
Mr Gary Sandhu

***Installation of Kitchen Extract System at
11 Market Street, Eastleigh***

Noise Impact Assessment Report

Report No: 252/Rep 1/Rev 0/Jan 2024



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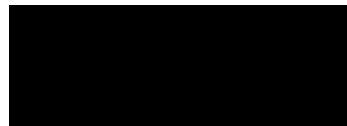
FINAL REPORT

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SUBMITTED TO:

ATTENTION: MR GARY SANDHU
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SUMMARY

A new fast food takeaway is proposed at 11 Market Street, Eastleigh. This will have a small kitchen with a cooker hood and an exhaust at the rear. There are residential flats at the rear and on the first floor above a shop a short distance away. It is usual for the local authority to request a noise assessment of the possible noise impact from the extract system.

The owner approached Dr H S Sagoo – an experienced independent Noise and Vibration Consultant – to undertake the noise survey and prepare the requisite noise assessment.

Market Street and High Street combine to form Eastleigh's main shopping streets, and both have one-way vehicular access. The building at 11 Market Street is in a row of mixed commercial shops that has a covered footpath and lots of people pass by on Market Street.

Shops alongside 11 Market Street have a rear access via Wells Road, and this provides access to residential flats in Grayton House. In addition, there are residential flats above some of the adjacent shops. These are likely to be the nearest noise sensitive receptors. At the time of the site visit a new 6-7 storey building was under construction, presumably for residential flats.

From the rear façade of 11 Market Street, the residential properties in Grayton House are approx. 50m distance and the nearest flat above a shop is about 25m distance. Flats in the new high storey building would be about 25m distance.

The new takeaway at 11 Market Street is understood to provide fry-up snacks and meals but not fish-n-chips which involves deep frying. There will be a small kitchen and its extract will be via a grill located at the rear façade of the property.

The noise impact due to the extraction stack on the nearest dwellings was assessed in accordance with British Standard 4142.

Baseline noise levels were measured at 11 Market Street, Eastleigh in November 2023, and source noise levels caused by the extract system were measured in January 2024, at Chunky, the fish-n-chip shop at 4 Pilgrims Close, Knightwood, Eastleigh.

The lowest measured background noise levels L_{A90} during the period 07:00 – 23:00 hrs were found to be approximately 40 dB $L_{A90, 1hr}$ at the front first floor window, 41 dB on the flat roof at the rear, and 48 dB close to Grayton House. The source/specific noise level at a distance of approx. 14 m from the extract grill is 41 dB for the 'maximum' fan speed setting.

The BS4142 assessment shows that for the worst-case scenario of noise of the extractor fan at its highest speed setting is calculated to be 4 dB and 15 dB below the lowest measured background noise level at the closest flats and flats in Grayton House, respectively. Moreover, as the noise levels of the fan at typical fan settings are lower, hence the impact would be reduced further. Therefore, in accordance with BS4142 this rating level is 'less likely it is that there will be an adverse impact'.

Consequently, no noise mitigation measures are required for the kitchen extract system as proposed. However, it would be prudent to validate the source noise levels and their impact by measurement at the pre-completion stage.

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1. INTRODUCTION

A new fast food takeaway is proposed to open at 11 Market Street, Eastleigh. This will have a small kitchen with a cooker hood and an exhaust at the rear. There are residential flats at the rear and on the first floor above a shop a short distance away. It is usual for the local authority to request a noise assessment of the possible noise impact from the extract system.

The owner approached Dr H S Sagoo – an experienced independent Noise and Vibration Consultant – to undertake the noise survey and prepare the requisite noise assessment.

The purpose of this report is to describe the site, the nearest residential areas, outline the assessment methodology including the findings of the noise survey, assessment of the noise impact in accordance with the appropriate national guidance, and finally, recommend noise mitigation measures as necessary.

2. DESCRIPTION OF THE SITE

Market Street and High Street combine to form Eastleigh's main shopping streets from the railway station to the north and Swan Centre to the south, and both have one-way vehicular access. The building at 11 Market Street is in a row of mixed commercial shops that has a covered footpath and lots of people pass by on Market Street.

Shops alongside 11 Market Street have a rear access via Wells Road, and this road also provides access to residential flats in Grayton House. See Figure 1. In addition, there are residential flats above some of the adjacent shops. These are likely to be the nearest noise sensitive receptors. At the time of the site visit a new 6-7 storey building was under construction, presumably for residential flats.

From the rear façade of 11 Market Street, the residential properties in Grayton House are approx. 50m distance and the nearest flat above a shop is about 25m distance. Flats in the high storey building would be about 25m distance.

3. DEVELOPMENT PROPOSALS

The exact details of the proposed restaurant are available from the client. The new shop at 11 Market Street is understood to provide fry-up snacks and meals but not fish-n-chips which involves deep frying. There will be a small kitchen and its extract will be via a grill located at the rear of the property and outlet in the rear façade of the extension.

It is understood that the takeaway's opening hours will be daytime within 08:00 and 23:00 hrs and the kitchen and the extractor fan will generally not be in use after approx. 22:00 hrs. It is understood that the kitchen activities, such as food preparation, would commence about 60 minutes before the opening time and at this time the extract is not used. The kitchen activities cease about 30 minutes prior to closing and the extract fans are turned off about the same time, usually around 22:00 hrs.

