

Trumpington Water Mains Diversion

Client:	Energetics
Location:	Trumpington, Cambridge
Value:	Confidential
Duration:	4 Months

In Brief...

As part of enabling works for a large residential development in Trumpington, Cambridge, Barhale were engaged by Energetics to construct 825m of 600mm Ø DI & 260m of 225mm Ø HDPE water mains.

The scheme involved installation and commissioning of the new water-mains around the perimeter of the new development, through existing park land, enabling the existing trunk mains to be diverted. The works were carried out under a Self Lay Agreement on behalf of Cambridge Water (South Staffs Water).

Customer Benefits...

The scheme enabled the next phase of housing development to be progressed, while providing a robust new water infrastructure with the facility for future diversions incorporated.

The works were undertaken with foremost thought given to environmental considerations, as the easement was located within parkland between the proposed development and the River Cam. Barhale liaised with the park managers the Wildlife Trust and the land owners Grosvenor Estates to ensure that the environmental impact was minimal. Such measures included the installation of silt fences and stock proof fencing along the entire length of the easement of pipe line. Barhale also negotiated the reinstatement package direct with the Wildlife Trust, thus ensuring that the reinstatement and landscaping was to their satisfaction.

While the park remained in use during the busy summer months, Barhale endeavoured to keep it as accessible and aesthetically amenable as possible, while maintaining the highest Health and Safety standards.

Technical Features...

The proposed route of the new pipelines traversed underneath a HP gas main. This instigated early liaison with NGG to agree a safe method of working, where it was agreed to adopt vacuum excavation to excavate around the HP main without the need for any obtrusive digging. We designed and implemented the temp works systems to support and protect the gas main while we excavated underneath .

Both mains also passed underneath a 1.2m drainage culvert which we opted to excavate a heading underneath, rather demolishing the culvert and over-pumping the drainage ditch.

We designed temporary end restraint thrust blocks at the pipe peripheries to enable us to pressure test desipating the force vertically into the ground therefore mitigating the application of an imposed load on the existing live trunk main.



New pathways reinstated following mains diversion



Timber heading installed under a culvert



Open cut installation of 600mm Ductile Iron