

## RENO REVELS IN POTABLE WATER INSTALLATION

*New Development “Experiences” Pluses of PEX Plumbing; Miles of PEX Tubing Used in Luxury Reno Mid-Town Redevelopment*

Reno’s reputation as a gaming hub is well-deserved. For many years, gamblers and fun-seekers have flocked to the northern Nevada city. Smaller and more affordable than Las Vegas, its glitzy neighbor to the south, Reno’s downtown casinos offer all the gaming amenities including luxurious rooms, spas and pools, exciting dining options and family fun, all within a few miles of each other and the airport.

While gambling is still important to Reno, the city’s declining gaming numbers during the past few decades have prompted a shift in focus. A University of Nevada, Reno (UNR) study found that 13.8 percent of Reno’s economy in 2002 was driven by gaming. By 2020, that figure had fallen to 5.3 percent. Then came COVID-19. One casualty was Harrah’s. During March 2020 the historic 84-year-old casino shut its doors for good after the pandemic forced a 78-day closure of Nevada’s gaming industry. The property was sold to CAI Investments, a Las Vegas-based real estate development and management company, for \$50 million. Its new Reno Experience District - RED - features two luxury apartment buildings and a two-acre park with jumbo LED screen and outdoor stage, the mixed-use development is slated to have over 70,000 square feet of retail and a 170-room hotel. The master plan calls for 1,300 high-end apartments, ranging in size from studios to penthouses. Amenities include indoor/outdoor fitness centers, swimming pools, clubhouses, and even a rock climbing wall. Once completed in 2023, there will also be 382,000 square feet of office space built.

“Considering the scope of work, it should come as no surprise that RED’s construction has required a large amount of plastic pipe,” stated Lance MacNevin, P. Eng., director of engineering for the Plastics Pipe Institute, Inc.’s Building & Construction Division. PPI is the major North American trade association representing the plastic pipe industry.



Developer Lyon Living awarded the plumbing contract for three buildings and a parking garage to Las Vegas-based Focus Plumbing LLC. The three, five-story towers have 598 units, which Focus plumbed using Viega PureFlow® PEX tubing and PureFlow® press fittings. In all, more than 100,000 feet of tubing was used along with thousands of fittings in sizes from half-inch to two inch. Viega LLC is a member company of PPI.

“The PEX tubing carries potable water from each building’s water main to each of the units in the apartments and hotel, connecting to toilets, lavs, showers and kitchen sinks.” MacNevin reported. “Instead of using copper, PEX provided significant labor and material cost savings.”

He provided a brief tutorial of PEX. “Invented in the late 1960s, crosslinked polyethylene, or PEX, is a type of flexible piping that has gained popularity in commercial and residential construction as an alternative to copper and galvanized steel plumbing.

## Case Study – Project in Action

PEX pipes use polyethylene molecules linked together, which increases its flexibility, durability, and temperature resistance. Among the many benefits of PEX tubing are its corrosion resistance - unlike copper and galvanized steel, PEX does not corrode or attract mineral build-up; easy installation, where continuous lengths can be installed in hard-to-reach places; its efficiency - its lower thermal conductivity compared to other pipe types means the wait for hot water is shorter; its lower installation costs; and finally, its ability to absorb surge pressure and reduce water hammer.”



The large scale commercial potable water system is heated by two Lochinvar tankless water heaters per building, each running at 1.2 million BTUs.

Installation of the Viega LLC system used the company’s PureFlow products. The fittings and connections were done using PEX press fittings instead of crimp fittings. The Viega PureFlow fittings, backed with a 25-year limited warranty, have Smart Connect® technology built in, making it easy to identify unpressed connections. According to the company, PureFlow is the only system in the industry that offers press transition fittings – allowing transition from PEX to copper in traditional branch and tee installations. The Focus Plumbing crew used a battery-powered Press Tool kit from Milwaukee and Viega Pure Flow Jaws. These spring-loaded jaws grip the

metallic ring that is pressed around the tubing. The color-coded rings have indicator ports showing that the tubing is fully seated inside the fitting.

“The press system with the power tool does have some appeal in reducing human error when making the actual fitting connection. That has to do with the tool itself and the way the fitting is designed to press onto the pipe, as opposed to trying to expand a fitting around a pipe, and then have it shrink,” said David Van Amstel, Focus Plumbing’s project manager for the Reno area. “The Press Tool is easier to use than hand tools, and significantly reduces the number of improperly sealed connections.”

As for the pipe material, Van Amstel likes PEX tubing for its flexibility and durability. “It helps reduce installation costs in a number of ways,” he said, pointing to the fact that it comes in 100-foot lengths that can be easily threaded through a building.

“PEX is particularly good in climates with extreme temperatures fluctuations like Reno, where it’s not uncommon for the mercury to hit 100-degrees Fahrenheit during the day and drop as low as 68 at night.

“The pipe is flexible enough that it can expand and contract with the temperature changes, without degrading the plastic,” said Van Amstel, adding that PEX has no trouble handling the 50 to 80 psi pressures being run through it.”

Additional information can be found online at <https://plasticpipe.org/buildingconstruction> .

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