It is understood from the client that the extract system proposed at 11 Market Street is similar to the system installed at 'Chunky', the fish-n-chips shop at 4 Pilgrims Close,

Knightwood, west of Chandlers Ford, Eastleigh. This shop has a high level exhaust stack for deep frying terminating at roof level and another exhaust ducting for kitchen frying terminating with a grill along the rear wall, see Figure 2. During a visit to this shop, it was noted that the extract fan is controlled by a variable rotary switch rather than a multi-position switch and this is usually set to about 60% and never on maximum setting.

4. PLANNING DEPARTMENT CONCERNS

The planning and the environmental staff at Eastleigh Borough Council are concerned with regard to the potential adverse noise impact at the windows of the nearest residential properties to the kitchen exhaust extraction.

The ambient noise levels are expected to be higher all day during weekdays and Saturday, and likely to be lower on Sunday evening. Therefore, the baseline ambient noise measurements were undertaken over a weekend.

5. ASSESSMENT CRITERIA

British Standard 4142

The noise impact due to the extraction system on the nearest dwellings will be assessed in accordance with British Standard 4142¹. This standard gives guidance on measurement and assessment of the noise impact on nearby residents due to industrial installations and plant, and to determine whether this is likely to give rise to complaints.

In essence, the noise level and the character of noise caused by the specific source, called the rating level, is measured, and rated against the measured ambient background level during the period of operation. The greater this difference the greater is the magnitude of the impact, as given in the table below. This standard states the reference time interval is 1 hour during the day, 07:00 to 23:00 hrs, and 15 minute during the night, 23:00 to 07:00 hrs.

Acoustic Features

This standard allows a correction of up to 6 dB that can be added for source noises with a *“tone, whine, hiss, screech, hum, roar or other distinctive feature”*. In addition, a correction of up to 9 dB can be added for *“distinct impulses”* such as *“bangs, clicks, clatters or thumps”*.

Difference in dB	Comment
+10 dB or more	Likely to be an indication that a significant adverse impact, depending on the context;
+5 dB	Could be an indication that a significant adverse impact, depending on the context;
The lower the rating level is relative to the measured background level	The less likely it is that there will be an adverse impact.

Table 1 BS 4142 Assessment Criteria

¹ British Standard 4142 'Method for rating and assessing industrial and commercial sound', 2014.

6. NOISE MEASUREMENTS

Baseline noise levels were measured at 11 Market Street, Eastleigh, and source noise levels caused by the extract system were measured at Chunky, the fish-n-chip shop at 4 Pilgrims Close, Knightwood, Eastleigh.

All noise measurements were undertaken in accordance with BS4142 which gives guidance on measurement and assessment of the impact of noise.

Measurements include the equivalent continuous noise level L_{Aeq} , the background noise level L_{A90} , the maximum level L_{Amax} and L_{A10} together with third octave frequency spectra. Explanation of acoustical terminology is given in Appendix 1.

Background noise measurements

Measurements were undertaken at three locations: 1m ahead of the first floor window facing Market Street, at the rear on the flat roof rear extension, and on the steel stairway on the north end of Grayton House. Measurements commenced around 15:00 hrs on Saturday, 25th November 2023 until mid-morning on following Tuesday. It was found that batteries in two environmental power boxes failed due to the very cold weather and hence, the noise measurements were extended on one location until Friday, 1st December 2023. Measurement locations are shown in Figure 1 and Photos 1, 2 and 3.

The weather at the start of the survey was cold, dry road surface and very light wind of no particular direction. There may have been some rain on Monday.

Source noise levels

As the extract system proposed at 11 Market Street is similar to the one used at the fish-n-chip shop in Pilgrims Close, it was decided to monitor the noise levels close to this system at selected operating fan speeds and selected distances. The kitchen staff said they generally set the fan speed control to half setting. Also, they confirmed that the fan is switched on only during cooking not during food cutting and preparation and it is switched off before closing time. The ducting is installed internally, and outlet is via a grill at the rear facade, see Figure 2.

Noise measurements were undertaken along St Francis Place at the rear of the shop and facing the exhaust outlet grill. Measurements were undertaken from about 22:35 to 23:20 hrs on Sunday, 14th January 2024, at distances of 4m, 14m and 29m from the extract grill and the microphone was about 1.5 m above local ground. Noise levels were measured with the fan switched off, set to medium/typical speed setting, and maximum speed. There were some car movements in the car park and along Pilgrims Close as shown in the observations summarised below.

The weather was dry but very cold, approx. 2 degrees C, and very light wind of no particular direction.

7. INSTRUMENTATION

Noise measurements were taken using three 01dB Solo Type 1 integrating sound level meters (serial nos. 10485, 11649 and 60354) each fitted with a ½ inch microphone.

These were set-up to record the frequency spectra of the ambient noise in 5-second averages and were calibrated using a 01dB Calibrator (serial no. 0130366) in accordance with the manufacturer's instructions before and after the measurements, and no drift in calibration level was observed. All equipment was synchronised.

8. NOISE MEASUREMENT RESULTS

The measured background noise levels in octave frequency are given in Appendix 3 and their summary and the observed events are given in the tables below. As the operational hours are daytime, as per BS4142, only the hourly averages are given and only for the opening period. Ambient noise levels for 23:00 to midnight are given to indicate the lowest values measured in the area.

