

PIPE JACKING CASE STUDY

Denshaw Road, Delph, Lancashire



www.pipejacking.org

PROJECT	Denshaw Road, Delph, Lancashire
CLIENT	United Utilities/BBUSL
CONTRACTOR	A E Yates Trenchless Solutions Ltd
PIPE SUPPLIER	F P McCann
TUNNELLING MACHINE	Full face slurry machine
VALUE	£668,000



PROJECT OVERVIEW

United Utilities upgraded the local sewerage system at Delph in Lancashire to prevent it from overflowing during heavy rainfall. It involved construction of an underground storm water storage tank, connecting exiting sewers and installing new sewers to prevent the network from overflowing.

DESCRIPTION OF WORKS

The designed route for the pipelines crossed below water courses and live carriageways and in very close proximity to existing domestic properties. Pipe jacking was selected as a practical non-disruptive solution to undertake the works that comprised shaft sinking and microtunnelling works.

Three shafts: one 4500mm diameter x 9metres deep, one 3000 mm diameter x 6metres deep and one 3000mm diameter x 5metres deep were constructed to facilitate the pipe jacking works.

Using a Soltau RVS400 full face slurry machine three gravity pipejacks were installed using 1000mm diameter steel banded concrete jacking pipes. The individual lengths of the crossings were 68, 60 and 25 metres in length and they were driven in moderately strong mudstone. Following completion of the pipe installation all shafts were converted to finished manholes and weir chambers.

CO₂ SAVINGS

CO₂ savings of the pipe jacking element compared to open cut construction were in excess of 50% for the 1000mm diameter drive. Source: pipejackingco2calculator.com

FURTHER INFORMATION: www.aeyates.co.uk

