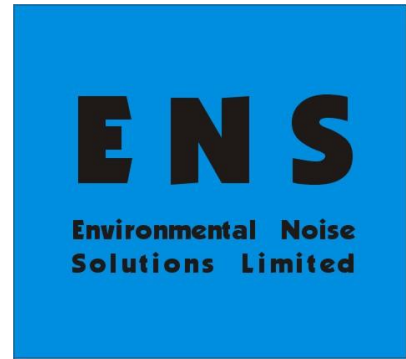




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Proposed Change of Use to Snooker Hall with Associated Bar Waljan Mill, Toad Lane, Rochdale, OL12 0NU

Noise Impact Assessment

For:
Nu-Fit Architectural Design Ltd

20th August 2025

Ref: NIA-12011-25-12264-v2 Waljan Mill, Rochdale
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1 Introduction

1.1 Overview

Environmental Noise Solutions Ltd (ENS) has been commissioned by Nu-Fit Architectural Design to carry out a noise impact assessment for the proposed change of use to snooker hall with associated bar at the second, third and attic floors of Waljan Mill, Toad Lane, Rochdale, OL12 0NU (hereafter referred to as ‘the site’).

Planning permission for the change of use is sought under Planning Application ref: 25/00102/FUL, submitted to Rochdale Borough Council (RBC) in April 2025. The following comments relating to noise were received from the Environmental Health Officer at RBD in July 2025:

‘The proposed use is in very close proximity to nearby residential dwellings. This, and the proposed opening hours of 12:00 – 03:00 hours Monday to Sunday raises potential for noise complaints from residents during the operating period. The submitted noise assessment does not provide an assessment of the proposed snooker hall, bar and café facilities, and only assesses the impact of the noise created from the proposed extraction system. Consequently, based on the limited information available at this time, the Environmental Health Officer is unable to support the proposed change of use.’

The objectives of the noise impact assessment were therefore to:

- Determine the existing ambient and background noise levels in the vicinity of the site
- Assess the noise impact of the development on the nearest noise sensitive receptors (surrounding residential uses) in accordance with pertinent guidance
- Provide specific recommendations, where required, to avoid any potential for loss of amenity due to noise associated with the development

This report details the methodology and results of the assessment and provides recommendations for noise attenuation as appropriate. It has been prepared to accompany Planning Application ref: 25/00102/FUL for the proposed change of use.

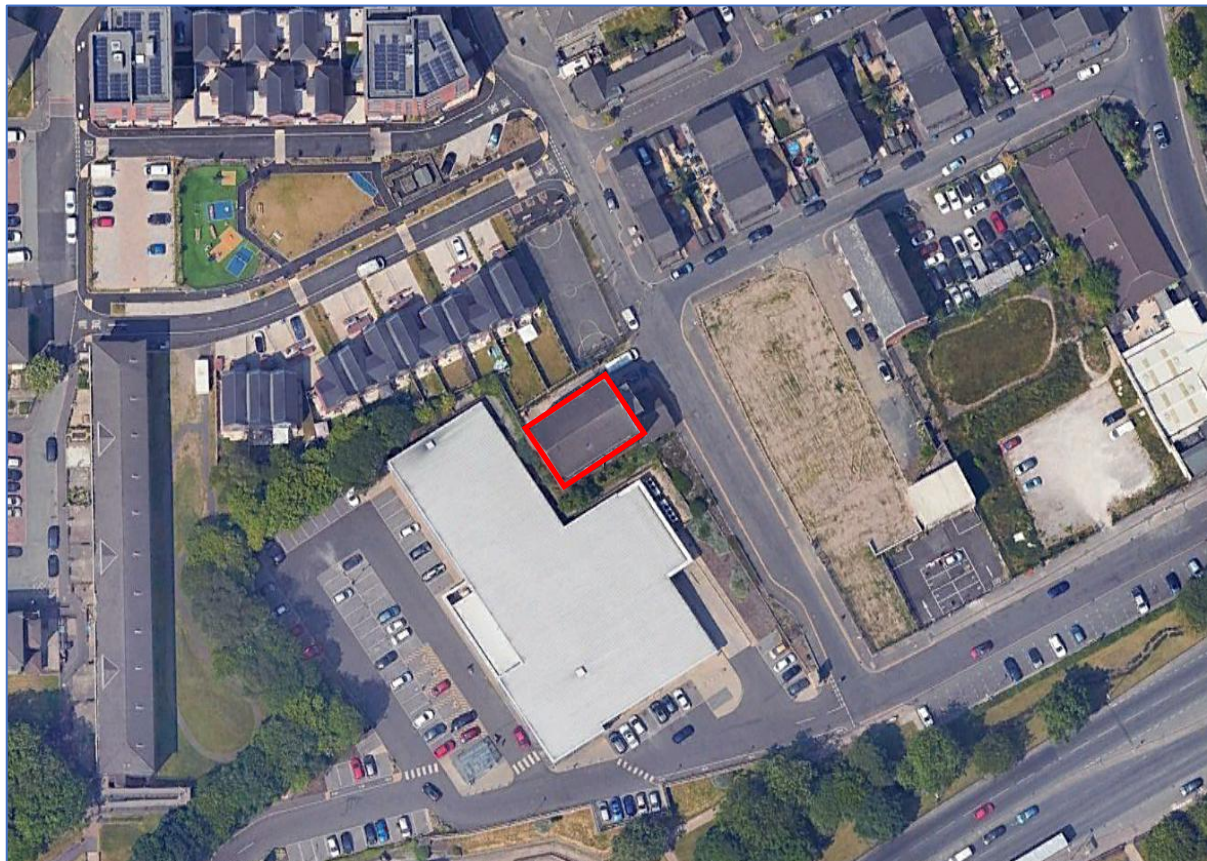
The report has been prepared for Nu-Fit Architectural Design Ltd for the sole purpose described above and no extended duty of care to any third party is implied or offered. Third parties referring to the report should consult Nu-Fit Architectural Design Ltd and ENS as to the extent to which the findings may be appropriate for their use.