Measurement period	Loc 1. 1m ahead of front facade			Loc 2. On flat roof at rear			Loc 3. By Grayton House		
Daytime 09:00-23:00 hrs	Leq	L90	L10	Leq	L90	L10	Leq	L90	L10
Saturday, 25 Nov 2023 – 4pm to 11pm	50.1	42.3	52.4	46.5	41.6	44.9	51.4	48.2	51.2
Sunday, 26 Nov 2023				47.5	45.2	47.5			
Monday, 27 Nov 2023				46.4	41	47.4			
Tuesday, 28 Nov 2023 – 9am to 2pm	47.7	42	46.9	54.4	44.7	57.3			
Wednesday, 29 Nov 2023	52.1	40.7	53.3						
Thursday, 30 Nov 2023	50	40.2	50						
Friday, 1 Dec 2023 – 9am to 2pm	58.4	49.4	59.3						
For information only; the lowest noise level for 23:00 - 00:00 hour	47.1	37.9	46.1	42.9	39.2	42.2	51.0	47.4	50.3

All noise levels are in dBA

Table 2 Lowest measured daytime noise levels at measurement locations

Observations

Time	Observed events	Source noise levels dB		
		L _{Aeq}		
	Extract fan on mid-speed setting			
22:40	Aeroplane overhead			
22:41	Distant car			
22:45	Car started at front of shops			
22:46	A car drove into front car park			
22:56	Car on Pilgrims Close towards traffic lights			
23:00	Extract fan on maximum setting			
23:05	Car left front car park towards Pilgrim Close			
23:12	Extract fan off			
	Summary	4m	14m	29m
	Measured source noise levels			
	Fan on half-speed typical setting L _{Aeq}	41	34	32-32.5
	Fan on full setting L _{Aeq}	44	41	33.5-34
	Background noise level with fan off L _{A90}	31	29	28.3
	Source levels adjusted for background noise			
	Fan on half-speed typical setting L _{Aeq}	41	32*	30*
	Fan on full setting L _{Aeq}	44	41	32*
	Background noise level with fan off L _{A90}	31	29	28.3

* corrected for distance, see text below.

Table 3 Observed events during noise survey and source noise levels

9. ASSESSMENT OF THE NOISE IMPACT

Lowest ambient noise level adjacent to 11 Market Street

The lowest measured background noise levels L_{A90} during the period 07:00 – 23:00 hrs were found to be approximately 40 dB L_{A90, 1hr} at the front first floor window, 41 dB on the flat roof at the rear, and 48 dB close to Grayton House. The latter locations are more relevant as the extract fan outlet grill will be installed at the rear of the premises.

Specific noise level

Where the measured source noise level is within 10 dB of the ambient background noise level, a correction is required to determine the 'real' source noise value, i.e. if the measured source level is 32 dB and the background level is 29 dB, then the 'real' source noise value is 29 dB; this is because 29 dB caused by the source logarithmically added to 29 dB background noise results in 32 dB. As a result, corrected noise levels caused by the extraction fan were highest for the full speed setting; 44 dB L_{Aeq} at 4m distance, 41 dB at 14m, and 32 dB at 29m distance. Fan noise is more prominent at 14m distance compared to 29m distance, see Figure 3, so this worst-case value is used in the following assessment.

Frequency spectra for the extract fan when on full setting at distance of 14m is given in Figure 4. There were no discernible tones and the sound appeared as a general low frequency barely audible rumble. There were no intermittent clicks or knocks during the fan operation. As a result, no acoustic corrections are necessary.

BS4142 Assessment of Noise Impact

The source/specific noise at a distance of approx. 14 m from the extract grill is 34 dB L_{Aeq} for 'half-speed' typical fan setting and 41 dB for the 'maximum' speed setting. Only the latter worst-case scenario will be considered in the assessment.

According to the basic rules of acoustics, the noise from a point source drops at 6 dB for doubling of distance from the source. Therefore, fan noise of 41 dB measured at 14 m distance drops by 11.1 dB to 29.9, say 30 dB at a distance of 50 m. The assessment for the nearest flats to the proposed new take-away at 11 Market Street is given in the table below.

	Distance in m	Distance correction dB	Acoustic correction dB	Rating Noise Level dB	Lowest measured noise level dB $L_{A90, 1hr}$	Excess or otherwise dB
Specific noise level of fan at full setting is 41 dB at 14m						
At the first floor flat and new flats being constructed, 25m away	25m	- 5.0	0	36	40	- 4
At Grayton House 50m away	50m	- 11.1	0	30	45	- 15

Table 4 BS4142 Assessment – nearest flats

Assessment

The above assessment shows the noise rating level for the worst-case scenario of noise of the extractor fan at its highest speed setting is calculated to be 4 dB and 15 dB below the lowest measured background noise level at the closest flats, i.e. at 25 m distance for the flat above a shop a few doors away and the new flats under construction, and 50 m distance for flats in Grayton House, respectively. Moreover, as the noise levels of the fan at typical fan settings are lower, hence the impact would be reduced further. Therefore, in accordance with BS4142 this rating level is 'less likely it is that there will be an adverse impact'.

10. MITIGATION MEASURES

The findings of this noise survey and the BS4142 assessment show that noise from the proposed kitchen extraction system is unlikely to cause an adverse noise impact. No additional mitigation measures are required.

