



The Rothen Group

Maintaining Britain's waterways

Contract Services



REPAIRING, RESTORING & MAINTAINING THE INLAND WATERWAYS

therothengroup.co.uk | 01827 215715 | info@therothengroup.co.uk

PROTECTING THE FUTURE



Plant Hire **Plant Trees**
FOR EVERY BOAT YOU HIRE, WE PLANT A TREE

4500 trees
and counting ...



YOUNG TREE ABSORBS
c.5.9kgs CO² / year



10 YR OLD TREE ABSORBS
c.22kgs CO² / year



**INSPIRATIONAL
INNOVATORS**

Innovation is a core value of The Rothen Group and we have identified people that are going above and beyond. These people continue to push our teams to improve the way we do things and the kit that we do it with.



We have launched our own in house mentoring scheme, 'LIFTING LEGENDS'. Each team has its own Lifting Legend, with a higher level of experience and training, making lifting real and accessible to all our members of staff, which ultimately leads to safer practices and good, safe habits.



VALUES

Our **VERSATILE** fleet can be used across the country to facilitate all types of inland waterways whether it be for hire, marine contracting or operated plant.

We have a **PASSIONATE** team who strive for excellence; in the quality of workboats sent on hire, operating the boats; or delivering a civil engineering project.

Our team of **EXPERT** engineers are able to provide 24hr response time to problems.

We pride ourselves on having a **PRAGMATIC** approach to projects and can advise clients on the best way forward for hires or contracts based on cost, time and the outcome required.

Our use of **INNOVATION** leads to delivery of your project; with potential to specially adapt pieces of kit, fabricated to suit your needs.

PILING



Our expert team can advise you on the best piling methods and materials.

Our knowledge and pragmatic advice will help you find the best solution for your project, considering both ground conditions and the application of the pile, we can ensure the piling is suited to your needs. We can provide a full design and build solution for your project, including structural calculations.

Knowledge of which piles or bank stabilisation technique to use for each site can save you considerable costs. We are confident in assessing whether steel sheet piles, timber piles, plastic piles, nicospan or gabion baskets are appropriate and we have the ability to carry out works from either floating plant or from the land, depending on site constraints.

Once the piles are driven, there are a variety of options for backfilling and reinstatement which we are able to advise on and carry out for you.



PILING



CASE STUDY: GREENFORD GREEN



SITE: Glaxo Smith Klein Factory Site,
Greenford Green, London

- Input into design of the bank protection required finish
- Liaising with Canal & River Trust engineers and client to approve design
- Sourcing specialist suppliers for one-off coping with exacting finishes
- Undertaking piling works including all marine plant & experienced team
- Laying copings to landscape architect specification



TESTIMONIALS

Graham Ramsden, Senior Project Manager for Canal & River Trust;

We have used The Rothen Group on a number of towpath projects. Their staff are very easy to work with, approachable and always happy to offer early contractor advice on methodology or an alternative design if this achieves the desired output, but with a shorter programme or cheaper cost. They always provide clear and accurate quotations to enable us to reassure the funders that the project can be delivered on time and to budget.

Simon Andrews, Senior Project Manager for Breheny;

We approached The Rothen Group due to the specialist nature of the works required. We needed to work with experts who could provide solutions to a set of challenges, including overcoming the narrow environment of the canal. The Rothen Group had trained operatives and the unique plant and machinery equipment needed to stabilise and complete piling works in preparation for building the new bridge.

Martin Dean, Site Agent, JN Bentley

Firstly, can I complement Joe and the team on site on the job they've done to date. CRT and our JNB staff have all been impressed with the quality of work but also the attitude and communication skills of your team. It is appreciated!

TOWPATH RESURFACING



Towpaths now form an essential highway for cyclists, walkers and boaters.

The Rothen Group has extensive experience in all types of towpath resurfacing, from Breedon gravel to Tarmac resin surfaces. We are able to carry out small maintenance and works through to larger scale installation of new towpaths.

Using floating plant, we can remove and bring in materials to the most inaccessible of places with minimum impact on the environment.