A glossary of acoustic terms used in the main body of the text is contained in Appendix 1.

1.2 Site Description and Development Proposals

The site comprises an existing former mill building in mixed-use setting, circa 1.2 km to the north of Rochdale Town Centre. The site location is indicated in Figure 1.1 below.

Figure 1.1: Location of Development



During the course of the noise survey, the ambient (L_{Aeq}) and background (L_{A90}) noise levels at the site were characterised by local and distant road traffic.

The nearest noise sensitive receptors to the development are considered to be Nos. 8–22 Samuel Ashworth Street to the north-west (NSR1) and No. 2 Waterhouse Street to the north-east.

It has also been noted by the Environmental Health Officer that the vacant land parcel to the east of the site is also earmarked for residential development as part of the Lower Falinge regeneration. With reference to the Lower Falinge Supplementary Planning Document (SPD), this area forms part of Focus Area 2: Redcross Street.

At the time of writing, no planning application has been submitted for residential development of this land parcel, and it is assumed that any forthcoming planning application would need to consider noise from surrounding uses (including the proposed snooker hall and the adjacent Lidl store) in line with the ‘agent of change’ principle. Notwithstanding this, the noise impact of the proposed snooker hall on future residential dwellings in this land parcel is considered within the report.

1.3 Development Proposals

Development proposals are for the change of use of the existing mill to form:

- A snooker hall with associated bar/reception at second floor
- A pool hall and kitchen at third floor
- A lounge in the attic/roof space

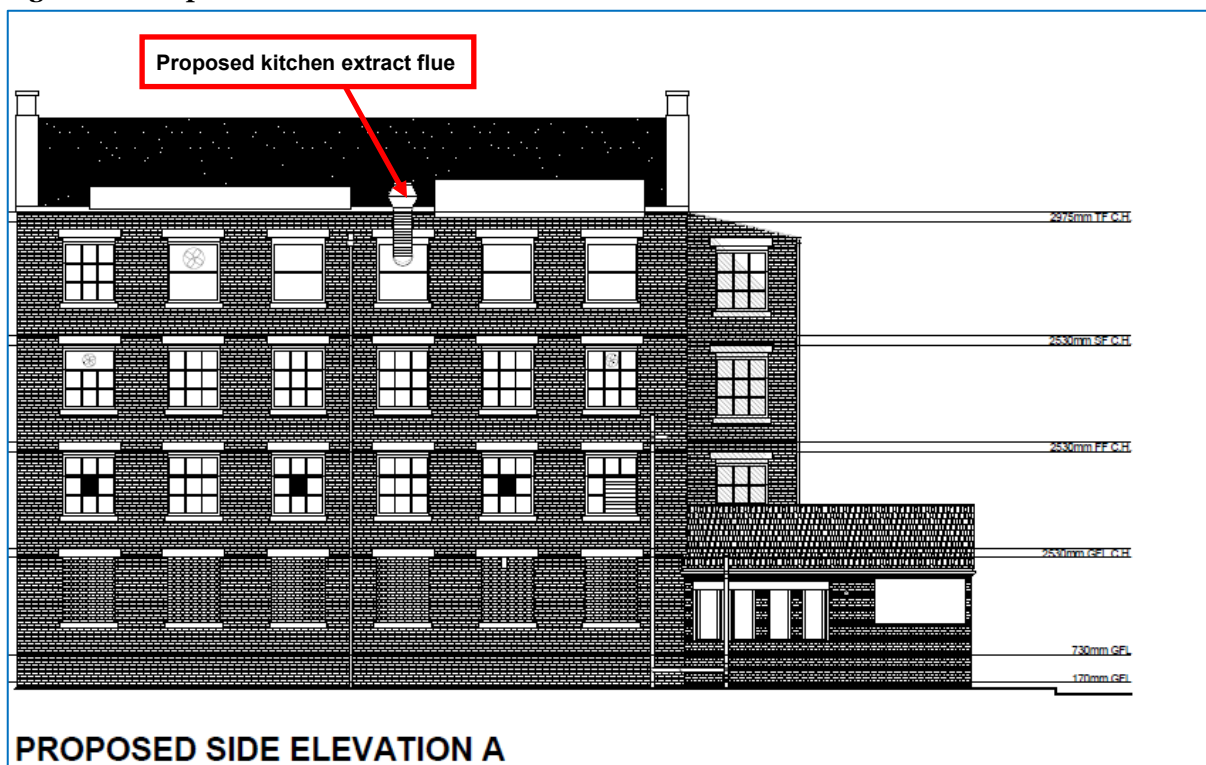
Proposed hours of operation are 1200 hours until 0300 hours Monday to Sunday.

