

Banagher Concrete Ltd. introduce the new 'W' Beam for long span bridges

The new 'W' beam is a modified version of the existing U-Beam which has been used extensively throughout Ireland and the U.K. for bridge construction over the last 15 years. The W-Beam is 50% wider than U-Beam, measuring 1.5m across its soffit. The beams vary in depth from 1.7m to 2.3m and spans of up to 45m are achievable.

The first W-Beams were manufactured in Banagher in late 2005 for Ascon Ltd. on the Kinsale Road Interchange Scheme, Cork. The scheme included the construction of a 2 span bridge over the existing roundabout. The Scheme is a Design and Build Contract, and the selection of the precast W-Beam solution for the bridge decks contributed to the overall acceleration of the construction programme. Each span consisted of ten W14 beams approximately 37m long, and 1.8m deep. The beams weighed in excess of 95 tonne and were delivered to site in convoys of four beams per night.

The Kinsale Road Roundabout is one of the busiest roundabouts in Ireland, and due to the nature of the site and the obvious traffic management restrictions, Banagher Concrete together with Ascon and Mott McDonalds their Engineers, helped to develop a precast cantilevering parapet

system. With the W-Beams in position on the abutments, the precast parapet sections were lifted into position and secured to the edge beams, thus providing an instant cantilever and parapet, without the need for costly temporary works or shuttering and minimising the disruption to the traffic flow below. Once the precast parapet sections were in place a guard-rail was

bolted to the units to secure the deck area for the next phase of construction.

At present there are a number of schemes at an advanced stage of design where W-Beams are providing a precast concrete solution to long span requirements. These include: N8 Cashel to Mitchelstown, Limerick Tunnel and Approach and the N77 Kilkenny Ring Road.

