

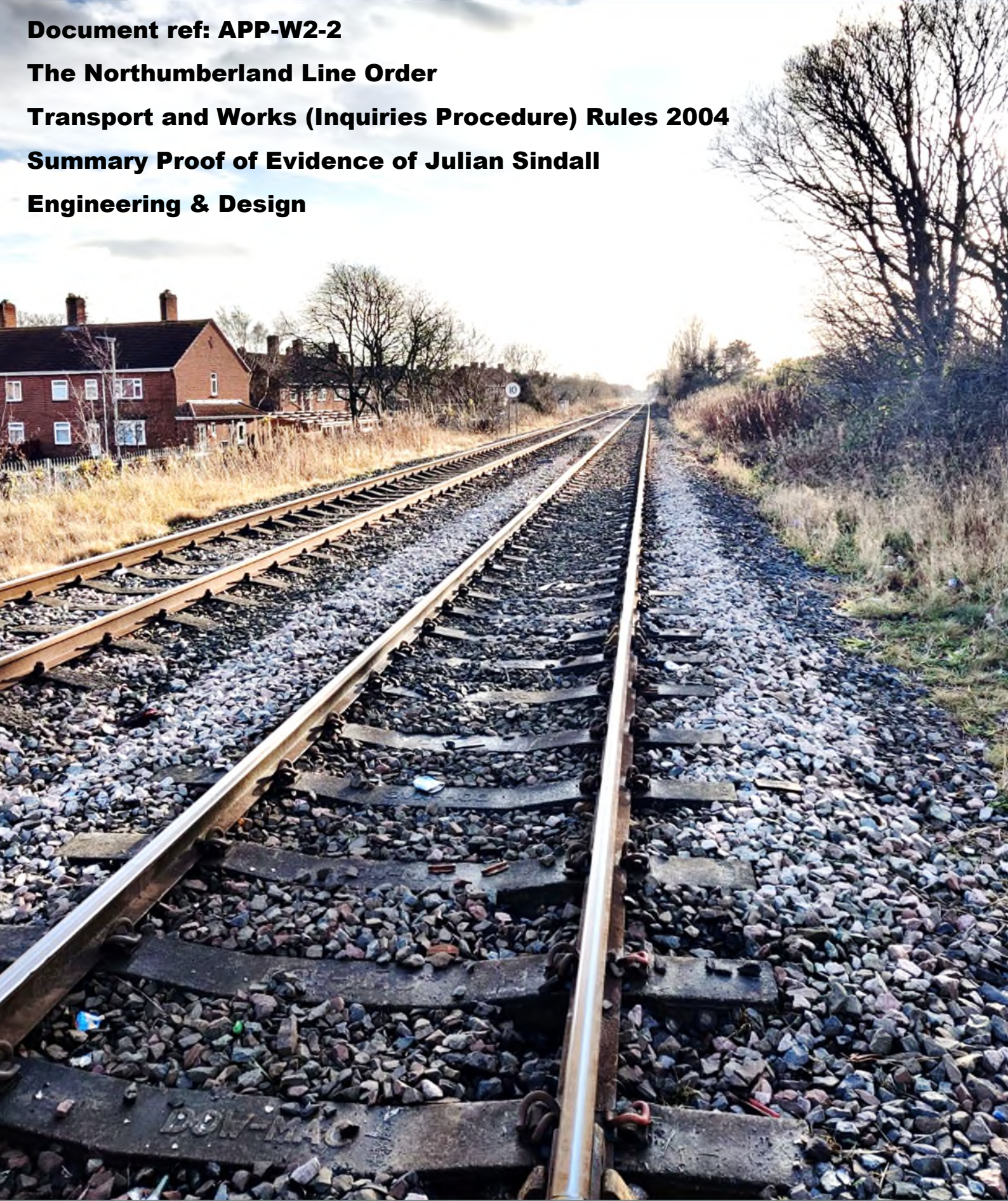
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The Northumberland Line Order

Transport and Works (Inquiries Procedure) Rules 2004

Summary Proof of Evidence of Julian Sindall

Engineering & Design



Northumberland
County Council

NORTHUMBERLAND COUNTY COUNCIL

NORTHUMBERLAND LINE ORDER

ENGINEERING AND DESIGN

JULIAN SINDALL – SUMMARY PROOF OF EVIDENCE

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GLOSSARY OF TERMS

Term / Acronym	Meaning
AECOM	AECOM engineering company – lead design consultants for the scheme
CEMP	Contractor's Engineering Management Plan
NCC	Northumberland County Council
OBJ-??	Objection with reference number
TWAO	Transport and Works Act Order