Windows on the northern elevation (facing the nearest residential properties on Samuel Ashworth Street) are to be blacked out internally for privacy and will not be openable.

In order to serve the ventilation requirements of the proposed third floor kitchen, the development will include an S&P CVAT/4-3000/355N D extraction fan. The unit has a worst-case outlet sound power level of **73 dB L_{WA}** (see Appendix 4 for manufacturer's datasheet).

The efflux point of the kitchen extract fan will be located on the southern elevation of the existing building at 1.5 metres below the roofline of the building and therefore has no line-of-sight to the nearest noise sensitive receptors. See Figure 1.2 for proposed southern elevation.

Figure 1.2: Proposed Southern Elevation



2 Assessment Guidance

2.1 National Planning Policy Framework

The National Planning Policy Framework (NPPF)¹ was updated in February 2025 and sets out the Government's planning policies for England and how these are expected to be applied.

Where issues of noise impact are concerned the NPPF provides brief guidance in paragraph 187 where it states that planning policies and decisions should contribute to and enhance the natural and local environment by:

'preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of.....noise pollution'.

Paragraph 198 advises that:

'Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should.....mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life'.

The NPPF also refers to the 2010 DEFRA publication, the Noise Policy Statement for England (NPSE) which reinforces and supplements the NPPF.

2.2 Noise Policy Statement for England

The Noise Policy Statement for England² (NPSE) sets out the long-term vision of promoting good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development. This long-term vision is supported by the following aims:

- Avoid significant adverse impacts on health and quality of life
- Mitigate and minimise adverse impacts on health and quality of life
- Where possible, contribute to the improvement of health and quality of life

The NPSE describes the following levels at which noise impacts may be identified:

- 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

According to the explanatory notes in the statement, where a noise level falls between the lowest observable adverse effect level (LOAEL) and a level which represents a significant observable adverse effect level (SOAEL):

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

1 National Planning Policy Framework. Ministry of Housing, Communities and Local Government (2021)

2 Government Department for Environment, Food and Rural Affairs. Noise Policy Statement for England (2010)

2.3 Planning Practice Guidance on Noise

Planning Practice Guidance³ (PPG) is an online resource providing additional guidance and elaboration on the NPPF. It advises that the Local Planning Authority should consider the acoustic environment in relation to:

- Whether or not a significant adverse effect is occurring or likely to occur
- Whether or not an adverse effect is occurring or likely to occur
- Whether or not a good standard of amenity can be achieved

In line with the Explanatory Note of the NPSE, the PPG references the LOAEL and SOAEL in relation to noise impact. It also provides examples of outcomes that could be expected for a given perception level of noise, plus actions that may be required to bring about a desired outcome. However, in line with the NPSE, no objective noise levels are provided for LOAEL or SOAEL although the PPG acknowledges that: *‘...the subjective nature of noise means that there is not a simple relationship between noise levels and the impact on those affected. This will depend on how various factors combine in any particular situation’*.

Table 2.1 summarises the PPG noise exposure hierarchy.

Table 2.1: PPG Noise Exposure Hierarchy

Perception	Examples of Outcomes	Increasing Effect Level	Action
Not Noticeable	No Effect	No Observed Effect	No specific measures required
Noticeable and not intrusive	Noise can be heard, but does not cause any change in behaviour or attitude. Can slightly affect the acoustic character of the area but not such that there is a perceived change in the quality of life.	No Observed Adverse Effect	No specific measures required
Lowest Observed Adverse Effect Level			
Noticeable and intrusive	Noise can be heard and causes small changes in behaviour and/or attitude, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a perceived change in the quality of life.	Observed Adverse Effect	Mitigate and reduce to a minimum
Significant Observed Adverse Effect Level			
Noticeable and disruptive	The noise causes a material change in behaviour and/or attitude, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area.	Significant Observed Adverse Effect	Avoid
Noticeable and very disruptive	Extensive and regular changes in behaviour and/or an inability to mitigate effect of noise leading to psychological stress or physiological effects, e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non-auditory	Unacceptable Adverse Effect	Prevent

2.4 Code of Practice on Environmental Noise Control at Concerts

Principles and guidelines for the control of environmental noise at concerts are contained in the Noise Council's 1995 publication 'Code of Practice on Environmental Noise Control at Concerts' (CoP). In lieu of any specific guidance on snooker halls, this is considered to be the most relevant guidance on noise for breakout from the development.

