Project Profile Series

engenium
smart project delivery

Train Loadout Maintenance Access Platforms
Concept Development

Demonstrated Capabilities

- 3D Modelling and Concept Development
- Shop Detailing
- Structural Engineering
- Safety in Design.

Project Location

Newman, Pilbara Region, Western Australia.

Scope

The scope included Concept Development utilising 3D Modelling, Detailed Engineering Design, production of Design Documentation and Drawings, as well as Shop Detailing, for new maintenance access platforms retrofitted to the existing Train Loadout (TLO) structure at a client's mine site in Newman.

Business Objective

The objective of this project was to provide permanent maintenance access to the TLO bin, with the main goal being to improve safety for the maintenance crews who regularly need to change out the bin liners. The client previously used scaffold to provide access for the maintenance crews and it was intended to minimise the amount of scaffolding required for regular maintenance activities going forward.

Challenges to Overcome

The biggest challenge Engenium faced to retrofit these platforms into an existing TLO structure was to avoid clashing with any existing structure or equipment, and to ensure current operations and access was not compromised by our new design.

Smarts

To overcome this, we utilised 3D laser scan pointcloud data to develop our design and complete a thorough clash detection.

Project Outcome

The design was completed successfully in accordance with the clients standard specifications and even exceeds some of the minimum safety requirements outlined by the standards. Additional safety mesh was installed to provide added protection from dropped objects which is a constant concern when maintenance works are regularly completed at heights.

Delivering Value. Delivering Results.