1. INTRODUCTION

- 1.1 My name is Julian Sindall.
- 1.2 I am a Chartered Civil Engineer and Fellow of the Institution of Civil Engineers. I hold a Masters Engineering degree with Honours from the University of Birmingham in Civil Engineering with Management with Language (Japanese), and a Masters Engineering Degree from The University of Sheffield in Railway Systems Engineering.
- 1.3 I am a Director of Cadenza Transport Consulting Ltd and have 30 years' experience in the design and delivery of railway projects in the UK and overseas, and the last 15 years I have specialised in the early stage development of railway projects such as the Northumberland Line.
- 1.4 I have been closely engaged in the design development and project delivery of the Northumberland Line since 2018, originally to lead the early multidisciplinary engineering feasibility work for the AECOM design team.
- 1.5 I have subsequently been retained as part of the engineering leadership team to advise on project development, support negotiations with affected landowners, and develop Social Value initiatives to maximise the local economic and community benefits of the project.

2. SCOPE OF EVIDENCE

- 2.1 In my Proof of Evidence, I describe the engineering objectives and design development that lead to the Scheme proposed, followed by my responses to selected Statement of Matters queries, and selected objections.

3. SUMMARY OF WORKS

- 3.1 The engineering works outlined in this Proof of Evidence exist to deliver the economic and community objectives of the scheme outlined in Mr McNaughton's evidence.
- 3.2 The Scheme benefits come from a reliable and rapid half-hourly train service between Ashington and Newcastle Central station, enabling passengers to travel for work, leisure, learning and tourism.
- 3.3 The Scheme includes the introduction of six new stations, passenger rolling stock, dual tracking in selected locations, and a general upgrade to the track and railway systems between Ashington and the connection of the route with the East Coast Main Line at Benton North Junction.
- 3.4 The general location of the six new stations is discussed in Mr McNaughton's evidence, but the specific location and layout of the stations is covered in my Proof of Evidence.
- 3.5 The important features determining the locations of the stations include: proximity to residential areas; suitable access by all modes of transport; sufficient car parking; proximity to existing level crossings; and, other local features.
- 3.6 Before the proposed service can run, the existing route that is used solely by freight trains must be improved to meet the higher track and system standards needed to run passenger trains to appropriate safety and ride comfort levels.

- 3.7 The route upgrades are also necessary to achieve a suitable journey time to be attractive to passengers, and enable the freight services to continue to use the same timetable paths they currently enjoy.
- 3.8 The important route upgrade interventions include:
- 3.8.1 replacement of ageing track components, and realignment for ride quality and line speed improvements;
 - 3.8.2 track dualling and a passing loop to enable freight and passenger trains to pass efficiently on what is currently a single line section;
 - 3.8.3 strengthening, expansion or reconstruction of underbridges to support the new dualled track or the increase in loadings on the existing track;
 - 3.8.4 upgrade in the signalling system to replace legacy equipment, enable better signal positioning for line speed improvements, and provide suitable protection at level crossings;
 - 3.8.5 changes to level crossings, including construction of new grade-separated crossings where level crossings are closed.
- 3.9 Where a crossing is to be closed and replaced with a grade-separated crossing, I have set out the options considered and the reasons for selecting the solution included in the scheme.
- 3.10 The proposed new Ashington station is a single platform terminus station adjacent to the historical station but is on a spur line behind the western historic platform.
- 3.11 Its position enables passenger services to be turned around off the main route while avoiding blocking following freight trains, but the alignment has been designed to allow future northbound reconnection if required in future.
- 3.12 The car park at Ashington is designed to meet modern railway standards for accessibility and connected transport use, as well as accommodate the existing number of spaces used to access the high street and other local facilities.
- 3.13 Even with pessimistic assumptions for the long term impact of the Covid pandemic, I anticipate that the number of spaces available within the existing footprint of land owned by Northumberland County Council (NCC) will be exceeded within four years of the start of operations.
- 3.14 It is therefore necessary to provide a greater number of spaces to meet more realistic demand expectations, for which the design team has explored the possibilities of constructing a second level to the car park or expanding at grade to the south into the Malhotra land.
- 3.15 Since the difference in cost is estimated to be in the order of £3m more expensive to construct a second level, the purchase of the currently unused Malhotra land is the more appropriate option. Further detail is set out in my Appendix A.
- 3.16 The proposed Bedlington station is on the site of the historical station, but provides a second platform on the west side to ensure operational resilience and future-proofing for services to Morpeth. The land to the west of the station originally proposed for permanent acquisition has now been reduced to reflect a refined design.
- 3.17 Blyth Bebside station is a dual platform station located south of Front Street adjacent to land owned by NCC and south of Bebside housing. Its position is heavily influenced by the difficulty of ensuring that the entrance or exit to the station does not result in traffic

