

Repairs

Concrete Repairs & Cathodic Protection

Custom House Docks Development, Dublin



SUSTAINABLE TECHNOLOGY



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Client
Custom House Docks Development
Co.

Principal Contractor
Freyssinet

Contract Value
£1.2 million

Contract Duration
22 weeks

Completion
May 2005

The Custom House Docks Development is a residential structure built on a reinforced concrete support framework of columns and beams within a flooded dock basin.

Freyssinet undertook surveys of the sub-structure after the dock was pumped dry to assess the condition of the concrete particularly in relation to corrosion damage caused by ingress of chlorides from the saline dock water.

Following the surveys Freyssinet and their in-house specialist Corrosion Control Services Ltd (CCSL) presented proposals to the Client and their Engineer for the repair of the sub-structures. These recommendations included the installation of a cathodic protection system and concrete repairs to the effected elements of the structure.

Freyssinet Limited were employed to carry out the concrete repairs, design and installation of a cathodic protection system and additional structural strengthening in the form of new RC walls as directed by the client's Engineer.

The expertise of Freyssinet in all of the key fields for the project, namely concrete repair, cathodic protection design and installation and structural strengthening allowed them to undertake the majority of the works in house and therefore offer the client the most cost effective solution.

Due to the variation in exposures the cathodic protection system utilised three different anode systems, embedded discrete anodes for atmospherically exposed slender columns, expanded mesh anode and concrete overlay for beam and skirt structures and a series of submerged anodes for the seawater submerged structures.

The project was completed in May 2005 and the CP systems successfully commissioned.



- 1 Custom House Docks Development
- 2 Anode mesh installation
- 3 Cable management installation

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