



Moorthorpe and Hickleton Area Signalling Renewals

Project

Moorthorpe and Hickleton Area Signalling Renewals

Client

Network Rail, Route Asset Management – Signalling

Location

York, UK

Start Date

2009

End Date

2011

Duration

16 months

Contract Value

£16m

Services provided

Signalling, train control & telecoms, feasibility design, railway performance & whole life cost analysis

Background

The project was instigated due to assets that were life expired and in poor condition between Bolton-on-Deerne and Pontefract.

Moorthorpe Junction is a critical point on the network for both freight and passenger services.

Moorthorpe loops allow slow-moving freight trains to exit the main line. This enables the cross-country services between Sheffield and Leeds to pass without delay.

The objective was to deliver the project collaboratively, by engaging with our supply chain for signalling.

The project embraced the collaborative way of delivering works and was shortlisted for the Best Medium-Sized Project at the Network Rail Partnership Awards 2012.



Scope of Works

This complicated renewal involved:

- ▶ renewal of the lineside signalling infrastructure controlled by a new WESTLOCK® interlocking from York Integrated Electronic Control Centre (IECC)
- ▶ closure of two signal boxes – Moorthorpe and Hickleton
- ▶ introduction of lightweight signals
- ▶ renewal and enhancement of Switches and Crossings (S&C)
- ▶ provision of a new buried cable route through the majority of the 20km project limits
- ▶ amendments to the existing lineside power supply system to facilitate the provision of the new signalling system

- ▶ extension to an existing lineside building to facilitate the resignalling
- ▶ management of multiple project contractors including Network Rail maintenance teams and telecoms transmission designers.

- ▶ removing the need for a large signal cantilever structure and associated construction activities by introducing lightweight signals.

Network Rail internal resources were utilised in conjunction with the signalling contractor, Invensys.

The new signalling system uses the diverse FTN system for data transmission.

Key Project Outputs

The project was delivered on time and within budget meeting the success criteria set out by the key stakeholders.

The main outputs were:

- ▶ reduce operating costs through the closure of Moorthorpe and Hickleton signal boxes
- ▶ reducing the number of cable theft incidents by using the buried cable route