



## Rebar Pull-out Testing Case Study

**Client:** GRK Civils Limited

**Project:** Little Woodhouse Street Strengthening Works

**Services:** Pull-out Testing on Sacrificial Rebars

### About the Site

Strengthening works were being carried out on the tunnel section of Little Woodhouse Street, which runs beneath Leeds General Infirmary in the heart of the city. The scheme was commissioned by Leeds City Council and sections of the carriageway were closed for 4 months to allow the essential works to take place.

### Requirements

Construction Testing Solutions were asked to perform pull-out tests on sacrificial rebars of varying diameters and lengths; which had been placed to assess the method of works to be undertaken on the next phase of the strengthening project.

Using a 200kN capacity load cell, a hydraulic hollow ram with a 23 tonne capacity and various sized specially fabricated couplers, we set up the equipment to pull axial along the resin fixed rebar's to the required design loadings and record the results of each test and produce a factual report.



“The service and technical assistance we got from the CTS project lead meant we could progress with the works with minimal disruption.”

## Why Construction Testing Solutions?

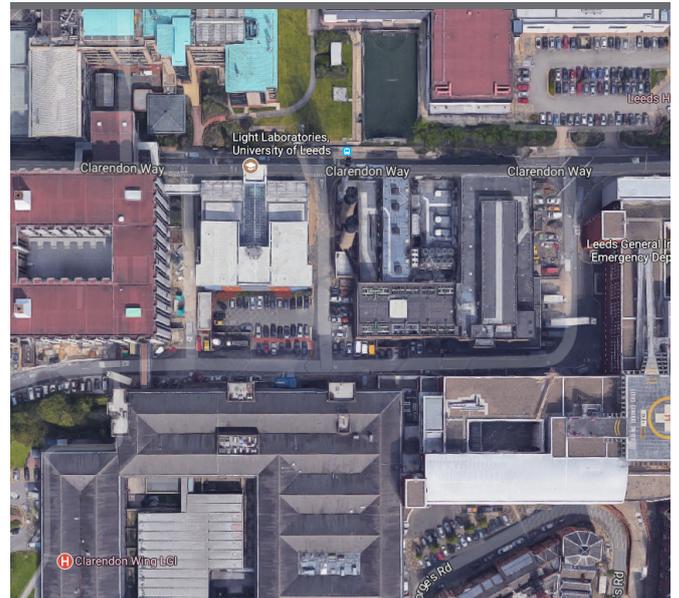
Construction Testing Solutions were one of three testing houses asked to submit proposals for the works. Our previous experience with pull-out testing meant we could effectively assess the project requirements on-site and advise on the best options going forward.

Providing accurate and timely test results delivered confidence that the methods of works to be followed going forward were suitable to satisfy the stringent design requirements.

## Results

Testing bars of a variety of diameters, set at a variety of depths, and pulled at varying loads allowed our client to effectively assess and design the next phase of the works. Test results provided insight into the diameter of bar that should be used, the depth to which they should be embedded, the resin to be used and the curing time to be allowed.

Our rapid turnaround and clear reports allowed GRK Civils to complete their works on time, within budget and to the satisfaction of the structural design engineer.



“We were impressed with the service and technical ability of Construction Testing Solutions. Reports were issued quickly and were very clear; allowing us to progress the design works and the project without delay.”

**Craig Lowery, Project Manager - GRK Civils**

# Construction Testing Solutions

## Construction Testing Solutions

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