11. RECOMMENDATIONS

No noise mitigation measures are required for the kitchen extract system as proposed. However, it would be prudent to validate the source noise levels and their impact by measurement once the kitchen extraction system has been installed.

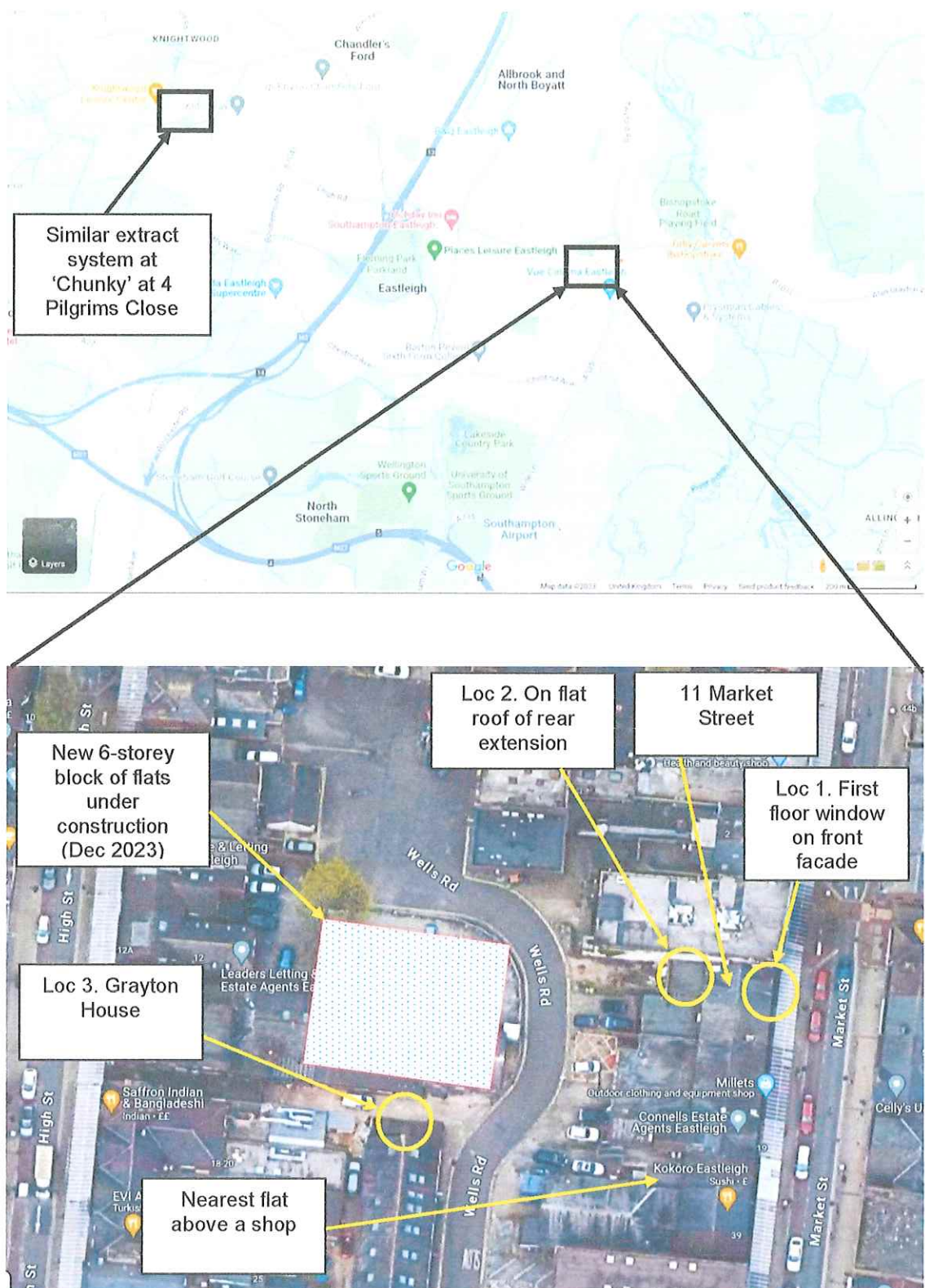
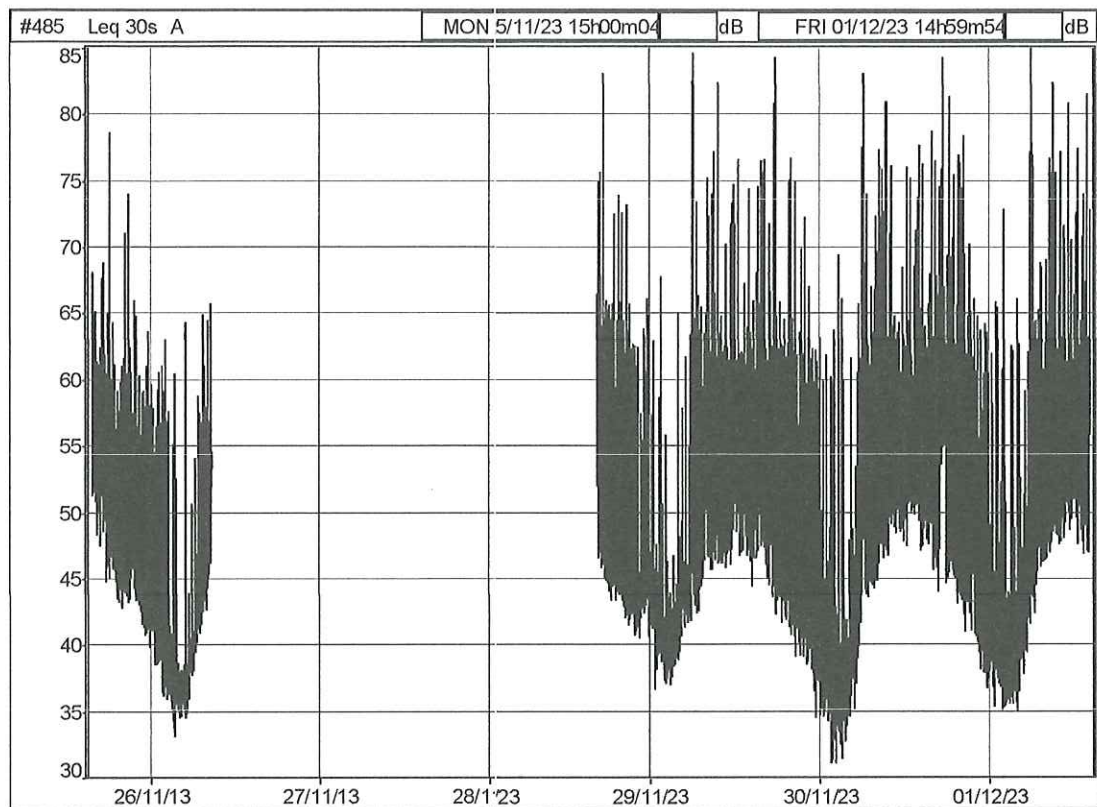


