



REPORT REFERENCE:

SA - 8379

ENVIRONMENTAL NOISE IMPACT ASSESSMENT

COMPLIANCE TEST

British Standard 8233: 2014

British Standard 4142: 2014 +A1:2019

CLIENT:

AC English Development

SITE:

Unit 9

South Point

Ensign Way

Hamble

Hampshire

SO31 4RF

SURVEY DATES:

9th – 13th April 2026

Report By

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1 INTRODUCTION

1.1 Instruction

Sound Advice Acoustics Ltd has been instructed by AC English Development to undertake post construction compliance tests at Unit 9, South Point, Ensign Way, Hamble, Hampshire, SO31 4RF in order to ascertain if the site achieves compliance with the requirements of Planning Condition 2(b) and 3 of application number PN / 25-99086.

1.2 Outline

Internal noise levels were recorded inside the ground floor living room / kitchen of flat 1, the ground floor bedroom of flat 1 and the first floor bedroom of flat 2. The microphone was secured to a tripod and located in centre of the room at a height of 1.5m.

The measurements were taken over continuous 1 minute periods and are averaged over the relevant assessment periods as agreed.

1.3 Planning Condition 2(b)

Prior to occupation of the development, the acoustic enclosure shall be installed in accordance with the approved details and updated noise measurements shall be submitted to and approved in writing by the Local Planning Authority to demonstrate that the existing noise levels at the site façade achieves acceptable noise criteria from British Standard 4142:2014+A1:2019, as set out in the Environmental Noise Impact Assessment prepared by Sound Advice Acoustics Ltd, ref. SA-8025, April 2025.

1.4 Planning Condition 3

Prior to first occupation of the development hereby approved, a post completion noise assessment shall be carried out by a suitably qualified acoustic consultant and submitted to and approved in writing by the Local Planning Authority, to demonstrate that the glazing and ventilation (MVHR) solutions set out in the Environmental Noise Impact Assessment report prepared by Sound Advice Acoustics Ltd, ref. SA-8025, April 2025, achieve the noise criteria specified in the report.

2 APPARATUS

The equipment was calibrated using a sound pressure level of 114.0 dB at an octave band centre frequency of 1000Hz with reference to $2 \times 10^{-5} \text{ Nm}^{-2}$ before and after the tests and the equipment set to have no inaccuracy greater than 0.2dB.

All the following equipment was calibrated in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service (UKAS) on the following dates. Calibration schedules are implemented within Impact Acoustics Ltd in accordance with UKAS directive LAB 23.

Flat 1 – Lounge / Kitchen	Make	Type	Serial No.	Calibration Intervals	Cert No.	Last Calibrated	Next Due Calibration
Integrated Sound Level Meter	Norsonic	140	1403570	2 YEARS	U45844	08.08.2024	08.08.2026
12.5mm Microphone (with windshield)	Norsonic	1225	96052	2 YEARS	U45843	08.08.2024	08.08.2026
Microphone Pre – Amplifier	Norsonic	1209	12514	2 YEARS	U45844	08.08.2024	08.08.2026

Flat 1 – Bedroom	Make	Type	Serial No.	Calibration Intervals	Cert No.	Last Calibrated	Next Due Calibration
Integrated Sound Level Meter	Rion	NI-52	242696	2 Years	C00583	26.06.2025	26.06.2027
12.5mm Microphone (with windshield)	Rion	Uc-59	6178	2 Years		26.06.2025	26.06.2027
Microphone Pre – Amplifier	Rion	Nh-25	32724	2 Years		26.06.2025	26.06.2027

Flat 2 – Bedroom	Make	Type	Serial No.	Calibration Intervals	Cert No.	Last Calibrated	Next Due Calibration
Integrated Sound Level Meter	Norsonic	140	1403140	2 YEARS	C00485	03.06.2024	03.06.2026
12.5mm Microphone (with windshield)	Norsonic	1225	579775	2 YEARS	C00485	03.06.2024	03.06.2026
Microphone Pre – Amplifier	Norsonic	1206	12486	2 YEARS	C00485	03.06.2024	03.06.2026

Full calibration certificates are available upon request.

