



121 Princess Street

Noise Impact Assessment

For Centurion Investments (JSVII) Ltd

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EXECUTIVE SUMMARY

Hydrock is appointed by Centurion Investments (JVII) Ltd to undertake a noise impact assessment to support the full planning application for the change of use of the ground floor and basement of 121 Princess Street, Manchester to Use Class E.

Use Class E covers a broad range of potential uses. The specific uses have not been determined at this stage. A preliminary review has been undertaken with Centurion to determine the viability of different activities under Use Class E with respect to noise. The worst-case potential uses that are being considered with regards to noise are:

- Café/restaurant use within the ground floor; and
- Gymnasium within the basement.

Given the specific conditions at the site and the planning history, bespoke criteria have outlined. These are more onerous than those that would typically be requested by Manchester City Council.

With regards to the operation of the ground floor as a bustling café/restaurant during the daytime, the assessment indicates that the proposed noise criteria should be satisfied with regards to noise transfer between the ground and first floor. Nonetheless, best practice guidance and operational limitations for prospective tenants have been outlined.

With regards to the operation of the basement as a commercial gym during the night-time (i.e. as a worst-case assuming 24-hour operation), the assessment indicates that the proposed criterion in the 63Hz octave band should be satisfied, but the proposed criterion in the 125Hz octave band could be subject to a minor exceedance. Best practice guidance and operational limitations for prospective tenants have therefore been outlined.

Any operational limits and best practice guidance that have been outlined can be secure via a suitably worded planning condition that references this report. The onus will then be on incoming tenants to demonstrate that their proposed activities are compliant with the limitations outlined herein.

1. INTRODUCTION

1.1 Overview

Hydrock is appointed by Centurion Investments (JVII) Ltd to undertake a noise impact assessment to support the full planning application for the change of use of the ground floor and basement of 121 Princess Street, Manchester to Use Class E.

This assessment will determine any limitations on potential uses with regards to noise, and will establish a scheme of mitigation. Any such scheme of mitigation is may be subject to further development once specific uses have been determined.

1.2 Site Description

The site is located at 121 Princess Street, Manchester, M2 7AG. The site is occupied by a ground plus basement, plus six-storey building. The ground floor and basement have been permitted/operated as a bar and nightclub respectively. The remainder of the building (i.e. floors one to six) are residential in nature are operated by Centurion Investments (JVII) Ltd operating as Dwell Student Living.

Centurion Investments (JVII) Ltd have recently acquired the ground floor and basement of 121 Princess Street, and the bar/nightclub uses have ceased operating. Centurion Investments (JVII) Ltd are separately applying to remove a condition relating to the mitigation of the noise effects of these uses on the upper residential uses, and in doing so are proposing to enter in a planning obligation under Section 106 of the 1990 Town and Country Planning Act to remove the ability to operate the ground floor and basement for bar/nightclub uses.

1.3 Proposed Development

The application is to change the use of the ground floor and basement of 121 Princess Street to Use Class E.

Use Class E covers a broad range of potential uses. The specific uses have not been determined at this stage. A preliminary review has been undertaken with Centurion to determine the viability of different activities under Use Class E with respect to noise. This is detailed in **Table 1** below.

Table 1: Preliminary review of viability of different activities under use class E

Use	Basement	Ground floor
Gymnasium	Possible with some operational limits around reproduced sound, and suitable treatments to control impact noise.	Not viable due to direct adjacency to residential uses and risks associated with rhythmic excitation on a suspended slab.
Retail (shops)	Viable with some operational limits around reproduced sound.	Viable with some operational limits around reproduced sound.
Office	Viable with no operational restrictions.	Viable with no operational restrictions.
Café/Restaurant	Viable with some operational limits around reproduced sound.	Viable with some operational limits around reproduced sound.
Light industrial	Not viable due to excessive risks associated with noise and vibration.	Not viable due to excessive risks associated with noise and vibration.
Childcare	Viable with no operational restrictions.	Viable with no operational restrictions.

With reference to the above, the worst-case potential uses that are being considered with regards to noise are:

- Café/restaurant use within the ground floor; and
- Gymnasium within the basement.