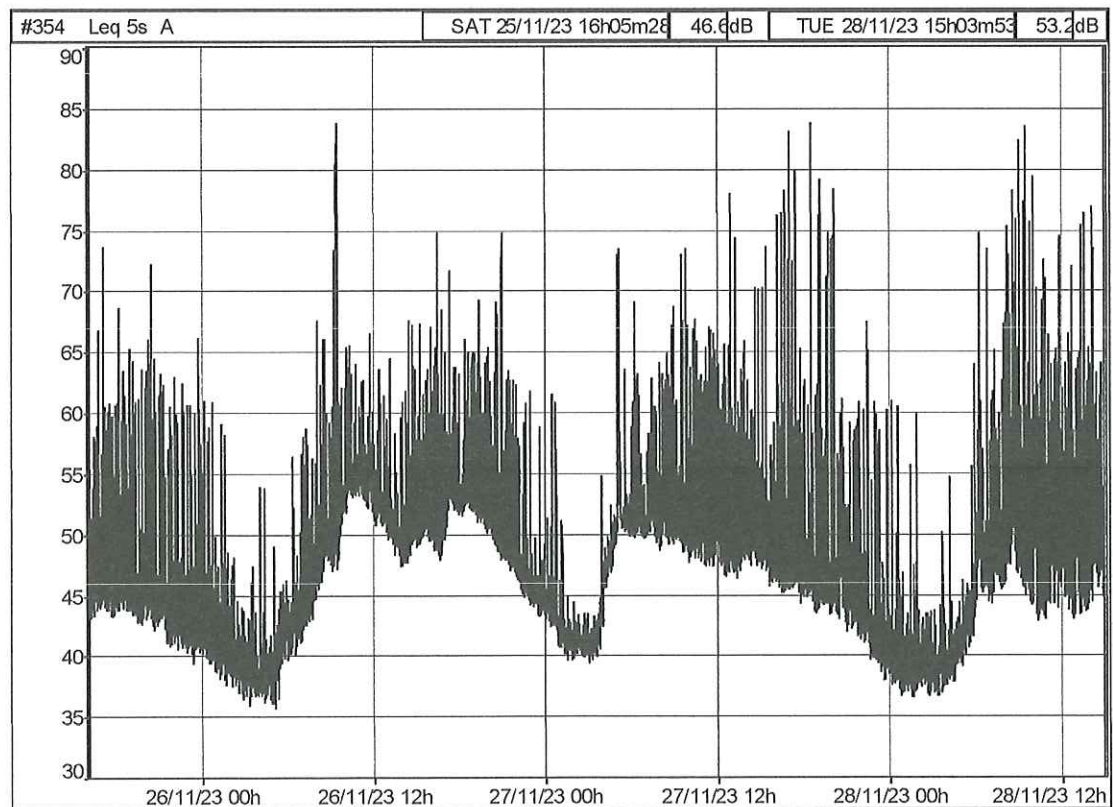
FIGURE 1 Eastleigh town centre showing Market Street and measurement locations



