

PIPE JACKING CASE STUDY

Meadowhead to Stevenston, Irvine



www.pipejacking.org

| | |
|--------------------|------------------------------------|
| PROJECT | Meadowhead to Stevenston |
| CLIENT | Scottish Water/Morrison B&V JV |
| CONTRACTOR | A E Yates Trenchless Solutions Ltd |
| PIPE SUPPLIER | F P McCann |
| TUNNELLING MACHINE | Iseki Unclemole |
| VALUE | £1,014,457 |



PROJECT OVERVIEW

Unsatisfactory Intermittent Discharges during heavy rainfall in the Irvine and Kilmarnock area resulted in storm water from several combined sewers overflowing into the local watercourses. Reducing these overflows resulted in improved water quality for more than 80,000 people in the area.

DESCRIPTION OF WORKS

In preparation for the pipe jacking drives four sheeted and reception pits and a number of deep caisson manholes were constructed in preparation for the construction of 585 metres of tunnel.

240m metres of 1200mm pipe jack was installed using an Iseki Unclemole and a similar length using a backacter shield. Two further 600 mm diameter drives were installed, 60 metres and 45 metres in length using an Iseki Unclemole.

Manholes constructed varied in size, from 2.1 to 3.0 metres diameter with depths of around 6 metres. In addition a 5.5m diameter, 9 metre deep finished pumping station shaft was constructed.

Ground conditions varied and included clay, sand, gravel and made ground.

CO₂ SAVINGS

CO₂ savings of the pipe jacking element compared to open cut construction totalled 55% for the 1200mm and 600mm diameter drives.

Source: pipejackingco2calculator.com

FURTHER INFORMATION: www.aeyates.co.uk

