

PIPE JACKING CASE STUDY

Schola Green Pumping Station Network Rail UTX



www.pipejacking.org

PROJECT	Schola Green Pumping Station Network Rail UTX
CLIENT	United Utilities / C2V+
CONTRACTOR	Ward & Burke
PIPE SUPPLIER	Tracey Concrete
TUNNELLING MACHINE	Herrenknecht AVN 1200
VALUE	£0.5million



PROJECT OVERVIEW

United Utilities built two large storm water storage tanks and new pumps at Schola Green pumping station and updated the wastewater treatment works at Morecambe. They sought to lay a new 7km sewer pipe between the two sites. This UTX (under track crossing) formed part of this pipeline route. The crossing originated from Schola Green pumping station and crossed to the south side of the up down Heysham line at approximately 1200 yards chainage. The 1.5m internal diameter tunnel, and 2No. caisson access shafts were designed by Ward and Burke, including optimising the alignment and selecting the shaft sizes, construction methods, and depths. Once the drive was complete, Ward and Burke installed the product pipes, DN 500 socket spigot with anchored gaskets, using installation spiders designed inhouse. These pipes were then grouted in position within the tunnel and the final pipework to ground level completed.

DESCRIPTION OF WORKS

- Design of 5m ID launch & reception shafts to 9 m depth.
- Design of 1200mm ID, 51m long, tunnel drive through mixed ground.
- Combined settlement checks around shafts and Tunnel, ensuring all settlements were beneath Network Rails 5 mm tolerance limit.
- Completion of Network Rail Form II and Form III including all design submissions.
- Design & manufacture of pipe installation spiders and all temporary works required for installation.
- Completion of shaft works within restricted access sites (in a closed part of a caravan park).
- Successfully completing the tunnel drive with negligible observed settlements beneath the Network Railway line.
- Design & construction of temporary headwalls to cap the tunnel during grouting.
- Backfilling of shafts once connecting pipework was complete.

FURTHER INFORMATION: www.wardandburke.com

