

NetworkRail

TRANSPORT AND WORKS ACT 1992 TRANSPORT AND WORKS (INQUIRIES PROCEDURES) RULES 2004

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

CONSTRUCTION MANAGEMENT SUMMARY PROOF OF EVIDENCE MIKE PEDLEY

Document Reference	NR/PoE/MP/3.1
Author	Network Rail
Date	5 October 2021

The Network Rail (Huddersfield to Westtown (Dewsbury) Improvements) Order 5 October 2021
Summary Proof of Evidence – Construction Management

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1. INTRODUCTION

1.1 Personal Details

- 1.1.1 My name is William 'Michael' Pedley. I am the Contractors Engineering Manager (Civils Construction) for the Order Scheme. I have worked in civil engineering construction for 35 years and have a wide experience of construction environments, methodologies and techniques. I am a Chartered Civil Engineer.
- 1.1.2 My evidence is provided on behalf of Network Rail and relates to the construction phase of the Scheme.

2. STRUCTURE OF THE PROOF OF EVIDENCE

2.1 Subheading

- 2.1.1 In this summary I will outline the rationale for decisions made in respect of:
 - Compound for Huddersfield Station
 - Impacts of constructing John Williams Street and Fitzwilliam Street on adjacent properties
 - Construction assessments in respect of selecting the Fly Over structure at Ravensthorpe over the Dive Under.
 - Mitigation measures for commercial operations at Emerald Street and Weaving Lane

3. SCOPE OF EVIDENCE

3.1 Subheading

3.1.1 Construction is planned to commence in January 2023 and be completed in June 2026 with entry into service December 2026. These dates are indicative and subject to development as design progresses and being dependent upon when the Order is made.

Key stages of the programme include:

- Huddersfield Blockade 1 Easter 2024
- Huddersfield Blockade 2 Easter 2025
- Thornhill LNW Blockade July 2025
- 3.1.2 The normal working hours for the project will be:
 - Monday Friday 08:00 to 18:00
 - Saturday 08:00 to 13:00
- 3.1.3 A period of 30mins will be allowed at either end of these period for preparation and for securing the work at shift end. In addition, as is the nature of rail works, night time possession periods will be utilised when trains are not running, and during blockade periods work will progress 24/7.

4. HUDDERSFIELD STATION REMODELLING:

4.1 Compound Selection

- 4.1.1 It is my opinion that based upon the scale of the works as presented in the SoC a main compound is required to support the construction in the Huddersfield area, and this is most efficiently located as close to the main works site at Huddersfield Station to make the works as efficient as possible.
- 4.1.2 I consider that two options could prove feasible, the HD1 car park area to the north of the railway station or the public space to the south of the station. The access facilitated by a compound to the north provides adequate space for the envisaged works and, following the first blockade provides broadly unimpeded access for the station remodelling within normal working hours, thus ensuring a more economic delivery of the project. Access from this side minimises the impact on the operational railway station and segregates the public from construction activity as much as is reasonably practicable which is a health and safety priority. Deliveries of plant, equipment and materials are largely completed from Fitzwilliam Street rather than having to access directly into the town centre.
- 4.1.3 The delivery strategy for Huddersfield Station remodelling is based on two major blockades, with the station design allowing the extensive works required for the reconstruction of new platforms 4 to 6 to take place in between the blockades, but requiring minimal rail access.

4.2 Roof Works -

- 4.2.1 The existing Grade II listed canopy is understrength. In order to remediate an extensive temporary working platform is required to be built to access all elements. The scaffolding materials will be stored in the HD1 and proposed smaller compound to the south east of the station.
- 4.2.2 By selection of the HD 1 compound and insitu containment of the canopy for the refurbishment works, I believe that the operation of station and the interface with the wider public and businesses in and around the St Georges Square are mitigated as far as is reasonably practicable.

4.3 Blockade 1

4.3.1 In order to deliver the first stage station remodelling a planned blockade of circa 30 days is planned at Easter 2024. During this period alternative rail routes will be promoted with replacement bus services in place. This blockage is used for the demolition of the three John Williams Street (JWS) bridge spans and for replacement of the two southern spans. 4.3.2 In order to safely demolish and reconstruct these spans, road closures of JWS and Fitzwilliam Street are required (also see below).

4.4 Inter-Blockade:

4.4.1 Between the rail blockades works to construct the northern section of the station are completed (platforms 4 to 6, subway extension, footbridge, platform and track). This work is facilitated by unimpeded access to the site from the HD1 compound, thus minimising the construction programme and the disruption to the public.