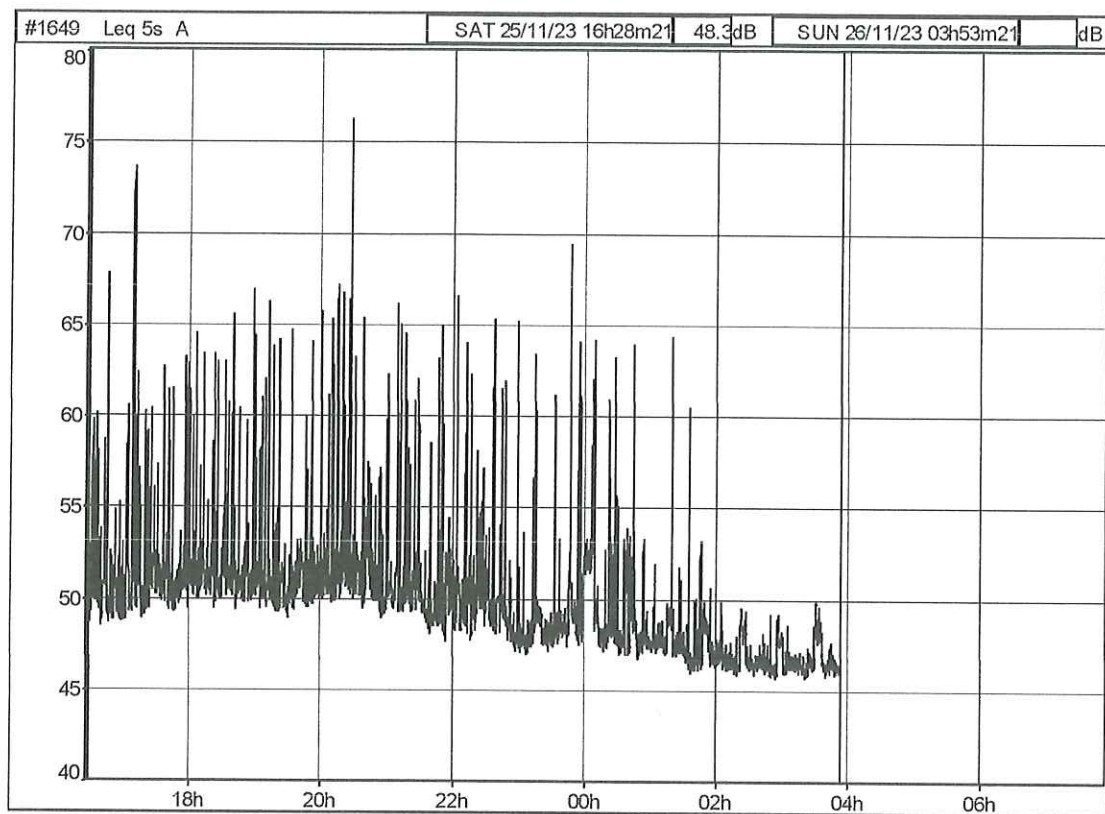
FIGURE 2 The extraction outlet grill at rear of Chunky at Pilgrims Close