- 'blocking back' over the level crossing or onto the A189 highway slip road, either of which would be dangerous.
- 3.18 Newsham station is a dual platform station positioned on the A1061 to the south of Blyth, on the main route into Blyth and the designated primary access to the Port of Blyth, which is an important local employer and centre for the UK's wind farm technology.
- 3.19 The proposed configuration of the station on a double-track section of the railway provides good access and parking from both the east and west, and directs through traffic via a new highway bridge carrying the A1061 over the railway.
- 3.20 The closure of the existing level crossing and provision of the bridge removes the safety risks and significant congestion associated with traffic blocking back in both directions when the barriers are closed.
- 3.21 The Port of Blyth has expressed its deep concern that a solution retaining the crossing would exacerbate an existing material problem with delays because the barriers would be down significantly more frequently.
- 3.22 The alignment of the road and bridge unfortunately results in the need to demolish Arden House, owned by Mr and Mrs Doyle. I have met with Mr and Mrs Doyle on several occasions to explain the developing designs and why there is a need to purchase their property.
- 3.23 Realignment of the highway further south to avoid demolition would add significant additional cost, would encroach further into green belt land for the highway and relocated car park, and leave Arden house encapsulated by the bridge eastern approach embankment.
- 3.24 Seaton Delaval station is positioned to be accessible for both Seaton Delaval and Seghill residents. The precise location is shaped by conforming with railway design best practice, creating passive provision for any future dual tracking through the area, and limiting impact on residents of Delaval Court, to the north-east of the proposed station.
- 3.25 Northumberland Park station has a single platform positioned to the north of the existing railway and opposite the existing Northumberland Park Metro station. It is to be built into the existing embankment and passengers will access the metro station by means of stairs and a lift up to Algernon Drive overbridge.
- 3.26 It is not practicable to divert Northumberland Line trains into the existing metro track and platform at the station for operational, rolling stock, signalling and cost reasons.

4. CONSTRUCTION

- 4.1 The majority of route upgrade works can be constructed within Network Rail's Permitted Development Rights and are being delivered currently by Network Rail's contractors on a 'no regrets' basis, such that if the Transport and Works Act Order were not made, Network Rail would only have delivered upgrades that would have been necessary at some point in any case.
- 4.2 The 'station' works are to be delivered by Northumberland County Council and its recently-appointed contractor Morgan Sindall. Morgan Sindall will be responsible for developing its Contractor's Environmental Management Plan (CEMP) in compliance with planning consent conditions for each of the stations.
- 4.3 The CEMP will govern such matters as communication with the railway's neighbours, management of noise, traffic and environmental protection, as well as working hours.

5. STATEMENT OF MATTERS

5.1 In my Proof, I have addressed the engineering aspects relating to Matters 2, 3b, 3c, 3d, and 4, though I have primarily done so via reference to the objections. For reference, these are:

- 5.1.1 SoM 2: The main alternative options considered by Northumberland County Council (NCC) and the reasons for choosing the preferred option set out in the Order.
- 5.1.2 SoM 3b: impacts of the scheme and its construction on the local road networks, parking, and communal gardens.
- 5.1.3 SoM 3c: location of the proposed underpass at Ashington and its impact on any anti-social behaviour.
- 5.1.4 SoM 3d: impact of the scheme on sheltered accommodation for the elderly.
- 5.1.5 SoM 4: The effects of the scheme on statutory undertakers, statutory utilities and other utility providers, and their ability to carry out their undertakings effectively, safely and in compliance with any statutory or contractual obligations and the protective provisions afforded to them.

6. OBJECTIONS

6.1 The objections I address in my Proof of Evidence primarily relate to the impact on land take around the stations, concerns about methods by which the stations will be built, and the potential for works to exacerbate anti-social behaviours. There are other specific details in each case that I have responded to directly.

6.2 For ease of reference, I have grouped the objections by location, these being (working north to south):

- 6.2.1 The land owned at Ashington station by the Malhotra group;
- 6.2.2 Hospital crossing underpass, where the primary concerns are about exacerbating existing anti-social behaviour;
- 6.2.3 Sleekburn House residential care home at Bedlington, relating to the impact of temporary and permanent land take on the communal gardens;
- 6.2.4 Newsham overbridge, referring to the impact on the land to be occupied;
- 6.2.5 Red House Farm, and the impact on a proposed new development;
- 6.2.6 Northumberland Park station, with particular concerns about temporary use of residents' car parking and communal garden areas, as well as noise during construction and the loss of vegetation as a result of the works
- 6.2.7 Interfaces with the Nexus Metro system; and
- 6.2.8 Impacts on utility company interests.

7. WITNESS DECLARATION

7.1 I hereby declare as follows:

- 7.1.1 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.
- 7.1.2 I believe the facts that I have stated in this proof of evidence are correct and the opinions expressed are truthful.
- 7.1.3 I understand my duty to the Inquiry to help it with matters within my expertise and I have complied with that duty.