References

Quail Hollow

Uponor involvement

Project highlights

- 12-building condominium complex with district energy
- Mature landscape with existing trees, walkways and utilities
- Ecoflex® replaces outdated pre-insulated steel piping
- Installed by Piedmont Natural Gas

Products used

- 600 feet of 3" Ecoflex Thermal Single
- 2,400 feet of 2½" Ecoflex Thermal Single
- 900 feet of 2½" Ecoflex Thermal Twin
- 1,800 feet of 2" Ecoflex Thermal Single
- 600 feet of 2" Ecoflex Thermal Twin
- 900 feet of 1½" Ecoflex Thermal Twin
- 26 Ecoflex Insulation Kits

Condo replaces leaking steel with Uponor PEX piping system

See how a condominium complex replaces their leaking steel-pipe district energy system with Uponor's Ecoflex pre-...
The Quail Hollow residential community outside of Charlotte, N.C., offers convenience for its residents who live in close proximity to a PGA-ranked golf course, shopping and other lifestyle amenities. But the 30-year condominium complex, consisting of 12 separate buildings, was starting to show its age. The existing pre-insulated steel distribution piping system was far from sound or energy efficient. Ground water had penetrated the pipe's insulation, providing higher-than-normal energy costs, while also corroding the connections, resulting in leaks. The system had been forced to shut down several times to allow for costly repairs. Tired of the problems and the added energy costs of the outdated system, the association decided to look for a solution.

Project Facts:

Location
US - Southeast, North Carolina

Completion
2012

Vertical markets
Multifamily

Application categories
Pre-Insulated Systems

Project Type
New building

Uponor Ecoflex® pre-insulated piping system was the superior choice for this condominium complex

The property surrounding Quail Hollow consists of mature trees, roads, parking lots and sidewalks, and it was important to work around the existing design. Ecoflex® from Uponor proved to be the perfect product for the job. With its long, flexible coils up to 600 feet in length, Ecoflex requires less trenching, fewer connections, less disruption to existing landscape and faster installation times than traditional rigid products.

Piedmont Natural Gas in Charlotte was awarded the contract for the underground piping installation and the project started in August 2011. Brad Stroud, project manager for Piedmont, was excited to learn about Ecoflex. “I had only worked with steel pipes in these types of installations,” he said. “But Uponor provided training and installation assistance to make the learning curve quick and easy.”

Flexible Ecoflex provides solution

Two central energy plants provide hot water for heating, chilled water for cooling and domestic hot water to each unit in the complex. Underground piping delivers hot and chilled water to forced-air fan coil units and domestic hot water to the plumbing system.

Due to the outstanding insulation properties, durability and flexibility of Ecoflex, it was a perfect fit for the job. Ecoflex features Uponor crosslinked polyethylene (PEX-a) service pipe protected by multi-layer, PEX-foam insulation and covered by a corrugated, watertight, high-density polyethylene (HDPE) jacket.

“Initially, I found the uncoiling of the product to be cumbersome,” Stroud said. “But the continuous length of coil along with the flexibility of the piping made up for any hesitation I had up front.”

In fact, Stroud’s initial concern of uncoiling product was solved later in the year with a new and improved design launched in late 2011. The new device provides quicker, more effective uncoiling of Ecoflex at worksites, making the installation process even more efficient.

By late fall, residents of Quail Hollow benefitted from a new, reliable system with far superior energy efficiencies. Now the residents can enjoy their homes without the concern of costly system repairs, unreliable water temperatures and inconvenient system shut-downs.

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