

Chesterfield, Jewsons

Complex king Post Wall design, build and install to accommodate Jewson - one of the UK's most prominent builders' merchants.



AARSLEFF

As the HS2 Station Master plan sets out a vision to create a vibrant gateway to the North, the current location of the Jewson's Chesterfield branch is no longer suitable due to the impact of works carried out to develop the HS2.

Jewson, which currently owns 500 branches across the UK, has relocated their former Chesterfield branch to Sheffield Road, continuing their brand's presence in Chesterfield, which has been a home for Jewson for just over 25 years.

Morgan Sindall was appointed as the main contractor and expects the end-project to be completed in early 2022.

Aarsleff Ground Engineering has been sub-contracted to assist with slope stabilisation, and therefore proposed construction for a king post retaining wall solution to enable the formation of a commercial unit and service yard. The lower-level design for the service yard has been designed to allow direct access from Sheffield Road. The king post wall also supports the existing Stagecoach yard during and after excavation works.

The main challenge of the project was working within restricted access to allow Stagecoach to resume regular business by eschewing the area and allocating space for buses to enter and exit the premises frequently. Manoeuvring a crane and a heavy-

duty rig, Aarsleff's LB24 rig was exceptionally challenging, but fortunately, the ground conditions were fair and supported the weight and movement of both machines.

Using Aarsleff's LB24 rig, the wall was installed top-down. The LB24 Junttan rig drilled/augered to the design toe depth before king post columns were placed in open piles using a crane. The piles were concreted to the top for maximum stabilisation. The height of the retained wall varied from 2.45 – 4.64m, with a total wall length reaching 122 l/m, which was designed by Aarsleff's in-house design team.

King post walls are a quick and straightforward installation. They comprise boring a hole with our LB24 continuous flight auger rig before filling it with concrete, then installing an H beam. The H beam allows concrete or pre-stressed panels to be inserted between the webs of the H sections.

Works began on w/c 10th of May and finished w/c 1st of June, on time and in budget.



Data:

Scope of works:

- 2.45-4.64m King post wall at 122l/m in length

Equipment:

- LB24 CFA rig
- Crane

Client

Jewsons

Contractor

Morgan Sindall

Type of contract

Subcontract

Construction period

May 2021 - June 2021

Aarsleff Ground Engineering is one of Europe's leading piling contractors, and we undertake a wide variety of piling, drilling and foundation projects in the UK and abroad. We have offices in Denmark, Poland, Sweden, Germany and Norway.

Our fleet covers hydraulic piling and drilling rig as well as cranes and vibrators.

Contact

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