



This unique slender cable stayed aluminium footbridge spans 45m across the river Medway in the centre of Maidstone at a very sensitive site opposite the Grade I listed Archbishop's Palace. The award winning design comprises a multi-cellular deck made up from identical extruded 300mm deep aluminium sections laid side by side and pre-stressed transversely to form a laminated deck. This deck is supported by pre-fabricated locked-coil stays from twin inclined skeletal steel masts. Balustrades are carbon fibre posts and stainless steel wedge wire panels.

The aluminium system was developed to minimise costs through the repetitive use of a single, easily handled lightweight component to perform all deck functions without the need for any secondary structure or added finishes. Maintenance costs are also kept to a minimum through careful detailing and materials selection. This unique aluminium deck system has been patented and represents an extremely economic, easily assembled and low-maintenance solution for footbridges and other applications.

The 80m bridge has a two span arrangement which evolved from a requirement to cross both the river and the floodplain, and from a need to concentrate construction effort on the west bank where access was good. The single sculpted concrete "cutwater" pier supports the masts and carries the access steps up from the towpath on its back to provide the visual focus of the scheme. This pier is supported on a bored pile foundation. On the opposite bank, abutment forces are low to as to permit lightweight construction to minimise damage to the sensitive ancient monument and historic stone river wall.

The design was developed in collaboration with Wilkinson Eyre Architects, and was the winner of the design competition held by Maidstone Borough Council in 1997. The bridge was constructed by Christiani & Nielsen and opened in October 1999 by HRH Prince Michael of Kent. The design has received several awards for innovation and high quality, including a Civic Trust Award and a Special Structural Award from the Institution of Structural Engineers.

Client:

Maidstone Borough Council

Location:

Maidstone, Kent

Service Dates:

1996 - 1999

Services:

Footbridge Design
Construction Supervision

Architect:

Wilkinson Eyre Architects

Awards:

- Aluprogetto 2006 - First Prize ex-equo (Bridges & Gangways)
- Aluminium Extruders Association Award 2001
- Civic Trust Award 2001
- ICE South East Merit Award 2000
- IStructE Structural Achievement Award 2000
- Millennium Product Award 1999

