



Project No. 26525

Al-Hira Educational Centre, 51 Broad Lane,
Huddersfield

Noise Impact Assessment

Create It Studios



Revision	Date	Prepared By	Reviewed By	Comments
V1	02/10/26	William Shuttleworth	Bailey Hoare	First Issue
V2	05/10/26	William Shuttleworth	Bailey Hoare	Updates and changes

The report has been prepared in good faith by enevo, with all reasonable skill and care, based on information provided or available at the time of its preparation and within the scope of work agreement with the Client. We disclaim any responsibility to the Client and others in respect of any matters outside the scope of the above. The report is provided for the sole use of the named Client and is confidential to them and their professional advisors. No responsibility is accepted to other parties.

Limitations to this Report

This report entails a physical investigation of the site with a sufficient number of sample measurements to provide quantitative information concerning the type and degree of noise affecting the site. The objectives of the investigation have been limited to establishing sources of noise material to carrying out an appropriate assessment.

The number and duration of noise measurements have been chosen to give reasonably representative information on the environment within the agreed time, and the locations of measurements have been restricted to the areas unoccupied by building(s) that are easily accessible without undue risk to our staff.

As with any sampling, the number of sampling points and the methods of sampling and testing cannot preclude the existence of “hotspots” where noise levels may be significantly higher than those actually measured due to previously unknown or unrecognised noise emitters. Furthermore, noise sources may be intermittent or fluctuate in intensity and consequently may not be present or may not be present in full intensity for some or all of the survey duration.

1.0 Introduction

Details of Instruction

Create It Studios have appointed enevo to carry out a noise impact assessment for the place of worship and education centre at 51 Broad Lane, Huddersfield.

The noise assessment has been conducted with reference to the National Planning Policy Framework and the appropriate British Standards, recognised guidance & reference documents relevant to this site.

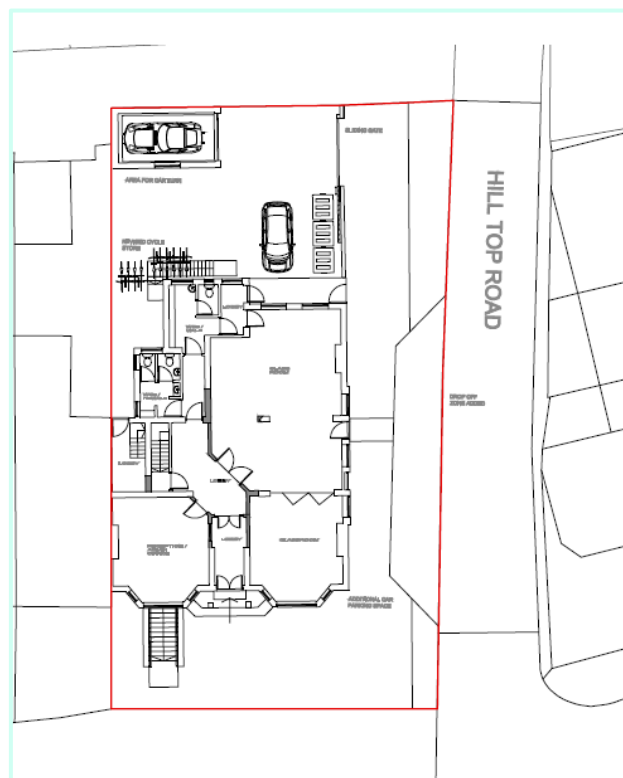
This report describes a noise survey of the site and the subsequent analysis to determine the noise environment of the proposed development. It then compares the results with the adopted criteria and, where applicable, recommendations are made with respect to the design of the development.

To support this document a glossary of technical terminology is included in Appendix A.

Site Conditions

The site is currently a place of worship and education centre. The site is bound by residential dwellings in all directions. The proposal is to seek planning permission to regularise the established use of the site as an education and religious facility with a prayer hall capacity of 40 persons. Figure 1 below shows the site plan.

