

FORTH & CLYDE CANAL MILLENNIUM LINK, GLASGOW

Client: **British Waterways**
Main Contractor: **Morrison Construction**
Project Engineers: **Babtie Group**
Installers: **WT Specialist Contracts and Morrison Construction**

Requirements

The Millenium Link in Glasgow forms part of the extensive regeneration of the Forth & Clyde Canal between Edinburgh and Glasgow.

This major engineering project for British Waterways involves re-opening and upgrading the canal that had long since fallen into disuse with large sections around Glasgow actually being filled in some 30 years ago.

Consequently, the contract has involved digging out areas of filled canal, dredging other parts and re-aligning sections of the original route. Banks have been reformed and new bridges have been constructed over the revitalised waterway. A rapid and efficient means was needed to secure both geogrids for stabilising the new banks and sheet piling used to form a new landing stage.



Solution

Project engineers the Babtie Group specified Duckbill ground anchors, from WT Anchor Systems, as the range contains anchors able to do both jobs reliably.

Beneath various bridges, including the A82 crossing, the banks either side of the canal below the bridges were stabilised using geogrids secured using over 550 lightweight Duckbill MR88 anchors with 6mm stainless steel cables, all installed by Morrison Construction using hand held equipment.

To secure the sheet piling into wet and soft made ground, much larger Duckbill Stingray anchors were installed by WT Specialist Contracts using a JCB mounted breaker. The 30 heavyweight Stingray anchors with 20mm grip bars were driven 6m into the ground, grouted and locked to a working load of 66kN. The sheet piling was then capped with concrete to provide a robust landing stage for both pleasure and freight traffic once the canal reopens.

The Millennium Link project demonstrated the range and versatility of the well-proven Duckbill ground anchors. Their rapid ease of installation and long term reliability, coupled with the contractor's bad experience of other makes of anchor, made Duckbills ideally suited for securely anchoring both the geogrids and the sheet piling.