Location 1 1m ahead of the front first floor window

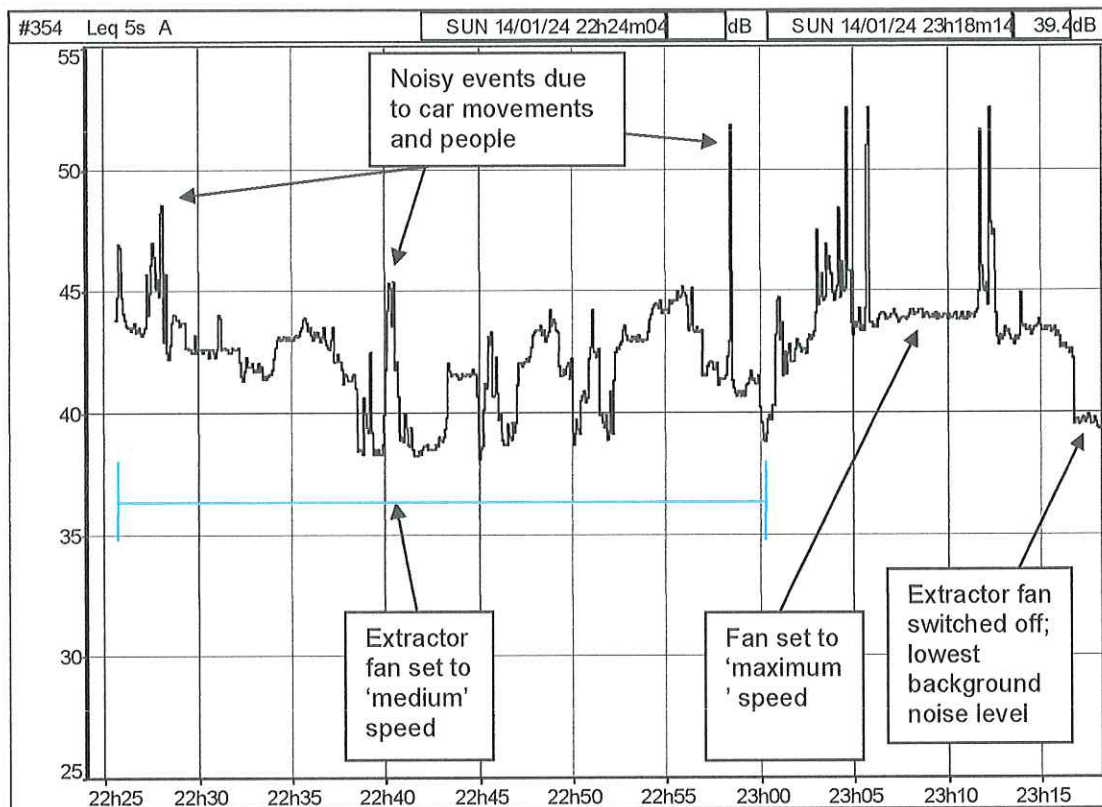


Location 2 On flat roof of rear extension at 11 Market Street

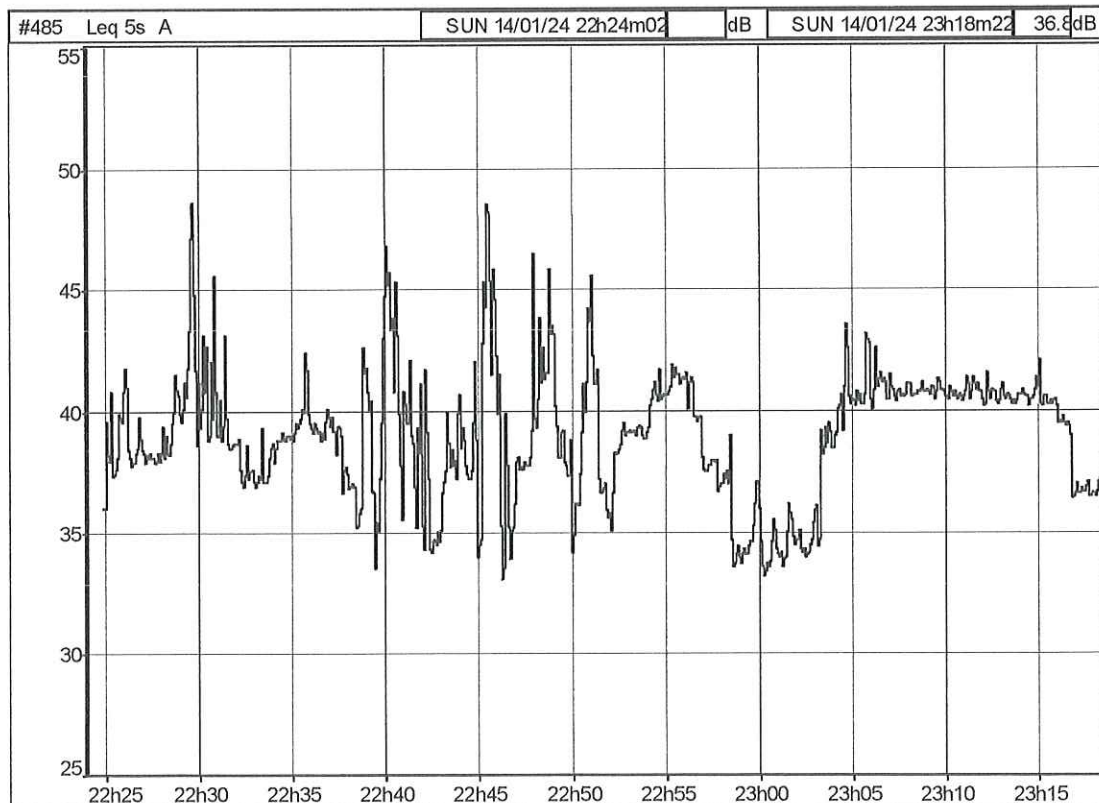


Location 3 On steel staircase at end of Drayton House

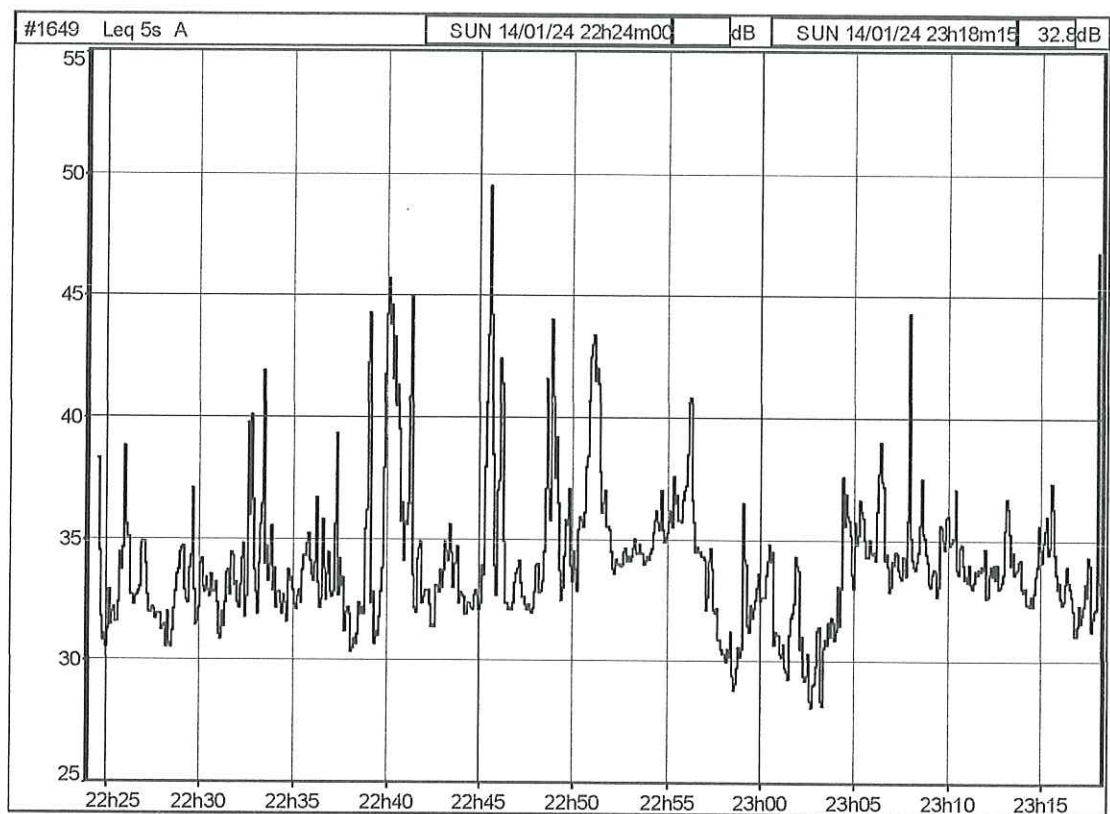
FIGURE 3 Measurements time histories of background noise levels