4.5 Blockade 2

- 4.5.1 The second blockade is used to install the third span of JWS which can only be installed following the refurbishment of Fitzwilliam Street, and for the track tie-in work. Similar restrictions are required for the safe delivery of this work as are required for Blockade 1.
- 4.5.2 The HD1 compound facilitates the delivery of track componentry and prefabrication with direct access to the railway thus ensuring the efficient delivery of the blockade both economically and in terms of schedule.

4.6 Post Blockade:

4.6.1 The delivery of the Overhead Line Equipment for the western section of the project are supported from the compound at HD1. On completion of the works the compound will be reinstated to its previous condition and state.

5. JOHN WILLIAMS STREET AND MVL3/4:

5.1 John Williams Street

- 5.1.1 Reconstruction of JWS is required due to the major track reconfiguration in the station. In order to safely deliver the required demolition and reconstruction, road closure of JWS and Fitzwilliam Street are necessary so that suitable craneage can be mobilised into the area.
- 5.1.2 In order to mitigate the effect on Castlefield Retail Park an alternative access arrangement is proposed which ensures the effects on the opening of the park are minimised. However during the deck demolition and re-construction the loads slung from the crane will oversail the retail park and during these periods for health and safety reasons it will be necessary to temporarily close the affected businesses.

5.2 MVL3/4 Fitzwilliam Street:

5.2.1 This road is closed between the blockades for the refurbishment of the bridge and eastern abutment. Although the road is closed so that the refurbishment can be safely undertaken, access to Castlefield Retail Park is maintained at all times throughout that period. A small area of the car park and the closed road are used for a compound that directly supports the work, with the main support coming from the main compound at HD1.

6. SCHEME FOR THE GRADE SEPERATION AT RAVENSTHORPE:

6.1 Dive Under or Fly Over

- 6.1.1 It is my opinion that the flyover structure is the optimum construction solution for the grade separation required at Ravensthorpe for the following reasons:
 - Flyover direct programme circa 9 months shorter
 - Flyover circa £40M more economic
 - Exposure to geotechnical risk greater for the dive under which is an excavated solution over the flyover which is a fill solution.
 - Diver under solution requires far more use of materials and is less sustainable.
 - Exposure to flood risk (be that direct rainfall into the excavation or from river flooding) during construction far more for the dive under.
 - Top down construction whilst relatively well understood is a more difficult design and construction proposition than the pile supported flyover solution.
 - Diversions of the 132kV overheads neutral on the two options but the high pressure gas main would need a double diversion in the dive under case resulting in increased costs. Programme and disruption to the public.

6.2 Construction Calder Road

6.2.1 Following consultation with both Veolia and Newlay, I believe a construction solution is deliverable that ensures both parties remain open during normal working hours for the full duration of the project. This will entail remodelling of the Newlay site and provision of vehicle hard standing for Veolia in an alternate local position. However I believe this compromise is the best overall solution, when compared to the greater impact of the dive under option from closure of the Veolia site and additional disruption to Newlay and Spenborough, resulting from the construction of the east face retaining wall along Calder Road and Station Road for the northern approach embankment.

7. MITIGATION MEASURES FOR COMMERCIAL PROPERTIES

7.1 Emerald Street

7.1.1 Following consultation with Kirklees and Suez, the approach to construction has been amended so that the works will be delivered during the out of hours operation of the recycling facility. In addition the soil nailing methodology will be selected to mitigate the generation of dust that is a concern for the operators of the recycling facility.

7.2 Weaving Lane:

7.2.1 It is planned to temporarily reconfigure the Suez recycling centre to facilitate the construction of the retained embankment. On completion of the works the access arrangement will be returned to its original configuration. In addition the works adjacent to the Armley Chairworks and to Shackletons will be securely fenced in such a manner as to keep maintenance and emergency access throughout the construction period

8. CONSTRUCTION OF THE SCHEME:

8.1 Conclusion

- 8.1.1 In conclusion and bearing in mind the multitude of constraints and the imperative to construct the scheme in a safe and economic manner, and to mitigate the disruption to the public as far as is reasonably practicable I believe the construction proposals are appropriate and justified.
- 8.1.2 With this in mind, the Inspector is respectfully requested to recommend the Order be made.

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9. WITNESS DECLARATION

9.1 Statement of declaration

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