



A66 Northern Trans-Pennine Project TR010062

2.7 Environmental Management Plan Annex B5 Noise and Vibration Management Plan (Rev 3) (Clean)

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Procedure) Regulations 2009**

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2.7 ENVIRONMENTAL MANAGEMENT PLAN ANNEX B5 NOISE AND VIBRATION MANAGEMENT PLAN

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Author:	A66 Northern Trans-Pennine Project Team, National Highways

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B5 Noise and vibration management plan

B5.1 'Section 61' Consent

- B5.1.1 The Principal Contractor (PC) will determine whether applications under Section 61 of the Control of Pollution Act 1974 are appropriate or required in relation to noise management.
- B5.1.2 If applications are deemed to be required, they will be submitted to the Local Authority Environmental Health Officers at the appropriate local authority (noting it may be applicable across several Local Authorities).
- B5.1.3 Contact details for the relevant Environmental Health Officer(s) is:
- Contact details required. TBC prior to start of construction
 - Email: TBC prior to start of construction
 - Phone: TBC prior to start of construction.
- B5.1.4 The Principal Contractor Noise and Vibration Specialist will prepare applications for 'Section 61' Consent where required, including, but not limited to, works in close proximity to Kirkby Thore Primary School. Applications will detail the activities and methods to be used during the Project with a prediction of noise and vibration levels at appropriate receptors agreed with the Environmental Health Office. Details of construction activities, prediction methods, locations of sensitive receptors, noise and vibration monitoring and mitigation (if required) should be presented.
- B5.1.5 The selection and duration of diversion routes to allow construction works shall be agreed with Local Authorities and relevant stakeholders. The diversion routes should minimise as much as possible noise impacts upon sensitive receptors located nearby, especially if the diversion takes place for the night-time.
- B5.1.6 Where Section 61 consent is obtained, all works will be undertaken in accordance with the approved Section 61 and any changes required made through the variation or dispensation process as deemed appropriate.
- B5.1.7 Applications will be made to the relevant local authority at least 28 days before the relevant work is due to start or earlier if reasonably practicable.
- B5.1.8 Consent specifics will be documented within the EMP.

B5.2 Noise insulation and temporary housing

- B5.2.1 Principal Contractor will undertake a noise insulation/temporary rehousing appraisal six to nine months prior to starting intensive construction phases or such time appropriate to the scale and nature of the works.
- B5.2.2 The Principal Contractor shall offer noise insulation or temporary rehousing to qualifying parties when:
- Noise levels are predicted or measured by the Principal Contractor to exceed the relevant trigger level (as defined in BS 5228-1, Table E.2)

for at least ten days out of any period of 15 consecutive days or alternatively 40 days in any six-month period at affected properties.

- The property complies with all other requirements of the Noise Insulation Regulations 1975 (as amended).
- The property is lawfully occupied as a permanent dwelling.
- Noise insulation does not already exist that is of an equivalent standard to that which would be allowed for under the Noise Insulation Regulations 1975 (as amended).

B5.2.3 The Principal Contractor shall consider all applications supported by evidence for noise insulation or temporary rehousing from occupiers who may have special circumstances. Special circumstances could include night workers, those working in home occupations, local businesses or buildings that provide community facilities requiring a particularly quiet environment and those with a medical condition which will be seriously aggravated by construction noise. The Principal Contractor shall provide noise insulation or temporary re-housing where it is demonstrated that this is necessary.

B5.2.4 The Principal Contractor shall inform the Council(s) and owners / occupiers should it be identified that noise insulation or temporary re-housing is required.

B5.2.5 For traffic noise from operation of the project once completed, the Principal Contractor shall inform the Council(s) and owners/occupiers should it be identified that noise insulation is required. National Highways/employer's representative will assess noise levels following the opening of the scheme to traffic. Noise insulation would be offered under Regulation 6 of the Noise Insulation Regulations 1975 (as amended) where the eligibility criteria are met for operational traffic noise, including provisions b to d above. This mitigation offer would apply to dwellings identified in the ES Chapter 12 Noise and Vibration, as subject to significant adverse effects above the Significant Observed Adverse Effect Level (SOAEL).

B5.3 Working hours

B5.3.1 Core site working hours are:

- 07:30 to 18:00 Monday to Friday
- 07:30 to 13:00 Saturday.

B5.3.2 Where essential, working at night or on Sundays and Bank Holidays will be agreed with the relevant Environmental Health Officer.

Start-up and close-down

B5.3.3 Start-up and close-down periods of up to one hour before and one hour after core working hours may be used for activities such as arrival of workforce and staff on site, deliveries and unloading, maintenance and checking of plant and machinery, general refuelling, site inspections, safety checks prior to commencing work, site meetings, and general site clean-up and departure.

