



Bridges – Samuel Beckett Bridge, Dublin



Project details:

The Samuel Beckett Bridge is a new crossing over the River Liffey linking the north and south banks in the Docklands area. The bridge construction is a cable-stayed, steel box girder structure with a span of 120 metres between north and south quay walls. An asymmetric shape will be provided through the positioning of the pylon outside the navigation channel at a point approximately 28 metres from the south quay. The bridge will have four traffic lanes, with cycle tracks and footpaths on either side. It will also be capable of opening through an angle of 90 degrees allowing ships to pass through. This will be achieved through a rotational mechanism housed in the base of the pylon.

Lyttag[®] LWA was used in lightweight concrete to reduce the weight of the bridge deck to reduce the downward deflection, to aid in the successful use of the rotational mechanism.

An LC40/44 LWAC with a density of 1600kg/m³ using coarse & fine Lyttag[®] LWA was used in the central strip and pavement areas.

The concrete was placed in one pour of 70m³ and skipped into place. Trials were carried out by CEMEX to ensure the density could be achieved.

Project:

Samuel Beckett Bridge,
Dublin

Date:

2007 - 2009

Client:

Dept. of the Environment
Heritage and Local Govt
Dublin Docklands Dev Auth.
Dublin City Council.

Architect:

Santiago Calatrava

Structural Engineer:

Graham Hollandia

Main Contractor:

Graham Hollandia

Concrete Supplier:

CEMEX

