



The Network Rail (Leeds to Micklefield Enhancements) Order
CD 7.04 – Summary to Engineering Design and Construction Proof of Evidence

TRANSPORT AND WORKS ACT 1992
TRANSPORT AND WORKS (INQUIRIES PROCEDURES)
RULES 2004
NETWORK RAIL (LEEDS TO MICKLEFIELD
ENHANCEMENTS) ORDER

SUMMARY TO ENGINEERING DESIGN AND
CONSTRUCTION
PROOF OF EVIDENCE
OF
PAUL HARRISON

Document Reference	CD 7.04
Author	Paul Harrison
Date	6 February 2024

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1. INTRODUCTION

1.1.1 My name is Paul Harrison, Engineering Lead for the Alliance.

1.1.2 In my Proof, I provide evidence on:

- a) The engineering and construction aspects of the Order Scheme, and the wider Scheme of which it forms part.
- b) Highways management during construction.

1.1.3 Engineering, design and construction of those parts of the Order Scheme which are associated with the closure of level crossings are addressed in the Proof of Evidence of Michael Westwood (**CD 7.26**) and highways design in the Proof of Evidence of Ged Stamper (**CD 7.08**).

1.1.4 My Proof addresses matters 3, 5a and 5c of the Statement of Matters.

1.2 Improvement Works to this Section of NTPR

1.2.1 The Leeds to Micklefield section of the NTPR is a two-track railway that is currently not electrified.

1.2.2 As part of the TRU programme, Network Rail intends to electrify this section of NTPR which requires the renewal of various bridge structures on the route, the re-signalling of the railway to modern standards and the renewal of sections of the track using existing permitted development rights, although the use of land is included in the Order to facilitate these works.

1.3 The Order Scheme and wider Scheme: an overview

1.3.1 In addition to the Scheduled Works that would be authorised under the Order (the replacement of Authorpe Lane Bridge and Ridge Road Bridge with associated gas main diversions; the works to Crawshaw Woods Bridge and the construction of the New Barrowby Lane Bridge) the Order includes a number of powers that would enable Network Rail to carry out the works associated with those works and with other works associated with the E2-E4 Project between Leeds and Micklefield, including for construction compounds.

1.4 Strategic Works Compounds

1.4.1 A number of strategic works compounds are required to facilitate construction of the TRU E2-4 Project, for example, for track renewal and electrification works.

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- 1.4.2 These compounds need to be located strategically along the Scheme Route to allow rapid access by construction teams to sections of track, to minimise nightly travel time during 'rules of the route' possessions (access windows planned into the normal operational timetable for the railway, typically 4-6 hours overnight) thereby optimising the delivery programme.
- 1.4.3 The Order (if granted) would authorise Network Rail to temporarily possess and use land for three strategic works compounds: at Wykebeck Avenue, Manston Lane and Phoenix Avenue. In selecting suitable land for these compounds, a key requirement was the ability to transfer material and workforce from the public highway to the railway via road-rail access points (RRAP).

1.5 Bridge Replacement Works Compounds

- 1.5.1 In addition to the compounds associated with works to the bridges which are authorised under the Order, the deemed request for planning permission and/or the listed building consents, land is also required for construction compounds to carry out bridge replacement works at Kirkgate, Marsh Lane and Osmondthorpe Lane.
- 1.5.2 In each case, construction compounds are required adjacent to the bridges to facilitate the construction works, which need to be of a size suitable to accommodate the specific construction requirements for the works to that bridge.
- 1.5.3 In identifying the land for these construction sites, the sites had to meet those construction requirements, including access from the public highway for construction vehicles. In selecting the sites for the compounds, Network Rail also sought to minimise impacts on private land, and to avoid land take from residential properties and environmental considerations have also been taken into account in considering location and layout.

1.6 Listed Bridges

- 1.6.1 In my Proof I provide details of the works that would be authorised under the Order, the request for deemed planning permission and/or the listed building consents for works to 4 listed bridges: Austhorpe Lane Bridge, Crawshaw Woods Bridge, Brady Farm Bridge and Ridge Road. For each of the bridges, I describe the current arrangements, the works proposed and construction details. In Section 3.5.5., I provide details of the alternative options considered in respect of each of the structures, which are discussed in more detail in the Alternative Options Evaluation Study for each bridge which was submitted with the relevant application for listed building consent. I also provide details of the closures associated with the works to Austhorpe Lane bridge and Ridge Road

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bridge, and the proposed diversions, with reference to the specific Technical Notes relating to those works in Appendix 11A and B in Volume 3 of the Environmental Report **(CD 1.16)**.

