

Case Study—45m x 4m Tied Arch Vierendeel Truss, Bedford









Client: J B Leadbitter/Bouygues—Ref 4071

Location: Riverside North, Bedford

Length: 45.0m

Width: 4.0m

Form: Steel Tied Arch Vierendeel Truss with Stainless Steel

Tension Wire Parapet

Project Description

CTS Bridges provided the Riverside North bridge for the town centre of Bedford as part of a major town centre regeneration project.

Our design team was involved from an early stage working with Leadbitter-Bouygues to develop a viable scheme that met both the aspirations of the Developer and the requirements of Bedford Borough Council who would be required to adopt the scheme once complete.

The 4m wide main deck was specified by the local authority to accommodate shared pedestrian and cycle use at a busy town centre location.

Approach ramps on the south bank bring users up to the bridge from floodplain level and ensure that the bridge is sufficiently elevated to allow river traffic and towpath users to pass underneath.

The constrained site dictated the programme for the bridge which had to be installed before the land could be used for development. We delivered the main structure to site as 3-units for welding together and then lifted into position with an impressive 750t crane.

Top Photograph: Bedford Riverside Footbridge

Second Photograph: Installation of bridge

Third Photograph: Non-slip surface on deck

Fourth Photograph: Bow arch with stainless steel parapet