



## Frankwell footbridge, Shrewsbury

For Shrewsbury & Atcham Borough Council



The bridge spans the River Sever and the adjacent Smithfield Road on the north side of the town connecting a car park in Frankwell to the main shopping area. Easy pedestrian access to the shopping area will encourage drivers to park north of the river thus relieving traffic congestion in the town centre.

An asymmetric profile was necessitated by the low-lying north bank and the need to provide adequate traffic headroom above Smithfield Road on the south bank. A single span was required across the river in order to avoid obstruction during times of flood. The adopted design (of five schemes prepared) was selected as being the least obtrusive in an area of historic and scenic interest. The owners had expressed a preference for a bridge which would contrast with the others in the town.

It has three spans of 13 metres, 48 metres and 25.6 metres. The main span is supported at its third points by cables from a single tower on the north bank and by a pier on the south bank.

The bridge deck is of steel box girder construction having a wide top flange cantilevered between the webs. Weight is reduced to a minimum. The erection of the structure by cantilever methods avoided the need for temporary works in the river. Erection was carried out in a period of forty hours using a 300 ton capacity mobile crane. The top flange connections were made by welding. The webs and lower flanges were connected by friction grip bolts. Total weight of steelwork amounted to 53 tons. The bridge is simple and slender in appearance. The clean external surface provided by box girder construction minimises future maintenance costs.

*Structural Engineers:*  
**Mott, Hay & Anderson**

*Steelwork Contractor:*  
**NEI John Thompson Ltd. Horseley Bridge**

### **Judges comments**

An absolutely delightful little structure which sits well in this pleasant setting.