



AmcoGiffen



Tunnel Stabilisation



September 2025



3 Weekends

Overview

Universal Piling & Geotechnical were appointed by project partners AmcoGiffen to undertake specialist drilling and installation works at Penmaenrhos Tunnel as part of essential stabilisation and safety improvement works along this key section of the North Wales rail network.

Working within a challenging tunnel environment and to tight possession windows, our team successfully completed the installation of 99 stainless steel rock bolts and associated mesh systems, ensuring the continued integrity and safety of the tunnel structure.

Scope of Works

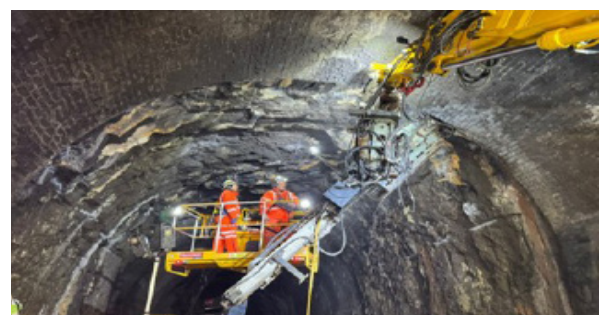
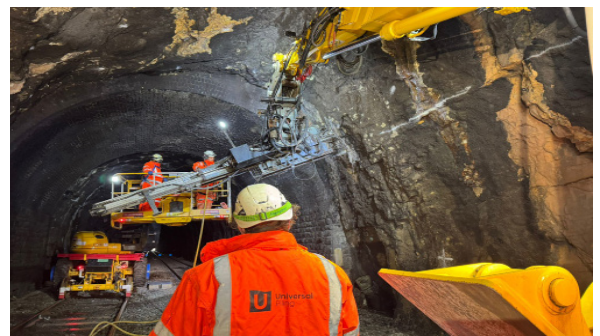
The project required precision execution within restricted timeframes and confined spaces, with works delivered over three 52-hour possessions to minimise disruption to rail services.

Key elements of the scope included:

Drilling and installation of 99 no. stainless steel rock bolts using a hydraulic drill attachment, mounted to a Road Rail Vehicle (RRV) for efficient and controlled operation.

Rock bolts installed using Minova Lockset resin and a Turmag drive system, ensuring maximum bond strength and durability in demanding ground conditions.

Installation of approximately 220m² of stainless steel Tecco G65/3 mesh across three defined intervention areas, providing tunnel wall stabilisation.



Universal Group

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Project Delivery

Our team worked seamlessly alongside AmcoGiffen and other site stakeholders, adhering to strict rail industry safety and quality standards throughout the project.

By leveraging our in-house technical expertise and efficient mobilisation process, we ensured all planned works were completed on time, within the possession windows, and without any accidents, incidents, or delays.

Meticulous pre-planning and close coordination between Universal Piling & Geotechnical and AmcoGiffen's site management teams were key to the project's success, ensuring that drilling operations, material logistics, and safety controls were all delivered to the highest standard.

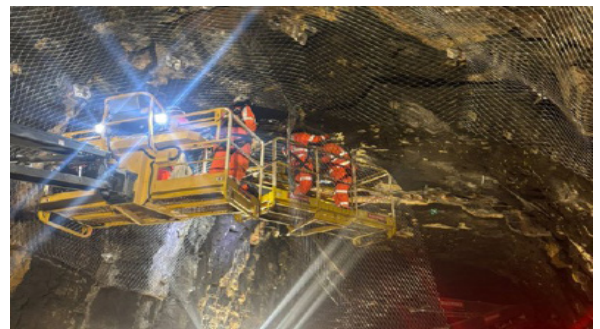
Outcome

The Penmaenrhos Tunnel works were delivered safely, efficiently, and to programme, contributing to the long-term stability and operational safety of this critical rail infrastructure asset.

This project highlights Universal Piling & Geotechnical's ability to deliver specialist geotechnical solutions in complex and high-risk environments, working collaboratively with trusted partners such as AmcoGiffen to achieve successful outcomes for the client and end users alike.

Key Project Facts

- 99 no. stainless steel rock bolts installed
- 220 m² of Tecco G65/3 stainless steel mesh installed
- 3 x 52-hour possessions successfully delivered
- Zero accidents or incidents recorded



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