

Case Study

Gas Pipeline Replacement River Humber



Project Description:

Appointed to provide an array of secanted deep soil mixed (DSM) columns to form a strengthened block over the tunnel horizon to form an effective seal against the soft eye using the high pressure treatment.

Key Works: Deep Soil Mixed Columns

Client: Skanska-Porr JV

Date / Duration: August 2019 / 12 wks

DSM Columns: 103 No.
1.2m diameter
12m depth

Project Challenges / GDL Solutions:

- Project ran into difficulties at a key reception shaft of the main tunnel drive owing to soft ground. Due to variable conditions the tunnel drive would rise from competent glacial tills into soft ground of alluvium and peat potentially giving rise to difficulties with tunnel boring machine (TBM) alignment.
- The proposed DSM provided homogenised ground with improved strength and stiffness to offer stable support to the TBM. The DSM also formed a seal on breakthrough to mitigate groundwater ingress to the shaft.

Project Benefits for Client:

- The DSM columns provided a technically robust and cost-effective solution.
- The speed of DSM installation meant that we were able to help the client move forward without further compromising the programme.



www.grounddevelopments.co.uk



EARTHWORKS



SOIL STABILISATION



VIBRO STONE COLUMNS



DEEP SOIL MIXING