Figure 1
Site Plan





Noise Sensitive Receptors

Noise contributions have been considered at the following Noise Sensitive Receptors (NSRs) based on their proximity to the site:

- NSR1 – 49 Broad Ln, Moldgreen, Huddersfield HD5 9BY;
- NSR2 – 1-4 Hill Top Rd, Moldgreen, Huddersfield HD5 9JX / 1 Carr Green Ln, Moldgreen, Huddersfield HD5 9JU;
- NSR3 – 58-60 Broad Ln, Moldgreen, Huddersfield HD5 9BY;
- NSR4 – 5-17 West Pl, Moldgreen, Huddersfield HD5 9JY.

2.0 Guidance

National Policy

National Planning Policy Framework

The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these are expected to be applied. At the heart of the NPPF is a presumption in favour of sustainable development. It requires Local Plans to be consistent with the principles and policies set out in the NPPF with the objective of contributing to the achievement of sustainable development.

The NPPF states that the planning system has three overarching objectives in achieving sustainable development including a requirement to *"support efforts to mitigate and adapt to climate change, including moving to a low carbon economy; and to protect and enhance our natural, built and historic environment, including making effective use of land, improving biodiversity, using natural resources prudently, and minimising waste and pollution"* (paragraph 17c).

Policy P3 of the NPPF states:

"Development proposals should be appropriate for their location, taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment... In assessing the potential effects of pollution, consideration should be given to the potential sensitivity of the site, and its intended occupiers and users, as well as that of the environment and population in the surrounding area..."

Additionally, Policy P3 states that development proposals should:

"d) Mitigate and reduce to a minimum potential adverse impacts resulting from noise, not result in levels of noise exposure which would have a significant observed adverse effect, and maintain the character of tranquil areas..."

Noise Policy Statement for England

The 'Noise Policy Statement for England' sets out the following vision for ongoing noise policy:

"Promote good health and a quality of life through the effective management of noise within the context of Government policy on sustainable development."

This vision should be achieved through the following Noise Policy Aims:

"Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:

avoid significant adverse impacts on health and quality of life;

mitigate and minimise adverse impacts on health and quality of life; and where possible, contribute to the improvement of health and quality of life."

To achieve this vision, the Noise Policy Statement sets 3 noise levels to be defined by the assessor:

NOEL – No Observed Effect Level

This is the level below which no effect can be detected. In simple terms: below this level, there is no detectable effect on health and quality of life due to the noise.

LOAEL – Lowest Observed Adverse Effect Level

This is the level above which adverse effects on health and quality of life can be detected.

SOAEL – Significant Observed Adverse Effect Level

This is the level above which significant adverse effects on health and quality of life occur.

The Noise Policy Statement considers that noise levels above the SOAEL would be seen to have, by definition, significant adverse effects and would be considered unacceptable. Where the assessed noise levels fall between the LOAEL and the SOAEL noise levels, the Policy Statement requires that:

“...all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life while also taking into account the guiding principles of sustainable development... This does not mean that such adverse effects cannot occur.”

Where noise levels are below the LOAEL, it is considered there will be no adverse effect. Once noise levels are below the NOEL, there will be no observable change.

British Standards and Guidance Documents

British Standard (BS) 7445-1:2003 – Description and Measurement of Environmental Noise – Part 1: Guide to Quantities and Procedures

This document defines the basic quantities to be used for the description of noise in community environments and describes basic procedures for the determination of these quantities.

The methods and procedures described in this British Standard are intended to be applicable to sounds from all sources, individually and in combination, which contribute to the total noise at a site. This British Standard does not specify limits for environmental noise.

BS 8233:2014 – Guidance of Sound Insulation and Noise Reduction for Buildings

BS 8233:2014 provides a methodology to calculate the noise levels entering a building through facades and façade elements. It also provides details of appropriate measures for sound insulation between dwellings and recommended internal noise levels which are provided for a variety of situations.

ISO 9613 Attenuation of Sound During Propagation Outdoors

ISO 9613 presents a calculation methodology for the determination of the attenuation of sound outdoors. The methodology enables the prediction of the levels of environmental noise at a distance from a variety of sources.