Work outside core hours

- B5.3.4 Certain activities will need to take place outside these times to enable safe working and/or minimum disruption to road users; these will include traffic management activities, demolition of over bridges, heavy beam lifts, slip road works in the online section and other activities requiring carriageway closure.
- B5.3.5 These out of hours activities will be agreed with the Local Authority Environmental Health Officer(s) by variation to the consent in advance of the works. The Principal Contractor Environmental Manager and Section Environmental Lead will advise the construction team if works are authorised to proceed.

Emergency overruns

- B5.3.6 Certain activities may be required to extend beyond core working hours due to unforeseen events during the working day. Such activities will only be permitted to continue where sound engineering or safety reasons dictate.
- B5.3.7 Principal Contractor Environmental Manager and Section Environmental Lead will notify the Local Authority Environmental Health Officer via phone or email. The communication will detail the activity that will extend beyond normal working hours, reasons for continuing work and contact details for the on-site supervisor.

B5.4 Best practicable means

- B5.4.1 The principles of Best Practicable Means (BPM) will be used to minimise noise and vibration levels during construction work. The relevant recommendations for the control of noise and vibration on construction and open sites in the approved Code of Practice BS 5228¹ will be adopted. This will include the following general measures where appropriate:
- Plant and working methods will be selected to ensure that the minimum possible amount of noise is generated whilst carrying out the work in an efficient and cost-effective manner
 - All plant will be shut down or throttled back to idling speed in between periods of use
 - Selection of quiet and low vibration equipment and methodologies following a review of construction programme and methodology to consider quiet/low vibration methods (including non-vibratory compaction plant where required)
 - Alternative construction methodologies will be considered for construction activities with the potential to cause structural harm to an asset

¹ British Standards Institute (2014) Code of practice for noise and vibration control on construction and open sites, available at: <https://shop.bsigroup.com/products/code-of-practice-for-noise-and-vibration-control-on-construction-and-open-sites-noise/standard>

- All relevant plant will comply with the permissible noise levels set out in the appropriate legislation
- Every effort will be made to ensure that the plant in use comprises the quietest available models suitable for the purpose, including white noise reversing alarms
- Plant and equipment will be maintained in good working order, with particular attention being paid to the condition of silencers and acoustic panels
- Use of less intrusive alarms, such as broadband vehicle reversing warnings
- Optimal location of equipment on site to minimise noise disturbance
- Static plant (such as generators and lighting sets) will be located so as to improve screening and / or distance attenuation in relation to occupied premises
- The provision of acoustic enclosures around static plant, where necessary
- Where possible, hydraulic equipment will be used in preference to pneumatic plant. For cleaning out formwork prior to concreting, pressure washing will be used in preference to air lancing where practicable
- No start-up or shut down of vibratory plant e.g., rollers or compactors, within 50m of receptors
- Proactive communication with local residents will be undertaken by the Principal Contractor Community Relations Manager (CRM)
- Compliance with standard working hours, as agreed by local councils.

B5.4.2 Principal Contractor's method statements and risk assessments will be reviewed and suitable noise and vibration control measures identified.

B5.5 Noise and vibration sensitive receptors

B5.5.1 There are a number of sensitive residential and non-residential receptors around the construction site and the anticipated construction traffic routes of each scheme.

B5.5.2 The noise and vibration chapter of the Environmental Statement: Chapter 12, presents the location of sensitive receptors with the potential to be impacted by construction noise. The ES Appendix 12.3 (Application Document 3.4) lists the sensitive receptors where significant effects are predicted.

B5.5.3 The ES has also identified a number of Noise Important Areas (NIAs) within the noise and vibration study area. The study area is defined in line with DMRB LA 111 as presented in the ES Chapter 12: Noise and Vibration (Application Document 3.4). The relevant NIAs which were defined in the Noise Action Planning for England (Round 3) are listed as follows:

- 6763 located close to Scheme 01
- 10285 located closed to Scheme 01
- 10284 located close to Scheme 01

- 10283 located close to Scheme 01
- 12113 located close to Scheme 04/05
- 10128 located close to Scheme 06
- 10438 located between Scheme 6 and Scheme 7
- 13930 located between Scheme 6 and Scheme 7
- 10230 located between Scheme 6 and Scheme 7
- 10437 located close to Scheme 09
- 10127 located between Scheme 9 and Scheme 11.

B5.5.4 The assessment locations for construction noise will be agreed with the relevant host Local Authorities. The Principal Contractor (PC) will apply to the Local Authority for consent under Section 61 for the relevant assessment locations.

B5.6 Noise and vibration monitoring

B5.6.1 Noise and vibration monitoring will include observational checks by the Principal Contractor Environmental Manager and Section Environmental Lead and the construction team. These will be supplemented by physical measurements. The locations will need to be agreed with the relevant local authorities. These locations may vary dependant on phasing and type of construction activity.