Hours of operation cannot be determined at this point, however for the purposes of the assessments outlined herein it is assumed that the use of the ground floor would be limited to daytime hours (07:00hrs to 23:00hrs), whilst the basement gymnasium could potentially be operated 24/7. This is the basis of assessment and could be subject to planning condition on the grant of any planning permission.

1.4 Technical Terminology

This report is necessarily technical in nature. A glossary of technical terminology has therefore been provided in Appendix A to assist the reader.

2. ASSESSMENT METHODOLOGY

2.1 Scope of Assessment

A summary of the key noise considerations for the assessment are as follows:

- Airborne noise transfer from the proposed ground floor use (café/restaurant) to residential areas directly above on the first floor of 121 Princess Street;
- Structure-borne noise transfer from the proposed basement use (gymnasium) to the residential uses on floors one to six of 121 Princess Street.

A detailed assessment is not being undertaken of noise breakout to sensitive receptors outside of 121 Princess Street, as in controlling noise from the proposed use to an acceptable level within internal receptors, the levels at external receptors will be significantly lower and therefore represent a reduced level of impact.

2.2 Policy, Standards and Guidance

The assessment carried out considers the following policy, standards and guidance documents:

- National Planning Policy Framework, 2021 (NPPF);
- Noise Policy Statement for England, 2010 (NPSE);
- Planning Practice Guidance – Noise, 2021 (PPG);
- Manchester City Council - Planning and Noise Technical Guidance, 2015 (MCCPNTG); and
- British Standard 8233:2014 - Guidance on Sound Insulation and Noise Reduction for Buildings (BS8233).

A review of the relevant planning policy, standards and guidance is found in **Appendix B**.

3. NOISE IMPACT ASSESSMENT

3.1 Assessment criteria

MCCPNTG does not outline any specific assessment methodology for structurally connected uses that do not comprise entertainment uses i.e. uses where the dominant source of noise is music.

To minimise the impact of the proposed development, a robust approach would be to control noise from the proposed café/restaurant at ground floor level, and basement gym, to a level around 10 dB(A) below the internal ambient noise levels within habitable rooms.

Typically, within residential developments, noise levels are controlled in line with the requirements of BS8233, which aligns with MCCPNTG. However, in the case of 121 Princess Street the façade sound insulation to residential areas was specified to control noise associated with the basement nightclub. The nightclub has now ceased operation, and as a result the internal ambient noise levels within the development are below the guideline levels from BS8233.

Hydrock have undertaken a series of internal ambient noise level measurements within habitable rooms at 121 Princess Street to support a parallel application to remove Planning Condition 2A which is imposed on the residential element of the site. The full details of these measurements have been excluded here for brevity; however, these are outlined in a technical note which has been appended to this report.

The lowest measured ambient daytime and night-time noise levels within habitable rooms, along with proposed criteria that are 10dB(A) below these levels, are presented in **Table 2** below.

Table 2: Lowest measured ambient noise levels within habitable rooms

Period	Lowest measured ambient noise level ($L_{Aeq,T}$, dB)	Lowest measured ambient noise level – 10 ($L_{Aeq,T}$, dB)
Daytime (07:00hrs to 23:00hrs)	27	17
Night-time (23:00 to 07:00hrs)	26	16

To ensure the assessment make due consideration for any spectral content of source noise, it is proposed to approximate NR levels from the $L_{Aeq,T}$ criteria above, ultimately adopting the spectrum of the NR curve as the assessment criteria. To approximate the NR level, BS8233 outlines the following equation:

$$NR \approx dB(A) - 6$$

The proposed assessment criteria are summarised in **Table 3** below.

Table 3: Proposed assessment criteria

Period	Proposed assessment criteria ($L_{eq,T}$, dB) at octave-band centre frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k
Daytime (NR11)	44	32	22	16	11	8	5	3
Night-time (NR10)	43	31	21	15	10	7	4	2

3.2 Airborne noise transfer (ground floor to first floor)

To inform the assessment of the ground floor operating as a typical bustling restaurant in the daytime, Hydrock has drawn upon previously measured noise levels within a modern restaurant/kitchen in

Manchester City Centre during a busy Saturday evening service with low level ‘background’ music. These source noise levels are outlined in **Table 4** below.

