



MERSEY GATEWAY

Highways & Bridges

CLIENT MERSEY LINK CCJV

CONTRACT NO. C20945

PROCESS SUPPLY, INSTALL & EXTRACT

VALUE £12,500,000.00

A Flagship project for SPI Piling Ltd, carried out from July 2014, to March 2015.

The Mersey Construction Consortium Joint Venture were engaged to design and construct the new toll crossing bridge from Runcorn to Widnes, as part of the enahnced traffic access development into Liverpool.

The Mersey Bridge was the most critical part of this project, a new 4 Lane suspension bridge spanning more than 1Km!!!

Access to construct the bridge was a major consideration, with poor access from the South Bank (Runcorn), due to the complexities of the Ship Canal network and its proximity to the required crossing point, and limited access from the North Bank, which improved as the other highway works progressed.

As such the, answer was simple......Build a bridge, to help build the bridge! Access via the river Mersey was next to impossible due to shallow depths of water meaning heavy marine construction equipment normally associated with this type of job, could simply not gain access, not to mention restricted headroom access on the river, owed to the existing Runcorn Bridge Structure.

SPI therefore worked with the consortium, for the design, supply, and installation of a temporary trestle bridge, to span more then 1100m across the River Mersey. A temporary trestle bridge with 76 Pier Bents, formed from 610-914 dia tubular piles, and 77 coresponding Bridge spans, thus connecting the two Banks, and providing a working platform, out of the tidal range to allow the Main Bridge construction to proceed.

Lets not Fail to mention here that of course nothing is simple, and one of the spans had to open to allow navigational craft passage through the location of the works. An operational Lift Bridge was required to facilitate this, and was provided.

Over 6000te of Steel was required to construct the temporary bridge, and over 1800 precast concrete units were used to pave the deck, with a continuous concrete pad for traffic to safely pass from one side to the other during construction.

Aside the temporary Trestle, clearly a suspension bridge requires pylon style structures at various points along its length, in this case there were 3.3 extremely large structures that required founding onto the natural sandstone bedrock deep below the river Mersey.

3 Circular cofferdams were provided to allow excavation to a depth of more than 18m!!







































































































































































