B5.6.2 Prior to construction works commencing background noise monitoring will be undertaken at agreed locations with the Local Authority.

B5.6.3 During the construction works monitoring will be undertaken on a regular basis as agreed the Local Authority or by the Principal Contractor Environmental Manager and Section Environmental Lead and will depend on location and type of work being carried out in each area.

B5.6.4 Noise will be monitored in line with DMRB LA 111 which refers to BS5228-1 and BS 7445-1. Measurements should be undertaken in free-field i.e. there shouldn't be any reflective surface within 3m of the microphone other than ground. The following should be also considered:

- The sound level meter shall be class 1 following the specification in IEC 61672 (International Electrotechnical Commission. International Electrotechnical Commission. IEC 61672, 'Electroacoustics - Sound level meters - Part 1: Specifications) as stated in DMRB LA 111.
- The microphone will be positioned at least 1.5m from ground level.
- The monitoring period will be a minimum of 15 minutes. This period may be extended to an hour or beyond if levels stated in the section 61 consent are exceeded.
- The noise meter will be field calibrated before and after use.

B5.6.5 The following aspects will be recorded at the time of attended monitoring:

- Weather conditions; including approximate wind direction and speed, temperature
- Ground conditions; wet or dry

- Description of activities nearby, including distance and direction of the monitoring point, that will contribute to the noise level recorded
- A description as to whether the activity is a dominant noise source, clearly audible or barely audible.

- B5.6.6 Weather conditions will be taken into account before attended monitoring commences, for example the monitoring will not be carried out during periods of precipitation.
- B5.6.7 Noise monitoring equipment will be calibrated in accordance with the manufacturer's instructions and evidence of calibration will be available on request.
- B5.6.8 The noise monitoring results will be recorded and made available to the host Local Authority, upon request.
- B5.6.9 Results of noise and vibration monitoring will be compared against predictions in the Section 61 consent. Any readings that are significantly greater than predicted levels or noise levels stipulated in the section 61 consent will cause a review of the construction process and implementation of remedial action. The level will be reported to the Local Authority Environmental Health Officer as soon as reasonably practicable and the relevant prediction calculations reviewed if exceedance levels are significant.
- B5.6.10 All noise and vibration monitoring records will be managed in accordance with the Control of Records requirements of Environmental Management System (EMS).

B5.7 Notification of activities with the potential to cause nuisance

- B5.7.1 Principal Contractor to appoint a Community Relations Manager (CRM) responsible for leading engagement with affected communities.
- B5.7.2 The Principal Contractor CRM is responsible for the notification to residents that may be affected by potential disruptive activities, for example night-time working.
- B5.7.3 During the construction, appropriate mechanisms to communicate with local residents will be set up to highlight potential periods of disruption for both noise and vibration (for example web-based, newsletters, newspapers, radio announcements etc.).
- B5.7.4 An information web-page will be provided and kept up-to-date on the National Highways website to reflect construction and community liaison requirements. It is envisaged that the web-page will provide up-to-date information on the progress of the construction works, areas affected by construction, mitigation in place to reduce adverse effects, information regarding planned construction works (including any proposed works outside normal hours, diversion routes etc.) and works recently completed.
- B5.7.5 Notification will be via the following:
- Letter drop
 - Newsletters

- Social media
- Dedicated internet page.

B5.8 Complaints

- B5.8.1 The communication strategy will minimise the likelihood of complaints. Residents will be provided with a point of contact for the Principal Contractor CRM for any queries or complaints. In addition, the National Highways Customer Contact Centre (NHCCC) will also be available to deal with queries from the public. This includes an information line staffed by National Highways 24/7. A complaint management system will be in place, in line with systems used by National Highways on other major infrastructure projects. Any noise and vibration complaints will be investigated, and appropriate action taken as required. The complainant and the relevant local planning authority will be provided with a response outlining the results of the investigation and any action taken.
- B5.8.2 The relevant local planning authority will be invited to visit the site to view and validate the success or otherwise of the remedial action. Should further mitigation be appropriate to prevent a re-occurrence, this will be discussed with the relevant local planning authority and implemented accordingly.
- B5.8.3 The A66 Project Helpline Number will be used to deal with enquiries and complaints from the public. Details of the complaints will be related to the Project IDT Stakeholders team. The extent of the action taken will depend on the nature of the complaint.
- B5.8.4 Emergency measures are detailed in the Emergency Procedures Plan at Annex D of the EMP (Application Document 2.7).

B5.9 Considerate Constructors Scheme

- B5.9.1 The Principal Contractor will register and adhere to the requirements of the Considerate Constructors Scheme.