



REPORT REFERENCE:

SA - 7383

ENVIRONMENTAL NOISE IMPACT ASSESSMENT

COMPLIANCE TEST

British Standard 8233: 2014

CLIENT:

Silkstead Developments Ltd

SITE:

46 Twyford Road

Eastleigh

Hampshire

SO50 4HJ

SURVEY DATES:

1st – 2nd March 2023

Report By	
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1 INTRODUCTION

Sound Advice Acoustics Ltd has been instructed by Silkstead Developments Ltd to undertake post construction compliance tests at 46 Twyford Road, Eastleigh, Hampshire, SO50 4HJ in order to ascertain if the site achieves compliance with the requirements of British Standard 8233: 2014 for internal noise levels and the World Health Organisations 'Guidelines for Community Noise' for external living spaces and Planning Condition 5.

Internal noise levels were recorded in the first floor living room. The microphone was secured to a tripod and located in the 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.

The following tabulated results have been evaluated from the attached figures for both internal evaluation.

1.1 Planning Condition 5

Application Number F/21/91612 has had planning permission permitted, with the following condition relating to acoustics.

The development hereby permitted shall not be brought into use until details and results from in -situ testing or measurement of the sound insulation measures to the building envelope and of acoustically attenuated mechanical ventilation, which shall intake fresh air from the rear side of the building only, away from vehicular emissions from Twyford Road, has been submitted to and agreed in writing by the Local Planning Authority. The approved details shall thereafter be retained and maintained in working order throughout the lifetime of the development.

Reason To ensure the amenity of occupiers of the development is not affected by transport noise.

Therefore, this compliance test report looks to discharge the above planning Condition 5.

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.

	Make	Type	Serial No.	Calibration Intervals	Last Calibrated	Next Due Calibration
Integrated Sound Level Meter	Norsonic	140	1403140	2 YEARS	06.04.2021	06.04.2023
12.5mm Microphone (with windshield)	Norsonic	1225	413206	2 YEARS	17.11.2021	17.11.2023
Microphone Pre – Amplifier	Norsonic	1209	12245	2 YEARS	06.04.2021	06.04.2023

Full calibration certificates are available upon request.

3 RESULTS & ASSESSMENTS

3.1 Indoor Living Areas BS 8233: 2014

BS 8233: 2014 set the following parameters as target levels that should be designed to 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

First Floor Living Room Internal Noise Levels

Daytime L _{Aeq} 16 HOUR dB	Night Time L _{Aeq} 8 HOUR dB	Night Time L _{Amax} dB
33.0	26.2	42.6
Compliant	Compliant	Compliant

4 CONCLUSION

These measurements have demonstrated compliance with the relevant requirements of BS 8233: 2014 and the World Health Organisation 'Guidelines for Community Noise' and Planning Condition 5 can be discharged.

Therefore, at this stage no further remedial works are required with regards to acoustics.

