

Safe drinking water for the old garrison area



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It was decided to install the Uponor Barrier PLUS pressure pipe system in the cleaned-up areas, which is designed for constructing drinking water networks in high-risk areas and contaminated soil. The durable Barrier PLUS pipes feature a seamless, chemical-impermeable polymer layer structure that protects drinking water from harmful substances as well as taste and odor issues.

“The choice of materials ensures that we get it right the first time and end up with a system that will serve us for at least the next 80 years,” Mäki-Petäjä notes.

Lahti Aqua has previously used the Uponor Barrier PLUS system in the Riihelä district, where contaminated soil also posed a risk to safe water distribution.

– With Barrier PLUS pipes, infrastructure construction has progressed smoothly, and above all, we can be confident that water quality will be top-notch going forward, says Mäki-Petäjä.

Expert advice on diffusion protection for joints

Site Manager Aki Lehtinen from GRK Infra explains that infrastructure construction in Hennala began in March 2021.

– About half of the municipal infrastructure is now complete, and the entire area’s infrastructure is scheduled to be finished in the fall of 2022.

Installation of the Uponor Barrier PLUS pressure pipe system has already been completed. Barrier PLUS pipes were used to construct a section of the water main totaling approximately 400 meters in length.

Lehtinen explains that GRK Infra had no prior experience with Barrier PLUS pipes. However, the installation turned out to be no more complicated than that of conventional water pipes.

– We also received on-site guidance from Uponor experts on installing the joint protectors.

Installing a Barrier PLUS joint protector takes about ten minutes. Once the plastic joint protector is wrapped around the pipe, a heat-shrink sleeve is placed over it, which tightens securely around the pipe's protective jacket when heated. The protectors and heat-shrink sleeves are pre-sized for the pipe, so there is no need to measure or cut them to size on-site.

Lehtinen has over 30 years of experience in the infrastructure sector and has been working as a master craftsman for 25 years.

– The project in the Hennala area has been exceptional in that, due to the old, historic buildings, there are stricter-than-usual criteria regarding, for example, vibrations caused by construction. The area also served as an execution site for political prisoners and contains a mass grave. We have therefore prepared for the possibility that almost anything could be found beneath the ground. So far, however, the work has progressed well and there have been no major surprises.

Contaminated sites increasingly common

Sales Manager Esa Taskinen from Uponor notes that in new construction in urban areas, contaminated or high-risk soils are increasingly being encountered, where toxins and chemicals pose a risk to the purity of drinking water. For example, fill soil may contain numerous harmful chemicals, and in industrial areas, solvents, paints, and various hydrocarbon compounds may leach into the soil.

“The Barrier PLUS system is an excellent solution for such sites to ensure safe water supply.”

He notes that Barrier PLUS pipes are also an environmentally friendly choice, as they are long-lasting and fully recyclable.

Projektfakta:

Location	Færdiggørelse
Lahti, Finland	2021
Bygningstype	Product systems
Kommunalt byggeri	Drikkevand

