References

Applewood Pointe



Uponor involvement

Project highlights

- 100-unit multifamily complex
- Units feature 25 different configurations

Uponor solutions

- Uponor AquaPEX® pipe
- ProPEX® fittings
- Construction Services
- Kitting Solutions

Mechanical contractor leverages new kitting service to curtail material shortages and boost installation productivity

Developed by Uponor, this new solution takes the guesswork and freelancing out of piping installations. Each kit, which includes all the needed ProPEX® fittings, adapters, valves, and rings, is delivered to the job site — one kit per room or apartment — along with a material list and an isometric layout for the installer to follow, helping to minimize mistakes and maximize efficiency.

Among the many critical challenges facing a plumbing foreman on a multifamily job site is the need to maintain efficient and consistent installation methods across the entire project. This mandate applies as much or more to the rough-in plumbing as to the finishing trim: the larger the job, the bigger the challenge.

Project Facts:

Location	Completion
Eden Prairie, MN, USA	2020

Building Type
Multi family homes

Address	Website	Project Type
16389 Glory Ln, Eden Prairie, MN 55344	https://www.applewoodpointe.com/senior-living/mn/eden-prairie/glory-lane/	New building

“Every plumber has a better idea of how to run pipe,” says Pete Erny, only half-jokingly. A 21-year veteran of the plumbing industry in Minnesota, Erny currently serves as a plumbing foreman with Major Mechanical in Maple Grove, focusing on commercial and multifamily plumbing projects. As such, Erny has ample experience coping with the headaches and do-overs that inevitably occur when too many plumbers go in too many different directions on a job site.

This need for consistent installation quality is one of the prime reasons Major Mechanical chose to use Uponor Kitting Services for the rough-in plumbing work on a “cooperative homes” development called Applewood Pointe, located in Eden Prairie. The value-added service is designed to streamline the PEX-a pipe and fitting installation process for the plumbing or mechanical contractor.

“Historically, piping-system layout and procurement for rough-in plumbing has been coordinated on the job site, with the foreman having the responsibility for ordering all the materials needed, including chasing down any unexpected shortages,” explains Daniel Worm, manger, Commercial Segment, at Uponor.

Problems often arise in the form of communication and information gaps between the field and home office. These gaps are “managed” through over-buying by the foreman, just to make sure crews aren’t left to stand around, waiting for materials to arrive.

“Uponor Kitting Services is structured to close communication gaps,” says Worm. “It reassures everyone that the right material in the right quantities will be on the job and ready for installation precisely when needed. The goal is to smooth worksite-to-office communications, reduce procurement errors, minimize installation mistakes, and ultimately boost productivity.”

With his experiences at Applewood Pointe, Erny sees the service as a welcome relief from the old ways, and not just for its impact on material procurement. Kit contents are based entirely on rough-in designs created by Uponor Construction Services, working closely with the contractor. The result is an installation consistency that drives workforce efficiency.

“The service takes the thinking out of the rough-in install process, so the temptation to freelance is much less,” Erny notes. “You still need to figure out how to get Pipe A to Pipe B, however putting all the essential piping-connection components in a single kit for a single apartment unit gives each installer a running start and a clearer direction.”

The benefits of kitting

- Closes the gap between the field and office for contractors due to the amount of coordination and pre-construction planning that Uponor orchestrates during the initial kitting design discussions.
- Provides peace of mind that the right material and quantity are onsite and ready for installation.
- Delivers access to Uponor’s entire catalog, which will produce the most efficient installation and system design.
- Design layout for each room provides consistent installation for as-built documentation and warranty.

- Less material handling along with less unproductive labor planning and ordering in the field, results in a more direct/productive installation for rough-in unit piping.

It’s in the bag

Aimed at individuals aged 62 years and up, the Applewood Pointe complex consists of 100 apartment units, each with two baths, a kitchen, and a laundry area. But the floor plans for these 100 units are not stamped out with a cookie-cutter. In fact, the condo-style development strives for creative variations and features 25 different configurations — each with a different, trunk-and-branch plumbing plan. That complexity strengthened the argument for a new approach to planning and executing the rough-in install.

Major worked with the Uponor Kitting Services team to create plumbing layouts for each of the 25 configurations. Kits, which consist of plastic bags carrying precise, hand-counted numbers of elbows, tees, rings, and other PEX system components, are then assembled to meet the specific needs of each design and marked clearly with the name of the individual apartment where they are to be installed.

Just as importantly, Uponor ships each plastic bag to the job site with a 3D isometric drawing, detailing the designated apartment’s plumbing layout, plus a material list. This approach has the happy advantage of reducing the amount of “explaining” a foreman like Erny finds himself doing on a job site, especially with less-experienced installers.

“I just hand the installer the bag with the fittings and the drawing, saying ‘Follow the diagram.’ All by itself, that speeds up the install process,” he says.

Erny has also found the purchasing and material handling headaches to be much less, thanks to kitting. “Uponor delivers the kits as we need them on the project, one zone at a time,” he explains. “The kits contain what we need where we need it, so there’s no one running to me, saying, ‘Hey, we are out of half-inch tees.’”

Eliminating material shortages, of course, spares Erny from the time-wasting dash to a local supply house for fill-ins, while his install crew cools their heels. “It may not seem like much, but that plastic bag containing everything we need takes a lot off my plate.”

Period of adjustment

There’s a learning curve to climb at the onset of any large commercial plumbing project, particularly one as complex as Applewood Pointe. That was as true for the new kitting service as it was for the Major Mechanical team. But scaling the curve was not all that difficult, reports the project’s lead plumbing installer, Jared Hudalla.

“During the early stages of the project, we went through the kits to see what worked best for a particular application in terms of fittings and other components and whether plumbing-layout changes were required,” he says. “We wrote our adjustments onto the isometric drawings, and the manufacturer reps took them back to the Uponor team.”

This process ensured all the changes would be incorporated into the next set of kits shipped to the job site. “Our corrections were routinely made, allowing us to concentrate on installing,” he says. “We worked together to streamline the process to drive the results we wanted.”

Hudalla, who became a plumber in 2008, shares his colleague’s enthusiasm for Uponor Kitting Services’ ability to foster installation consistency.

“The biggest thing for me is, if you just give a mechanic a bunch of fittings, he’s going to try to use them all. Over the years, I’ve seen too many ‘creative’ installs because the mechanics were given large quantities of every fitting under the sun.

“Kitting, on the other hand, helps create an overall quality install by limiting the number of fittings per unit to only what’s

necessary for the layout that's been created," he says. "That, in turn, results in the water piping being run the same way every single time across the board."

On a similar, previous project, Hudalla reports he was completing the rough-in for five to six apartments daily. "At Applewood Pointe, we have been able to jump it another two to three units with kitting." That is why both men hope to bring Uponor Kitting Services to future projects.

Josh Giffen, project manager/estimator for Applewood Pointe, is the Major Mechanical manager who runs the numbers to assess the impact of the kitting service.

"The relationship with Uponor is amazing," he reports. "They understand what we as contractors would like to see, and they make the adjustments to help us out. I like that for every apartment unit, the materials are in a bag and not a mess on the floor. I like the idea of a drawing showing our apprentices how to water-pipe a unit the correct way without overthinking it. It's a teaching technique that has really worked to our advantage on this project."

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> — Pete Erny, Plumbing foreman, Major Mechanical

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