3 PLANNING CONDITION 2(A)

3.1 Summary of Results from April 2025 Planning Report

3.1.1 Background Noise Levels

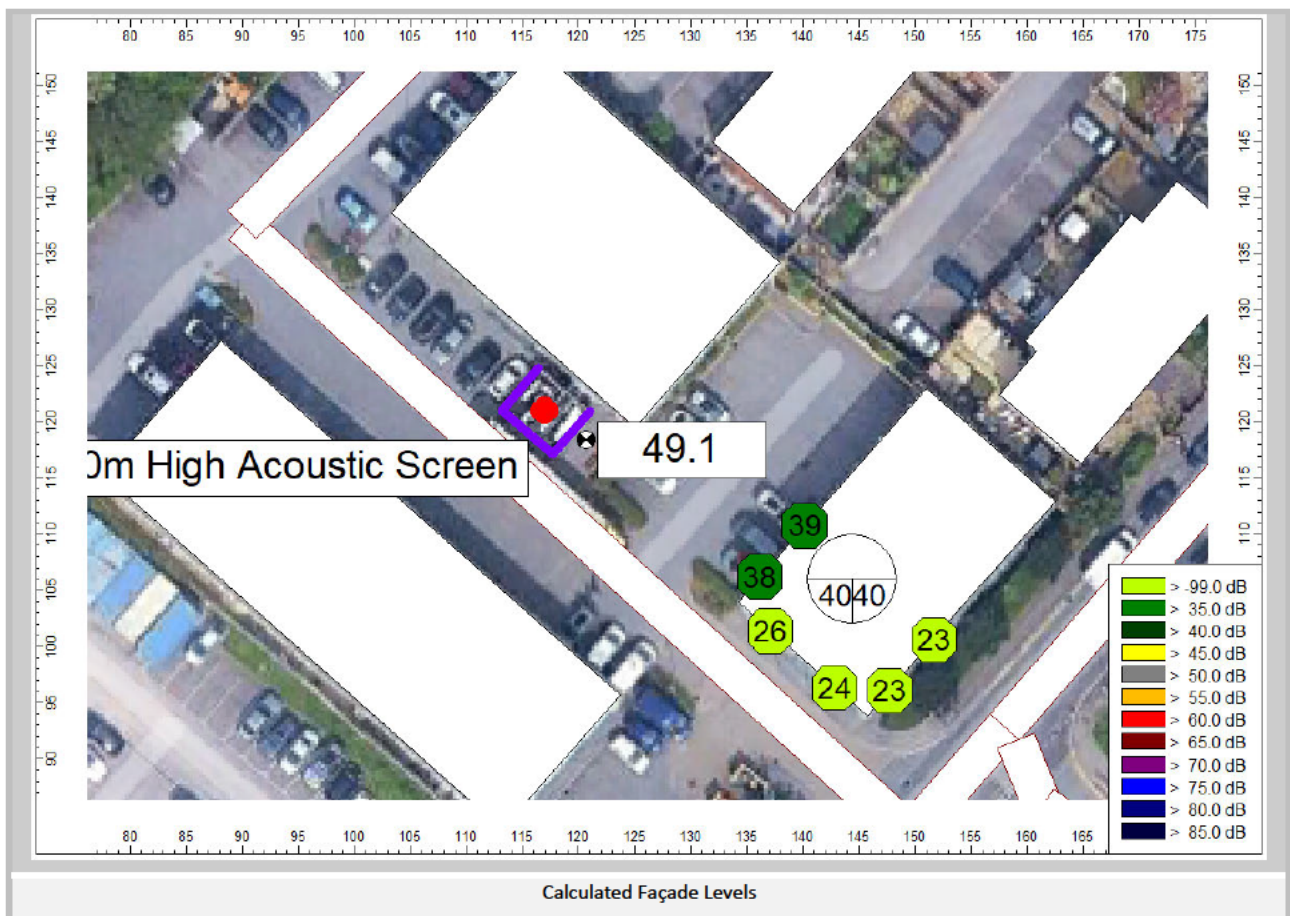
A 120-hour background noise survey was undertaken from the 4th – 9th April 2025 at two positions at the site in order to establish the underlying background noise levels. Recorded levels as follows.

