CASE STUDY

Enabling the re-opening of a critical rail line

Amey Infrastructure Wales

Background

In July 2023, Centregreat was commissioned by Amey Infrastructure Wales (AiW) to urgently locate, access and survey a culvert, supplying data for Entry into Service (EIS) documentation and taking remedial action where needed.

Our client, AiW, was responsible for submitting the Entry into Service (EIS) documentation to the regulator, the Office for Road and Rail (ORR), and the client, Transport for Wales (TfW) to demonstrate that the newly doubled Aberdare line was operationally ready to re-open safely. As part of this, the client needed to demonstrate that the culvert located near Cwmbach, Aberdare, had sufficient drainage capacity, as well as evidence the structural capacity to sustain the increased rail loading associated with doubling the track for the South Wales Metro programme.

Due to the culvert's remote location and accessibility issues, it had fallen out of regular repair and service records were out of date. This meant that previous contractors had been unable to locate it when commissioned by AiW. If delayed, the line opening would have been significantly impacted, affecting both AiW's major programme milestones, and the local people and economy of the South Wales region.

Recognising the urgency of the situation, AiW contacted Centregreat for assistance.

HIGHLIGHTS

An exemplary response to a time-critical issue

Technology enabled real-time information to be transmitted from site to office informing effective decisions

Delivered thorough a combination of **technical skills, strong supply networks, and a collaborative approach**

Succeeded where others failed

Having developed a strong and trusting relationship over several years, and never once failed them on a contract, they knew they could rely on us in a technically difficult and professionally stressful situation. Our work together has ranged from small maintenance works to major programmes of £3.5m plus in value, and we have established a strong track record of reacting, managing and resolving issues that threaten the safety of passengers, train services or neighbours.

Approach

Mobilising our emergency call-out procedure. When AiW approached us we mobilised our rapid response procedure. To best serve our clients in times of crisis, we have embedded reactive capacity into our standard practice by always having a designated pool of staff who are not assigned to a long-term project. During an emergency call-out, the on-call manager will mobilise the appropriate people (from safety critical staff to civil engineers and operatives) and resources.

To respond to AiW's pressing concern, our Framework Manager swiftly assembled an experienced team, drawing on our significant pool of local, on-call operatives. Having a locally based team is a key part of our emergency call-out response and reassures clients that we can assign the right people to the job, at exactly the right time.

Locating the culvert. Upon receiving the brief from the client, we observed that service records were not accurate and recognised the need to send our Construction Manager to manually lead the search. He was appointed for his in-depth knowledge of the trackside environment including drainage systems, enabling him to rapidly assess the situation. Despite previous companies having been unable to locate the culvert, we successfully located it within a few hours.

Accessing the culvert. Given the high-profile nature of the project, our client was on site for the duration of our works. This enabled rapid communication, and showcased the problem-solving and teamwork that our staff bring to every contract.

De-vegetation and excavation. As a values-led company, the natural environment and natural heritage is of paramount importance to us. We first conducted nesting bird checks and invasive species checks, to comply with HSQE requirements. Having identified no issues, we conducted de-vegetation works around the culvert and along the access route, working at times that would minimise disruption for the neighbouring industrial estate, characteristic of our approach to considerate construction. With 24/7 access to a Cardiff-based depot, we rapidly mobilised excavation equipment and the necessary operators and supply chain partners.

Temporary works. After local excavation, we dammed the culvert and conducted over pumping to clear the debris and allow CCTV access. Prioritising safety, we established confined space access with emergency response for operatives to conduct the surveys.

Surveying the culvert. By ensuring we stay at the forefront of technological developments, we can offer our clients the most effective solutions. For this project, we used specialist visualisation equipment, Sondes, and ground penetrating radar tracing devices to create CCTV recordings of the issues, which we identified as debris build-up. We recorded this information in the Wincan cloud system, which we use as standard, as it allows rapid assessment and understanding of issues, and leads to more effective client communications.

Our approach to remedial actions. Except for the debris, our detailed surveys revealed that no further remedial action was required, assuring confidence in the asset to support entry into service.

Outcomes

Despite major contractors being unable to fulfil the requirement, we completed the necessary activities within just three days, delivering what the client called an "exemplary response". We supplied AiW with the cloud-based CCTV survey data required for the project-critical EIS documentation, leading to approval from the ORR for entry into service and protecting their corporate reputation. The enhanced rail service now serves the people and local economy of the Aberdare area, demonstrating the wider social benefit of our activities. This highlights the way our core capabilities align with Transport for Wales' central objective: to ensure that the network connects people to what's important to them.

Get in touch

Tel: 029 2022 6088 Email: rail.info@centregreat.net

www.centregreat.co.uk