

A photograph showing a deep, narrow trench dug into the ground. A blue, corrugated plastic pipe is being laid along the length of the trench. The trench walls are made of brown soil and some concrete blocks. In the top left corner, there are some green plants and a small orange flower. The overall scene is a construction site for pipe replacement.

Lead pipe replacement in Coventry

Service/product: Lead pipe replacement | **Customer:** Severn Trent Water | **Location:** Coventry

OnSite Pipelines and Civil Engineering (PaCE) was contracted by Severn Trent Water to replace lead pipe networks supplying water to 125,000 homes in Coventry with upgraded plastic pipes.

Lead pipes have a lifespan of 100 years and many lead pipe networks in Coventry were nearing the end of that time with signs of reduced performance and efficiency.



The solution

The OnSite PaCE Team removed the old, leaky lead networks and replaced them with plastic pipes, providing customers with the benefit of an upgraded single supply.

Once the lead networks were removed, upgraded services were re-laid back from the water main. This was achieved by digging up multiple sections around properties and using trenchless techniques to pull the pipes back through to the point of entry to the properties. The supply pipe was re-connected to an existing or new stop tap in customers' homes and local plumbers were contracted to complete the internal plumbing work. Customers were also provided with the option to have a smart meter installed in their homes.

Following each new re-connection, the team closed the job and uploaded the data to the Severn Trent project portal to confirm the connection on the main and re-laid services was complete. The data included the size and depth of every excavation and pre, during and post works photography.



The challenges

The logistics of the project were complex with a multitude of components to consider. To plan for the work, the team carried out surveys on properties to find out whether the property was on a single or joint supply, how many properties were on the joint supply and whether there were any extensions built over pipelines.

Work needed to be scheduled according to the availability of customers so that the team could gain access to homes to complete the reconnection. Where customers had a joint supply, there were multiple properties involved and several customers to coordinate with at one time to allow the team to progress the works.

The network replacement was completed on a like for like basis and the team ensured sections of block paving and concrete drives were re-laid correctly, recycling materials where possible.

Throughout their work, the team maintained a safe and clean environment by cleaning down their workspace and using road sweepers to discard of any dirt and debris.



The result

The lead pipe replacement project is part of Severn Trent's Green Recovery Programme, a scheme of customer-based projects updating water networks which will run until March 2025. OnSite PaCE began work relaying services in September 2022. The team has so far replaced in the region of 22,500m of lead pipe networks supplying water to 1500 homes and has been recognised as a top performing contractor working on the scheme regarding its attention to customer service, communication and quality.

Working closely with the client and customers to address the logistical challenges meant that the work was completed in the most efficient way possible, while mitigating the impact of any potential safety risks on site.

The data focused approach of this project has been a useful benchmarking scheme and will provide the industry with the ability to better project cost due to the data that has been shared around quantity and pricing. The installation of water meters has also allowed Severn Trent Water to be better able to monitor leakage detection in area.



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