TRANSPORT AND WORKS ACT 1992

TRANSPORT AND WORKS (INQUIRIES PROCEDURES) RULES 2004

NETWORK RAIL (HUDDERSFIELD TO WESTTOWN (DEWSBURY) IMPROVEMENTS) ORDER

HIGHWAYS

SUMMARY PROOF OF EVIDENCE

Chris Williams

Document Reference	NR/PoE/CW/11.3
Author	Network Rail
Date	5 October 2021

[this page is intentionally left blank]

CONTENTS

1. INTRODUCTION

1.1.1 My name is Chris Williams. I am a Chartered Civil Engineer and an Associate at Ove Arup & Partners with 19 years' experience working within the Civil Engineering profession.

1.1.2 I have been the Highways and Minor Stations CRE for the Proposed Huddersfield to Westtown (Dewsbury) Improvements Scheme – the Order Scheme – since 2018. My evidence concerns the highways design for elements of the Proposed Scheme.

2. SCOPE OF EVIDENCE

2.1.1 Section 3 of my main Proof covers a response to the relevant Statement of Matters, in particular:

- **Point 2**: The main alternative options considered
- **Point 3**: The likely impact on local businesses, tenants, and occupiers

2.1.2 Section 4 of my main Proof provides a response to objections with respect to the design and layout of highways.

3. HIGHWAYS RESPONSE OT THE STATEMENT OF MATTERS

3.1 A62 Leeds Road

3.1.1 The proposed highway realignment ties in just north of Neptune Way on the south side of the bridge and to the central reservation just south of Deighton Road on the north side of the bridge.

3.1.2 The TWA Order scheme included a vertical gradient of 5.75% to the south of the railway. The tie-in on the southern approach was the driving factor for this and is a consequence of tying into the existing highway layout and levels prior to the existing A62 Leeds Road / Neptune Way signalised junction.

3.1.3 Additional constraints on the design include third party landowners, minimising the impact on businesses on Neptune Way and providing bus stops.

3.2 B6118 Colne Bridge Road

3.2.1 It is proposed to construct the new bridge to the east and adjacent to the existing structure. The proposal provides a 7.3m wide carriageway and a 2m wide footway on the east side. This is a significant improvement on the existing highway provision.

3.2.2 The design in this location has considered several constraints including:

- The narrow cross section of the Huddersfield Broad Canal Bridge to the south of MVL3/107.
- Third party land constraints to the east and west.

3.3 Calder Road

3.3.1 Constraints to the highway geometry include the River Calder bridge and the residential properties adjacent to Ravensthorpe Road.

3.3.2 It is proposed to construct the new Calder Road overbridge at a higher level than existing. It is not possible to reconstruct the Calder Road overbridge on its current highway alignment without significantly increasing the vertical gradients on each approach to the bridge. This would also result in a reduced vertical alignment geometry over the bridge and forward visibility.

Dive-Under Option

3.3.3 For this option, it would have been possible to reconstruct the Calder Road highway bridge as an on-line or off-line replacement scheme, based on a maximum highway vertical gradient of 5.5%.

3.3.4 At the time of option selection, an off-line realignment was the preferred solution to east of the existing bridge structure, impacting Veolia (**OBJ 42**) and Spenborough Engineering. The impacts on Dewsbury Riverside (**OBJ 36**) were similar, while there would be no impact on Newlay Concrete (**OBJ 18-21**) due to the highway works for this option.

TWA Order Scheme – flyover option

3.3.5 The new bridge is to be constructed to the west of the existing bridge alignment. The proposed highway realignment includes a roundabout to the south of the railway to minimise third-party land use and to avoid the need for tight bends in the horizontal geometry. The new Ravensthorpe Station is accessed via the roundabout and access to third party properties are maintained (for the Calder Road Business Park, **OBJs 18-21** Newlay and **OBJ 42** Veolia). Access for **OBJ 36** Dewsbury Riverside can be facilitated.

3.3.6 Highway alignment options with gradients of 5.0% and 5.5% have been considered. Providing a maximum 5.0% alignment increases the length of highway required to obtain sufficient vertical clearance to cross the railway. The consequence of this is to push the roundabout further west, increasing third-party land requirements.

4. REPRESENTATIONS AND OBJECTIONS

4.1 Objection 33 Kirklees Council

4.1.1 They key issues raised by the Council on highway design are focussed on the provision for cyclists, vertical alignments, provision of containment kerbs and headroom clearance.