The purpose of the CoP is to give guidance on how potential disturbance or annoyance to those living in the vicinity of music events can be minimised.

The CoP considers that the Music Noise Level (MNL) (defined as the L_{Aeq} of the music noise measured at a particular location) when assessed at the prediction stage or measured during sound checks or concerts should not exceed the guidelines shown in Table 2.2 below at any NSRs.

Table 2.2: Music Noise Level guidelines

Concert Days Per Calendar Year, Per Venue	Venue Category	Guideline
1 to 3	Urban stadia or arenas	The MNL should not exceed 75 dB(A) over a 15-minute period
1 to 3	Other urban and rural venues	The MNL should not exceed 65 dB(A) over a 15-minute period
4 to 12	All venues	The MNL should not exceed the background noise level ¹ by more than 15 dB(A) over a 15-minute period
1. The value used should be the arithmetic average of the hourly L_{A90} measured over the last four hours of the proposed music event or over the entire period of the proposed music event if scheduled to last for less than four hours.		

Note 5 to the above table recommends that for indoor venues used for up to about 30 events per year, the MNL should not exceed the background noise level by more than 5 dB(A) over a 15-minute period.

However, this element of the guidance is not necessarily appropriate to the site, as the site will be used 7 days a week on a permanent basis. Therefore, with respect to breakout noise, it is considered robust for the breakout noise level at the premises not to exceed the representative night-time background noise level at the nearest NSRs.

This is consistent with guidance contained in the 'Good Practice Guide on the Control of Noise from Pubs and Clubs' published by the Institute of Acoustics. The annex to the guidance states that for > 30 events per year, the $L_{Aeq (15 \text{ min})}$ EN (entertainment noise level) shall not exceed the L_{A90} WEN (background noise level in the absence of entertainment noise) at the nearest NSRs.

2.5 British Standard BS 4142:2014+A1:2019

BS 4142:2014+A1-2019 'Methods for Rating and Assessing Industrial and Commercial Sound' (BS 4142)⁴ describes methods for determining, at the outside of a building, noise levels from factories or industrial premises and a method for assessing whether the noise is likely to give rise to adverse impacts, and states:

'The significance of sound of an industrial and/or commercial nature depends upon both the margin by which the rating level of the specific sound source exceeds the background sound level and the context in which the sound occurs. Typically, the greater this difference, the greater the magnitude of the impact. For example:

A difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context

A difference of around +5 dB is likely to be an indication of an adverse impact, depending on the context

The lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context'

The rating level is described as the specific sound level (the equivalent continuous A-weighted sound pressure level at the assessment position (NSR) produced by the specific sound source over the given reference time interval) plus any adjustment for the characteristic features of the sound. The character correction relates to whether and to what degree the specific sound is assessed to have an element of tonality, impulsivity and/or characteristics that are readily distinctive against the residual acoustic environment.

The background noise level is the A-weighted sound pressure level of the residual noise at the assessment position that is exceeded for 90 percent of a given time interval, T, measured using time weighting 'F' and quoted to the nearest whole number of decibels.

The reference time interval of the specific sound is 1 hour during the daytime and 15 minutes during the night-time.

3 Noise Survey

3.1 Overview

In order to establish the ambient and background noise levels in the vicinity of the site, a baseline noise survey was carried out during on Monday 31st March through to Thursday 3rd April 2025.

For the purpose of the assessment, a single noise monitoring position (MP1) was adopted on the northern boundary of the site, considered representative of the nearest NSRs to the north (see Appendix 2 for the approximate monitoring position).

Noise measurements were undertaken in free field conditions at 3 metres above ground level (to maintain clearance from existing fences) using an NTi XL3 integrating sound level meter. The meter was connected to a windshield covered microphone positioned at the location detailed above.

The measurement system calibration was verified immediately before and after the survey period using a Bruel & Kjaer Type 4231 calibrator. No drift in calibration levels greater than 0.5 dB was noted. The noted weather conditions during the survey were dry with wind speeds < 5 m/s. Weather conditions were therefore considered appropriate for noise monitoring.

Measurements consisted of A-weighted broadband parameters including L_{Aeq} and L_{A90} , together with linear octave band data.

3.2 Summary

Table 3.1 presents a summary of the noise data for each measurement session, at each measurement position, rounded to the nearest decibel.

Table 3.1: Summary of Noise Measurement Data

Position	Date	Time	L_{Aeq} (dB)	L_{A90} (dB)	Comment
MP1	31/03/25	1135–2300	56	48	Local and distant road traffic
	01/04/25	0700–2300	58	49	
	02/04/25	0700–2300	57	51	
	03/04/25	0700–0900	55	48	
	31/03/25-01/04/25	2300–0700	47	44	
	01-02/04/25	2300–0700	49	42	
	02-03/04/25	2300–0700	48	40	

The ambient noise climate in the vicinity of the site was controlled by local and distant road traffic.

