

TRANSPORT AND WORKS ACT 1992
TRANSPORT AND WORKS (INQUIRIES PROCEDURES)
RULES 2004
NETWORK RAIL (STALYBRIDGE TO DIGGLE
(SADDLEWORTH) ENHANCEMENTS) ORDER

NOISE AND VIBRATION
SUMMARY PROOF OF EVIDENCE
of
Adam Lawrence

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1. INTRODUCTION

1.1 Introduction

1.1.1 My name is Adam Lawrence. I am an Associate acoustician with AtkinsRéalis. I hold a Bachelor's degree (with Honours) in Electroacoustics from the University of Salford. I am a Fellow of the Institute of Acoustics and a Chartered Engineer.

1.1.2 I have been involved with the noise and vibration assessment of this Scheme since late 2025.

2. SCOPE OF EVIDENCE

2.1 Approach to Assessment

2.1.1 My evidence shows that the noise and vibration chapter of the Environmental Report (ER) [NR14] deals with noise and vibration impacts in an appropriate way.

2.1.2 The assessment considers all elements of the Scheme, both those which are part of the proposed Order, and those which are available to Network Rail under Permitted Development rights. The majority of the scheme would be constructed under Permitted Development rights.

2.1.3 In addition to the scheme, under Permitted Development rights, Network Rail can intensify the use of the line, including changes to the types of train, level of service and train speed/stopping patterns. Changes in noise and vibration from intensification have been excluded.

2.1.4 The principal elements of the assessment are the construction of the scheme and the operation of the relocated Mossley station. Separate consideration has been given to construction noise, construction vibration, operational noise and operational vibration. The scheme is unlikely to result in significant noise or vibration effects.

2.2 Construction Noise and Vibration Impacts and Mitigation

2.2.1 The key control for construction noise and vibration is the Code of Construction Practice (CoCP) [NR17]. As part of this, a Noise and Vibration Management Plan (NVMP) will be submitted to and approved by the Local Authorities.

2.2.2 The NVMP will set out noise and vibration assessments required during detailed design. Assessments will be in line with BS5228 [NR72] and undertaken by a competent person. Mitigation will include Best Practicable Means (BPM) and/or additional specific mitigation measures, as determined by assessment results.

2.2.3 It is considered there are sufficient controls to avoid significant impacts from construction noise and vibration. Controls are set out in the NVMP alongside the CoCP and in Network Rail's Environmental Minimum Requirements for Projects (NR/ENV/015) [NR14, Volume 3, Appendix 1A].

2.3 Construction Traffic Impacts and Mitigation

2.3.1 Construction traffic impacts are managed and mitigated through the Construction Traffic Management Plan (CTMP).

2.3.2 Changes in road traffic during construction are unlikely to be significant. Therefore, with the CTMP and NVMP in place, changes in road traffic noise are expected to be limited.

2.4 Operational Railway Noise and Vibration Impacts and Mitigation

2.4.1 Changes to services from intensification, and consequential changes in noise and vibration, have been excluded from the assessment.

2.4.2 The principal operational noise impacts relate to the relocation of Mossley Station. Other elements with potential for change include; track re-alignment, Greenfield station, and Stalybridge tunnel.

Mossley Station

2.4.3 At Mossley station the highest potential for noise change arises from fixed plant and equipment, including the Public Address (PA) system. As the station is moving some 300m north, changes could occur from trains idling at the station, and changes to access.

2.4.4 Changes to the location where trains would idle when stationary at the station, and changes to access, would be assessed. Mitigation is not expected.

2.4.5 For fixed plant and equipment, the design will seek to avoid significant impacts. Mitigation would include selection of plant and equipment alongside their position and orientation to minimise impacts.

2.4.6 The proposed public address system will be designed in line with relevant standards. The design will balance potential impacts from its use on nearby receptors against the need to operate the station safely. Mitigation can include restricting messages and other measures.

Track re-alignment

2.4.7 The works include altering the horizontal and vertical alignment of the railway in various places. All changes are smaller than a few centimetres, except near Mossley Cottages and Old Brow Court.

2.4.8 At Mossley Cottages and Old Brow Court, the track would be realigned, moving up to 1m away from Mossley Cottages and towards Old Brow Court. For trains travelling at the same speeds, at Mossley Cottages noise and vibration levels would reduce, and at Old Brow Court noise and vibration levels would increase. These changes in noise and vibration are unlikely to be perceptible.