IEMA Guidelines for Environmental Noise Impact Assessment

The guidelines state that, for any assessment, the noise level threshold and significance statements should be determined by the assessor, based upon the specific evidence and likely subjective response to the noise. The impact scale adopted in this assessment is shown in Table 1 below.

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Table 1
Impact Scale for Comparison of Future Noise against Existing Noise

Degree of effect	Effect Descriptor
None / Not Significant	Less than 2.9 dB L_{Aeq} change in sound level and/or all receptors are of negligible sensitivity to noise or marginal to the zone of influence of the proposals.
Slight	A 3.0 to 4.9 dB L_{Aeq} change in sound level at a receptor of some sensitivity.
Moderate	A 3.0 to 4.9 dB L_{Aeq} change in a sound level at a sensitive or highly sensitive noise receptor, or a greater than 5.0 dB L_{Aeq} change in a sound level at a receptor of some sensitivity.
Substantial	Greater than 5.0 dB L_{Aeq} change in sound level at a noise sensitive receptor or a 5.0 to 9.9 dB L_{Aeq} change in sound level at a receptor of great sensitivity to noise.
Very Substantial	Greater than 10 dB L_{Aeq} change in sound level perceived at a receptor of great sensitivity to noise.

The criteria above reflect key benchmarks that relate to human perception of sound. A change of 3 dB A is generally considered to be the smallest possible change in noise that is perceptible. A 10 dB A change in noise represents a perceived doubling or halving of the noise level.

It is considered that the criteria specified in the above table do provide a good indication as to the likely significance of changes in noise levels in this case. Therefore, the above noise threshold levels and significance statements have been used to supplement the criteria provided by the British Standard to assess the impact on a listener.

3.0 Assessment Methodology

Assessed Sources of Environmental Noise

The following sources of noise are considered in the context of this site:

Table 2
Assessment Methodology

Potential Noise Source	Relevant Assessment Methodology
Prayer Noise of Persons Classroom Noise	IEMA Environmental Noise Guidelines NR25 Internally within adjacent NSRs

Selection of Noise Criteria

With reference to the guidance detailed in Section 2 the following criteria have been selected to determine the threshold of effect levels in the context of the National Planning Policy Framework and Noise Policy Statement for England.

Table 3
Assessment Criteria: IEMA Environmental Noise Guidelines

Effect Level	Criteria	Justification
LOAEL	Ambient noise level change below +2.9 dB at adjacent noise sensitive properties	Noise Levels within IEMA Environmental Guidelines
SOAEL	Ambient noise level change above +5.0 dB at adjacent noise sensitive properties	None – Planning guidance requires that impacts must be reduced below the SOAEL through mitigation, with adverse impacts above the LOAEL but below the SOAEL being mitigated as far as is reasonable

Table 4
Assessment Criteria: NR25

Effect Level	Criteria	Justification
LOAEL	Internal Noise Levels within adjacent dwellings below NR25	Noise Levels below NR25
SOAEL	Internal Noise Levels within site exceed NR25	None – Planning guidance requires that impacts must be reduced below the SOAEL through mitigation, with adverse impacts above the LOAEL but below the SOAEL being mitigated as far as is reasonable



