

Hunter's Lodge
Barrow-upon-Soar, Leicester

www.van-elle.co.uk
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Client

David Wilson Homes

Consulting Engineers

GRM Development Solutions

Solution

Steel Driven Tubular Piles

Smartfoot Precast

Modular Foundations

Plant Used

Junttan PM16

50 tonne Ainscough

Mobile crane

Total Meterage of Beams

c 4,900m

Year

2017

A new development by David Wilson Homes, Hunters Lodge in Barrow-upon-Soar consists of 71 No. 3, 4 and 5 bedroom homes. Owing to weak made ground between 2-3m, the decision was taken that a piled solution would be more economical than traditional trench fill foundations. This presented a good opportunity for the East Midlands office of David Wilson Homes to trial Smartfoot® precast modular foundations.

The piles are predominately end bearing into the underlying siltstone strata so the most cost effective solution was deemed a steel tubular driven pile to avoid excessive breakages which precast piles would likely incur upon the rock.

Because of heave on the site, precautions were taken around the pile caps and underside of the beams using simple compressible material and void formers. This meant that there was no excessive dig and the beams could be kept higher resulting in fewer courses of block & brickwork.

Smartfoot foundation designs are bespoke to each house type and so the engineered precast beams are always the perfect fit for each plot constructed. The post-tensioning technology means that the installation process on site is completely dry with no requirement for cast insitu joints and intersections resulting in a true precast solution. As no additional/wet products are required to complete the works with the Smartfoot® system, the follow-on trades can begin work as soon as we have moved from the plot.

Over 950 No. 178mmØ steel tubular piles were installed to depths of between 5 & 7m. The total duration of piling was 6 weeks with the Smartfoot® beam installation taking approximately 28 weeks.