A62 Leeds Road

Vertical alignment

4.1.2 Providing a maximum 5% gradient would require the works to extend to include the Neptune Way junction, including raising the vertical profile of the carriageway by approximately an additional 400mm on the northern side of the junction and 150mm in the centre of the junction. To achieve this would require the carriageway and footway levels, existing signal equipment and duct chambers to be raised and have further impacts on thirds parties either side of the highway.

Cycling provision

4.1.3 In discussions with the Council, it was suggested that a reduction in the mainline horizontal geometry to a horizontal curve with a radius of 150m would

be acceptable to allow for the provision of segregated cycling. Reducing this radius to 150m enables the clearance to the eastern parapet to be increased, enabling a 2.0m wide segregated cycle lane and 0.5m segregation strip to be provided (for 90m in the northbound direction and 170m in the southbound direction). This can be achieved within the Order limits.

Colne Bridge Road – cycling provision

4.1.4 Due to the constraints, including minimising the impacts on third party landowners, provision for cycling could only be provided over approximately 80m on the east side of the bridge, which would be unintuitive for cyclists in this location. I believe that a safe and comfortable transition for cyclists is unlikely to be achieved, particularly at the southern end close to the proposed RRAP access point which would not be comfortable or safe, and to do so would be contrary to the LTN1/20 guidance.

Calder Road - Roundabout and Cycling provision

4.1.5 The roundabout gives the capability to connect to the Dewsbury Riverside development should it come forward in the future.

4.1.6 Network Rail has reviewed the provision and would be able to cater for cyclists within the Order limits. This is subject to ongoing design development and further discussions with the Council but will comprise a shared pedestrian and cycle provision with appropriate crossings on the roundabout arms. This considers the safety of transitions onto the highway at Ravensthorpe Road minimising the impact on third party land including Dewsbury Riverside, and minimising the impact on the station design and the volume of earthworks required.

Station Road, Mirfield

4.1.7 Works are proposed at the Lowlands Road / Station Road junction to widen the existing junction to ease the movement of larger vehicles around the junction. This access will be used both during and post construction.

4.1.8 The construction of a new Mirfield Station eastern entrance requires modifications to Station Road. The kerb in front of the proposed eastern entrance will be raised and a high containment kerb provided to raise the threshold levels of new lift infrastructure within the station to help minimise the impact of surface water flooding on the station.

4.1.9 A pedestrian guardrail is proposed along this length of elevated footway to prevents falls. This has the added benefit of additional protection for

pedestrians, preventing pedestrians from walking straight out onto Station Road and directing pedestrians to designated crossing.

John William Street

4.1.10 A further review of the design of the John William Street structure has been undertaken. The ongoing design work is seeking remove the headroom issue and thus the need for bollards at street level. Any change to the design of the structure needs to be considered against the heritage assessment undertaken for the bridge. This will be subject to ongoing design development and will be subject to further discussions with the Council.

Fieldhouse Overbridge

4.1.11 It is proposed to reconstruct the Fieldhouse Overbridge to provide sufficient vertical clearance to OLE. On the northern approach the new footbridge ties into the existing footpath within the bridge span. On the southern approach 10 steps and a ramp are proposed.

4.1.12 On the approach ramp and bottom landing, a concrete surface can be considered as the design develops, subject to the development of a suitable drainage strategy.

Objection 34 Taurus Investment Limited and Objection 37 Mamas and Papas

4.1.13 The realignment of the B6118 Colne Bridge Road requires a reconfiguration of the access to the rear of the existing Mamas and Papas building and reprovision of its car parking.

Objection 36 Dewsbury Riverside

4.1.14 The proposed design submitted as part of the TWA Order did not show an access to the south-east to facilitate access to the proposed 120 homes that has Outline Planning Permission. Access to the 120 homes, can however, be provided with a new access onto Ravensthorpe Road. The roundabout gives the capability to connect to the Dewsbury Riverside development should it come forward in the future.

5. CONCLUSION

5.1.1 When considering the design and layout of the highways elements of the scheme, including the constraints, the highways design as part of the Proposed Scheme, including those presented in the Proof of Evidence, respond to the requirements of the Scheme, and adhere to the design standards and relevant guidance for highway design.

5.1.2 My proof of evidence includes my declaration as an expert witness which also applies to my summary of my evidence.