Table 4: Source noise level (restaurant/café)

Area	Sound pressure level ($L_{eq,T}$ dB) at octave-band centre frequency (Hz)								dB(A)
	63	125	250	500	1k	2k	4k	8k	
Restaurant	66	69	73	77	74	70	65	58	79
Kitchen	69	66	69	74	72	69	65	60	76

In order to ensure an accurate assessment of noise transfer between the ground and first floor, an airborne sound insulation test of the separating floor was undertaken. The test was carried out by a qualified in accordance with BS EN ISO 140-4:1998 Acoustics – Measurement of airborne sound insulation in buildings and of building elements. The measured airborne sound insulation performance of the floor is presented in **Table 5** below.

Table 5: Measured airborne sound insulation performance of floor

Level difference, D (dB) of separating floor at octave-band centre frequency							
63	125	250	500	1k	2k	4k	8k
43	47	55	63	65	65	65	67

Based on the above, a calculation has been undertaken to predict the resultant noise levels in a worst-case habitable room at first floor level directly above the proposed café/restaurant. The results of this calculation are present in **Table 6** below.

Table 6: Calculation of noise levels in worst-case habitable rooms

Description	Sound pressure level ($L_{eq,T}$, dB) at octave-band centre frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k
Source room levels	69	69	73	77	74	70	65	60
Receive room levels	28	22	19	15	11	6	2	<0
Proposed criteria (NR11)	44	32	22	16	11	8	5	3
Compliance notes	✓	✓	✓	✓	✓	✓	✓	✓

The above indicates the operation of the ground floor as a bustling café/restaurant during the daytime should satisfy the proposed noise criteria with regards to noise transfer between the ground and first floor. Nonetheless, best practice guidance and operational limitations for prospective tenants have been outlined in **Section 4**.

3.3 Re-radiated noise (basement to floors one to six)

The building has previously been subject to noise level measurements in various apartments whilst the basement was operating as a nightclub. From the results of these measurements, it is possible to approximate a transfer function for structure-borne noise transfer and resultant re-radiated noise from the basement by subtracting the highest measured noise levels in habitable rooms and subtracting the source noise level. This is presented in **Table 7**:

Table 7: Approximation of structure-borne noise transfer function

Description	Sound pressure level ($L_{eq,T}$, dB) at octave-band centre frequency (Hz)	
	63	125
Source room levels (nightclub)	115	106
Worst-case measured levels in habitable rooms	73	67
Approximated transfer function	-42	-39

These measurements were undertaken in the context of the MCCPNTG requirements regarding entertainment noise. As such, data is only available for the 63Hz and 125Hz octave bands. However, in the context of structure-borne noise, only low frequency noise is likely to be transmitted at sufficient levels to warrant assessment due to the mass damping from the concrete structure. Simply put, the energy that would be required to excite the building such that high frequency noise is re-radiated would be well in excess of the levels being considered herein. Given this, along with the adopted criteria which are more onerous than MCC's typical requirements, an assessment of only the 63Hz and 125Hz octave bands is considered appropriately robust with regards to structure-borne noise transfer from the basement to the upper floors of 121 Princess Street.

To inform the assessment of the basement operating as a commercial gym in the daytime/night-time, Hydrock has drawn upon previously measured noise levels within a 'Pure Gym'. These noise levels included reproduced music at a moderate level, along with typical noise from patrons utilising gym equipment. These source noise levels are outlined in **Table 8** below.

Table 8: Source noise level (gymnasium)

Area	Sound pressure level ($L_{eq,T}$, dB) at octave-band centre frequency (Hz)	
	63	125
Gymnasium main area	71	74

Based on the above, a calculation has been undertaken to predict the noise levels in a worst-case habitable room resulting from the operation of a gymnasium in the basement. The results of this calculation are present in **Table 9** below.