4.0 Environmental Noise Survey

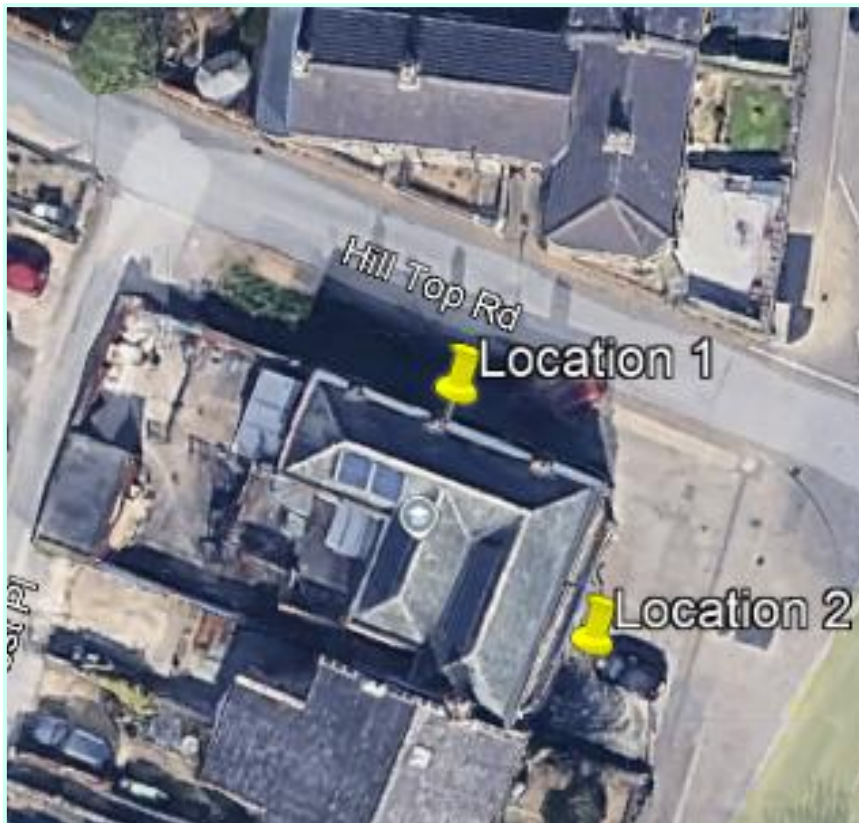
Noise measurements were undertaken externally during both the daytime and the night-time. The measurements were taken between 25th and 28th of September 2026.

Survey Methodology and Locations

The equipment used during this survey had been calibrated before and after the measurement duration and no significant drift was found to have occurred (>0.2 dB). The noise monitoring equipment has been calibrated to a traceable standard within the 24 months before the survey.

Two measurement locations have been surveyed in order to establish both the ambient and background noise levels at the site; out of the first-floor windows overlooking Broad Lane and Hill Top Road, circa 1m from the façade. Figure 2 below shows the external measurement location in relation to the proposed site.

Figure 2
Noise Monitoring Locations



Survey Results

The weather monitoring during the unattended survey was collected from the WOW Met Office data website. Data has been removed for high winds over 5 m/s and any precipitation. Table 5 below shows the results of the survey. Full survey results are available on request.

Table 5
Summary of Measured Noise Levels – dB

Location	Date	Period	Time (h)	L _{Aeq,T}	L _{A90}	L _{AfMax}
1	25/09/26	Daytime	1500-2300	64.7	53.4	91.0
	25/09/26-26/09/26	Night-time	2300-0700	58.1	35.1	93.1
	26/09/26	Daytime	0700-2300	65.2	53.0	104.6
	26/09/26-27/09/26	Night-time	2300-0700	55.3	35.1	75.7
	27/09/26	Daytime	0700-2300	64.1	51.5	94.2
	27/09/26-28/09/26	Night-time	2300-0700	56.9	35.0	73.5
	28/09/26	Daytime	0700-1430	64.8	56.5	93.7
2	25/09/26	Daytime	1515-2300	60.8	49.8	87.8
	25/09/26-26/09/26	Night-time	2300-0700	54.2	34.1	84.9
	26/09/26	Daytime	0700-2300	61.4	49.3	97.7
	26/09/26- 27/09/26	Night-time	2300-0700	52.1	32.4	80.9
	27/09/26	Daytime	0700-2300	61.3	48.2	90.3
	27/09/26-28/09/26	Night-time	2300-0700	52.8	33.8	81.9
	28/09/26	Daytime	0700-1445	61.4	52.8	90.7

Observations on Site

The existing noise environment is dominated by road traffic noise from Broad Lane and the surrounding road network.

5.0 Noise Modelling Methodology

Data Sources

A noise model for this assessment has been created using CadnaA modelling suite and the noise model has been based on the spatial settings and data sources identified in Table 6 below.

