

Almondell Footbridge

Almondell Estate, Midlothian, for the
Midlothian County Council

ARCHITECTS

Morris and Steedman

STRUCTURAL ENGINEERS

Ove Arup & Partners

STEELWORK CONTRACTORS

Robert W. Hay Ltd.

Judges' Comments

A footbridge which met all the site circumstances in an elegant manner and where the selection and arrangement of the steel members form a pleasing and rather dramatic structure. Due regard was paid to erection methods and procedures so that maximum use could be made of voluntary labour.

The bridge is situated in unspoiled, heavily wooded countryside and forms a major link in the Almond Walk Project, for which several miles of the River Almond have been designated for public recreation by the Midlothian County Council. At the bridge the river is about 100ft wide and road access is in the west only. The usually quiet river sometimes floods to a depth of 10ft over normal.

Voluntary youth labour has constructed most of the footpath and picnic areas and it was desirable to continue to use this force wherever possible. This condition and a limited budget influenced the design which had also to be an attractive addition to the Walk. Several structural principles were investigated but the cable-stayed girder provided the best solution. It was arranged with the Army that a local T & AVR Unit would be available to erect the superstructure over a period of six weekends. Steel was chosen to permit the prefabrication of large lightweight units with simple connections which would result in quick erection. To achieve this, rectangular hollow sections were

chosen, and it was felt also that these had a rustic quality in sympathy with the surroundings. Total weight of the superstructure was only about 11 tonnes so that foundations were simple and provided interesting work for the voluntary youth labour.

The 'A'-frame cable pylon and deck main components were delivered to site in approximately 30ft long prefabricated sections. The 'A'-frame was erected by crane and temporarily stabilized by its own cables. The deck was welded completely on the bank and launched on rollers in one day. A temporary mid-river roller station was erected for this purpose.

Opposite: The strong simple lines of the bridge are evident in this view.

Right: The nature of the Walk can be seen on this bridge approach.

Below: Complete sympathy between the bridge and its environment is apparent from across the River Almond.



