

## CASE STUDY ERIDGE STATION, EAST SUSSEX





# RESTRICTED ACCESS

**CLIENT** 

**Network Rail** 

CONTRACTOR

**BAM Nuttall** 

**SCOPE OF WORKS** 

SFA Piling

**KEY ACHIEVEMENTS** 

Completed on time and on budget

Eridge railway station first opened in 1868 and is now on the Uckfield branch of the Oxted line which serves the rural district around Eridge in East Sussex. The lovely old station represents the epitome of the country station in the south of England

RB were approached by BAM Nuttall to assist with the piled foundations for the replacement footbridge, this scheme formed part of the Network Rail initiative AFA, The Access for All Programme provides an obstacle free, accessible route to and between platforms. The government's inclusive transport strategy allowed for a further £350m of funding to continue with the Access for All Programme nationwide in control period 6.

This £1.9m AFA project was delivered inclusive of a new lift on platform one that has capacity for 16 people. The project team also installed an accessible ramp at the station entrance leading to the ticket office.



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### Key Issues/Requirements

- As a vastly experienced, multi discipline piling contactor RB was able to call on its expert knowledge to provide consultation on the design and delivery elements of the project.
- Having reviewed the soils report RB suggested the need for installing temporary casing down on to the Tunbridge Wells sand formation which was necessary for piling purposes due to the soft alluvial ground adjacent to the trackway.
- The ground conditions also presented an element of risk due to Sandstone anticipated at depth creating the possibility that standard boring techniques would be unable to attain the pile depths required. RB brought this to the attention of the BAM team and factored in an option for an alternative piling method utilising down the hole hammer (DTH technique) which would guarantee achieving the depths should it has been required.
- Our works included the construction of 12no. 350mm diameter SFA (sectional flight auger) piles to depths of up to 17.6 metres as per consultancy design.

#### Solutions

- RB mobilised one of its Comacchio MC6 5.8tonne mini rigs to undertake the piling on both platforms.
- ➤ One pile position on platform 2 was deemed difficult to construct with safety gates present on the rig due to proximity of the station bridge abutments, permissions were granted by both parties to undertake this pile position without the safety gates in operation, with appropriate additional control measures carefully considered and in place.
- All piles were filled with site batched grout, with RB's own 35/45 DC2 class mix design approved by Network Rail. All grout was mixed in a covered designated batching station and pumped to the rigs position by a P11 pump.
- ➤ Pile depths ranged between 13.2 and 17.6 metres with all piles having full length steel reinforcement cages consisting of 6 No. H16 longitudinal bars with H10 links at 240mm centres, cages were spliced allowing sufficient overlap between sections.
- As it was not possible to move plant and equipment between platforms a full move was planned to utilise our in house transport department.
- Roger Bullivant offered a consistent, reliable, and flexible service, through exceptional expertise and proven project delivery, our performance on this project has allowed us to complete further AFA works with BAM Nuttall.