Assessment Position	Date Start	Date Finish	Daytime LA90	Night Time LA90
Position 1	04/04/2025	09/04/2025	45.0	44.0
Position 2	04/04/2025	09/04/2025	49.0	49.0

3.2 Completion Noise Levels

Following the installation of the acoustic screen around the CooperVision external units, a noise level of 49.1 dB(A) has been recorded at 1.0m from the unit and includes for the correction of background noise level. The unit operates continuously and therefore this noise levels was recorded over a shortened measurement period in between traffic movements in order to minimise background noise influence .

3.2.1 Calculated Façade Level



Based on these recommendations, the following assessments can be made:-

3.3 BS4142: 2014 +A1:2019 NOISE ASSESSMENT

3.3.1 Scope of British Standard 4142: 2014 +A1:2019

In the assessment of the existing surrounding commercial premises, consideration has been given to the scope of British Standard 4142: 2014, which in section 1, details applicability of this standard to rating assessing sound of an industrial and/or commercial nature. It is considered appropriate that both the background noise levels and the rating noise levels obtained fall within the scope of British Standard 4142: 2014 +A1:2019 by using outdoor sound levels to assess the effect of sound on local residents.

3.3.2 Terms and Definitions

Symbol	Term	Definition
AP	Assessment Position	Position externally at the façade property under investigation at which the assessment is undertaken which is usually 1m from the 1 st floor bedroom window.
EP	Equivalent Position	Position at which the background noise levels are measured if there is no access to the assessment position or if source under investigation is audible.
$L_s = L_{Aeq, T}$	Specific Level	The average continuous equivalent sound pressure level of the source at the assessment position.
$L_{A, Tr}$	Rating Level	The average continuous equivalent sound pressure level of the source at the assessment position with a correction to account for the characteristic features.
$L_r = L_{Aeq, T}$	Residual Level	The average continuous equivalent sound pressure level at the assessment position without the source operating.
$L_{A90, T}$	Background Level	The sound pressure level that is not exceeded 90% of the time at the assessment position.
$L_a = L_{Aeq, T}$	Ambient Level	The totally encompassing sound at the assessment position including the residual and specific noise.

3.3.3 Assessment Position

The assessment position was established as the proposed residential accommodation premises and no closer than 21m from any and all existing plant.

3.3.4 Rating Levels (Character Correction)

It is appropriate to add a character correction where there is a new source that cannot be measured in line with BS4142: 2014. There are 3 methods for approaching this.

- Subjective method
- Objective method (for tonality)
- Reference method

3.3.5 Subjective Method

The subjective method establishes a rating penalty that is added to the specific noise level if any of the following is present at the assessment position. If a tone is expected to be present a character correction of 0 dB to 6 dB is added depending on how perceptible it is at noise sensitive locations.

BS 4142:2014+A1:2019 – Section 9.2 Subjective Method	Perceptibility to noise sensitive facades	Correction
Tonality Ranging from not tonal to prominently tonal	Not tonal	+0
	Just perceptible	+2
	Clearly perceptible	+4
	Highly perceptible	+6

If the source is expected to be impulsive a character correction of 0 dB to 9 dB is added depending on how perceptible it is at noise sensitive locations.

BS 4142:2014+A1:2019 – Section 9.2 Subjective Method	Perceptibility to noise sensitive facades	Correction
Impulsivity Considering both the rapidity and any overall change in sound levels	Not impulsive	+0
	Just perceptible	+3
	Clearly perceptible	+6
	Highly perceptible	+9

When the sound features are neither tonal nor impulsive, a character correction of +3 is added for the readily distinctive quality against the acoustic environment or for the intermittency of the source.

