

A66 Surtees Bridge

Client :
Highways Agency

Engineer :
Halcrow

Location :
Stockton on Tees

Date :
2002



Surtees Bridge carries the A66 (T) dual carriageway over the River Tees near Stockton on Tees. At the eastern abutment excessive ground movements had been detected and were being monitored. This investigation was to identify the nature and extent of the strata present, monitor existing and newly installed instrumentation and thereby enable the design of remedial measures to mitigate these movements.

Drift deposits consisted of embankment fill and made ground containing ash, slag, demolition waste, clay, sand and gravel, etc. The embankments were constructed from engineered fills underlain by lacustrine organic clays, silts and sands, glacial clay and fluvio-glacial sands and gravels, with cobbles and boulders. The solid geology consisted of Sherwood Sandstone

Work included soils boring and rotary drilling, probe drilling, in situ pressuremeter testing, piston sampling, CPT work, installations and trial pitting. A comprehensive set of laboratory tests were carried out and a factual report produced. Monitoring of the abutment continued throughout the work and after completion.

Some of the work was undertaken in the fast eastbound lane under traffic management at night and weekends. It was crucial that holes were drilled and reinstated within the times allowed to ensure that this busy road could be reopened when required.

Work was further restricted by the presence of a large gas main in the slip road verge and also when drilling under the bridge, where limited headroom dictated the use of a mini rotary rig.