Table 9: Prediction of noise levels in worst-case habitable rooms

Area	Sound pressure level ($L_{eq,T}$, dB) at octave-band centre frequency (Hz)	
	63	125
Source room levels (gymnasium)	71	74
Approximated transfer function	-42	-39
Receive room levels	29	35
Proposed criteria (NR10)	43	31
Compliance notes	✓	✗

The above indicates the operation of the basement as a commercial gym during the night-time (i.e. assuming 24-hour operation) should satisfy the proposed criterion in the 63Hz octave band, but could result in a minor exceedance of the proposed criterion in the 125Hz octave band. Best practice guidance and operational limitations for prospective tenants have been outlined in **Section 4** to control the level of noise appropriately.

4. TENANTS REQUIREMENTS AND MANAGEMENT PROCEDURES

4.1 Tenant requirements

4.1.1 Café/Restaurant

In order to mitigate noise transfer from the ground floor to residential uses above, limiting noise levels should apply within the ground floor space. These are proposed in **Table 10** below.

Table 10: Operational noise limits (ground floor)

Operational noise limit ($L_{eq,5mins}$, dB) at octave-band centre frequency (Hz)								dB(A)
63	125	250	500	1k	2k	4k	8k	
70	70	70	75	75	70	65	60	78

In Hydrock's experience, the above limits would accommodate the majority of café/restaurant uses with low level background music, but would preclude any significant levels of amplified music.

The above can be secured via a planning condition and/or license conditions requiring the installation of an electronic noise limiter to any PA system, or to verify noise levels within the space prior to operation.

If speakers are to be installed to play low level background music, these should not be rigidly fixed to the building structure.

Any fitout works must not compromise the installed scheme of acoustic mitigation installed at the site.

Coffee ground knock outboxes should be mounted on worktops that are resiliently installed such that impact noise from emptying portafilters is adequately controlled.

It will ultimately be the responsibility of prospective tenants to ensure operational noise from their demise is controlled to acceptable levels. This may require the submission of a final noise assessment report assessing the specific uses associated with a particular operator.

4.1.2 Gymnasium

In order to mitigate noise transfer from the basement to residential uses above, limiting noise levels should apply within the basement. These are proposed in **Table 11** below.

Operational noise limit ($L_{eq,5mins}$, dB) at octave-band centre frequency (Hz)	
63	125
70	70

In Hydrock's experience, the above limits would accommodate a commercial gym with low level background music, but would preclude any significant levels of amplified music.

The above can be secured via a planning condition and/or license conditions requiring the installation of an electronic noise limiter to any PA system, or to verify noise levels within the space prior to operation.

If speakers are to be installed to play low level background music, these should not be rigidly fixed to the building structure.

The incoming tenant shall ensure that, where appropriate, equipment is either fitted with suitably specified anti-vibration mounts OR a suitable specified sprung floor to control impact noise that could be transmitted through the building structure.

It will ultimately be the responsibility of prospective tenants to ensure operational noise from their demise is controlled to acceptable levels. This may require the submission of a final noise assessment report assessing the specific uses associated with a particular operator.

4.2 Management procedures

Centurion Investments (JVII) Ltd will be the landlord for both the proposed uses in the ground floor and basement, along with the extant residential uses on floors one to six. Whilst the assessments indicate that, with suitable operational limitations in place on prospective tenants, noise levels in habitable rooms will be controlled to an acceptable level, it is important to ensure that there is a robust procedure to address any complaints with regards to noise.

This procedure should will be implemented by Centurion Investments (JVII) Ltd via lease agreements with all prospective tenants. This should, as a minimum, include details (where applicable) of:

- Operational restrictions as per Section 4.1. above (which can be secured via planning condition);
- Contact details for a resident liaison responsible for addressing any noise-related noise complaints; and
- Procedures to investigate noise-related complaints.

5. CONCLUSION

Hydrock is appointed by Centurion Investments (JVII) Ltd to undertake a noise impact assessment to support the full planning application for the change of use of the ground floor and basement of 121 Princess Street, Manchester to Use Class E.