3.4 Other Order Scheme Works (Penny Pocket Park, Micklefield TSC, Neville Hill Access Road)

3.4.1 Penny Pocket Park

As part of the new signalling system, Lock Out devices are required close to Marsh Lane viaduct. These assist with the provision of safe access along the viaduct. The positions are required outside the railway boundary, on a railway embankment in central Leeds, approximately 1.6km east of Leeds Railway Station and within land known as Penny Pocket Park (also referred to in the TWAO documents as Kirkgate to Marsh Land)

3.4.2 Micklefield TSC

A new track sectioning cabin is needed to safely regulate the power supply to the overhead electric wires in the local area and thus to enable electrification of the line. It will be located 50 metres to the west of the existing Peckfield Level Crossing.

3.4.3 Neville Hill

A strip of land off Newmarket Approach will be required to facilitate the provision of a new access from the highway to the Neville Hill railway sidings. This is discussed more specifically in the Proof of Ged Stamper **(CD 7.08)**.

2. HIGHWAYS MANAGEMENT

2.1 Highways powers

2.1.1 The draft Order includes a range of powers to enable Network Rail to carry out works to streets, which I detail in Section 4.1 of my Proof.

2.2 Highways Agreement

2.2.1 Leeds City Council is the local highway authority that ordinarily would regulate works to streets. In order to address concerns of Leeds City Council regarding how the Order powers might affect the operation of the local highway network, Network Rail and Leeds City Council have negotiated a draft Highways Agreement, the main purpose of which is, in addition to agreeing the design of any new streets constructed under the Order, to set out a series of protocols under which Network Rail will provide Leeds City Council with details of its

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street works proposals under relevant Articles Order, in advance of applications for approval under the Order.

2.2.2 I summarise those protocols in Section 4.2 of my Proof. They broadly comprise the following:

- The formation and parameters of a Network Rail and Leeds City Council Highways Working Group. The Highways Working Group will oversee the effective co-ordination of the highway works to be undertaken by Network Rail;
- a protocol regarding consultation of Leeds City Council on proposals execute street works, alter layout of streets and construct a new street under the Order;
- a protocol regarding consultation of Leeds City Council on proposals to permanently stop up streets, in advance of making an application for approval under the Order;
- a protocol regarding consultation of Leeds City Council on proposals to temporarily stop up streets, in advance of making an application for approval under Article 12 of the Order;
- a protocol regarding consultation of Leeds City Council on proposals for Traffic Regulation Orders, in advance of making an application under the Order;
- the scope of a Traffic Management Plan (TMP) that Network Rail is required to produce and have approved by Leeds City Council. The purpose of the TMP is to address measures to be taken by NR to manage the impacts of its construction work on users of the highway, including details of temporary road closures and diversions, temporary and permanent suspension of parking bays etc.

2.2.3 In Section 4.3 of my Proof, I provide a general description of the highways management measures that will be implemented by Network Rail to ensure that the impacts of its works on the public highway are managed and mitigated appropriately, including:

- Road closure applications;
- A Construction Traffic Management and Travel Plan;
- A Traffic Management Plan;
- Condition surveys and maintenance;
- Site Access management; and
- Site demobilisation

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3. ENGINEERING AND DESIGN RESPONSE TO OBJECTIONS

3.1.1 In Section 5 of my Proof, I provide a response to:

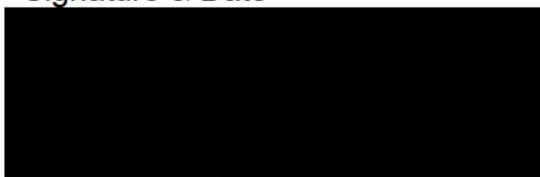
- Rep 03 (Micklefield Parish Council) and Obj 12 (E Todd) in relation to Ridge Road
- Rep 06 (National Highways), which has now withdrawn its representation;
- Sup 03 (West Yorkshire Combined Authority);
- Obj 01 (B Hall) in relation to Austhorpe Lane
- Obj 21 and 22 (J Freeman and P Freeman) in relation to Austhorpe Lane
- Obj 26 (J Kilburn and B Elliott) in relation to Austhorpe Lane.

Witness Declaration

I have declared as follows:

- i. This Proof of Evidence includes all facts which I regard as being relevant to the opinions that I have expressed and that the Inquiry's attention has been drawn to any matter which would affect the validity of that opinion.
- ii. I believe the facts that I have stated in this Proof of Evidence are true and that the opinions expressed are correct.
- iii. I understand my duty to the Inquiry to help it with matters within my expertise and I have complied with that duty.

Signature & Date



Paul Harrison

Date: 6 February 2024