

Liverpool Canal link

Liverpool, England



Architects impression of the proposed construction

The Site

The new Liverpool canal dock link, is a £17 million scheme, due for completion in 2008, as part of the regeneration of the city for its European Capital of Culture year. The project will re-connect the Leeds & Liverpool Canal to Liverpool's South Docks via Stanley Dock, allowing boats to travel past the world-famous Three Graces and into the Albert Dock.

The project, which is still in its early stages, consists of a waterway which includes the construction of two new locks, two new bridges, and three tunnels, with the aim of allowing access for visiting canal boats, water taxis and hire boats, making it a major feature of the city.

'The design required a system to keep water within the canal and ensure that water could not penetrate the concrete tunnel.'

The Challenge

The design required a system which would offer a waterstop system with water excluding and water retaining properties; to keep water within the canal and ensure that water could not penetrate the concrete tunnel.

For roof decks area, a high performance waterproofing system suitable for efficient application over large areas was required. Additionally, a compatible joint system was also specified.

The Solution

Grace was able to use innovative technology combined with years of experience in providing waterproofing solutions to offer a viable solution for the client.

The Grace AT waterstop system, specifically developed for critical water retaining and water excluding structures was installed in the tunnels, and dealt with the issues of water migration. Its unique ability to act as a continuously active seal due to its hydrophilic properties, means it works better than conventional waterstop systems, and provided a reliable solution to the strict requirements of the design.

For waterproofing of roof decks, both Procor® Deck System 2 and Serviband™ were favoured. Procor Deck System, a liquid applied system overcame the issue of application over a large area, as it can be either spray or trowel applied. The system when used in conjunction with Serviband™ forms a continuous waterproofing system for concrete roof decks. Serviband, a joint system for buried movement joints, was specified to protect movement joints in concrete and to its ability deal with water pressure and accommodate movement.



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PRODUCTS USED

Procor® Deck System 2
Serviband™
AT System

CREDITS

Client: British Waterways/Liverpool City Council
Main Contractor: Balfour Beatty Construction Ltd
Structural Consulting Engineer: Arup Partners Liverpool

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