

Draycote Water Mains Renewals, Rugby

Project Profile

Client: Severn Trent Water
(AMP7)

Designer: Severn Trent & Jacobs

Value: £2.03m



This scheme was carried out to rehabilitate existing water mains in the Draycote area of Rugby and involved the replacement of 10,224m of 75mm - 250mm dia Asbestos Cement, Cast Iron and UPC Water Mains in 23 separate roads under Severn Trent Water's AMP7 Lot 2 'Build Only' framework.

The design for the rehabilitation works reduced the number of distribution mains in the area from twin mains in every road down to a single main with long side connections to the opposite properties, thus reducing the number of mains requiring rehabilitation. In addition, some of the distribution pipework was downsized to improve the water quality to the customers in this area by increasing the water turnover.

Main work involved:

- 5,826m of mains replaced through network rationalisation (one main laid in the carriageway feeding properties on both sides)
- Mains replaced with 90mm, 125mm and 180mm diameter PE pipes.
- 2,256mtrs of mains replaced with new pipes installed in open-cut trench.
- 3,375m of mains replaced using Horizontal Directional Drilling techniques (HDD).
- 195m of slip-lined pipe.
- 5,410m of mains abandonment in the footway (cut and capping the old water mains).
- 723nr customer supplies replaced with all single supplies:
 - ◊ 373nr short side services
 - ◊ 350nr long side services
- 4,735m of excavation in carriageway and footpath
- The works were programme in a sequence that did not adversely affect the network or customers.



Significant changes in the conditions encountered resulted in installation technique changes on all roads together with resulting significant programme delays. These included:

- Site investigation results and information were not accurate
- Presence of Uncharted utilities causing clashes
- Changes in carriageway construction
- Inoperable valves which meant we could not isolate the existing network
- Highway Authority requests to complete junctions during bank holidays resulting in out of sequence working.

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Extensive traffic management was required involving noticing and agreement of TM proposals with the local highway authority. TM requirements included a combination of road closures, one footpath closure, temporary traffic signals and Chapter8 (give & take) for cul-de-sacs.

All ST works fall under the "Always On" approach, so we utilised Under Pressure Tees/Connections (UPT's) which provided a continuous source of water to supply the new mains. We also used an overland by-pass on one of the footpath closures to keep the local Sainsbury's supermarket in supply.

As the work was undertaken in a residential area Customer Care was given high priority with regular customer contact, provision of updated programme information to customers, identification of vulnerable customers and maintenance of services (waste collection, social services etc). Key considerations included safety of the public, fencing of the works, site tidiness, careful use of road plates on footpaths and safe storage of materials. We worked closely with the STW Comms team during the project and we received a number of customer commendations.