Typical (most commonly occurring) background levels were measured at circa **48 dB L_{A90} (15 min)** and **40 dB L_{A90} (15 min)** respectively during the daytime and night-time.

4 Noise Assessment

4.1 Overview

The principal noise sources potentially associated with the proposed development are considered to be:

- Noise associated with fixed external plant
- Patron noise breakout

The following sections of the noise impact assessment discuss the potential noise impacts of the above activities on the amenity of the nearest NSRs.

4.2 Fixed External Plant

In order to assess the propagation of extract plant noise to the nearest receptors, noise level predictions have been performed using iNoise acoustic modelling software. This is a software program specifically developed for the prediction and assessment of environmental noise.

The model calculates noise levels on horizontal and vertical grids with a user defined spacing of receiver points. From these levels, calculated at thousands of points, contour lines of constant noise levels are generated and printed as noise maps. All scaling was based on direct import from Google Earth, with 2nd order reflections considered and absorption coefficients based on the iNoise default for brick-built structures.

The following assumptions were used in the model:

- Meteorological conditions: Temp. 20 °C, Relative Humidity 60%
- Foliage/woodland areas not considered to provide any reduction
- Reflections: set to two orders of reflection permitted in the model
- Ground absorption set to $G = 0.5$ (mixed)

Table 4.1 summarises the calculation procedure to determine the sound power level at the efflux termination. For reference:

- The frequency data of the unit is taken from manufacturer's datasheet
- Duct bend attenuation and termination reflection are based on the dimensions of the ductwork

Table 4.1 – Calculation of Extract Plant Noise Level at Termination

Parameter	Octave Band							
	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
SWL in duct (dB)	45	61	65	66	68	66	57	50
Duct bend attenuation (dB)	0	0	0	0	-1	-2	-3	-3
Termination reflection (dB)	-13	-8	-4	-1	0	0	0	0
SWL at termination (dB)	32	53	61	64	66	63	54	47
Broadband SWL at termination	69 dB(A)							

A plant noise level contour map is contained in Appendix 3. The predicted resultant plant noise levels at the nearest existing receptors are < 5 dB and are therefore wholly negligible.

Further, plant noise levels at the boundary of the vacant land parcel to the east (Focus Area 2 as described in the Lower Falinge SPD) are predicted to be **27 dB L_{Aeq, T}**.

Such levels are very low, at least 13 dB below existing night-time background noise levels. Inaudibility is a subjective matter, but it is commonly accepted that it is approached when the source noise level is at least 10 dB below the background noise level and therefore the kitchen extraction plant is likely to be subjectively inaudible at the land parcel.

With reference to Table 2.1, plant noise is considered to represent a No Observed Effect Level (NOEL) at all existing and proposed receptors and on this basis no further measures are required.

4.3 Patron Noise Breakout

The development will include:

- A snooker hall with associated bar/reception at second floor
- A pool hall and kitchen at third floor
- A lounge in the attic/roof space

It is understood that the second-floor snooker hall/bar will include low-level (i.e. conversational) background music and that the third-floor pool hall will include arcade machines.

In order to undertake the assessment, reference is made to measurements undertaken by ENS within the bar area of the Bilton Club, Skipton Road, Harrogate on a busy Friday evening. The bar area has pool/snooker tables and arcade machines and was playing background music. On this basis, the noise measurements captured are wholly representative of potential noise sources at the proposed snooker hall.

Internal reverberant sound pressure levels were measured at up to **75 dB L_{Aeq} (15 min)** and encapsulated raised voices, noise associated with pool and snooker matches (ball strikes), noise from arcade machines and underlying music noise.

Table 4.2 presents the corresponding octave band frequency data for the measurement, rounded to the nearest decibel.

Table 4.2: Internal Noise Octave Band Frequency Data

Octave Band L _{eq}								dB L _{Aeq}
63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	
65	66	67	74	71	64	58	49	75

In order to assess the propagation of noise from the snooker hall to the nearest receptors, noise level predictions have been performed using iNoise acoustic modelling software.

For the purpose of the model, it is robustly assumed that this worst-case noise level of **75 dB L_{Aeq} (15 min)** is maintained at all 3 floor levels simultaneously

Both the northern and southern elevations of the building consist of circa **36 m²** solid masonry with circa **9 m²** of glazing. The sound reduction index (SRI) of solid masonry is circa 53 dB R_w and the SRI of standard glazing is circa 31 dB R_w. Considering the proportion of glazing to masonry, the composite SRI of the whole façade is circa **38 dB R_w**. The SRI of the tiled attic roof is taken as **43 dB R_w**.

A noise level contour map is contained in Appendix 4. The predicted resultant breakout noise levels at the nearest receptors are contained in Table 4.3.

Table 4.3: Resultant Breakout Noise Levels at the Nearest Receptors

Receptor	Breakout Noise Level
NSR1: 8–22 Samuel Ashworth Street	18 dB L_{Aeq} (15 min)
NSR2: 2 Waterhouse Street	13 dB L_{Aeq} (15 min)

For reference, breakout noise levels at the boundary of the vacant land parcel to the east (Focus Area 2 as described in the Lower Falinge SPD) are predicted to be **≤ 14 dB L_{Aeq} (15 min)**.

