

PIPE JACKING CASE STUDY

Sudbourne Road, Brixton



www.pipejacking.org

PROJECT	Sudbourne Road, Brixton
CLIENT	Thames Water Utilities/MGjv
CONTRACTOR	Terra Solutions Limited
TUNNELLING MACHINE	Herrenknecht AVN 1000
VALUE	£420,000



PROJECT OVERVIEW

The Sudbourne Road area of Brixton, London was at risk to flooding and required additional infrastructure capacity to be connected to an existing deep Victorian culvert. Challenges included very restricted site access, deep construction and restricted working hours in a densely populated area of south London.

DESCRIPTION OF WORKS

Tunnel works comprised of 267m of 1000mm microtunnelling, installed at various depths from 8m to 9m using a Herrenknecht AVN in London blue clay.

Additionally segmental caisson shafts were constructed and used as launch and reception pits. In total two 3.66m diameter and a 4.5m diameter caisson shafts were constructed to the level of the tunnel. One of the shafts was 19m in depth. At 19m depth, a short open-face pipejack was constructed to connect to the existing old brick London Victorian sewer.

Terra Solutions designed the microtunnelling to reduce the residual risks associated with installations in a built up area to minimise disruption to the local residents. Design requirements included methods of construction, settlement calculation, thrust calculation and temporary work design.

CO₂ SAVINGS

CO₂ savings of the pipe jacking element compared to open cut construction were almost 60% for the 1000mm diameter drive. Source: pipejackingco2calculator.com

FURTHER INFORMATION: www.terrasolutions.co.uk