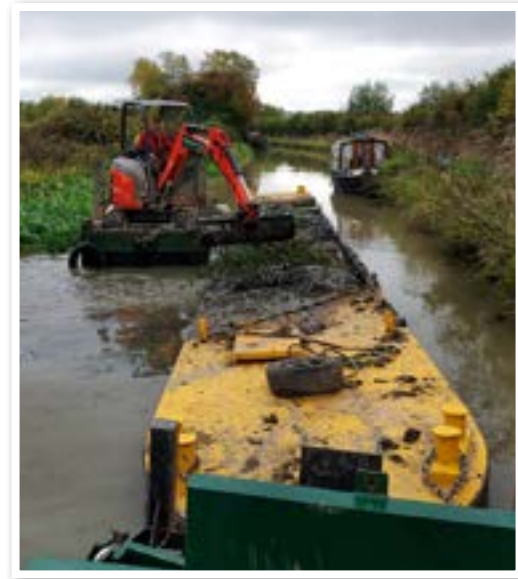
DREDGING



We have extensive experience in carrying out all types of dredging on inland waterways.

Our proactive, knowledge based approach ensures even the most difficult canal or river dredging; of moorings, winding holes, bridges, non-navigable waterways, attenuation features or lakes can be undertaken.

We have a range of floating plant and machinery to accommodate any sized site and facilitate removal by water or road to deposit sites for drying and reuse as topsoil or compost. We are more than happy to discuss your needs and undertake a site visit free of charge, to assess the best approach for you. Using floating dredgers, modular pontoons or long reach excavators, we can accommodate your project needs. In addition we are fully licensed to dispose of your material in a cost effective manner, which ensures low environmental impact.



LOCK MAINTENANCE



LOCK MAINTENANCE

Every type of maintenance from full lock drain-downs, installation of stop planks and logs, fabrication of stop logs and locks. Everything from heritage brickwork to wing walls and lock sides can be carried out by our skilled craftsmen.

With our specialist floating equipment we can undertake lock gate changes and lock dredging in the most logistically challenging locations. We undertake replacement of lock gates and ladders, repairs to heel cups, cills, stop plank grooves etc.

We offer an emergency service for lifting lock gates back into position after collisions. Our full turnkey solution is unrivalled in the market place, with not only our knowledge but our wide variety of craft, experienced operators and qualified appointed persons to carry out safe and efficient lifts.

We now have the ability to design and build lock gates in FSC oak.



GABION WALL BANK PROTECTION



The Rothen Group are experts at installing Gabion baskets, whether for a retaining wall or bank erosion.

We also install gabion mattresses as well as rock armour for scour protection in high flow areas.

The Rothen Group were asked by Canal & River Trust and Kier to assist with a bank slippage along the canal in Skipton. A 30m stretch of canal bank had slipped into the canal causing an obstruction and blocking the canal to navigation.



This can be an inexpensive solution to protecting banks, predominantly on canals.

Where stone walling is present the sandbags create an in-keeping appearance whilst providing stability and erosion control. It can also be used on heritage or conservation areas to maintain the integrity of these historic sites.

The Rothen Group were asked by Canal & River Trust and Kier to assist with repairing several sections of piling and washwall that lay within a Heritage Area on the Macclesfield Canal. Several separate sections of washwall had either collapsed or rotated with sections of stone coping having fallen into the canal along with sandbag walling. Over 220m of washwall needed to be repaired, whilst the towpath and canal remained open.



SANDBAG WALLING



SOFT BANK PROTECTION



The 2,000 mile network of canals are an important national asset, and although the traffic has decreased significantly since they were first built 200 years ago, the waterways are still enjoyed by many people, so it is essential that a careful maintenance plan is followed.

There are many aspects to consider to ensure canals are preserved and protected for many years to come, with bank maintenance being an essential factor in the smooth running of the UK's waterway network.



NICOSPAN CANAL & RIVERBANK PROTECTION



This more environmentally sensitive bank protection can provide a high quality and economical form of erosion control.

This is more suitable for smaller watercourses or sites where low usage and wear will occur. However, when used with coir rolls, the benefit of its 'open pocket' structure enables vegetation to grow through the protection and, creating excellent habitat and is therefore used on more ecologically sensitive sites.

Through sensitive backfilling and seeding, the original bank can quickly re-establish and flourish. We are more than happy to advise on the best backfill and seed mixes for your requirements.



WATERWAY RESTORATION

The Rothen Group team work hard to preserve and protect the waterways across England and Wales. We are sensitive to the technical and heritage requirements so that we preserve these wonderful assets for present and future generations. These works not only encourage, but enable more people to access the canals and river network.

