

PIPE JACKING CASE STUDY

Ballycoolin – Leixlip Water Scheme



www.pipejacking.org

PROJECT	Ballycoolin – Leixlip Water Scheme
CLIENT	Fingal County Council
CONTRACTOR	Terra Solutions Limited
TUNNELLING MACHINE	Backacter and open face shields
VALUE	€930,000



PROJECT OVERVIEW

In order to ensure adequate storage and security of supply for current and future water requirements in the Fingal area, two rising mains were constructed from reservoirs at nearby Ballycoolin to the existing water treatment plant at Leixlip. A further reservoir, water tower and ancillary buildings were also constructed at Ballycoolin

Present on the pipeline route were the River Liffey, the Dublin-Mullingar railway line and the Royal Canal, as well as a number of roads. All of these had to be crossed using non-disruptive tunnelling techniques in order to provide a series of sleeves for the water main to pass through.

DESCRIPTION OF WORKS

Ten pipejacked crossings were installed in ground conditions that consisted of boulder clay together with various other soil incursions including some drives in rock. In order to accommodate the pressure mains, a pipejack diameter of 1500mm was necessary.

In total there was four canal crossings in moderately strong rock and one crossing beneath the main Maynooth to Dublin railway line and the Grand Canal. This particular drive was over 70 metres in length through strong rock. Four further road crossings were successfully installed.

A mechanical backhoe shield was used to excavate for the pipejacks.

FURTHER INFORMATION: www.terrasolutions.co.uk

