References

Episcopal Homes

Uponor involvement

Project Highlights

- 168 senior housing units
- Seven-story, post-tension concrete-engineered building
- General Contractor: Benson-Orth Associates, Minneapolis, MN
- Plumbing and mechanical: R.T. Moore Co., Burnsville, MN
- Hydronic and HVAC system: Associated Mechanical Contractors, Shakopee, MN

Products used

- Wirsbo hePEX™ for hydronic piping
- Uponor AquaPEX® for plumbing
- ProPEX® Fittings

Master plumber boasts benefits of Uponor PEX

Uponor PEX saves time and labor on this multi-resident Midwest Senior Living home job in Burnsville, Minnesota... Episcopal Homes in St. Paul, Minn. started out as a housing project for four elderly women in 1894. Over the years, it has grown to serve many more residents with important senior care, and recently, an expansion project allowed Episcopal Homes to house 455 people in three separate buildings offering a wide variety of amenities including fitness, a salon and a theatre.

Called Midway Village, the project includes a seven-story, post-tension concrete engineered building with 168 units of senior housing and R.T. Moore Co., a Burnsville, Minn.-based company, was chosen for the plumbing and mechanical work for the expansion project.

Project Facts:

Location US - Midwest, Minnesota	Completion 2015
Vertical markets Multifamily	Application categories Plumbing, Hydronic Heating & Cooling
Project Type New building	

Using PEX for plumbing and mechanical risers, mains and in-unit piping helped minimize conflicts with other trades

Many of the applications in the project included PEX pipe from Uponor, including 4,080 feet of ½" to 2" Wirsbo hePEX™ for the hydronic heating system along with Uponor's PEX-a Pipe Support, which allowed for plenum rating and increased hanger spacing. Also, the contractor chose Uponor for the plumbing system serving individual residential units as well as for other parts of the building calling for 32,000 feet of ½" to 2" Uponor AquaPEX® and 2,200 ½" to 2" ProPEX Engineered Polymer (EP) fittings.

Dean Kirchoff, lead mechanical project manager for R.T. Moore, and a Master Plumber with 30 years of experience in the industry, said Uponor helped them stay on budget with labor- and material-savings. "Using Uponor and PEX allowed us the flexibility to route the lines and minimize conflicts with other trades," he added. Reliability of the system and the warranty of its piping system were additional factors in his decision to go with Uponor.

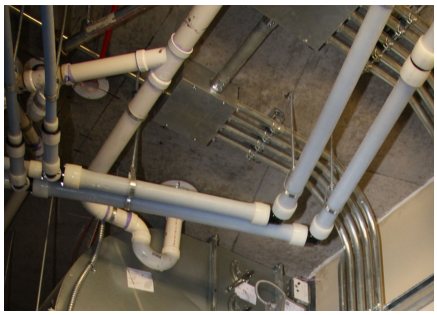
Hydronic heating offers a high degree of comfort while offering clean and quiet operation. Moving water is the most efficient way to convey thermal energy, and R.T. Moore chose Associated Mechanical Contractors from Shakopee, Minn., to install the hydronic and HVAC system. "The system is a condenser water closed-loop system set up with a dead band on the loop with the water temp between 76°F and 84°F," Kirchoff said. "Within that range there is no mechanical equipment operating – no chiller or boilers. When the condenser water falls below 76°F, the boiler system adds hot water to the system. When the condense water gets above 84°F, the cooling tower adds chilled water to the system. This allows the heat pumps to work within the dead-band range at the maximum efficiency."

Uponor assisted with training and information throughout the process. R.T. Moore worked with Uponor early on to assist with the sizing and sleeve layout locations for each of the plumbing, condenser loop and condensate draining systems. "We maximized the flexibility of the system design using multiport tees with PEX, thus decreasing the amount of joints in the system,' Kirchoff said. "We also installed risers from the first floor to the seventh floor, grouping bathrooms and grouping the kitchens."

Fourmation Sales of Rogers, Minn., an Uponor rep firm, provided training and certification of the installation crew once products arrived on the jobsite. "Hydronic heating is by far the most efficient way to transport heat energy," Dean Corrigan, principal at Fourmation Sales, said. "Compared to copper piping systems, it features lower material cost, labor savings, similar hanger spacing, a more reliable fitting system, higher flow velocities and less noise. Also, expansion and contraction rates are nearly close to copper when using PEX pipe support. The pipe can be joined without the use of glues, solvents, flux, solder or open flame."

Episcopal Homes is very satisfied with the final result. “This project was successful because of the experience of its contractors and their superior workmanship,” Anne Kamiri, special projects coordinator for Episcopal Homes, said. “The project has received much praise and recognition from its community.”

Episcopal Homes



> Compared to copper piping systems, [hydronic heating] features lower material cost, labor savings, similar hanger spacing, a more reliable fitting system, higher flow velocities and less noise.

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