

COMBINING OLD AND NEW IN £300M MANCHESTER DEVELOPMENT

Working for Domis Construction, our Specialist Piling Team has supported a major new development in central Manchester to create new homes and businesses while preserving the area's historic railway roots.

The team has installed 268 No. CFA piles underneath the grade two listed railway arches, which were as low as four metres in places.

The confined working space and variable ground conditions created a very technically challenging environment as the team deployed two No. Klemm 709 rigs with four-metre masts and used specialist rock augers to complete the job.

Mixing older techniques with more modern approaches, the project has seen Van Elle install several preliminary test piles as well as using a specialist finite element analysis partner to fully test the design.

We have completed the ground engineering work for Domis Construction and the client's designer, Renaissance, and worked with A2 Studio to carry out the finite element analysis and 3D modelling for the project.

Once completed, the new buildings will create around 240,000 square feet of residential and office space, while the railway arches will be transformed to create places for new bars, restaurants and shops.



OUR APPROACH

- VE** 3D Plaxis modelling carried out by A2 studio under Van Elle's appointment to refine the pile behaviours and pile design.
- VE** Three No. preliminary test piles installed and tested to 6,000kN along with 268 No. 600mm CFA restricted access piles installed using two Klemm 709 rigs fitted with four metre masts.
- VE** Specialist rock augers used to drill through shallow rock in areas with restricted access under railway arches, which were as low as four metres in places.



PROJECT STATS



£649,000



2020



**Domis
Construction**



Manchester