BS 4142:2014+A1:2019 – Section 9.2 Subjective Method	Perceptibility to noise sensitive facades	Correction
Readily Distinctive	Is not present	+0
	Is present	+3
Intermittency	Is not present	+0
	Is present	+3

3.3.6 Assessment Criterion

The significance of the resulting noise on the residential property depends on the margin by which it exceeds the background noise levels. British Standard 4142:2014+A1:2019 provides the following guidance within section 11.

Difference	Assessment of Impact
+10 dB	Indication of a significant adverse impact
+5 dB	Indication of an adverse impact
+0 dB	Indication of low impact

3.3.7 Calculated Façade Levels – Proposed Layout

3.3.8 Daytime (07:00 – 23:00).

Item	Calculation	Clause	Commentary
Specific Noise Level $L_{Aeq,1\text{ hour}}$	39 dB	7	Calculated using ISO 9613:1996[3].
Tonality	+2 dB	8.1	Tonality Characteristic
Rating Level	40 dB	9.1	The acoustic feature correction is added to the specific noise level
Background Noise Level $L_{A90,1\text{ hour}}$	45 dB	8.1	Modal Background Noise Level
Assessment Level	-4 dB	11	The background level is subtracted from the rating level.
Assessment	-4 dB		
Conclusion	The assessment level is 'Low Impact'		

3.3.9 Night time (23:00 – 07:00).

Item	Calculation	Clause	Commentary
Specific Noise Level $L_{Aeq,15\text{ MINUTES}}$	39 dB	7	Calculated using ISO 9613:1996[3].
Tonality	+2 dB	8.1	Tonality Characteristic
Rating Level	41 dB	9.1	The acoustic feature correction is added to the specific noise level
Background Noise Level $L_{A90,15\text{ MINUTES}}$	44 dB	8.1	Modal Background Noise Level
Assessment Level	-3 dB	11	The background level is subtracted from the rating level.
Assessment	-3 dB		
Conclusion	The assessment level is 'Low Impact'		

3.4 Tonal Penalty

A penalty has been applied to the specific noise level to allow for any tonal elements that may be present from the existing plant.

3.5 Penalties

The existing plant that belongs to CooperVision UK runs 24/7. Therefore, could not be considered intermittent. The plant could also not be considered impulsive as the load doesn't change.

3.6 Assessment Conclusion

It can be seen from the above assessments that the existing plant has returned an assessment conclusion of Low Impact and that planning condition 2(b) has been complied with. Therefore, no further mitigation measures are required.