Use Class E covers a broad range of potential uses. The specific uses have not been determined at this stage. A preliminary review has been undertaken with Centurion to determine the viability of different activities under Use Class E with respect to noise. The worst-case potential uses that are being considered with regards to noise are:

- Café/restaurant use within the ground floor; and
- Gymnasium within the basement.

Given the specific conditions at the site and the planning history, bespoke criteria have outlined. These are more onerous than those that would typically be requested by Manchester City Council.

With regards to the operation of the ground floor as a bustling café/restaurant during the daytime, the assessment indicates that the proposed noise criteria should be satisfied with regards to noise transfer between the ground and first floor. Nonetheless, best practice guidance and operational limitations for prospective tenants have been outlined.

With regards to the operation of the basement as a commercial gym during the night-time (i.e. as a worst-case assuming 24-hour operation), the assessment indicates that the proposed criterion in the 63Hz octave band should be satisfied, but the proposed criterion in the 125Hz octave band could be subject to a minor exceedance. Best practice guidance and operational limitations for prospective tenants have therefore been outlined.

Any operational limits and best practice guidance that have been outlined can be secure via a suitably worded planning condition that references this report. The onus will then be on incoming tenants to demonstrate that their proposed activities are compliant with the limitations outlined herein.

Appendix A - Glossary of Acoustic Terminology

Term	Description
dB (decibel)	The scale on which sound pressure level is expressed. Sound pressure level is defined as 20 times the logarithm of the ratio between the root-mean-square pressure of the sound field and a reference pressure (2x10 ⁻⁵ Pa).
dB(A)	A-weighted decibel. This is a measure of the overall level of sound across the audible spectrum with a frequency weighting (i.e. 'A' - weighting) to compensate for the varying sensitivity of the human ear to sound at different frequencies.
L_{Aeq,T}	L _{Aeq} is defined as the notional steady sound level which, over a stated period of time (T), would contain the same amount of acoustical energy as the A - weighted fluctuating sound measured over that period.
L_{Amax}	L _{Amax} is the maximum A - weighted sound pressure level recorded over the period stated. L _{Amax} is sometimes used in assessing environmental noise where occasional loud noises occur, which may have little effect on the overall L _{eq} noise level but will still affect the noise environment. Unless described otherwise, it is measured using the 'fast' sound level meter response.
L₁₀ and L₉₀	If a non-steady noise is to be described it is necessary to know both its level and the degree of fluctuation. The L _n indices are used for this purpose, and the term refers to the level exceeded for n% of the time. Hence L ₁₀ is the level exceeded for 10% of the time, and the L ₉₀ is the level exceeded for 90% of the time.
R_w	R _w is the single-number quantity which characterizes the sound insulating properties of a given material over a range of frequencies. This is typically measured in a laboratory in accordance with BS EN ISO 717-1.
D_{n,e,w}	D _{n,e,w} is the single number quantity which characterizes the airborne sound insulation performance across a given 'element' and is typically used to describe the acoustic performance of trickle ventilators etc.
C_{tr}	C _{tr} is a correction term applied to single-number sound insulation values (R _w , D _{n,e,w} etc.) to afford additional weighting against low frequency performance.
Free-field Level	A sound field determined at a point away from reflective surfaces other than the ground with no significant contributions due to sound from other reflective surfaces. Generally, it is measured outside and at least 3m from buildings.

Appendix B – Policy, Standards and Guidance

National Planning Policy Framework (NPPF)

Published in 2021, this document sets out the Government's planning policies for England and supersedes the previous version of the NPPF published in 2019. It makes the following reference to noise in the section entitled Conserving and enhancing the natural environment:

“174. Planning policies and decisions should contribute to and enhance the natural and local environment by

[...]

e) Preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans.”

It also makes the following references to noise in the Section entitled Ground conditions and pollution:

“185. 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(60);

identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.

60 See Explanatory Note to the Noise Policy Statement for England (Department for Environment, Food & Rural Affairs, 2010).”