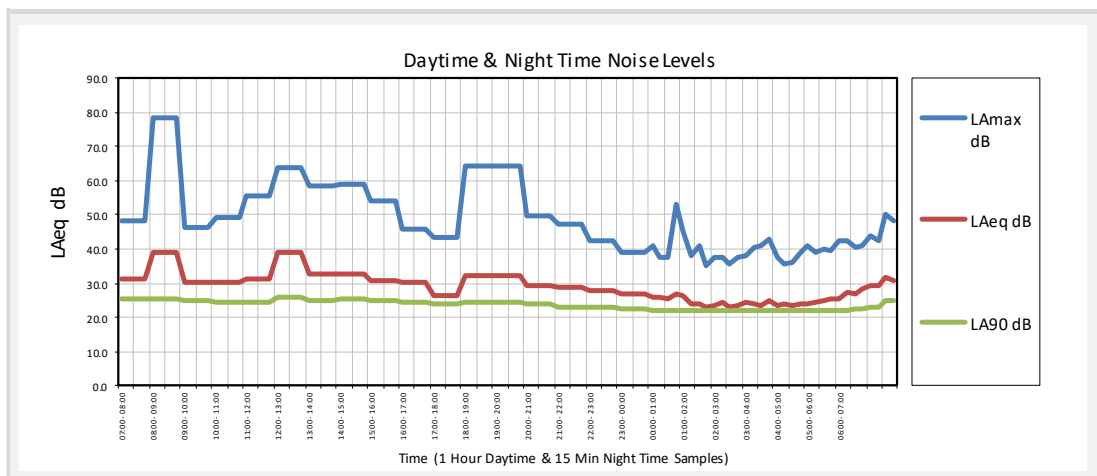
5 RESULTS

5.1 First Floor Living Room

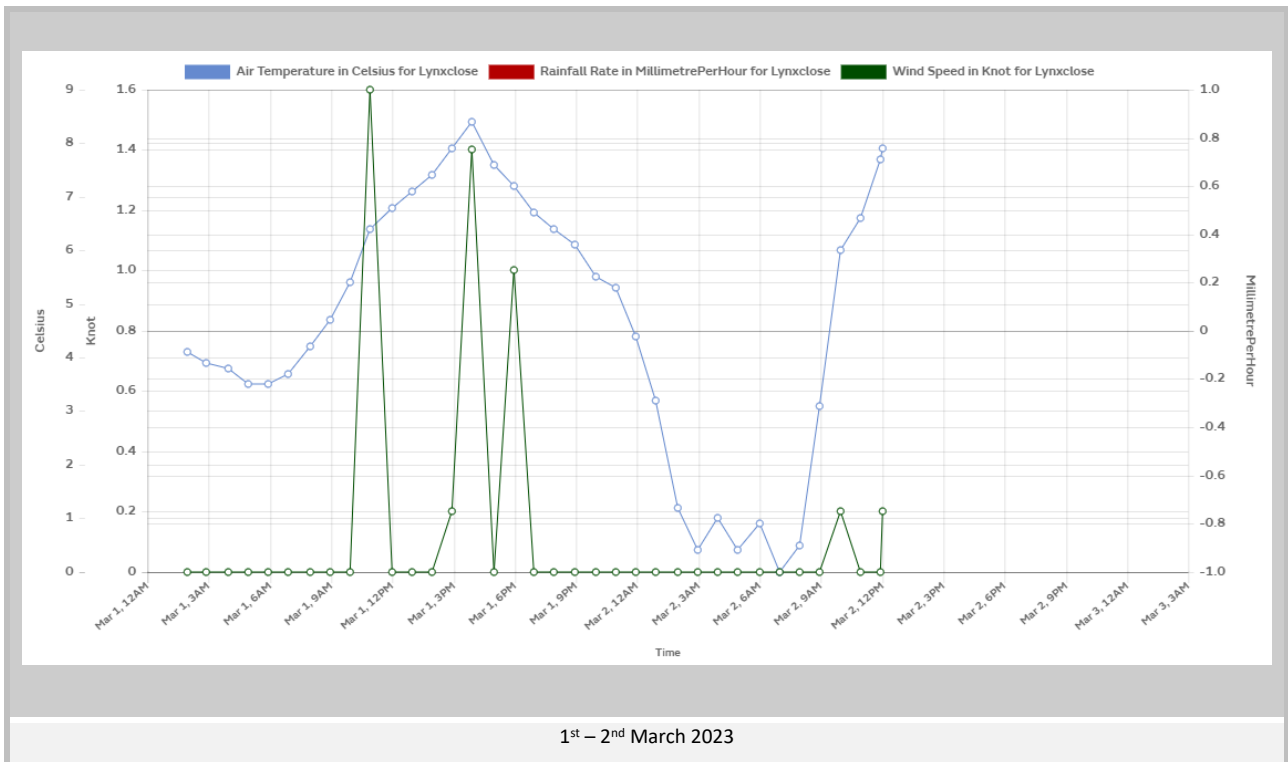
NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmaz	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LAeq 16 HOUR & Corr responding LAmaz 16 HOUR	33.0	78.2	25.0	39.3	36.7	35.6	29.8	27.3	23.9	19.5	18.7	8.9
NIGHTTIME 23:00 - 07:00 LAeq 8 HOUR & Corr responding LAmaz 8 HOUR	26.2	53.2	22.0	36.5	31.3	29.9	22.0	21.2	15.6	8.9	5.0	4.1