The resultant breakout noise levels at the nearest NSRs are significantly (at least 22 dB) below the existing night-time background noise levels and are unlikely to be audible at the NSRs.

With reference to Table 2.1, noise breakout is considered to represent a NOEL at all existing and proposed receptors and on this basis no further measures are required.

5 Summary and Conclusions

A noise survey and assessment has been performed for a proposed change of use to snooker hall with associated bar at the second, third and attic floors of Waljan Mill, Toad Lane, Rochdale, OL12 0NU.

Baseline noise monitoring was carried out on Monday 31st March through to Thursday 3rd April 2025 to determine prevailing background noise levels in the vicinity of the site.

Resultant plant noise and internal breakout noise levels at the nearest NSRs are significantly below the existing night-time background noise levels and are unlikely to be audible at the NSRs.

With reference to Table 2.1, noise associated with the development is considered to represent a NOEL at all existing and proposed receptors and on this basis no further measures are required.

Appendix 1 – Abbreviations and Definitions

Sound Pressure Level (L_p)

The basic unit of sound measurement is the sound pressure level. As the pressures to which the human ear responds can range from 20 μPa to 200 Pa, a linear measurement of sound levels would involve many orders of magnitude. Consequently, the pressures are converted to a logarithmic scale and expressed in decibels (dB) as follows:

$$L_p = 20 \log_{10}(p/p_0)$$

Where L_p = sound pressure level in dB; p = rms sound pressure in Pa; and p_0 = reference sound pressure (20 μPa).

A-weighting

A frequency filtering system in a sound level meter, which approximates under defined conditions the frequency response of the human ear. The A-weighted sound pressure level, expressed in dB(A), has been shown to correlate well with subjective response to noise.

Equivalent continuous A-weighted sound pressure level, $L_{Aeq, T}$

The value of the A-weighted sound pressure level in decibels of continuous steady sound that within a specified time interval, T , has the same mean-square sound pressure as a sound that varies with time. $L_{Aeq, 16h}$ (07:00 to 23:00 hours) and $L_{Aeq, 8h}$ (23:00 to 07:00 hours) are used to qualify daytime and night-time noise levels.

$L_{A10, T}$

The A-weighted sound pressure level in decibels exceeded for 10% of the measurement period, T . $L_{A10, 18h}$ is the arithmetic mean of the 18 hourly values from 06:00 to 24:00 hours.

$L_{A90, T}$

The A-weighted sound pressure level of the residual noise in decibels exceeded 90% of a given time interval, T . L_{A90} is typically taken as representative of background noise.

$L_{AF \max}$

The maximum A-weighted noise level recorded during the measurement period. The subscript 'F' denotes fast time weighting, slow time weighting 'S' is also used.

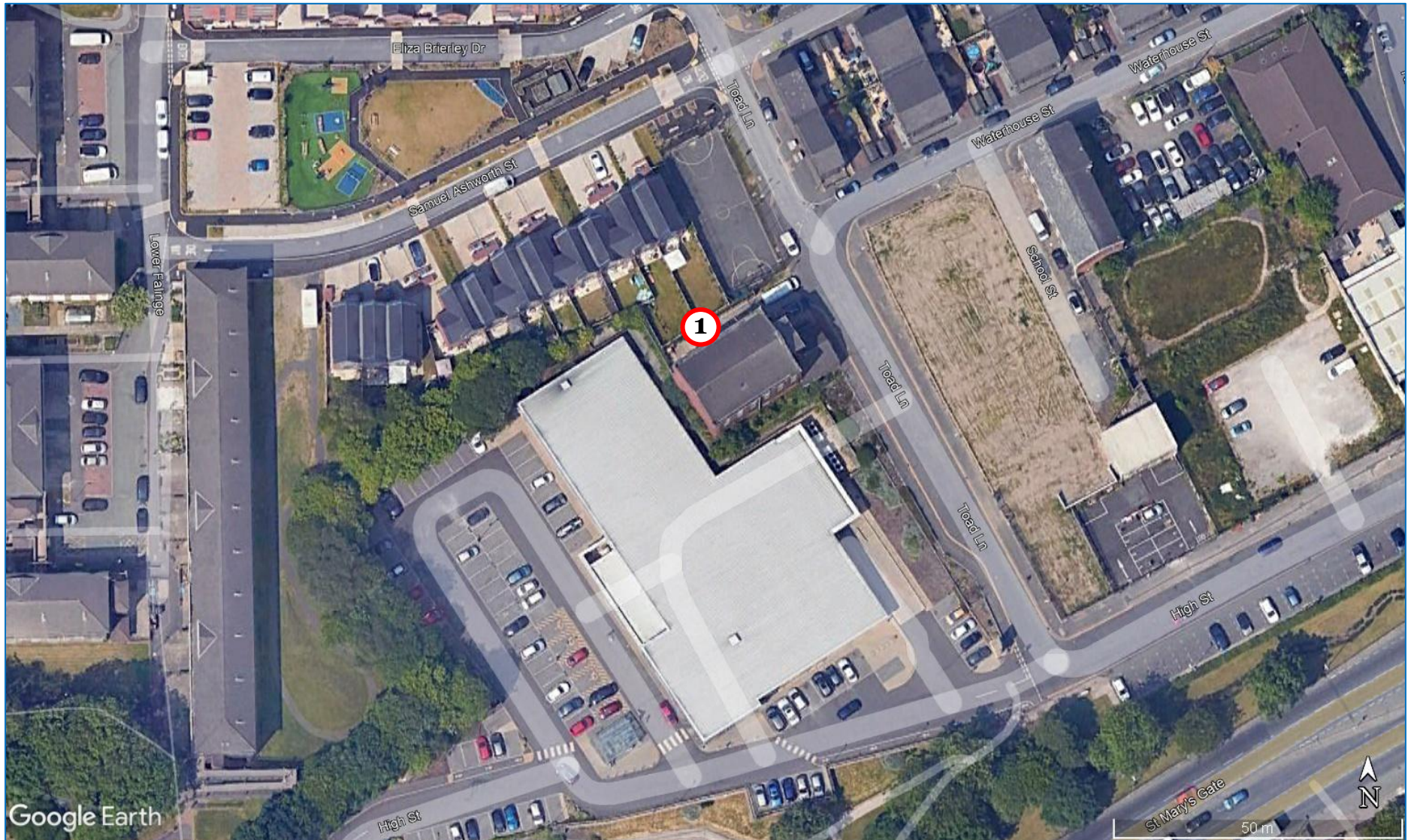
Single Event Level / Sound Exposure Level (SEL or L_{AE})