2.4.9 Network Rail have a legal requirement to conduct an assessment under the Noise Insulation Regulations for Railways [NR66] and determine eligibility for insulation from realignment works.

2.4.10 In all other locations, changes in the horizontal and vertical alignment would not give rise to changes in noise or vibration at receptors.

Greenfield station

2.4.11 There are no changes to the positioning of the platforms, track alignment, or plant and equipment at the station. Changes in operational noise are not expected.

Stalybridge tunnel

2.4.12 The Permitted Development works in Stalybridge tunnel include replacing the current trackform with a resilient trackform. This trackform will lead to a reduction in vibration and groundborne noise in properties above the tunnel.

2.5 Operational Road Traffic Noise Impacts and Mitigation

2.5.1 Changes in road traffic from the operation of the scheme are unlikely to be significant. Potential changes in road traffic noise are limited to areas with physical road network changes; Mossley Station, and bridges carrying traffic across the railway.

Mossley station

2.5.2 At Mossley station, there are potential road traffic noise impacts from changes to the car park and to station access. Potential changes to road traffic noise and mitigation would be assessed, but potentially significant effects are considered unlikely.

Changes to bridges

2.5.3 Five bridges carrying traffic across the railway are proposed for alterations. Perceptible changes in road traffic noise are not expected.

3. RESPONSES TO OBJECTORS

3.1.1 Several objectors to the scheme include noise and vibration issues in their submissions. Matters relating to general disturbance from and management of the construction of the scheme are covered in the proof of evidence of Mr Jim Pearson [NR/PoE/JP/4.2]. Matters relating to compensation are covered in the proof of evidence of Mr Nigel Billingsley [NR/PoE/NB/8.2]. I address other concerns in section 3 of my proof of evidence, with key concerns summarised below.

3.2 Noise from relocated Mossley station

3.2.1 Eight objectors include a concern about noise from the relocated Mossley station. Three objectors refer to noise from the public address system, and three refer to changes in noise from the removal of a historic wall along Manchester Road.

3.2.2 During detailed design, the public address system will be designed in line with relevant standards with mitigation to avoid significant impacts, balancing potential impacts at receptors against the need to operate the station safely.

3.2.3 Changes to the wall along Manchester Road will be assessed during the detailed design of the station, with mitigation to minimise impacts if needed.

3.2.4 Two objectors express concerns about noise from trains at the station. The alignment of the track through the station is broadly unchanged. Changes in railway noise have been excluded from the assessment, and no mitigation is expected.

3.2.5 Other noise concerns raised are not impacts which the project can directly control, and include issues likely to exist at the current station.

3.3 Building damage

3.3.1 Seven objectors expressed a concern about potential damage to their buildings during the construction of the Scheme. The project is committed to assessing noise and vibration and providing appropriate mitigation. It is important to note that humans can perceive vibrations at levels significantly lower than those with the potential to cause building damage.

3.3.2 Further details on the management of construction works are given in the evidence of Mr Jim Pearson. Further details on compensation are given in the evidence of Mr Nigel Billingsley.

3.3.3 Three objectors express concerns about vibration, noting that their properties are old, with foundations different from newer properties. The assessment threshold for potential vibration damage is set at a level which includes all foundation types. A lower threshold would only need to be considered if buildings were structurally unsound.

3.4 Railway noise and vibration

3.4.1 Network Rail can change services along the line, including operating patterns and speed, with operational noise and vibration excluded from the assessment. Five objectors have concerns about changes to noise and vibration from the Scheme, with four concerned about changes to the level of service and one concerned about changes to track alignment at Mossley Cottages and Old Brow Court.

3.4.2 Track realignment at Mossley Cottages and Old Brow Court is unlikely to result in a perceptible change in noise or vibration.

3.5 Noise mitigation

3.5.1 Two objectors express concerns around noise from the scheme near Mossley Station, seeking noise mitigation. Changes at the station will be designed to avoid significant impacts. Changes to the track are not expected to result in changes to noise. Mitigation at receptors is not expected.

4. CONCLUSION

4.1 Conclusion

4.1.1 The scheme is unlikely to result in significant noise or vibration effects.

4.1.2 I have set out how noise and vibration impacts from the construction and operation of the scheme will be assessed and mitigated as the design progresses and the scheme develops.

4.1.3 I have addressed the objections which refer to noise and vibration matters.

5. WITNESS DECLARATION

5.1 Statement of declaration

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