



Client:

Barnsley Temporary Footbridge

Location:

Barnsley

Summary

Barnsley level crossing is the main pedestrian route to and from the bus and train station towards the town centre. Located on the PED2 line running through Barnsley, Network Rail instructed us to deliver a temporary footbridge prior to the closure of the level crossing.

Project Overview

Network Rail instructed us to deliver a temporary footbridge prior to the closure of the level crossing due to redevelopment work in the area. Two reinforced concrete pads were cast in situ and the temporary footbridge was placed into position using a 50-100-ton crane. The bridge was fixed down to the concrete pads using concrete anchor bolts. The bridge was then fitted with adequate lighting and the new pathways to the stairs made good for public use. The level crossing access was then fenced off using palisade fencing to prevent public access.

The proposed works were carried out in combination of midweek days while all lines are open, and midweek/weekend nights under Rules of the Route track possession shifts.



Enabling works

The East side section of a brick boundary wall was moved to gain access to the work site. Once the brickwork had been removed, a secure lockable gate was installed. The engineer then marked out the exact locations for the new reinforced concrete slabs. The ground was prepared to take the steel cages and timber shutters which were all manufactured in situ. Once the shutters and position had been re-checked the concrete was poured to the desired level.





Installation

For the installation of the bridge, the work had to be done during a total line blockage and therefore night time possession shifts were used. The crane was then set up on the level crossing making sure all-out riggers missed the rails and a temporary works lift plan was designed and supervised for the crane installation. Once in position the bridge components were backed up to the crane on trailers. Operatives then slung the loads and the bridge was placed into its final position. Once in its exact location, the trestles were bolted down using concrete anchor bolts. All components were rechecked and tightened accordingly. This was then repeated the following week to fix the stair cases. Due to the planned works, the management team had to monitor the predicted weather for installation as high winds would propose difficulties – thankfully the time of year works were carried out meant the weather caused no issue.

Operatives then worked on a regular night shift basis to install temporary festoon lighting cable on the bridges decking. They continued to carry out regular checks on the lighting condition during each shift.



Successes

- Good communication with subcontractors resulted in minimal delay to programme and all works were completed within the delivery time
- Good relationship with local residents and council who were kept informed throughout the project
- Maintaining pedestrian access over the railway throughout the works with minimal disruption to the public

Final Positioning

Once the bridge was fixed to its final position with tac tiles installed at the bottom of each stair case, the pathway was re-installed using path edgings and then resurfaced. The post holes were hand dug to the desired depth and the posts were set to the correct depth and line. They were fixed with security nuts, tightened and sheared off.

