REDCAR STATION SIGNAL SIGHTING PROJECT FOR PROPOSED SCAFFOLD ARRANGEMENT

Client: North South Rail

"Working with True North Rail and their TrueSight™ Tool has been highly effective. Its realistic driver's eye view significantly aids the signal sighting committee in risk assessment and mitigation, enabling swift adjustments to meet tight project deadlines. TrueSight's accuracy was confirmed during the Christmas 2023 stage commissioning and subsequent blanking board installation, making it our preferred choice for future signal sighting projects."

Dean Mansell - Signal Sighting Chair & Director North South Rail


Approach R228 scaffold visible


Redcar Station VR Proposed Scaffolding

OVERVIEW

Conservation works totalling £6m to transform Redcar Central from an empty building into a more welcoming gateway to the town began in May 24. The project was funded by the government's Levelling Up Partnership Fund, Welcome to Redcar and Cleveland fund administered via Tees Valley Combined Authority, and the Railway Heritage Trust.

During Station renovation works the team at True North Rail were called upon to assist North South Rail with a comprehensive Signal Sighting Assessment report in order to assess the impact of a proposed scaffold arrangement which was to be erected around the Redcar Station building adjacent to the Down Main Line (Platform 2).

The signals subject to our Signal Sighting Assessment report whilst using our Truesight™ (VR) technology was Down Main Line Down R228, and Down Main Line Up R224. The proposed scaffold was required in order to allow for work to take place on the roof of the station building.

As well as using our Truesight™ (VR) platform the following documents were also used to carry out this Signal Sighting Assessment report:

True North Rail

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"From a Signal Sighting perspective, the ability to review the approach to a signal is of paramount importance. For Redcar, the True North Signal Sighting Model made this process simple, in that signals were reviewed throughout their readable distances with adjacent buildings in situ and scaffolding modelled to proposed designs. The accuracy and real-life modelling provided a safe and reliable methodology to allow for an accurate, right first-time signal sighting decision to be made."

Alan Colclough - Signal Sighting Chair North South Rail


Scaffold does not obscure R228


TRUESIGHT™
R228 on approach

OUR ROLE

- Network Rail Eastern Line Diagrams, Middlesbrough: Version 2.5 Aug 23
- Network Rail Signalling Plan – Redcar SB 4010H-A3, Version AU1
- Proposed scaffold layout cantilevered access platform Redcar Station Drawings ISS-12363-1-DRG-1 A 4.4010H-BO-R228 Signal Sighting Form (SSF)
- Network Rail Sectional Appendix LN632-004-LN8

Our team conducted a desktop review using both Automated Intelligent Video Review (AIVR) train cab video footage and Virtual Reality (VR) modelling. Using the tools of our Truesight™ platform we were able to identify the following:

- R224 – No lineside signage was identified as being affected by the temporary scaffold.
- The approach to R228 was found to be compliant to the distance documented on R228 SSF. In addition, the AvRD of R228 was found to be 270m unobscured with Platform 1 occupied, and 370m unobscured if Platform 1 is not occupied.
- That the proposed temporary scaffold would not obscure the readability of R228 & R224. However, works taking place on the building may act as a distraction to train drivers. It was therefore recommended that Network Rail & Train Operating companies issue notification of the works to train drivers to mitigate any risk.
- It was also recommended that Network Rail should assess the possibility of sunlight reflection from the scaffold and any possible impact of this on train drivers in both the Up and Down directions.

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