Waterways provide important corridors for humans and wildlife and if appropriate management has not been put in place, degradation can quickly build up. Through utilising our skills and expertise in all areas of engineering on waterways, we are able to provide a pragmatic and practical solution.

These can include:

- Selective scrub clearance to reduce bankside shading
- Selective clearance of in-channel vegetation, to allow light to penetrate the water
- Large scale excavation and landforming works
- Dredging and de-silting
- Trench sheeting
- Lining of waterbodies with high quality liners or puddle clay
- Lock maintenance and lock gate changes
- Bridge repairs
- Dam and causeway/spillway repairs
- Construction of structures e.g. headwalls, overflows, outlets etc to/from reservoirs/canals, rivers and lakes
- Appropriate planting and revetment solutions
- Jetties, landing stages
- Piling
- Culvert cleaning
- Canal asset inspection
- Towpath resurfacing
- Canal bank repairs including hard and soft bank
- Ecological surveys
- Marina maintenance and construction



Peter Oakden, Chairman of Ashby Canal Association, commented on The Rothen Group's work after they completed some dredging works. He said " They have completed an exceptional job and it was as if they had never been when they left after the final clean-up".

Source: Spout December 2022 edition



TESTIMONIALS

“Over 300 meters of the bank had collapsed and needed replacing. We have worked with The Rothen Group with success on similar projects, so knew that their approach, extensive fleet and trained operatives would be well suited to tackle this particular job.”

Darren Hampshire, Project Manager
KIER

“As being a recognised contractor to Canal River Trust I would have no hesitation in offering them any piling work, installation of new jetties, dredging of marinas and general marina maintenance. All of the works they have already carried out for ABC Leisure Group has been to a high standard and has been satisfactory with regard to achieving their objective. I consider them to be reliable and competent with their knowledge to succeed and they provide practical solutions, whilst not compromising on quality or service. I would be confident to recommend them for any marine construction contracts on the basis they are a recognised contractor to Canal & River trust and the work they have carried out for ABC Leisure Group Limited.”

ABC LEISURE GROUP

The Rothen Group work with a number of marinas, waterway trusts and boat clubs, covering residential and commercial moorings. We have extensive experience of carrying out marina construction, dredging, installing new or refurbishing existing pontoons and jetties (steel or timber) and creating new moorings with piling and bank stabilisation works, as well as marina design and construction.

Our staff and working methods are sensitive to working in high residential environments as well as historic/protected sites, to ensure the best outcome for client and environment as a trusted marina construction company.

We are always interested to hear from new clients, whether they be small or large, to help advise and guide them through their maintenance requirements.



MARINA MAINTENANCE



AQUATIC VEGETATION MANAGEMENT



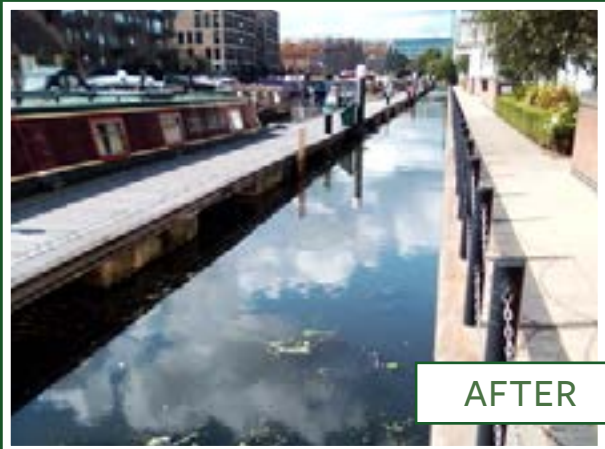
We have a large range of weed cutting and harvesting boats. These have been specially adapted with different baskets, cutting heads and rakes to ensure all types of floating, submerged or blanket weed can be dealt with. The attachments can also facilitate depositing to bank or into a hopper.

Some boats come complete with a trailer for easy offloading from the bank, straight into the water. It has twin propulsion augers to cope with very dense reed growth and strong river currents.

We have experience in restoring and maintaining waterways including lakes, disused canals, rivers and other inland waterways. Bank clearance works can also be carried out using the side arm to clear bank vegetation from the water, in difficult access sites.



