

Dodworth Road / Broadway / Pogmoor Road Planning Condition 26

Task 2: Noise Insulation Scheme

Barnsley Metropolitan Borough Council

Project reference: Pogmoor Junction Planning Condition 26
Project number: 60644504

03 March 2021

Quality information

Prepared by	Checked by	Verified by	Approved by
Pam Lowery Principal Acoustics Consultant	Matt Muirhead, Principal Acoustician	Yuyou Liu, Regional Director	Yuyou Liu Regional Director

Revision History

Revision	Revision date	Details	Authorized	Name	Position
1.0	11/11/2020	Draft for client comment			
1.1	15/01/2021	Updated following client feedback			
1.2	23/02/2021	Updated Figure 1 following client feedback			
1.3	03/03/2021	Updated following client feedback			

Distribution List

# Hard Copies	PDF Required	Association / Company Name

Prepared for:

Barnsley Metropolitan Borough Council
Barnsley Metropolitan Borough Council

Prepared by:

Pam Lowery
Principal Acoustics Consultant
T: 0115 827 8038
M: 07825 299021
E: pamela.lowery@aecom.com

AECOM Infrastructure & Environment UK Limited
12 Regan Way
Chetwynd Business Park
Nottingham NG9 6RZ
United Kingdom

T: +44 (115) 907 7000
aecom.com

© 2021 AECOM Infrastructure & Environment UK Limited. All Rights Reserved.

This document has been prepared by AECOM Infrastructure & Environment UK Limited ("AECOM") for sole use of our client (the "Client") in accordance with generally accepted consultancy principles, the budget for fees and the terms of reference agreed between AECOM and the Client. Any information provided by third parties and referred to herein has not been checked or verified by AECOM, unless otherwise expressly stated in the document. No third party may rely upon this document without the prior and express written agreement of AECOM.

Table of Contents

1.	Introduction.....	5
2.	Review of discretionary noise insulation schemes.....	5
3.	Draft noise insulation scheme.....	6
4.	Summary	7
5.	References	8
	Appendix A	9
	Draft Noise Insulation Scheme – Dodworth Road / Broadway / Pogmoor Road Junction Improvements.....	9
	Introduction	9
	Definitions	9
	Scheme eligibility	9
	Noise Insulation Package.....	10
	Procedure for implementing noise insulation measures.....	10

Figures

Figure 1: Flowchart summarising Noise Insulation Scheme processes and Actionees	7
---	---

Tables

No table of figures entries found.

1. Introduction

- 1.1 AECOM has been commissioned by Barnsley Metropolitan Borough Council (BMBC) to develop a noise insulation scheme as required by the following condition associated with the planning approval for the A628 Dodworth Road improvements, subsequently referred throughout this document as the 'Dodworth Road / Broadway / Pogmoor Road Improvements':

26: Prior to the development commencing within the confines of the existing highway, a scheme taking account of the Noise Insulation Regulations 1975 (as amended) designed to mitigate adverse noise levels experienced by nearby residents shall be submitted to and approved in writing with the Local Planning Authority and the approved scheme shall be complied with in conjunction with the implementation of the development.

Reason: In the interests of the amenities of local residents and in accordance with Core Strategy Policy CSP 40 and Local Plan policies SD1, GD1 and Poll 1.

- 1.2 This condition relates to those properties identified from the modelling of mitigation Option C, as set out in 'Pogmoor Crossroads: Noise and Vibration assessment. Technical Note - Comparison of alternative noise mitigation options (9 November 2018)'. These properties were identified as likely to experience significant adverse effects due to the scheme, as a result of meeting the SOAEL +1dB(A) criteria in the opening year of the scheme.

- 1.3 The scope of work involved in developing the noise insulation scheme involves three discreet tasks:

Task 1: Provide the council with the address of each property identified as meeting the SOAEL +1dB(A) criteria from the modelling of mitigation Option C in 'Pogmoor Crossroads: Noise and Vibration assessment. Technical Note - Comparison of alternative noise mitigation options (9 November 2018)'.

Task 2: Draft a noise insulation scheme on behalf of the council, setting out the procedures to be applied in terms of contacting affected residents, identifying eligible rooms, scoping the required noise insulation measures and arranging installation. Provide an indicative cost of implementing the scheme to assist BMBC in budget planning.

Task 3: Provide a draft noise insulation specification to assist BMBC in the procurement of a specialist contractor to implement the scheme.

- 1.4 Task 1 has been completed and findings reported in 'Dodworth Road / Broadway / Pogmoor Road Planning Condition 26. Task 1: Property list Rev 2.0'.
- 1.5 This report sets out the findings of Task 2.