Table 6
Noise Model Input Data

Model Parameter	Scenario	Data Source	Assumptions
Site Plans	All	OS Mastermap Site Plans as provided by Create it Studios	Existing building heights measured in Google Earth Pro
Ground Heights	All	Environment Agency Open Data LiDAR Digital Terrain Model (2m Resolution)	None
Ground Absorption	All	N/A	Hard ground conditions on and off site (G=0), roads hard ground conditions (G=0)
Reflections	All	N/A	3 rd order reflections

Source Noise Assumptions

Worship Noise

Noise Data from a previously surveyed Place of Worship at 31 Stuart Street, Oldham, have been used. Internal measurements in the existing prayer room were taken during sermons and prayer and the worst-case hour used to model the noise breakout on the nearby NSRs. Table 7 below outlines the noise level for the worst-case hour during prayers. It should be noted that approximately 50 worshippers were present in the prayer room during the measurements, which is more than the proposed capacity of the site assessed in this report.

Table 7
Prayer Hall Noise: Source Internal Sound Pressure Levels

Noise Source	Internal Sound Pressure Level, dB (L _{pA})
Prayer Hall	65.3

Prayer Noise breakout has been modelled, using a series of vertical area sources, based on the following data:

- An internal sound pressure level of 65.3 dBA.
- Noise attenuation afforded by the building structure based on a 70mm brick structure for the walls and a 4/12/4 double glazing.
- Windows assumed to be partially open giving a 15dB reduction in sound.

Table 8, overleaf, shows the sound reduction indices used in the model.



Table 8
Sound Reduction Indices of the Façade

Façade Element	Frequency, Hz dB								R _w
	63	125	250	500	1000	2000	4000	8000	
70mm Brick	32	36	37	32	40	48	55	55*	40
Double Glazing 4/12/4	21	21	17	25	35	37	31	31*	29

*Noise data for 8kHz unavailable therefore assumed to be consistent with adjacent octave band

6.0 Noise Assessment

Prayer Hall Assessment (IEMA Environmental Noise Guidelines)

An assessment of ambient noise levels during the proposed times of worship has been completed. The existing ambient noise levels have been compared and calculated against the predicted noise levels from the proposed place of worship.

The results of this assessment are presented in the table below.

Table 9
Proposed Place of Worship Impact at NSRs, dB

NSR	Floor	Predicted Noise level from Prayer Hall	Measured Existing Noise Level at Development Site	Future Predicted Noise Level at Development Site	Difference between Existing Noise Level and Future Predicted Noise Level
1	Ground Floor	27.7	58.0	58.0	0.0
	First Floor	26.4		58.0	0.0
2	Ground Floor	24.1	54.3	54.3	0.0
	First Floor	23.7		54.3	0.0
3	Ground Floor	19.6	58.0	58.0	0.0
	First Floor	19.5		58.0	0.0
4	Ground Floor	20.4	54.3	54.3	0.0
	First Floor	20.1		54.3	0.0

As shown in the table above, the operation of the prayer hall, during the proposed service times, shows no change in the ambient noise level. This change, described in Section 3.0, is shown to be None/Negligible as it is below or equal to a +2.9 dB change. Therefore, the results of this assessment are below the LOAEL.

Breakthrough Assessment (NR25) - Ground Floor Prayer Hall

To ensure that noise breakthrough from the place of worship does not disturb the adjacent NSR the aim will be to reduce the noise levels below NR25 internally within the dwellings. The noise source considers prayer noise within the prayer hall and assumes the party wall is standard 70 mm brick (Rw 40 dB). The construction of the existing party wall has not been confirmed. However, party walls between dwellings of this type are typically of masonry cavity construction, approximately 250 mm in total thickness. Such walls would be expected to provide substantially greater sound insulation (in the order of Rw 55–60 dB) than the 70 mm wall assumed. The predicted noise levels within the adjoining dwelling are therefore considered to represent a conservative, worst-case scenario.

