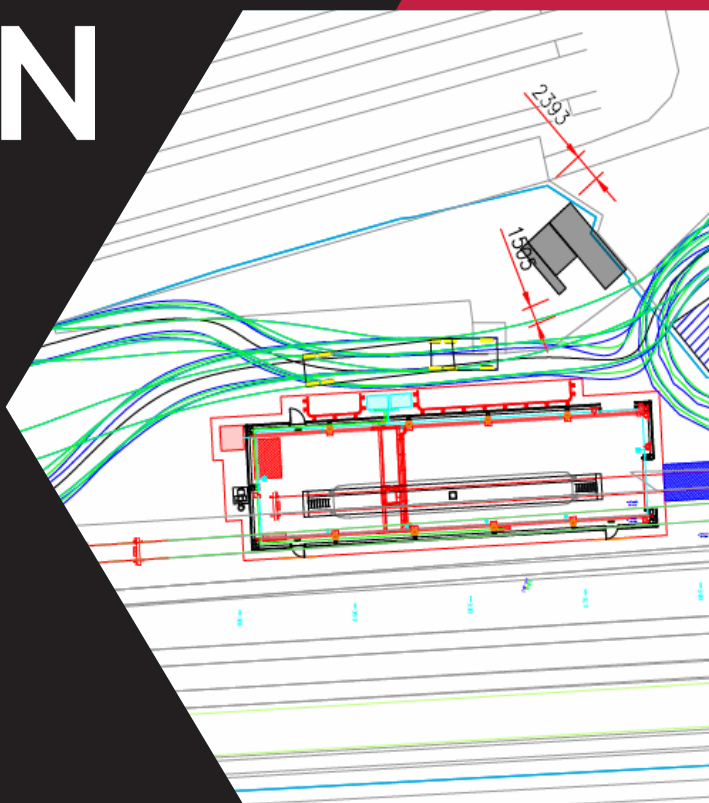


HEXAGON

Case Study

Tonbridge Locomotive Shed

Hexagon was engaged to design a new maintenance facility at Tonbridge Depot, enhancing capability for locomotive operations.



Customer
GB Railfreight

Completion Date
June 2025

Location
Tonbridge

ABOUT US

HEXAGON is a design consultancy providing engineering expertise and services, specialising in rail depots and designs relating to train facility infrastructure works.

Working closely with developers, contractors, and other stakeholders to ensure that your project's structures are safe, stable, and structurally sound.

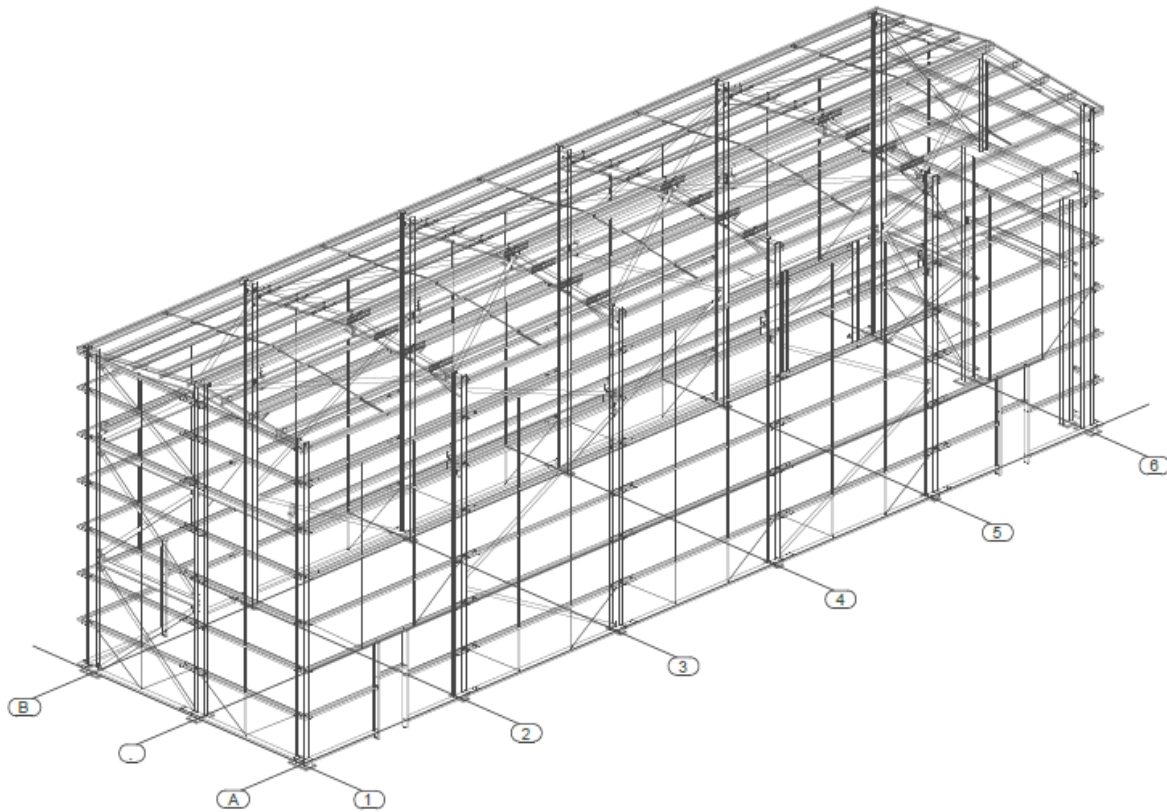
Hexagon's construction heritage ensures that they understand construction compliance and real-world situations to provide you with trusted, reliable and workable designs.

