

PIPE JACKING CASE STUDY

North Leixlip Sewerage Scheme



www.pipejacking.org

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| PROJECT | North Leixlip Sewerage Scheme |
| CLIENT | Irish Water |
| CONTRACTOR | Terra Solutions |
| TUNNELLING MACHINE | Backacter with TBM with rockhead |
| VALUE | €2.85 million |



PROJECT OVERVIEW

As part of the expansion of Intel's European manufacturing plant at Leixlip, County Kildare, additional infrastructure was required for its wastewater. It involved the construction of 4.2km of sewer, including 1.9km of 450 mm rising main and 2.3km of 750 mm gravity sewer, from Collinstown, Leixlip, through Confey and St. Catherine's Park to Leixlip Wastewater Treatment Plant, Co. Kildare

A significant part of the works required large diameter trenchless construction under rivers, canals, railroad and roads, sometimes in areas of special scientific consideration.

DESCRIPTION OF WORKS

Specialist tunnelling works were required for the rising main under the Rye Water River and for the gravity foul sewer under the Royal Canal and Dublin-Sligo Railway Line, and other water courses and roads.

Tunnelling works involved the completion of 65m of 1500mm in hard limestone rock under the Royal Canal and Dublin-Sligo railway. Terra Solutions constructed all shafts throughout the project and carried out the railway monitoring. This was carried out using a 1500mm TBM with rock head.

The remainder of the 295m of 1200mm crossings under a road, car park, and GAA playing pitch were carried out using a 1200mm backactor machine.

CO₂ SAVINGS

CO₂ savings of the pipe jacking element compared to open cut construction were almost 60% for the 1200mm diameter drive. Source: pipejackingco2calculator.com

FURTHER INFORMATION: www.terrasolutions.co.uk