BEFORE



AFTER



CASE STUDY: CENTRAL LONDON REED & WEED CLEARANCE



SITE: Central London
DATE: April 2019 - Ongoing Framework



The Rothen Group were asked by Canal & River Trust to assist with the management of weed along 20 miles of London's waterways for 6 months.

The project involved:

- Mobilising and operating up to 6 weed boats with experienced operators
- Understanding access restrictions, working on busy navigational waterways and liaising with general public
- Dealing with invasive species
- 'Innovative thinking' and versatility to generate an effective and efficient standard of work, resulting in high productivity
- Designing our boats to be able to deal with floating weed, thick blankets of weed, submerged weed and marginal reeds
- Being proactive with working to a set route & plan, but reactive to 'hotspots' around the capital
- Daily and weekly reporting to liaise with CRT and other third parties
- Providing operated tugs and hoppers for removing the weed
- We removed 6600m³ of weed (equivalent to 383 African elephants) and 400m³ rubbish in 2022.

RETAINING WALLS & ACCESS STEPS

We have constructed a range of retaining walls to widen towpaths and stabilise embankments. These are often sleepers or concrete panels with steel supports which provide an effective but relatively inexpensive way of holding back earth/banks.

Access steps are invaluable for inspecting and monitoring waterway assets. There are often safety critical features that need inspecting, but no safe way of accessing them. Through constructing access steps made from pre cast concrete, timber or metal, with a range of timber or metal hand rails, they make inspecting safer. We can provide a complete design and build solution depending on your budget and location. Often the sites are remote so access is only possible by floating plant, or works can be undertaken from land where access permits.



BRIDGE REPAIR & MAINTENANCE

Bridge inspection – pontoons or floating craft to set up scaffolding on.

Bridge repairs from bridge strikes and recovery of masonry with grab boats, to bricklayers repairing brickwork under or around bridges.

Can provide pontoons to support scaffolding or provide stable working platform.



CABLE INSTALLATION & UTILITIES SUPPORT



We have a range of kit to help utility contractors deliver replacement and upgrade cables and utilities in towpaths.

The floating plant is suitable for carrying pumps, cables reels, vac-ex and excavators and provide essential access to remote or difficult access sites.

Whether you're working with electric, gas, telephone, fibre optic or cable utility lines we have a solution for you.

Operated by experienced Helmsman, boats can provide welfare, tool storage, security for kit as well as a stable platform for loading and working off.



WIER BOOMS & TRASH SCREENS



There are many different types of booms used for different purposes; safety, environmental, security.

Safety booms keep waterway users away from dangerous situations e.g. weirs or sluices. They enable drifting or disabled boats as well as canoeists, swimmers or people who have fallen in from getting too close to the dangerous structure. The booms are secured either side of the watercourse and usually have small plastic buoys along a wire or rope. Depending on the boat/people using the watercourse, different strength booms will be used.

Environmental booms keep pollution, floating debris or weeds out of certain areas. This can be especially useful when junctions of different waterways exist to prevent the spread of invasive species or around industrial sites to control pollution. A combination of a tough curtain and plastic floats/buoys on top create the debris boom that can make clearing them easier and more effective.

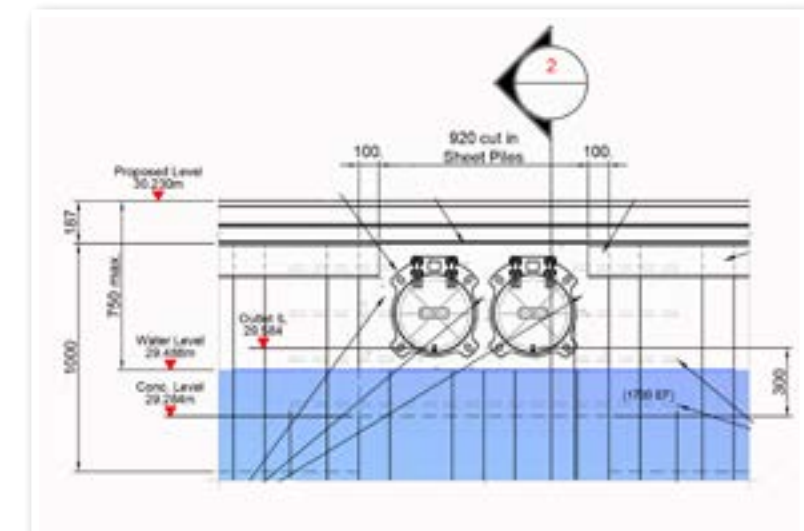
Security booms are installed to protect commercial ports, power stations and other critical sites.