The energy produced by a discrete noise event averaged over one second, regardless of the event duration. This allows for comparison between different noise events which occur over different lengths of time.

Weighted Sound Reduction Index (R_w)

Single number quantity which characterises the airborne sound insulation properties of a material or building element over a defined range of frequencies (R_w is used to characterise the insulation of a material or product that has been measured in a laboratory).

Appendix 2 – Approximate Noise Measurement Position

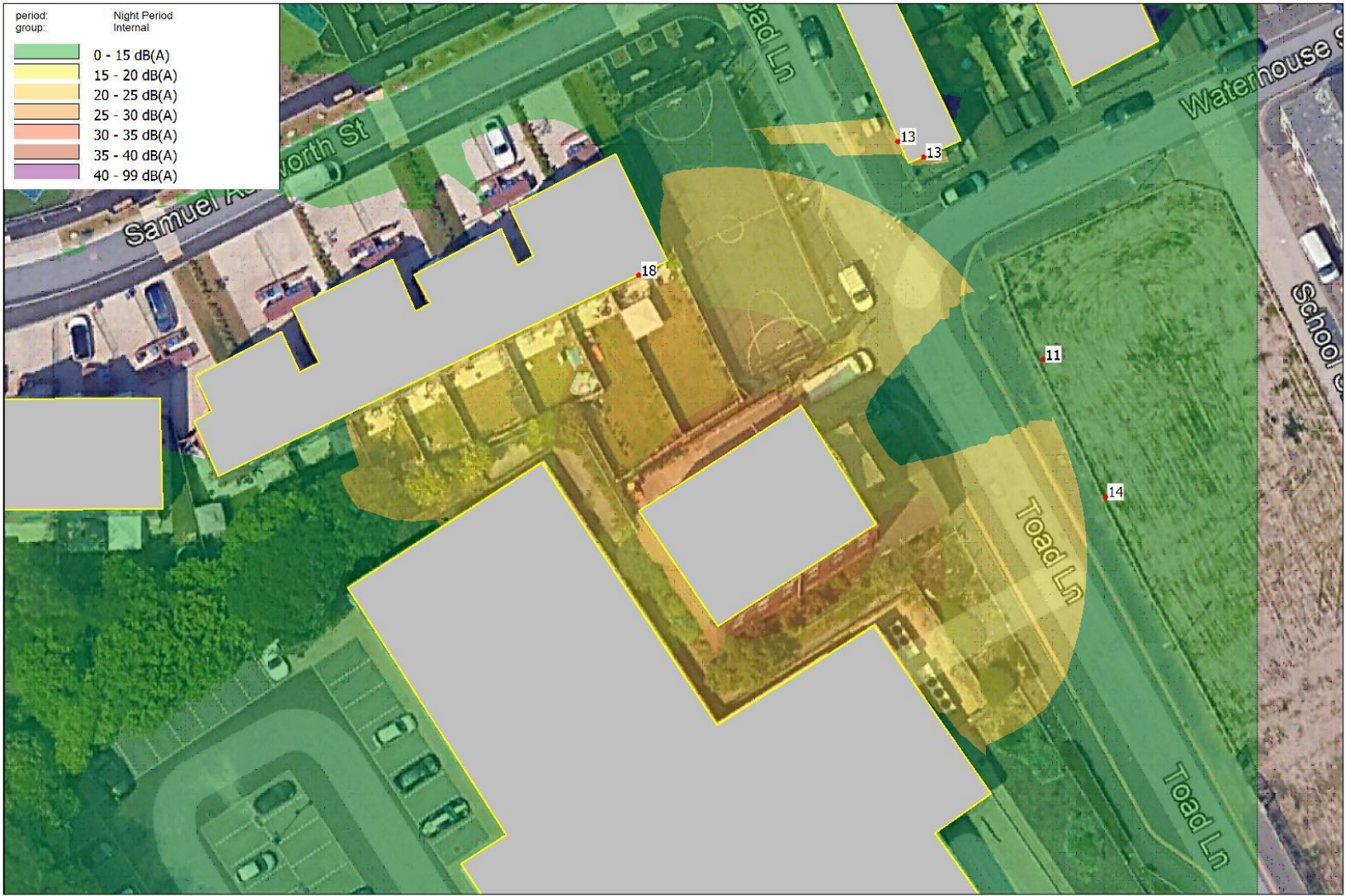


Appendix 3 – Plant Noise Contour Plot



ISO 9613-2:2024, [version of Area - initial model], iNoise V2024.3 Free Licensed to Tom Crabb - Environmental Noise Solutions

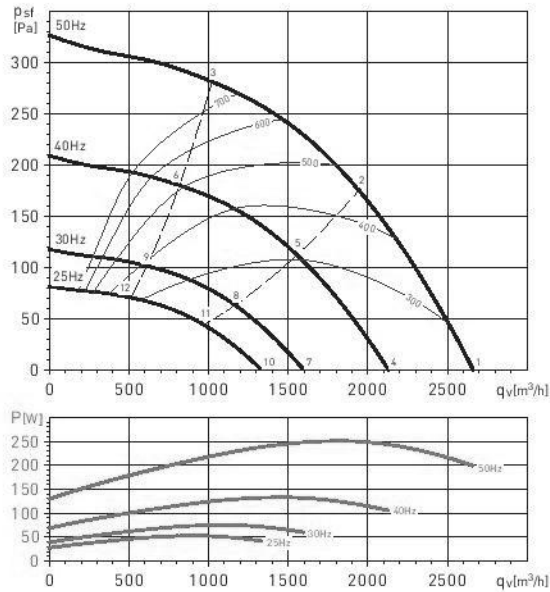
Appendix 4 – Breakout Noise Contour Plot



ISO 9613-2:2024, [version of Area - initial model], iNoise V2024.3 Free Licensed to Tom Crabb - Environmental Noise Solutions

Appendix 5 – Manufacturer's Noise Data

CVAT/4-3000/355N D 0,18kW



Working point		63	125	250	500	1000	2000	4000	8000	LwA
1	Inlet	41	64	67	69	66	67	61	57	74
	Outlet	45	61	65	66	68	66	57	50	73
	Break-Out	37	52	54	55	54	53	43	37	61