DAYTIME NOISE LEVELS 07:00 - 23:00 1 HOUR SAMPLES												
Date / Time	LAeq	LAmaz	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
07:00 - 08:00	31.4	28.4	25.4	38.3	34.9	32.4	26.5	28.0	22.6	12.9	5.2	4.1
08:00 - 09:00	39.2	78.2	25.3	38.8	37.0	35.3	32.5	32.2	33.2	31.1	30.5	19.3
09:00 - 10:00	30.3	46.5	24.9	38.8	34.7	32.5	25.9	26.6	20.3	10.9	5.1	4.1
10:00 - 11:00	30.4	49.3	24.6	39.7	36.2	33.5	27.0	25.9	19.3	10.0	5.1	4.1
11:00 - 12:00	31.1	55.7	24.2	38.0	33.5	32.0	25.3	27.4	23.5	13.8	5.3	4.1
12:00 - 13:00	39.2	63.8	26.0	44.8	43.9	44.1	38.9	30.5	21.7	10.8	5.1	4.1
13:00 - 14:00	32.7	58.4	24.9	40.0	37.3	37.2	30.2	26.9	19.6	9.7	5.0	4.1
14:00 - 15:00	32.6	58.9	25.4	40.8	39.0	37.4	29.1	27.0	19.9	10.4	5.1	4.1
15:00 - 16:00	30.6	53.9	25.0	38.2	34.7	32.8	26.5	27.0	19.8	10.1	5.0	4.1
16:00 - 17:00	30.1	45.8	24.6	38.5	34.8	32.7	25.4	26.3	19.5	9.7	5.0	4.2
17:00 - 18:00	26.5	43.5	23.8	38.5	34.2	30.7	22.2	20.6	14.7	7.9	5.0	4.2
18:00 - 19:00	32.3	64.4	24.3	38.0	34.3	31.5	24.3	28.5	26.8	11.2	5.1	4.1
19:00 - 20:00	29.5	49.5	23.9	37.8	34.1	32.1	25.1	25.7	18.8	9.2	5.0	4.1
20:00 - 21:00	28.6	47.2	23.1	37.2	33.4	31.7	24.1	24.6	17.9	8.4	5.0	4.1
21:00 - 22:00	27.9	42.5	22.8	36.9	32.2	30.5	23.1	24.2	17.5	8.0	4.9	4.1
22:00 - 23:00	26.7	39.0	22.5	36.6	31.5	29.9	22.2	22.7	16.0	7.2	4.9	4.1

