



NEWARK MARINA

May 2020

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SCOPE OF WORKS 529No. Steel Sheet Piles - total of 324 Linear metres, 28No. 254mm steel H-section columns, 203 / 46-203 / 71 wailing beams and 20mm-25mm & 32mm Tie bars

CLIENT Newark Marina Ltd

EQUIPMENT Movax Vibrator Hammer, Crane Suspended Air Hammer

CONSTRUCTION PERIOD 28th May 2019 – 15th May 2020



INSTALLING A MULTIDISCIPLINE SOLUTION FOR THE EXTENSION OF A MARINA.

Newark Marina, based on the non-tidal section of the River Trent, offers a safe and tranquil location for boating enthusiasts with scenic views over open fields and countryside and within walking distance of the historic town of Newark-on-Trent.

From the marina, boaters can cruise the picturesque rivers towards Nottingham, Lincoln and York or access the coast via Boston to the Wash and Hull to the Humber.

On behalf of the main client Newark Marina Ltd, Aarsleff Ground Engineering were awarded the contract to install the steel sheet piled walls that would create the new area of water for boats to enter and moor in the marina.

The specialist works also included wallings and tie bars for some sections of the wall, along with installation of steel H-section columns.

In late May 2019, Aarsleff deployed its Movax vibrator hammer mounted on their 34T excavator unit to supply, offload and install 174No. steel sheet piles which formed a retaining wall approximately 104 lin/m in length.

In addition to this, 355No. “free issue” steel sheet piles were also installed

extending the retaining wall to 220 lin/m.

Once all the sheet piles were installed, the main contractor excavated the ground to the required level and pumped water into the new area of the marina.

Some of the phases of work were put on hold due to adverse weather, with heavy rainfall in Autumn 2019 and Winter 2020, causing a lot of the site to be flooded.

The next phase of the ground engineering works involved installing 28No. 254mm steel H-section columns of up to 17.5m lengths. These piles were used on the highest section of the retaining wall and were required to ensure the wall could withstand the bearing pressure of a new care home facility to be built adjacent to the marina.

These were initially installed with a Movax vibratory hammer to an average of 8m, with the remainder length driven in by a piling rig with a hydraulic hammer.

On the section of wall closest to the river Trent, the sheet piles were restrained using 203/46-203/71 walling beams and 20mm-25mm and 32mm Tie bars, which were anchored off an existing sheet piled wall installed on the rivers bank.

These provided the necessary stability and performance required for the weight of water within the new section of the marina.

For more than 40 years, the Aarsleff group of companies across Northern Europe have developed the specialist expertise required for marine construction work for projects that include harbours and ferry berths, coastal protection, sea crossings, dredging work, dolphins, piers, outfalls, rivers, embankments and offshore wind foundations.

Aarsleff Ground Engineering were therefore the ideal partner for undertaking the redevelopment work at Newark Marina and a local one too - with its head office based just 3km from the site.

Aarsleff's Construction Manager Jim Wilson said,

Our piling operations at the Newark Marina have showcased our experience and flexibility on marine projects. Despite having issues with the weather, we were able to work closely with our client to ensure we could operate safely and efficiently on site. Our one-stop package provided savings for the client, along with a single point of contact throughout the duration of the project.”

Aarsleff Ground Engineering Ltd is the UK trading arm of Danish contracting giant, Per Aarsleff A/S. Incorporated in the UK in 1991, Aarsleff Ground Engineering is one of the UK's leading ground engineering specialist contractors, with piling, geotechnical, and retaining walls divisions. An in-house design team means Aarsleff can offer you a full package of design and installation and we actively promote early consultation for value-engineering to give our clients the best service, design quality, safety factor, and value.

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Aarsleff Ground Engineering
info@aarsleff.co.uk | Tel 01636 611140