DESCRIPTION

Design of a new maintenance facility at Tonbridge Depot to support locomotive maintenance operations. The project included full building and infrastructure design, ensuring compliance with industry standards and operational efficiency.

The scope of works comprised:

- Main building design, including substructure and superstructure
- Full M&E design, including fire alarm system, CCTV, lighting, heating, compressed air system, and small power
- P-Way design, including approaches and track over the inspection pit
- Diesel fume extraction system to support safe working conditions
- Design in accordance with Network Rail standards
- Integration of an overhead crane to facilitate maintenance activities



Outline & Detailed Design

Calculation & Temp Works Design Package

Consultancy & Design Management Services

Topographical & Point Cloud Surveys Services

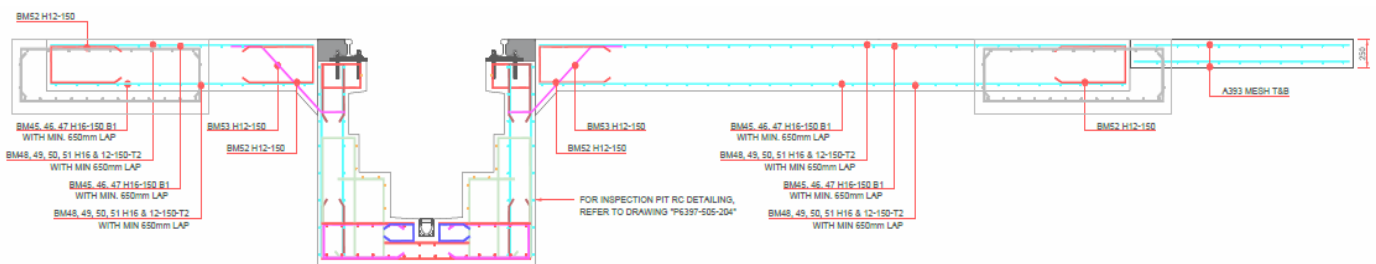
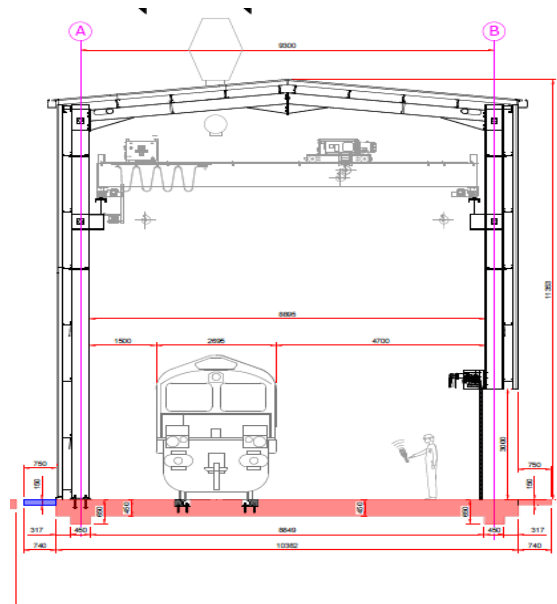
REQUIREMENTS

The project required modification of an existing siding to accommodate a new locomotive maintenance shed. The facility was designed as a steel portal frame structure with insulated cladding, ensuring durability and suitability for operational use.

Due to poor ground conditions, CFA piling was installed to provide adequate structural support. The scope also included the design of a road vehicle access and loading area to facilitate site operations.

In addition, temporary works were designed to support construction activities, including the design of a piling mat and associated formwork.

This project demonstrates Hexagon's ability to deliver practical, compliant, and efficient design solutions, tailored to the operational needs of modern rail maintenance facilities.



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