ST Michaels Pier, Dun Laoghaire, Dublin

- pile repairs using concrete encasement

Contractor: Norfolk Marine

2007

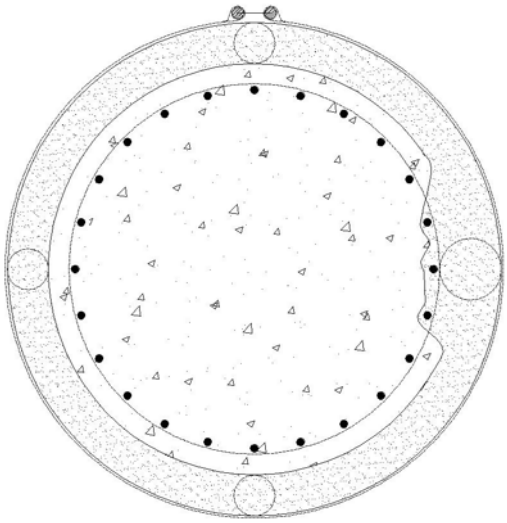
Proserve Ltd.
80 Priory Road,
Kenilworth,
Warwickshire, CV8 1LQ,
England

UK: 01926 512222
Int: 00 44 1926 512222
office@proserveltd.co.uk
www.proserveltd.co.uk

Fabriform

The jetty structure provides mooring for HSS and other vessels. The supporting R.C. piles had suffered from loss of concrete section so the piles were repaired and protected by insitu concrete encasement using the pile jacket system.

Damaged Concrete Piles



Pile Jacket System

The submerged pile lengths were originally formed by the 'intrusion prepakt' technique where larger aggregate is placed and then tremie grouted. The process had left areas of weak grout which had eroded exposing the reinforcement. The corrosion survey showed that the reinforcement had suffered surprisingly little corrosion and a 100mm concrete encasement protection was selected. A 50N/mm² strength micro concrete mix with polypropylene fibres was developed and used.

The piles were prepared by high pressure jet washing, removal of loose or weak concrete and cleaning of any exposed existing reinforcement. UPVC pipe spacers where fitted then 1.2m Ø pile jackets to encase the 1m Ø piles. Pile encasement extended from the bed to above high water level. 38N° piles in the worst condition were repaired.

Completed Repair