The results of the assessment are presented in the table, overleaf.

Table 10
Assessment of the Ground Floor Place of Worship Noise at NSR1, dB

	Frequency, Hz dB							
	63	125	250	500	1000	2000	4000	8000
Prayer Noise	61.7	60.6	61.6	61.8	61.8	56.2	53.1	51.6
70mm Brick Wall	-32.0	-36.0	-37.0	-32.0	-40.0	-48.0	-55.0	-55.0
Internal	29.7	24.6	24.6	29.8	21.8	8.2	-1.9	-3.4
NR25	55.2	43.7	35.2	29.2	25.0	21.9	19.5	17.7
Difference	-25.5	-19.1	-10.6	+0.6	-3.2	-13.7	-21.4	-21.1

As can be seen in Table 10, the results of the assessment demonstrates that predicted noise levels from the proposed prayer hall are below the NR25 criterion across seven of the eight octave bands assessed. A marginal exceedance of 0.6 dB is predicted at the 500 Hz octave band only. This represents a very small exceedance and, when considered in the context of the overall frequency spectrum and the substantial margins achieved across the remaining octave bands, is not considered to represent a material adverse noise impact.

Furthermore, the source noise used for the assessment was obtained from a prayer hall with a greater capacity than that proposed at the application site. The assessment therefore represents a conservative scenario, and the lower capacity of the proposed prayer hall is expected to result in lower noise levels than those modelled. On this basis, the marginal 0.6 dB exceedance at 500 Hz is not expected to occur under the proposed operating conditions.

The predicted noise contribution from the proposed prayer hall is therefore considered to remain below the Lowest Observed Adverse Effect Level (LOAEL) and is not expected to result in an unacceptable impact upon neighbouring residential amenity.

Breakthrough Assessment - First Floor Classroom

Whilst it was not possible to gain access to No. 49 Broad Lane in order to determine the sound insulation performance of the separating wall between the receptor and the proposed classrooms, it is assumed that it satisfies the minimum requirements for sound insulation as described in Building Regulations Approved Document E (ADE), i.e. Airborne sound insulation of no less than $43 \text{ dB } D_{nT,w} + C_{tr}$.

In layman's terms, a $52 \text{ dB } D_{nT,w}$ separating wall would mean that the noise level within No. 49 Broad Lane will be circa 52 dB lower than in an adjacent classroom. Therefore, in order to exceed the BS 8233 criterion of $\leq 35 \text{ dB } L_{Aeq, T}$, the internal reverberant noise level within a classroom would have to exceed $87 \text{ dB } L_{Aeq, T}$.

Such a level is substantially above that reasonably expected from the proposed classroom use. The noise contribution from the classroom use is therefore considered unlikely to result in an adverse impact upon neighbouring residential amenity.

Worshipper Arrival and Departure Noise

External worshipper activity has also been considered. The proposed prayer hall has a maximum capacity of 40 worshippers, and no external amplified sound is proposed. Worshippers will enter and leave the building directly via the existing entrances, and no formal external congregation or waiting area is proposed.

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Attendance at daily prayers, including the evening and early morning periods, is expected to be particularly low at 5–7 worshippers. Worshippers will also be encouraged to keep external conversation and noise to a minimum when arriving at and leaving the premises.

Given the low number of worshippers expected, the absence of any external congregation area and the existing road traffic-dominated acoustic environment, noise associated with worshippers arriving at and departing from the premises is considered unlikely to be distinguishable from existing ambient noise levels at the nearest residential properties, including during the evening and early morning periods.

7.0 Conclusion

Create It Studios have appointed enevo to carry out a noise impact assessment for the proposed place of worship and education centre 51 Broad Lane, Huddersfield.

The noise assessment has been conducted with reference to the National Planning Policy Framework and the appropriate British Standards, recognised guidance & reference documents relevant to this site.

This report describes a noise survey of the site and the subsequent analysis to determine the noise environment of the proposed development. It then compares the results with the adopted criteria and, where applicable, recommendations are made with respect to the design of the development.