4 PLANNING CONDITION 3

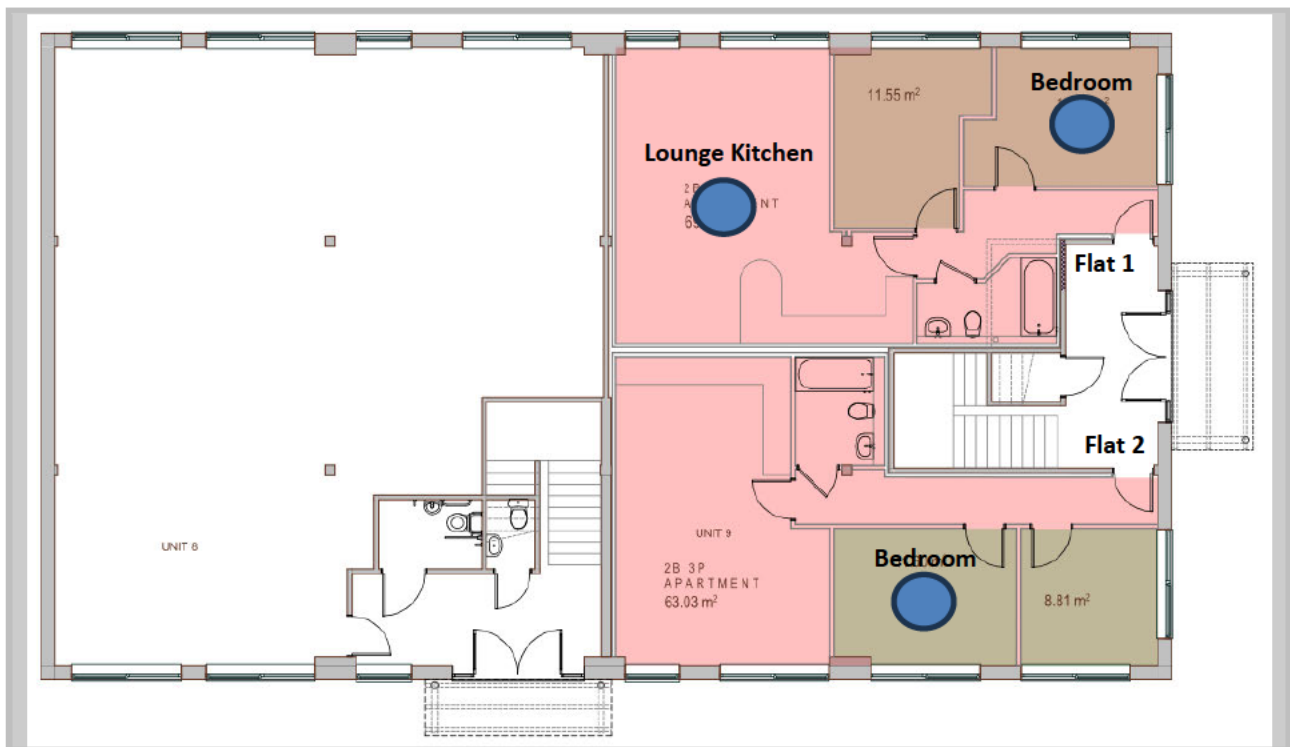
4.1 Criteria for Indoor Living Areas BS 8233: 2014

BS 8233: 2014 set the following parameters as target levels within rooms such as Living Rooms and Bedrooms.

Table 4 Indoor ambient noise levels for dwellings

Activity	Location	07:00 – 23:00	23:00 – 07:00
Resting	Living Room	35 dB L_{Aeq} 16 HOUR	--
Dining	Dining Room / Area	40 dB L_{Aeq} 16 HOUR	--
Sleeping (daytime resting)	Bedroom	35 dB L_{Aeq} 16 HOUR	30 dB L_{Aeq} 8 HOUR

4.2 Monitoring Locations



4.3 Summary of Results & Assessments

4.3.1 Flat 1 - Lounge / Kitchen Internal Noise Levels

Date	Daytime L_{Aeq} 16 HOUR dB	Night Time L_{Aeq} 8 HOUR dB	Night Time L_{Amax} dB
Thursday 9 th	32.3	27.8	43.2
Friday 10 th	31.6	25.2	44.1
Saturday 11 th	28.7	25.8	41.0
Sunday 12 th	28.8	29.6	38.6
Compliant/Non-Compliant	Compliant	Compliant	Compliant

4.3.2 Flat 1 - Bedroom Internal Noise Levels

Date	Daytime L_{Aeq} 16 HOUR dB	Night Time L_{Aeq} 8 HOUR dB	Night Time L_{Amax} dB
Thursday 9 th	33.9	27.5	41.5
Friday 10 th	32.9	27.1	42.9
Saturday 11 th	32.2	28.9	40.6
Sunday 12 th	30.8	28.1	39.6
Compliant/Non-Compliant	Compliant	Compliant	Compliant

4.3.3 Flat 2 - Bedroom Internal Noise Levels

Date	Daytime L_{Aeq} 16 HOUR dB	Night Time L_{Aeq} 8 HOUR dB	Night Time L_{Amax} dB
Thursday 9 th	27.6	25.0	43.3
Friday 10 th	27.8	25.6	38.5
Saturday 11 th	30.3	28.2	39.8
Sunday 12 th	27.4	25.3	40.9
Compliant/Non-Compliant	Compliant	Compliant	Compliant

4.3.4 Conclusion

The above tables demonstrate compliance with BS 8233: 2014 and as a result compliance with planning condition 3 has been achieved and therefore no further remedial works are required.

