



# STANDEDGE TUNNEL END AQUEDUCT RECONSTRUCTION

**Project Location:** Huddersfield

**Project Timeframes:**  
February 2018 to December 2018

**Client:** Network Rail IPSNE

**AmcoGiffen Discipline/Sector:**  
Rail, civils and environmental

## Project Overview

Ultimately aiming to replace the life-expired wrought iron aqueduct and remove the risk of flooding to the operational railway, AmcoGiffen developed an innovative solution which included twin fibre reinforced polymer decks with provision for future electrification of this key Trans Pennine route.

## AmcoGiffen's Scope of Works

Providing the permanent works designs for all civils, including new bridge decks, raising of the existing spillway and associated steps, masonry repairs and scour preventative works, our scope of works included:

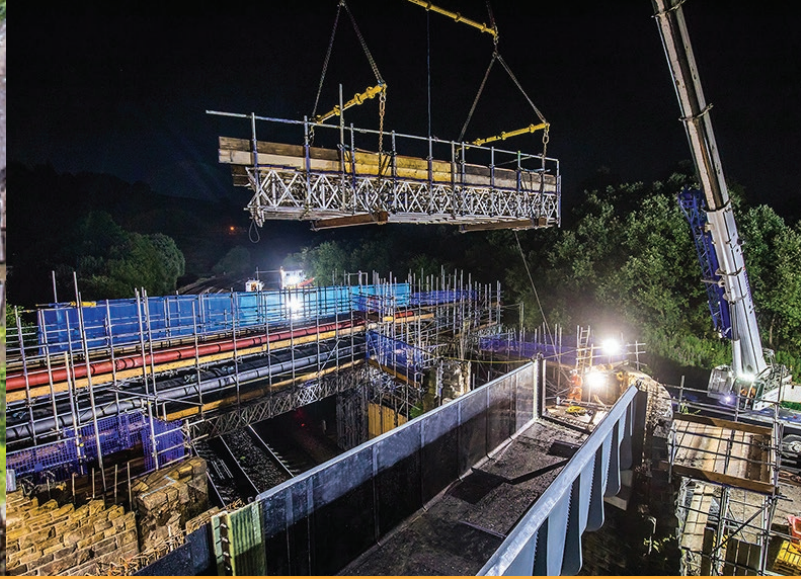
- Temporary works designs to facilitate diversion of the existing river flows to allow the works to progress in a 'dry' channel
- Detailed flow management plans, including drawing down the local reservoirs, partial diversion through existing features, dams and temporary scaffold overbridge, complete with gravity pipes and pumping facilities

- Gaining of consents to facilitate the works through liaison with associated statutory bodies, including the Canal and River Trust, Yorkshire Water, Environment Agency and local councils
- Provision of detailing and documentation to assist Network Rail in obtaining necessary planning approval to undertake the physical works on a Grade 2 listed structure
- Planning and delivery of all on site activities, including the core works which were delivered during a 54hr OROR possession of the railway



A busy weekend in West Yorkshire with the demolition of the wrought iron bridge deck... the abutments are also being prepared for the installation of the new twin FRP channel decks...our life saving rules were followed rigorously and all is going to plan.

**Christopher Heap, Route Asset Manager, Network Rail**



## Innovation Applied

Continually embracing and implementing new and more effective ways of providing enhanced project delivery, our innovation on this scheme is ongoing.

Employing the use of infused fibre reinforced polymer decks brings long term maintenance benefits and reduces the size of craneage required for installation on a constrained site.

Replacing the existing single deck with twin decks – complete with a stop log facility – allows periodic inspections and maintenance, which negates the need for costly temporary works and flow management requirements.

The precast cills were designed and constructed in sections to allow installation by excavator and small capacity crane, given the weight restrictions and size constraints associated with the confined site.

## Benefits Provided

Working diligently to meet all project milestones, benefits of the project include:

- Improved gauge clearances with infused connections to permit future electrification of the line
- Strengthening works to an unrelated structure on the access route, allowing increased capacity for our plant and equipment, thus removing a restriction for local residents
- Provision of maintenance activities to adjacent Canal and Rivers structure, off-setting land access fees, bringing benefits to the historic facility, local community and visitors



## Project Contact

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