

**CASE STUDY**  
**New Tesco Store**  
**Dudley**



**PROJECT OVERVIEW:**

<b>Client:</b>	Tesco Plc
<b>Sub-contracted to:</b>	Bowmer & Kirkland
<b>Engineer:</b>	W.A. Fairhurst
<b>Sector:</b>	Commercial
<b>Value:</b>	£240k
<b>Description of Works:</b>	Design, supply and install piles to form part of the foundation for a Tesco rebuild.



**TECHNICAL DETAILS:**

<b>Type of Piling System:</b>	Continuous Flight Auger (CFA)
<b>Soil Conditions:</b>	Made Ground/Clay/ Mudstone or Broken Rock
<b>Max Load kN:</b>	Up to 620kN
<b>Length of piles:</b>	Up to 24m
<b>Type of Testing:</b>	Integrity
<b>No. of piles installed:</b>	696 No.
<b>Diameter of piles:</b>	350mm



The Dudley site was geotechnically very difficult due to old mine works leaving varying rock profile and strata material. Significant site probing was required, along with profiling of the rock levels to give strength of material. Grout stabilisation of mine workings had to be undertaken prior to piling to mitigate settlement and subsidence; the pile schedule was then prepared based on the grouting records.

Due to a very intense programme of works; the piling programme was accelerated using a second CFA rig in order to meet the clients (Tesco) programme and delivery date.

As the design was based on a F.O.S of 3.00, no load testing was required.