5 CONCLUSION

Sound Advice Acoustics Ltd has been instructed by AC English Development to undertake post construction compliance tests at Unit 9, South Point, Ensign Way, Hamble, Hampshire, SO31 4RF in order to ascertain if the site achieves compliance with the requirements of Planning Condition 2(b) and 3 of application number PN / 25-99086.

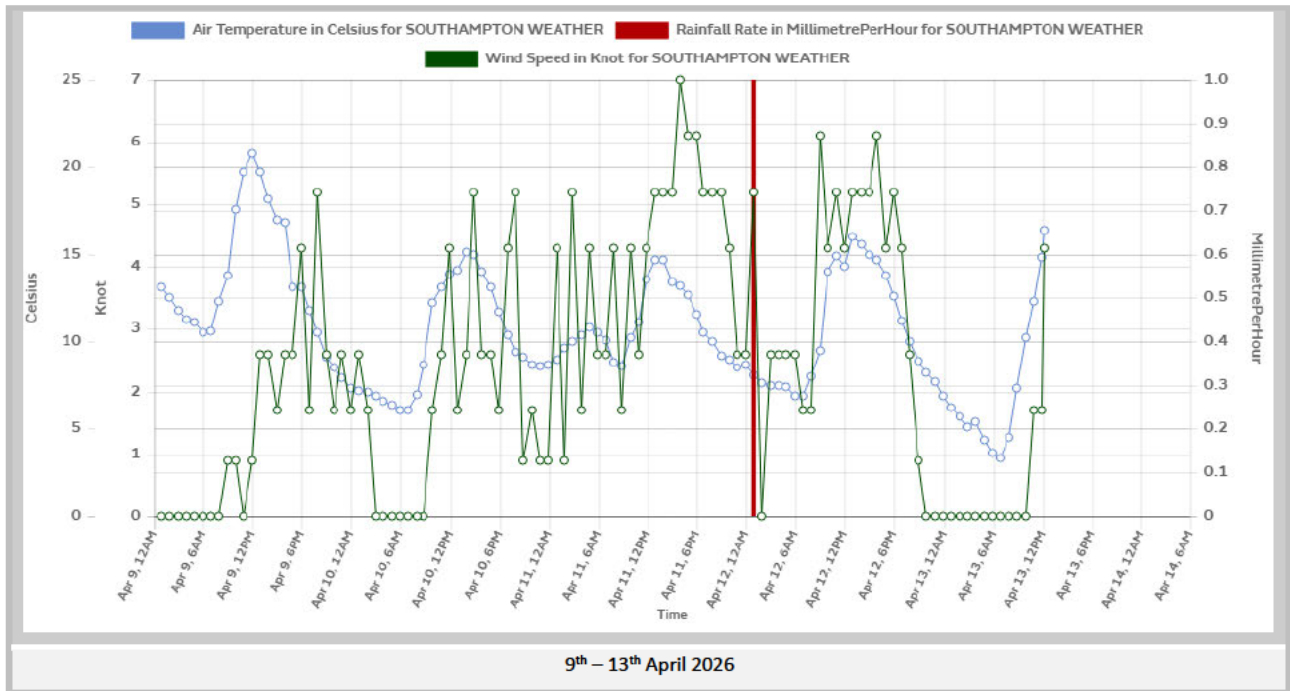
5.1 Planning Condition 2(b)

It can be seen from the above assessments that the existing plant has returned an assessment conclusion of Low Impact and that planning condition 2(b) has been complied with. Therefore, no further mitigation measures are required.

5.2 Planning Condition 3

The above tables demonstrate compliance with BS 8233: 2014 and as a result compliance with planning condition 3 has been achieved and therefore no further remedial works are required.

6 ENVIRONMENTAL CONDITIONS



#END OF REPORT#