CINTEC
REINFORCEMENT SYSTEMS

Case Study

Fixing masonry cracking under water:



Leaderfoot Viaduct

Melrose, Scotland

Project Highlights

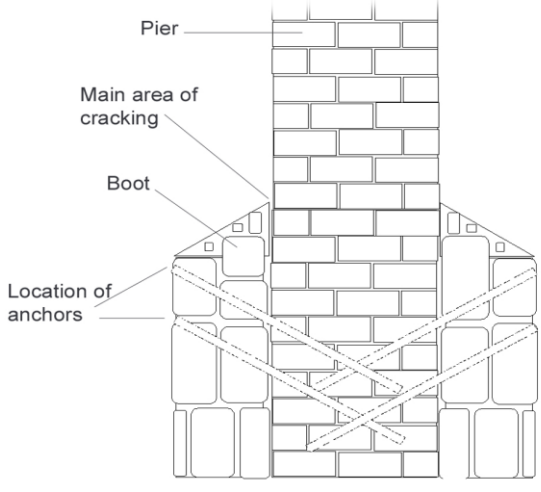
Opened in November 1863 for the Berwickshire Railway

The outcome:
Stone and brick reattachment under water

Completion date: 1994

+15 Cintec anchors installed, 6 ft in length each

Engineers: C. Jopp and W. Peddie



Located in the Scottish Borders, the Leaderfoot Viaduct **stands 126 feet from the floor of the river valley.** However, in 1994, after more than a century of service**, extensive cracking had developed between the stonework and the brick masonry;** both above and below the water line.

Although the river depth did not exceed 5 feet, divers were required to assess the extent of damage underwater. A remedial solution for **re-securing the two elements was devised by the installation of sixteen - ¾" Cintec rebar anchors**, with four anchors per pier.

Given the river's popularity with salmon fishermen, preserving the natural environment was a top priority. Traditional grouting methods that risked contamination were not viable. In this context, **Cintec was the clear and safest choice.**

Holes were drilled through the boots and into the piers under the supervision of the local river authority. **The Cintec anchor was instantly filled with river water**, and due to its unique nature**, the water was fully displaced upon grout injection, sealing the cracks.**



The subsequent watertight seal allowed conventional grouting to be injected into any remaining internal voids **without risk of leakage into the water system.**