2. Review of discretionary noise insulation schemes

- 2.1 Discretionary noise insulation schemes to address the adverse effects of transport projects have been applied over a number of years. These schemes often result from public bodies invoking their powers under relevant Noise Insulation Regulations to address noise from the construction and/or operation of road and rail schemes. A discretionary scheme has also recently been concluded by Highways England, in which noise insulation measures were installed at 892 homes located in Noise Important Areas on existing strategic roads (Ref 1).
- 2.2 A literature search has been undertaken to identify the procedures adopted by public bodies for individual discretionary noise insulation schemes. This search identified few published schemes, with these invariably focussed on insulating properties against the adverse effects of construction noise from major

infrastructure projects, such as High Speed Two (HS2) (Ref 2), Thames Tideway Tunnel (Ref 3) and Crossrail (Ref 4).

2.3 However, despite their focus on construction, our review of these published discretionary schemes has identified similar approaches to how these schemes are implemented, which we consider are appropriate for this discretionary scheme. Generic steps in these published schemes, which we propose to include in this discretionary scheme include:

- Reference to relevant parts of the Noise Insulation Regulations to inform definition of eligible rooms, noise insulation specification and scope of insulation works
- Contacting residents to inform of scheme and confirm interest
- Arranging property surveys to identify eligible rooms, their condition, presence of existing noise insulation measures and the further measures required to meet the noise insulation scheme specification
- Proposal and agreement of measures between authority and resident
- Installation of measures by a contractor

2.4 For all the schemes identified in 2.2 above, the relevant authority offers to undertake the noise insulation works at each property, at no cost to the owner/occupier. A number of these discretionary schemes also allow grants to be made which the owner/occupier can use to install the noise insulation measures themselves, as long as the works carried out are to the scheme's specification. Given the specific nature of this scheme, BMBC have concluded that they will offer to undertake the noise insulation works at each property, at no cost to the owner/occupier, as set out in the draft procedures in Appendix A. However, the provision of a conditional grant to property owners would not be a feature of this scheme as given the complexities with the Noise Insulation Regulations the requirement for residents to procure and oversee the installation of works in line with the Noise Insulation Regulations and the specification identified at the initial property inspection, along with having to provide evidence of the works carried out in line with the Noise Insulation Regulations would be an onerous task, which would require a final completion inspection by the council and could result in repayment of the grant if the works had not complied fully with the agreed specification.

2.5 Further investigation of the cost of implementing the scheme has been undertaken following recent discussions with BMBC, in which upper estimated costs have been provided separately to the council to inform initial budget estimates. However, it has not been possible to obtain further information which could be used to refine this initial estimate and therefore it is proposed that the original budget estimate provided is used for BMBC budgetary purposes until further information becomes available.

3. Draft noise insulation scheme

3.1 The findings of the literature review have been used to inform a draft noise insulation scheme for the Dodworth Road / Broadway / Pogmoor Road Junction Improvements, which is included in Appendix A. This scheme draws on the format of published schemes set out in 2.2, as well as the procedures set out in the Noise Insulation Regulations (Ref 4), and government guidance specific to mitigating public works (Ref 5). The scheme also includes details of the eligibility criteria, the noise insulation package and the procedure to be adopted.

3.2 A flowchart setting out the procedure has been produced, primarily for use by BMBC, which sets out the what action is required by individual parties at each stage of the process. This flowchart is set out in Figure 1 below:

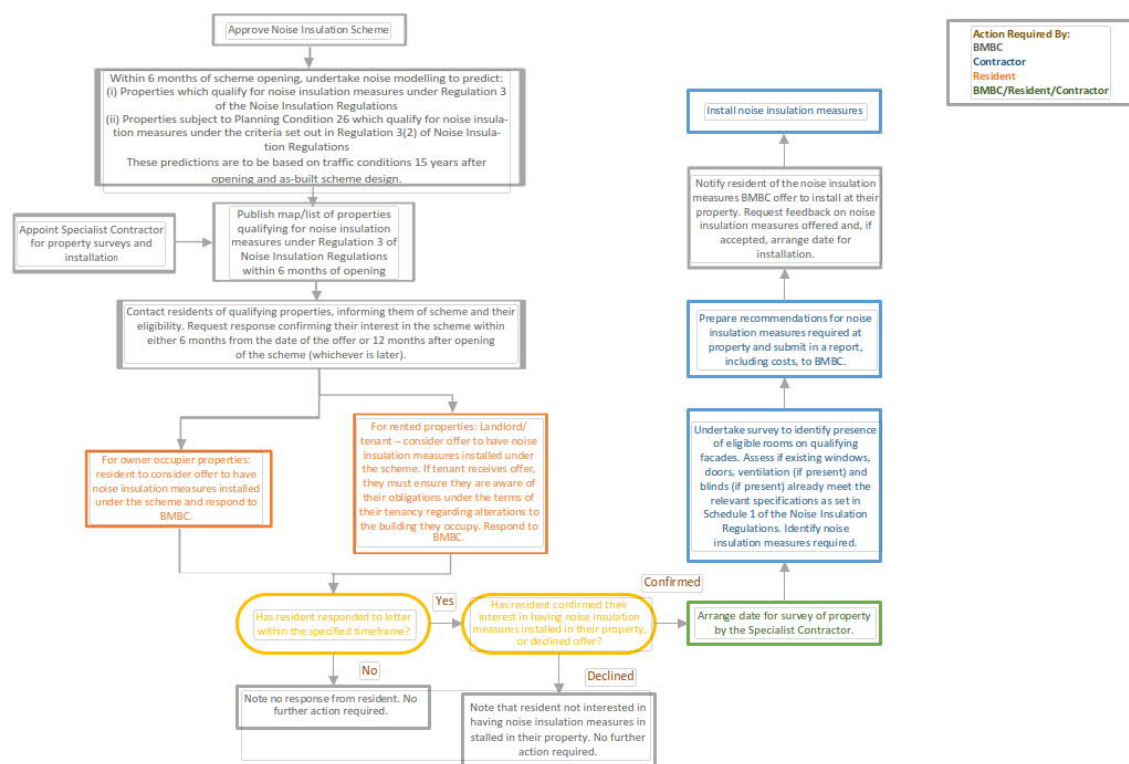


Figure 1: Flowchart summarising Noise Insulation Scheme processes and Actionees

4. Summary

- 4.1 AECOM has prepared a noise insulation scheme on behalf of BMBC as required by the Planning Condition 26 associated with the planning approval for the Dodworth Road / Broadway / Pogmoor Road Junction improvements.
- 4.2 This condition relates to those properties identified as likely to experience significant adverse effects due to the scheme, as a result of meeting the SOAEL +1dB(A) criteria from the modelling of mitigation Option C, as set out in 'Pogmoor Crossroads: Noise and Vibration assessment. Technical Note - Comparison of alternative noise mitigation options (9 November 2018)'. 54 properties were identified as meeting the criteria, the details of which are set out in the report prepared and submitted for Task 1.
- 4.3 A number of discretionary noise insulation schemes have been studied to inform the draft insulation scheme for Dodworth Road / Broadway / Pogmoor Road Junction.
- 4.4 The draft insulation scheme to be applied to the properties as per the Planning Condition 26 is set out in Appendix A.

5. References

- Ref 1 Highways England (2020), Designated Funds Plan 2020-2025
(<https://highwaysengland.co.uk/media/lh2ll0ao/designated-funds-plan-2020-2025.pdf>)
- Ref 2 High Speed Two (HS2) Ltd (2019), Phase 2a Information Paper E13: Control of Construction Noise and Vibration
(https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/841631/E13_Control_of_Construction_Noise_and_Vibration_v1.1.pdf)
- Ref 3 Tideway (2017), Non-statutory Off-site mitigation and compensation policy,
(<https://www.tideway.london/media/1655/non-statutory-off-site-mitigation-and-compensation-policy.pdf>)
- Ref 4 Crossrail Ltd (2007), Crossrail Information Paper D8 – Noise and Vibration Mitigation Scheme
(<https://www.crossrail.co.uk/assets/download/3367>)
- Ref 5 The Noise Insulation Regulations 1975
(<https://www.legislation.gov.uk/uksi/1975/1763/introduction/made>)
- Ref 6 Office of the Deputy Prime Minister (2004), Compulsory Purchase and Compensation, Reducing the Adverse Effects of Public Development, Mitigation Works
(https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/11490/147651.pdf)

Appendix A

Draft Noise Insulation Scheme – Dodworth Road / Broadway / Pogmoor Road Junction Improvements

Introduction

The operation of the Dodworth Road / Broadway / Pogmoor Road Junction improvements will cause increases in road traffic noise at some locations which are already experiencing high road traffic noise levels.

During the design of the improvement scheme, measures to minimise road traffic noise levels at nearby properties from the improvement scheme were identified. However, a number of properties which currently experience high road traffic noise levels were still predicted to experience an increase in road traffic noise levels with these measures in place. The purpose of this noise insulation scheme is to mitigate the adverse noise levels experienced by residents of these properties, through the installation of noise insulation measures, subject to acceptance by the occupiers.