Depending upon the location of the boom, floating plant may be needed to transport the booms to site and then install ground anchors to attach the booms to. We also have experience of clearing the booms – see our Tees Barrage case study.

DESIGN & BUILD

Due to our extensive practical knowledge of the inland waterways, we can help clients achieve their potential with new projects.

Our pragmatic approach to design means we can offer whole project support, from feasibility through to detailed design and build. With early contractor involvement (ECI) we help clients with; site investigation, topographical surveys, design & structural calculations and liaison with CRT or the EA, to ensure the project gains approval in a timely manner. Our flexible approach means if one solution becomes unviable, we can put forward another one. Whether you are working on a small or large project, we can assist you as much or as little as you wish.

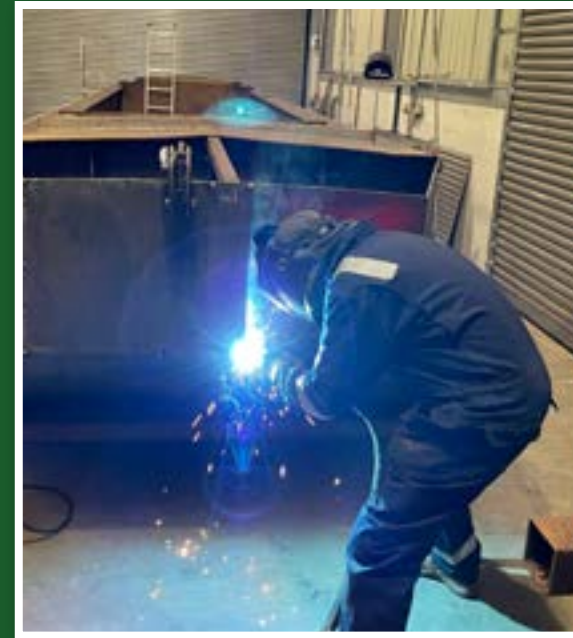


WELDING & FABRICATION

We can provide a complete design, build and installation service for custom metalwork products, either on site or in our fully fitted workshop.

We have fully qualified City & Guilds Welders and mechanics to carry out on-site repairs. We are able to do this by having fully mobile equipment. Our Lorries are fitted with 400 amp welder/generator sets mounted onboard. This enables us to carry out plasma cutting, manual metal arc (stick) welding, and oxy/acetylene gas cutting.

We can undertake the manufacture of mild steel fabrications to customer specifications. We also cover general fabrication of walkways, access stair and ladders, structural steelwork, on site welding, security grills and fencing. This includes weatherproofing and securing the product.



CULVERTS

The Rothen Group carry out all types of culvert maintenance and repair including:

- UV cured CIPP and fusion welded HDPE pipe culvert relines.
- Pressure grouting
- New headwalls both in brick and cast concrete
- Brick headwall repairs
- New penstock paddle replacement
- Scour protection
- New access lids
- Access steps and fall and edge protection



ECOLOGY

The Rothen Group carry out all elements of ecological surveys and mitigation including:

- Preliminary Ecological Assessments
- Phase 2 protected species surveys
- Licensing
- Implementation of mitigation

Our experienced and licensed ecologists have extensive experience and a proactive, pragmatic approach to ensure ecology runs smoothly with your project.



VEGETATION CLEARANCE

The Rothen Group have years of experience of de-vegetation works along the waterway network for a wide range of commercial clients.

We own a variety of specialised floating and land-based equipment and machinery to cut and maintain our inland waterways.

Our specialist equipment allows us to access areas that are remote and logistically challenging.

Our fleet of specialist floating plant allows efficient and safe clearing of vegetation, whether it be annual maintenance or an emergency fallen tree, our teams have the skills necessary to carry out the works.

Along side our floating plant, we have a large range of bankside equipment from chippers, tractors and hedgecutters to excavator mounted flail heads.





The Rothen Group

Maintaining Britain's waterways

SPECIALIST WATERWAYS CIVIL CONTRACTORS & MARINE PLANT HIRE

