

CREWE

Project Summary

Client: Network Rail

Timescale: April 2015 – January 2016

Linbrooke Disciplines: Signalling & Civils

Linbrooke Services Utilised: Civils design & build; Signalling installation, test & commission

Customer Objective

To reconstruct the gantry cages and renew the signal heads and indicators for signals CE105 and CE107 protecting Crewe South Junction in order to correct a significant signal sighting inadequacy.

Project Overview

Following a train overspeed incident just south of Crewe Station in 2011, the sighting of CE105 and CE107 signals was deemed insufficient. This was primarily due to obstruction caused by the position of the signal indicator clusters above the Over Head Line Equipment (OHLE). The original filament and halogen fibre optic signals were also life expired with inadequate optical performance.

“Thanks to all the team who worked on [this project]...It looks amazing, and I’m delighted with the result. Well done for battling through the weather and handing back early.”

- Claire Beranek, Route Asset Manager

Linbrooke Project Scope

Linbrooke were awarded the works to eradicate the signal sighting problem and provide a solution by retrofitting two newly constructed dropper cages to the existing 1980's vintage main portal structure containing modern form LED signal heads and indicators.

As the Principal Contractor (PC) accountable for GRIP 5-8 of the works, we effectively managed and delivered all engineering integration and site delivery works, selecting a competent subcontractor for the structural design and build works

The new cages were designed to meet modern loading gauge and to provide modern form arrangements for the mounting of Dorman LED signal heads and VMS MARI and SARI stacks, capable of providing the full range of required multitude of indications while still providing the required improved sighting arrangements. In addition, signals CE101 and CE103 were also changed for modern equivalent LED replacements for signal sighting continuity purposes.

As the main portal structure had inadequate safe access provisions due to its age, our scope was varied to include the retrofitting of new walkways and ladder access to full modern form.

The commissioning was delivered in a collaborative manner alongside a number of other contractors and within a congested Christmas 2015 worksite in order to facilitate the function and correspondence testing of 65 routes across the four affected signals.

Our scope of works in summary included:

- Location case and relay room installation
- Structure ladder, walkway and handrail replacement
- Mechanical fit out and electrical installation of signal cages
- Concrete cable route and hollow bearer installation
- Lineside and tail cable installation
- Signalling test and commissioning
- Signal sighting

Benefits of working with Linbrooke

Utilising foresight and initiative and working collaboratively alongside Network Rail SDG, Linbrooke completed and pre-tested the majority of works ahead of schedule in order to ensure the commissioning was substantially de-risked. Employing continual dedication and meticulous preparation, all works were completed to budget, ahead of the planned timescale.

To ensure successful project delivery, we consistently provide:

- A strong, detailed understanding of the technical scope
- A full delivery of telecoms, signalling, power, civils and track which ensures multidisciplinary efficiency
- An impeccable health and safety record
- The ability to adjust to project alterations rapidly – and provide alternative solutions when required
- A highly skilled and experienced work force
- Strong relationships with a number of industry experts