Definitions

For the purposes of this scheme, the following definitions apply:

“BMBC”	means Barnsley Metropolitan Borough Council
“eligible room”	means a room which are not solely used as a kitchen, utility room, bathroom, cellar or sanitary accommodation
“insulation work”	means work carried out to insulate an eligible buildings against noise which will include adequate glazing, ventilation and blinds, where appropriate
“qualifying door”	means an external door opening directly into an eligible room which is in part of façade identified as meeting the SOAEL +1dB(A) criteria
“qualifying window”	means a window in an eligible room which is in part of a façade identified as meeting the SOAEL +1dB(A) criteria
“the Regulations”	means the Noise Insulation Regulations 1975
“the relevant specifications”	means the items in Parts I, II and III of Schedule 1 to the Regulations as are applicable to the circumstances of each qualifying door and qualifying window

Scheme eligibility

The scheme applies to owners or occupiers of the 54 residential buildings identified from the modelling of mitigation Option C, as set out in ‘Pogmoor Crossroads: Noise and Vibration assessment. Technical Note - Comparison of alternative noise mitigation options (9 November 2018)’. These residential buildings were identified as likely to experience significant adverse effects due to the scheme, as a result of meeting the SOAEL +1dB(A) criteria on at least one facade.

The scheme applies to all eligible rooms with a door or window on a qualifying façade.

Noise Insulation Package

The package will consist of the following items in accordance with the relevant specifications:

- o secondary glazing for qualifying windows in eligible rooms, plus supplementary ventilation if required
- o blinds on facades where there is a need to control solar gain
- o insulation treatment for qualifying doors

Secondary glazing will usually comprise of another pane of glass in its own frame (wood, metal or plastic) 100-200mm inside the existing window. This can be opened for cleaning or ventilation. Secondary glazing is different to double glazing. Double glazing consists of two panes of glass in the same casing, typically around 20mm apart which replace the existing window. If a property already has double glazing, this will not affect eligibility under this scheme. Following a survey of a property, the owner/occupier will be advised as to the effectiveness of any currently installed double glazing in terms of attenuation of external noise, compared to the offer of secondary glazing. The owner/occupier is not obliged to accept the offer of insulation if they consider they do not need it. The owner/occupier, at their own discretion, and accepting the reduced level of noise attenuation, may choose only to have ventilation units and blinds installed.

Secondary glazing works best when closed, so additional ventilation, provided by means such as a small electric ventilator fan located on an outside wall, is usually required to enable windows to be kept closed by the owner/occupier.

On some facades, solar gain on sunny days can make rooms too hot to keep windows closed. Subject to the agreement of the owner/occupier, blinds will be fitted between the main window and the secondary glazing to minimise this effect. If the owner/occupier chooses not to accept blinds as part of the noise insulation package the possible impacts of this will be explained to them. Blinds will not be retrofitted after the installation of the noise insulation package should the owner/occupier change their mind at a later date.

A “secondary” door may be installed to qualifying doors to improve noise insulation. If the design of the property prevents this, other methods may be considered, such as a sealing strip between the existing door and its frame.

The scheme cannot be used for work needed to remedy existing building defects, including the replacement of existing windows if these are in a poor state of repair. However, the scheme will cover the making good of the existing fabric and decoration (not including curtains) after the installation of noise insulation measures.

Procedure for implementing noise insulation measures

The procedure comprises of the following steps:

Within 6 months of opening noise modelling will be carried out to predict

- (i) Properties which qualify for noise insulation measures under Regulation 3 of the Noise Insulation Regulations
- (ii) Properties subject to Planning Condition 26 which qualify for noise insulation measures under the criteria set out in Regulation 3(2) of the Noise Insulation Regulations

These predictions are to be based on forecast traffic conditions 15 years after opening and based on the as-built scheme design.

BMBC will notify owners or occupiers of buildings which have been identified as being eligible for the scheme. At this stage, BMBC will request confirmation that the owner/occupier is interested in having noise insulation measures installed. The resident will have 6 months from the date of the offer to accept it, or 12 months after the new road is opened, whichever is later.

If the owner/occupier confirms that they are not interested in having noise insulation measures installed, this will be noted. BMBC will confirm this decision with the owner/occupier and no further contact made.

If the owner/occupier confirms they are interested in having noise insulation measures installed, BMBC will arrange for a contractor to undertake a survey of the property. The survey will identify the following:

- Eligible rooms on the facades identified as meeting the SOAEL +1dB(A) criteria

- If existing windows, doors, ventilation and blinds in eligible rooms already meet the relevant specifications

- Identify scope of noise insulation measures required

Following the survey, the contractor will prepare a report setting out the package of noise insulation measures proposed at the property and their cost, and submit this to BMBC for agreement.

Once the report is agreed, BMBC will notify the owner/occupier of their offer to install noise insulation measures at their property, as identified in the survey report. BMBC will seek feedback and final confirmation from the resident that they agree with the detailed noise insulation measures proposed before arranging for a contractor to carry out the work.

If the eligible property is rented, the offer to have noise insulation measures installed under the scheme will be made to one party, either the landlord or tenant. If the tenant receives the offer, they must ensure they are aware of their obligations under the terms of their tenancy regarding alterations to the building they occupy before accepting it. BMBC will seek to reach agreement between all parties (tenant and landlord) where possible, regarding any offer and acceptance of noise insulation measures under this scheme.

