

Station at Mill Point Residential Buildings

The Station at Mill Point, Elon University's newest residential community, was designed and constructed using the principles of the LEED program. LEED stands for Leadership in Energy and Environmental Design and is an internationally recognized standard for sustainable design and construction. The Depot building received LEED Silver certification through the LEED for New Construction program. There are 4 types of residential buildings in the community and one of each type went through the formal LEED for Homes certification process and earned LEED for Homes Gold certification. The other residential buildings were designed and constructed in the same manner.



The new upperclassmen village was designed to provide 324 students with an off-campus experience while remaining a part of the university community. The 24 residential buildings are located on Williamson Avenue across from the Town of Elon fire station. Construction began in September of 2011 and concluded in August 2012.

Innovation and Design Process

Communication and cooperation among the design and construction team is important to all construction projects. The project team met during the design process to discuss project goals and requirements and the inclusion of sustainable strategies. The team continued to meet regularly throughout the design and construction process to ensure a successful project. Durability planning and management helped to ensure the quality and sustainability of the homes. Careful consideration was given to the envelope of the structures as well as the systems within the envelope. Strategies to control and prevent moisture were also key to the design and construction.



The residential buildings have Energy Star appliances including clothes washing machines.

Locations and Linkages

The Station at Mill Point is a short walk from Elon's campus allowing residents to access University resources without a vehicle such as the McEwen Dining Hall and McEwen School of Communications. The Town of Elon is also just a short walk from the Station at Mill Point providing access to a post office and restaurants. An Elon BioBus stop is nearby providing an alternative transportation option for students getting to campus. From the main campus stop, students can access other BioBus routes. Bike racks are also provided in the community to encourage alternative transportation.

The Station at Mill Point was designed to offer outdoor space for residents to enjoy. Outdoor recreation space, an amphitheater and extensive open space support healthy well-being for residents.

Sustainable Sites

Maintaining site stewardship was a priority during the construction process. Erosion controls were established to prevent topsoil erosion and excess runoff. In addition, nontoxic pest control was utilized to protect the environment.

The landscaping and irrigation system uses minimal water through appropriate plant selections and efficient technology. The planting beds have a drip irrigation system while grass areas are irrigated with a highly efficient spray system that includes timers and moisture sensors.

Substantial stormwater management controls are in place to greatly reduce the amount of stormwater that leaves the site and to ensure the quality of what does leave the site.



Water Efficiency



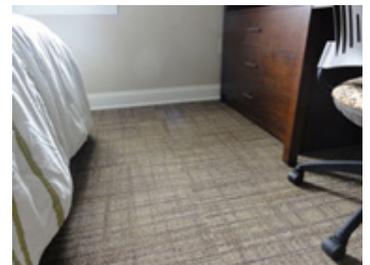
The residential buildings are equipped with high efficiency fixtures and fittings to meet the needs of the residents and reduce potable water consumption. Dual flush toilets, low-flow showerheads and faucets are among the fixtures installed. Outdoor water use is also minimized through the efficient irrigation system

Energy and Atmosphere

The residential buildings are approximately 27% more efficient than a conventional home. The buildings were designed and constructed to meet the Energy Star for Homes requirements including designing and selecting energy efficient systems. In addition, the high-efficiency thermal envelope, including the insulation and windows, prevents unwanted air transfer. Only non-HCFC refrigerants were used in the residential buildings. [Click here for more information about the Energy Star Homes program.](#)

Materials and Resources

Construction, specifically the framing, was carefully planned to reduce waste. As part of this process, the team utilized a detailed cut and order list. Regional materials were used as much as possible, including concrete and framing. Materials containing recycled content were also used. Examples include carpet and drywall. Low VOC (volatile organic compounds) products were used throughout the buildings, such as paints and adhesives. During construction of the residential buildings, 87% of the construction waste was diverted from the landfill for recycling or reuse.



Indoor Environmental Quality

Good indoor air quality is important for a healthy and productive indoor environment for the residents. The residential units do not have fireplaces, which removes a potential negative impact on air quality. The residential buildings have a continuous ventilation system, and air in the units is exhausted to the outdoors. Additionally, Energy Star bathroom fans were installed. A third party inspector measured each room in the units to ensure adequate air ventilation and measured the exhaust rate for appropriate performance.

Occupants have the ability to adjust the air flow and temperature to suit their needs. The conditioned air introduced to the residential units is filtered, and the entry mats to the buildings reduce the amount of contaminants and dirt entering the buildings. During construction, air handling units were covered to limit dust and contaminant build-up in the system, which allows for good indoor air quality after construction. In addition, radon protection measures were taken in the design and construction of the residential buildings.

Innovation and Design Process

To promote the sustainable features of the Station at Mill Point residential buildings, forms of public education and awareness were created. Community assistants receive training on the unique features of the buildings as well as sustainable living strategies. This information is also shared with all of the residents.

In addition to this website, a Sustainable Living Guide was developed for the residents in the community with tips to reduce one's environmental impact in terms of power and water consumption, waste management, transportation and purchasing. It includes information about LEED and the sustainable features of the buildings. This Guide is available online from the Sustainability web site and the Residence Life web site. The LEED for Homes program values the education of residents about their new home as well as sustainable living, which coincides with Elon's commitment to sustainability.