2	Inlet	40	61	64	66	64	61	57	52	71
	Outlet	42	58	63	62	67	60	53	44	70
	Break-Out	35	50	51	52	52	47	40	31	58
3	Inlet	41	58	61	63	61	57	55	49	68
	Outlet	43	55	59	61	59	57	51	44	66
	Break-Out	36	47	48	50	50	46	38	29	56
4	Inlet	37	59	62	64	61	62	56	53	69
	Outlet	40	56	61	61	63	61	52	45	68
	Break-Out	32	47	49	50	49	48	39	32	56
5	Inlet	35	57	59	61	59	56	53	48	66
	Outlet	38	53	58	57	62	55	48	39	65
	Break-Out	30	45	46	47	47	42	35	26	53
6	Inlet	36	53	56	58	56	53	50	44	63
	Outlet	38	50	54	56	54	52	47	39	61
	Break-Out	31	42	43	45	45	41	33	24	51
7	Inlet	30	53	56	58	55	56	50	46	63
	Outlet	34	50	54	55	57	55	46	39	62
	Break-Out	26	41	43	44	43	42	32	25	50
8	Inlet	29	50	53	55	53	50	46	41	60
	Outlet	31	47	52	51	56	49	42	33	59
	Break-Out	24	39	40	41	40	36	29	20	47
9	Inlet	30	47	50	52	50	46	43	38	57
	Outlet	32	44	48	50	48	46	40	32	55
	Break-Out	25	36	37	39	39	35	27	18	45
10	Inlet	26	49	52	54	51	52	46	42	59
	Outlet	30	46	50	51	53	51	42	35	58
	Break-Out	22	37	39	40	39	38	28	22	46
11	Inlet	25	46	49	51	49	46	42	37	56
	Outlet	27	43	48	47	52	45	38	29	55
	Break-Out	20	35	36	37	37	32	25	16	43
12	Inlet	26	43	46	48	46	42	39	34	53
	Outlet	28	40	44	46	44	42	36	28	51
	Break-Out	21	32	33	35	35	31	23	14	41