

SHOWCASE PROJECT: THE ANNE M. LYNCH HOMES AT OLD COLONY

SOLUTION OVERVIEW

Built in 1940, The Anne M. Lynch Homes at Old Colony public housing development in South Boston was the Boston Housing Authority's (BHA) largest property, and one of the most distressed with aging infrastructure and high energy consumption. After years of collaboration with residents, BHA hired Beacon Communities to redevelop portions of the site. Beacon and BHA redeveloped the property into The Anne M. Lynch Homes at Old Colony, which provides deeply affordable housing in extremely energy-efficient buildings. Beacon has a long-term ground lease from BHA and operates the property as part of a public-private partnership with BHA.

The Anne M. Lynch Homes at Old Colony property was redeveloped according to a neighborhood master plan that eliminates the superblock-style isolation of the old public housing development, while emphasizing the site's connectivity to neighboring streets, downtown Boston, and adjacent parks along the Boston waterfront. Phase One of the redevelopment included 116 homes and was completed in December 2011, followed by an additional 129 homes in Phase Two, completed in early 2014. The sustainability efforts at The Anne M. Lynch Homes at Old Colony received a number of certifications, including LEED for Neighborhood Development (Gold), LEED BD & C (Community Building – Gold), LEED for Homes/Midrise (Platinum), and ENERGY STAR® Homes. The project was designed according to Enterprise Green Communities standards.

Finally, Beacon constructed the 10,000-square-foot Joseph M. Tierney Learning Center on-site, which partners with neighborhood-based service providers in the Boston community to provide youth-based programming.

SECTOR TYPE

Multifamily

LOCATION

Boston, Massachusetts

PROJECT SIZE

140,000 Square Feet

SOLUTIONS

Beacon designed the redevelopment of The Anne M. Lynch Homes at Old Colony to achieve a high level of energy and water efficiency, earning LEED Platinum certification and reducing energy costs for Beacon and its residents. Throughout the project, Beacon followed quality construction practices

to increase building durability and indoor air quality, and created a well-sealed and highly-insulated building envelope to maximize energy efficiency. Beacon installed high-efficiency heating and cooling systems, heat recovery ventilation, ENERGY STAR® windows and appliances (refrigerators, dishwashers, and washing machines), and WaterSense-certified ultra-low-flow water fixtures.

All phases of the redevelopment used sustainable materials, including low-VOC paints, adhesives, and sealants. The project used recycled and regional materials and followed strict waste diversion guidelines, which further mitigated the environmental impact of the project. The last phase of the project also involved installing solar panels and purchasing renewable energy credits.

OTHER BENEFITS

Research conducted by the Harvard School of Public Health finds that the redevelopment of The Anne M. Lynch Homes at Old Colony significantly reduced indoor air pollutants and improved residents' health. Compared to conditions in Old Colony apartments before the redevelopment, the research found a 57 percent reduction in particulate matter, 65 percent reduction in NO₂, and a 93 percent reduction in nicotine levels. In addition, residents reported fewer instances of other pollutants, such as mold and pests.* Residents reported a 47 percent drop in sick building syndrome symptoms, and the research identified substantial reductions in asthma-related issues in children, including: a 31 percent decrease in asthma attacks; 24 percent fewer asthma-related hospital visits; and 21 percent fewer missed school days.**

[*] Colton et. al. (2014). *Indoor Air Quality Vs Conventional Multifamily Low-Income Housing*. *Environmental Science & Technology*, 48, 7833-7841.

[**] Colton et. al. (2015). *Health Benefits of Green Public Housing: Associations With Asthma Morbidity and Building-Related Symptoms*. *American Journal of Public Health*, 105(12), 2482-2489.

Annual Energy Use

(Source EUI)

Baseline(2009)



Actual(2016)



Energy Savings

68%

Annual Energy Cost

Baseline(2009)



Actual(2016)



Cost Savings

\$297,000



Entrance to The Anne M. Lynch Homes at Old Colony



Rooftop solar installation



Joseph M. Tierney Learning Center