

## CASE STUDY

# Railway contracts for overhead line equipment (OLE) and associated ground investigations



## Project background

Structural Soils is continuing to reap the rewards of investment in staff training and new drilling rigs with more contract wins for OLE ground investigations. To date, we have completed £600,000 of site investigations for ABC Electrification (a consortium of clients Alstom, Babcock and Costain) and separate contracts for Vinci Construction UK.

Network Rail is overseeing the ABC work, which is part of the Intercity Express Programme, a £2 billion initiative launched in 2005 by the Department of Transport to replace the UK's ageing Intercity 125 fleet with modern rolling stock to run mostly on electrified lines. Eventually, about 3000 km of track will be electrified, which will make the UK rail network greener, faster and quieter, and cut pollution, thereby saving an estimated 25–30% of the carbon dioxide emissions per passenger. With a modern fleet to attract new passengers, it is hoped that the new network will help to cut road congestion too. The project is estimated to be completed towards the end of the decade with the new trains running from 2017–2018. Along with the electrification work on the line, new rolling stock is currently under construction.

The results of ground investigations have provided critical information for the design of new gantries and portals on the railway line

between Patchway Junction 1 and Swansea in South Wales, a major link in electrifying the Great Western Main Line between London and Swansea. The OLE work is a flagship project for which the client requires the highest possible standards of quality, safety, health and environmental performance.

In addition to the ABC contract wins, Structural Soils has simultaneously completed £275,000 of work for Vinci Construction on the line between Filton Abbey Wood and Bristol Temple Meads.

Work on this particular section of line has intensified with new contracts worth £250,000 won by Structural Soils in October 2015 to support the client with the next scheduled ground investigation packages.

Structural Soils has considerable expertise in this kind of rail work, having successfully completed other projects along the main line from London. In 2014, seven smaller investigations worth £138,000 were undertaken at locations along the line from Thatcham to Swindon on behalf of AMCO Rail. This work involved drilling boreholes either side of bridges across the track to determine the geology, as some bridges along the route, both foot and road, will need to be raised by almost a metre to accommodate the overhead electric cables.

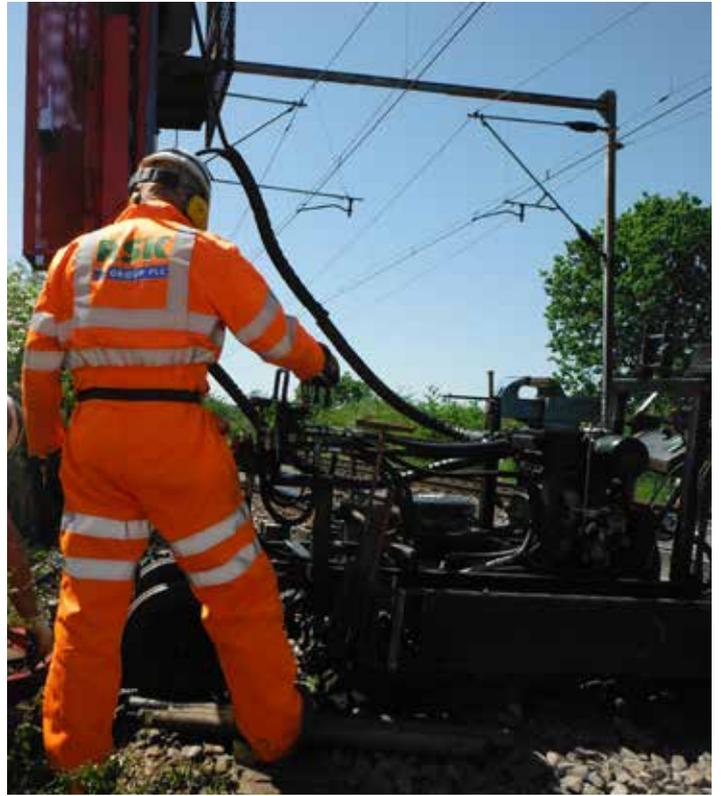


Ground investigation services provided (day and night shifts) include

- cable percussion drilling
- machine-dug trenches and pits
- window sampling, dynamic sampling and dynamic probing
- rotary drilling
- inclinometer and piezometer installations.

Additional site works undertaken for Vinci as variation orders complementary to the initial ground investigation scope include

- in situ testing for crane pad design
- waste acceptance criteria testing
- water quality sampling
- preliminary ecological appraisals
- ecology tree surveys
- great crested newt habitat suitability surveys
- great crested newt population class assessments
- baseline noise level surveys
- badger surveys
- badger mitigation
- badger licence
- bat emergence
- contractor briefing
- European protected species licence applications.



For further information, please contact:

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