



CORNISH CONCRETE PRODUCTS LTD

CITY VIZION, NEWPORT

The river walkway at City Vizion Newport is a flood defence structure that forms the boundary between the river Usk and the proposed residential Development. The river Usk at this location is a tidal estuary with the second highest range in the world.



The structure takes the form of a multi span bridge running parallel with the river bank, made up of precast concrete units stitched together with insitu concrete and supported on large diameter tubular steel piles. To provide anti scour protection a sheet pile wall was driven on the land side of the walkway and is tied into the structure with a capping beam. The tubular piles 1200mm diameter and 17 metres long, found in the underlying gravel.



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The Superstructure of the walkway is formed in precast concrete elements comprising of twin beams 12 metres long spanning

between slabs bolted to the top of the tubular piles to form a support for the main beams. The structure is made monolithic by insitu concrete stitches between the precast concrete sections.

The sheet pile cut off wall runs along the land side of the walkway. The type of sheet pile used was varied dependant on the ground and loading conditions and ranged from Steel at 11m long to Vinyl at 5.6 m long. The edge of the inner walkway is designed to rest on top of the sheet piles and an insitu capping beam is formed to tie the piles to the walkway.



(Status: ISO 9001: 2000)

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The Lower Usk is a Site of Special Scientific Interest and the River Usk as whole is a Special Area of Conservation. The design and construction took into account the environmental concerns of the Countryside Commission for Wales and detailed special measures for the provision of species such as otter and migratory fish.