

## SHOWCASE PROJECT: FRIENDSHIP COURT

### SOLUTION OVERVIEW

Friendship Court is a 150 unit apartment complex in the rapidly gentrifying city of Charlottesville, VA. Friendship Court was originally constructed in 1979 and preserved by the National Housing Trust/Enterprise Preservation Corporation and the Piedmont Housing Alliance in 2002. In 2014, the NHT/Enterprise team performed some utility bill analysis and recognized an opportunity to undertake a targeted upgrade focusing on strategies to save energy and water in both common areas and apartments.

The 2002 renovation entailed a wide range of energy-saving and environmentally sensitive products and techniques including:

- Energy efficient windows
- High efficiency heat lamps
- Water-saving front-loading washers and dryers
- Additional building envelope insulation

The renovation resulted in lower utility and maintenance costs, as well as a more livable and attractive property. Yet, the property still used a significant amount of water per resident, and because of its size, the property remained one of Charlottesville's top water users. Additionally, after 12 years, energy and water efficiency technology had advanced to the point where NHT/Enterprise determined it made sense to undertake another upgrade.

### SECTOR TYPE

Multifamily

### LOCATION

Virginia

### PROJECT SIZE

170,000 Square Feet

### FINANCIAL OVERVIEW

Project Cost: \$300,000

## **SOLUTIONS**

The 2014 Energy and Water Upgrade entailed a wide range of energy and water-saving products including lighting upgrades to LED fixtures in all 150 apartments and exterior LED lighting, high efficiency HVAC replacements, low-flow toilets and fixtures in all apartments, and new Energy Star certified refrigerators. The project has reduced the property's energy bills by 20%, or \$42,200/year, and the water bills by 65%, or \$68,250/year. The work was supported by a \$125,000 grant from the Local Energy Alliance Program (LEAP) and the U.S. Department of Energy and a \$16,500 grant from the City of Charlottesville.

The project cost \$300,000 in total. The payback for the investment is expected to be three to four years, while much of the upgrades are expected to last 10 years. Following the upgrade, the Local Energy Alliance Program (LEAP) presented the NHT/Enterprise with a \$125,000 check to cover a portion of the retrofits. The funding was made possible through LEAP's Weatherization Innovation Pilot Program (WIPP) funds from the U.S. Department of Energy. LEAP completed similar upgrades to Midway Manor in Charlottesville, Virginia in 2013. In total, LEAP has administered \$1.9M in WIPP funds in the Charlottesville community.

## **OTHER BENEFITS**

There are many benefits to the energy efficiency and water upgrades:

- Owner-paid utility savings, which improves property financials and enables rents to remain affordable
- Resident-paid utility savings, which reduces overall housing costs for residents and makes resources available for other needs
- Reduced greenhouse gas emissions
- Leading by example in the Charlottesville, Virginia Community
- More proof and experience for NHT/Enterprise undertaking retrofits that provide tangible savings

## Annual Energy Use

(Source EUI)

Baseline(2014)  
132 kBtu/sq.ft

Expected(2015)  
106 kBtu/sq.ft

Actual()  
Coming Soon

## Energy Savings

20%

## Annual Energy Cost

Baseline(2014)  
\$221,000

Expected(2015)  
\$176,800

Actual()  
Coming Soon

## Cost Savings

\$44,000