And

“187. Planning policies and decisions should ensure that new development can be integrated effectively with existing businesses and community facilities (such as places of worship, pubs, music venues and sports clubs). Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or ‘agent of change’) should be required to provide suitable mitigation before the development has been completed.”

Noise Policy Statement for England (NPSE)

Published in March 2010, the Noise Policy Statement for England (NPSE) sets out the long-term vision of Government noise policy as follows:

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

The NPSE identifies three observed effect levels, names “No Observed Effect Level” (NOEL), “Lowest Observed Adverse Effect Level” (LOAEL) and “Significant Observed Adverse Effect Level” (SOAEL).

The NPSE contains little detail on assessment methodologies and specific parameters at which the varying observed effect levels would occur in the context of a residential development.

BS 8233:2014 - Guidance on sound insulation and noise reduction for buildings

As discussed above, there is no specific guidance contained within the Planning Condition and the NPSE. In lieu of this, the approach that is generally adopted when assessing environmental noise sources on residential developments is to undertake an assessment in accordance with BS 8233: 2014.

BS 8233 provides guidance for the control of noise in and around buildings. The guidance provided within the document is applicable to the design of new buildings, or refurbished buildings undergoing a change of use, but does not provide guidance on assessing the effects of changes in the external noise levels to occupants of an existing building. The guidance provided includes appropriate internal and external noise level criteria which are applicable to dwellings for steady external noise sources. It is stated that it is desirable that the internal ambient noise level does not exceed the following criteria set out in the table below:

Activity	Location	Period	
		Daytime (07:00 to 23:00 hrs)	Night-time (23:00 to 07:00 hrs)
Resting	Living room	LAeq,16hrs 35 dB	-
Dining	Dining room/area	LAeq,16hrs 40 dB	-
Sleeping (daytime resting)	Bedroom	LAeq,16hrs 35 dB	LAeq,8hrs 30 dB

Whilst BS 8233:2014 recognises that a guideline value may be set in terms of SEL or LAFmax for the assessment of regular individual noise events that can cause sleep disturbance during the night-time, a specific criterion is not stipulated. Accordingly, reference has been made in this assessment to the World Health Organisation (WHO) 1999: Guidelines for Community Noise below.

With respect to external amenity space such as gardens and patios it is stated that it is desirable that the noise level does not exceed 50 dB LAeq,T, with an upper guideline value of 55 dB LAeq,T which would be acceptable in noisier environments. It is then confirmed that higher external noise criteria may be appropriate under certain circumstances such as within city centres urban areas, and locations adjoining the strategic transportation network, where it may be necessary to compromise between elevated noise levels and other factors such as convenience of living, and efficient use of land resource. Noise level to determine the potential for effect.

World Health Organisation (WHO) 1999: Guidelines for Community Noise

As with the 'good' and 'reasonable' criteria in BS 8233, the LAFmax criterion in BS8233 is largely concordant with the World Health Organisation (WHO) guidance 1999: Guidelines for community noise. This document draws upon guidance from Vallet and Vernay, which states:

"For good sleep, it is believed that indoor sound pressure levels should not exceed approximately 45 dB LAFmax more than 10-15 times per night"

BS 4142:2014 - Methods for rating and assessing commercial and industrial sound

BS 4142 describes methods for rating and assessing sound from industrial and manufacturing processes, fixed installations which comprise mechanical and electrical plant and equipment, the loading and unloading of goods and materials at industrial and/or commercial premises and mobile plant and vehicles that are an intrinsic part of the overall sound emanating from premises or processes.

The methods use outdoor sound levels to assess the likely effects of sound on people who might be inside or outside a dwelling or premises used for residential purposes upon which sound is incident.

If appropriate, the specific sound level of the source ($LA_{eq,T}$) is corrected, by the application of one or more corrections for acoustic features to give a 'rating' level ($L_{Ar,Tr}$). The Standard effectively compares and rates the difference between the rating level of the sound and the prevailing background sound level ($LA_{90,T}$). Comparing the rating level with the background sound level, BS 4142 states:

"Typically, the greater this difference, the greater the magnitude of impact. 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."

Appendix C – Noise measurements in bedrooms