Prayer Hall Assessment (IEMA Environmental Noise Guidelines)

This assessment shows that the operation of the prayer hall, during the proposed service times, shows no change in the ambient noise level. This change, described in Section 3.0, is shown to be None/Negligible as it is below or equal to a +2.9 dB change. Therefore, the results of this assessment are below the LOAEL.

Breakthrough Assessment (NR25) - Ground Floor Prayer Hall

The results of the assessment indicate that noise contributions from the proposed prayer hall are predicted to be below NR25 at all frequencies, except 500hz.

However, the source noise used in the assessment was measured at a prayer hall with a capacity of approximately 50 patrons, compared with a proposed maximum capacity of 40 patrons at the application site. The measured source level of 65.3 dB(A) has nevertheless been applied directly within the model without any reduction to account for the lower proposed capacity. The assessment therefore represents a conservative source-noise scenario.

On this basis, the marginal 0.6 dB exceedance at 500 Hz is not expected under the proposed operating conditions. The predicted noise contribution is therefore considered to remain below the adopted LOAEL criterion and is not expected to result in an unacceptable impact upon the residential amenity of neighbouring properties.

Breakthrough Assessment - First Floor Classroom

The separating wall to No. 49 Broad Lane (NSR1) is assumed to meet the Approved Document E minimum of 43 dB $D_{nT,w} + C_{tr}$. Classroom noise would need to exceed 87 dB $L_{Aeq,T}$ to breach the BS 8233 criterion of 35 dB $L_{Aeq,T}$ within the dwelling.

Such a level is substantially above that reasonably expected from the proposed classroom use. The noise contribution from the classroom use is therefore considered unlikely to result in an adverse impact upon neighbouring residential amenity.

Worshipper Arrival and Departure Noise

Given the low number of worshippers expected, the absence of any external congregation area and the existing road traffic-dominated acoustic environment, noise associated with worshippers arriving at and departing from the premises is considered unlikely to be distinguishable from existing ambient noise levels at the nearest residential properties.

Appendix A

Glossary of Acoustic Terminology

"A" Weighting (dB(A)) – The human ear does not respond uniformly to different frequencies. "A" weighting is commonly used to simulate the frequency response of the ear. It is used in the assessment of the risk of damage to hearing due to noise.

Decibel (dB) – The range of audible sound pressures is approximately 2×10^{-5} Pa to 200 Pa. Using decibel notation presents this range in a more manageable form, 0 dB to 140 dB. Mathematically: Sound Pressure Level (dB) = $20 \log \{p(t) / P_0\}$ where $P_0 = 2 \times 10^{-5}$ Pa

Frequency (Hz) – The number of cycles per second, for sound this is subjectively perceived as pitch.

$L_{eq}(T)$ – The equivalent continuous sound level. It is that steady sound level which would produce the same energy over a given time period T as a specified time varying sound.

$L_{Amax}(T)$ – The maximum RMS A-weighted sound pressure level occurring within a specified time period.

LAE or SEL – A measure of A-weighted sound energy used to describe noise events such as the passing of a train or aircraft; it is the A-weighted sound pressure level which, if occurring over a period of one second, would contain the same amount of A-weighted sound energy as the event.

$L_{A90,T}$ Background noise level – The A-weighted sound pressure level of the residual noise in decibels exceeded for 90% of a given time interval.

Octave Band – A range of frequencies defined by an upper limit which is twice the lower limit. Octave bands are identified by their centre frequency.

R_w (dB) – The weighted sound reduction incorporates a correction for the ear's response and has been derived in accordance with BS 5821:1984.

Specific Noise – The equivalent continuous A-weighted sound pressure level at the assessment position produced by the specific noise source over a given reference time interval.

Rating Level – $L_{A,r,T}$ The specific noise level plus any adjustment for the character of the noise.

Ambient Noise – Totally encompassing sound in a given situation at any given time composed of noise from many sources, near and far.

Residual Noise – The ambient noise remaining at a given position in a given situation when the specific noise source is suppressed.