

Cobweb Bridge - Sheffield UK



Situated in the city of Sheffield, the cobweb bridge was constructed to extend a riverside walkway known as the Five Weirs Walk, down the River Don to below the Wicker Arches Viaduct. The 'Wicker Arches' is a Victorian railway viaduct in the centre of the city. The space below each arch is used by workshops of various sorts, all apart from the one spanning the River Don.

In order to extend the walkway, the Five Weirs Walk Trust requested that a footbridge be suspended under the arch spanning the River Don, its construction would avoid a one-mile detour. The City Council consulting engineers Sheffield Design & Property, were engaged to design and supervise the construction.

Completed mid 2002, the footbridge is suspended from cables fixed into the arch stone work with over 120 Cintec Stud anchors with heavy duty eye-nut attachments. The design of the anchor was determined after extensive testing and the drilling was carried out to match the angle of the cable to avoid bending moment. The cobweb Bridge is so named not only because of the web-like mass of cables from which it suspends but also because the installation of two lightning rigs, suspended from the arch crown by Cintec anchors, are shaped like giant spiders.

The anchors were installed by JHM (Drilling & Grouting) of Doncaster sub-contractors to the main contractor - Thyssen.

The Wicker arches are an English Heritage listed structure designed by Sir William Fowler, the designer of the famous Forth Rail Bridge.



View of the supporting cables under the arch after lifting bridge from supporting scaffold.



Upper Fixing Detail - Cintec Stud Anchor with Eye Nut attachment.



Lower fixing detail with turn buckles.