

PIPE JACKING CASE STUDY

Ferryhill Culvert Replacement & Repair



www.pipejacking.org

PROJECT Ferryhill Culvert Replacement

CLIENT Network Rail/AMCO

CONTRACTOR A E Yates Trenchless Solutions

VALUE £600,000



PROJECT OVERVIEW

Following the collapse of a culvert under a live freight railway line it was backfilled with concrete. After a period of over-pumping a new watercourse was installed under the railway, in poor ground, using a guided auger boring machine.

DESCRIPTION OF WORKS

The site geology comprised approximately two metres of peat overlying soft organic clay. In order to construct the launch and reception pits the peat strata was removed and a lifting platform was designed and constructed before the pre-piled pit construction and lifting operations could start.

The piled pits, either side of the railway, were constructed using seven metre long piles which were installed using an excavator mounted hammer. The pits were excavated to three metres below ground level.

The new 49 metre culvert was installed using 1200 mmm diameter steel pipes in 6 metre lengths, with each joint welded using a gas shielded flux core welding technique, and tested by magnetic particle inspection.

Following installation of the pipe under the railway, new drainage was constructed to connect the pipe inlet and outlet to the watercourse. This involved the diversion of existing land drains and the construction of reinforced concrete headwalls at the inlet and outlet.

FURTHER INFORMATION: www.aeyates.co.uk

