

## CASE STUDY

### New Tesco Store Sheffield



#### 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>	£307k
<b>Description of Works:</b>	Design, supply and install piles to form part of the foundation for a new Tesco store.



#### TECHNICAL DETAILS:

<b>Type of Piling System:</b>	Steel Tubular Piles
<b>Soil Conditions:</b>	Made Ground/Sand & Gravel/ Coal Measure Bedrock
<b>Max Load kN:</b>	Up to 1000kN
<b>Length of piles:</b>	Up to 21m
<b>Type of Testing:</b>	Dynamic
<b>No. of piles installed:</b>	990 No.
<b>Diameter of piles:</b>	177, 244 and 340mm



Initially the project was tendered as CFA piling due to concerns over noise and vibration. Vibration monitoring was carried out adjacent to an existing masonry retaining wall which proved noise and vibration was not as the client had anticipated and therefore the project was converted to steel tubular piles which proved an environmentally acceptable solution; reducing not only the piling programme and speeding up follow on trades, it also ensured the piling works came in under the clients budget due to savings on muck away and other associated costs of CFA piling.

Green Piling agreed to take on the risk on pile length and obstructions. Pile caps were pre-bored to establish and locate obstructions prior to the main piling works commencing. Two piling rigs were mobilised in order to accelerate the clients programme. The average length of piles installed were 10m with some piles driven up to 21m. In total approximately 9113m of steel tubular piles were driven.