NIGHT TIME NOISE LEVELS 23:00 - 07:00 15 MINUTE SAMPLES												
Date / Time	LAeq	LAmaz	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
23:00 - 23:15	25.7	40.9	22.1	36.6	30.7	29.9	21.4	20.9	14.4	6.6	4.9	4.1
23:15 - 23:30	26.0	37.3	22.2	36.3	30.6	29.5	21.7	21.6	15.2	7.3	4.9	4.1
23:30 - 23:45	25.3	37.4	22.1	36.3	30.5	29.3	21.1	20.6	13.7	6.1	4.9	4.1
23:45 - 00:00	26.9	53.2	22.0	36.1	31.0	30.9	24.3	20.6	16.3	9.1	5.0	4.1
00:00 - 00:15	26.5	45.3	22.0	36.1	30.9	30.2	24.2	21.2	14.7	6.1	4.9	4.1
00:15 - 00:30	24.0	38.1	22.0	36.5	31.5	29.0	19.7	17.2	11.7	5.6	4.9	4.1
00:30 - 00:45	23.9	40.7	21.9	36.0	30.1	28.8	19.8	17.8	11.4	5.5	4.9	4.1
00:45 - 01:00	22.7	35.3	21.9	36.0	30.1	28.5	19.0	14.1	8.5	5.0	4.9	4.1
01:00 - 01:15	23.7	37.6	21.9	36.0	30.1	28.7	19.9	17.3	10.4	5.5	4.9	4.1
01:15 - 01:30	24.5	37.5	22.0	36.3	30.5	29.1	20.5	18.9	12.4	6.0	4.9	4.1
01:30 - 01:45	23.1	35.6	21.9	36.0	29.9	28.6	19.4	15.5	9.9	5.2	4.9	4.1
01:45 - 02:00	23.7	37.5	21.9	36.1	30.1	28.8	19.9	17.0	10.6	5.3	4.9	4.1
02:00 - 02:15	24.6	38.0	21.9	36.1	30.2	28.9	20.4	19.4	12.8	6.0	4.9	4.1
02:15 - 02:30	23.8	40.6	21.9	36.2	31.0	28.8	19.8	17.3	10.0	5.3	4.9	4.1
02:30 - 02:45	23.6	41.0	21.9	36.0	30.0	28.7	19.9	17.0	10.7	5.2	4.9	4.1
02:45 - 03:00	24.8	43.0	21.9	36.2	30.4	29.2	20.9	19.6	12.2	6.3	4.9	4.1
03:00 - 03:15	23.3	37.4	21.9	36.1	30.0	28.7	19.6	16.2	9.9	5.1	4.9	4.1
03:15 - 03:30	23.8	35.5	21.9	36.1	30.1	28.8	19.9	17.4	11.0	5.4	4.9	4.1
03:30 - 03:45	23.5	36.3	21.9	36.2	30.0	28.8	19.8	16.5	10.1	5.2	4.9	4.1
03:45 - 04:00	23.9	39.1	21.9	36.2	30.2	28.8	20.0	17.7	10.6	5.3	4.9	4.1
04:00 - 04:15	24.1	40.8	22.0	36.0	30.1	28.8	20.1	18.3	12.2	5.7	4.9	4.1
04:15 - 04:30	24.4	38.9	22.0	36.2	30.3	28.9	20.4	18.8	12.0	5.7	4.9	4.1
04:30 - 04:45	24.9	40.1	22.0	36.4	30.3	29.0	20.8	19.7	14.1	6.5	4.9	4.1
04:45 - 05:00	25.3	39.5	22.0	36.6	31.0	29.2	21.1	20.3	14.3	6.9	4.9	4.1
05:00 - 05:15	25.3	42.5	22.0	36.3	30.5	29.1	21.0	20.6	14.5	6.6	4.9	4.1
05:15 - 05:30	27.1	42.2	22.2	36.4	30.9	29.7	22.9	23.2	17.0	8.0	4.9	4.1
05:30 - 05:45	26.7	40.2	22.3	36.6	30.7	29.4	22.0	22.7	17.0	7.5	4.9	4.1
05:45 - 06:00	28.5	41.1	22.6	36.8	31.9	30.3	24.1	25.0	19.1	8.9	4.9	4.1
06:00 - 06:15	29.1	43.7	22.9	37.0	32.2	31.3	24.2	25.5	19.9	10.1	5.0	4.1
06:15 - 06:30	29.2	42.6	22.8	36.9	33.2	30.7	24.5	25.6	20.1	10.6	5.0	4.1
06:30 - 06:45	31.5	50.0	24.8	39.3	37.1	35.1	26.5	26.0	22.2	18.6	6.6	4.1
06:45 - 07:00	31.0	48.4	24.8	38.2	34.9	32.9	26.2	26.9	22.2	15.2	5.5	4.1



6 ENVIRONMENTAL CONDITIONS



#END OF REPORT#