline (MMBtu)



Total
 Space Heating
 Domestic Hot Water
 Lights & Appliances
 Space Cooling