Approx 4m from the outlet grill

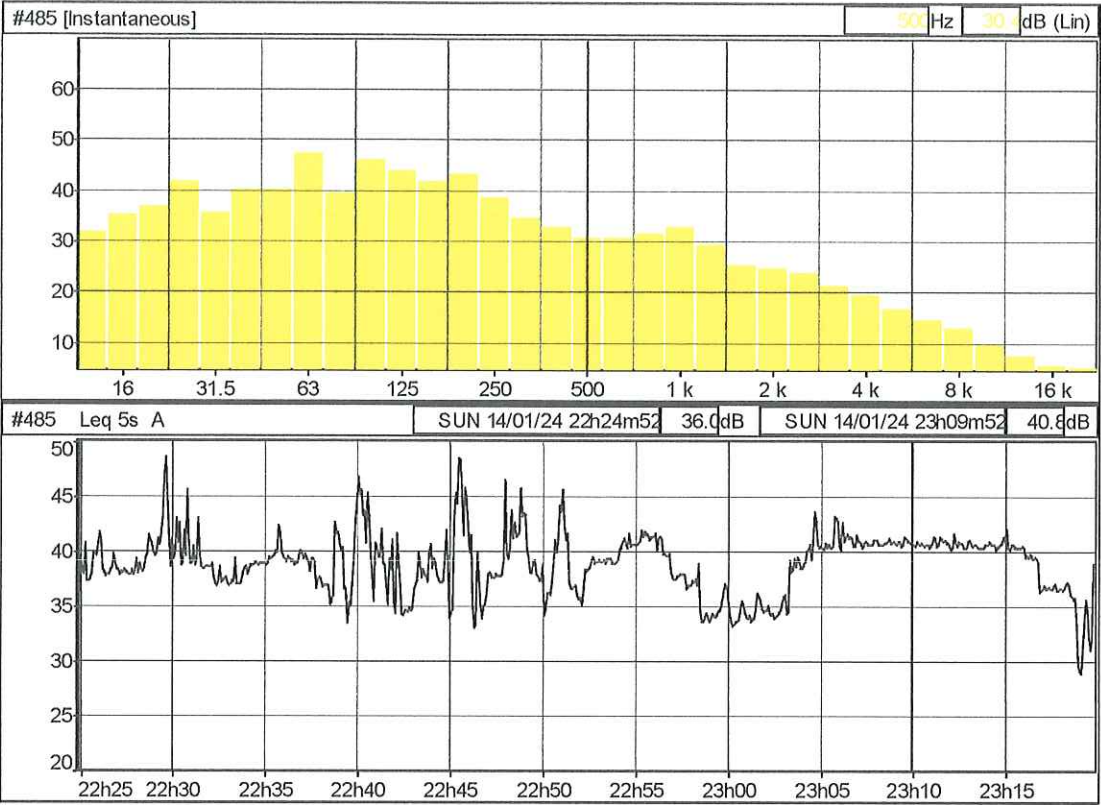


Approx 14m from the outlet grill



Approx 29m from the outlet grill

FIGURE 4 Measurement of source noise level



Extractor fan set to 'maximum', and measurement is at 14m distance

FIGURE 5 Third Octave frequency spectra of extractor fan noise

Appendix 1 Acoustic Terminology

Appendix 1 Acoustic Terminology

Perception of sound. Sound is a rapid fluctuation in air pressure. The human ear can hear sensations of sound when the fluctuations occur between 20 times a second and 20,000 times a second. This is called the frequency of the sound and is measured in Hertz (Hz). The loudness of the sound depends on the amplitude of fluctuation in the air pressure. The ear has an approximately logarithmic response to the loudness of sound: for example, every doubling or halving in sound pressure gives an apparently equal step increase or decrease. In measuring environmental noise, sound pressure levels are therefore usually quoted in terms of a logarithmic unit known as a decibel (dB). Typically, the quietest sound that can be heard (the threshold of hearing) is 0 dB and the sound becomes painful at 120 dB. The sensitivity and frequency range of the ear varies somewhat from person to person and deteriorates with age and exposure to loud sounds

“A” Weighting. The human ear is not equally sensitive to sounds of different frequencies (i.e. pitch): it tends to be more sensitive in the frequency range of the human voice than at higher or lower frequencies. When measuring sound, compensation for these effects can be made by applying a frequency weighting, usually the so-called “A” weighting, although other weightings are sometimes used for special purposes. To signify that the “A” weighting has been applied, the symbol of dB(A) is often used. However, current practice tends to prefer the weighting letter to be included in the name of the measurement index, e.g. dB(A) L_{eq} and dB L_{Aeq} both refer to the “A” weighting equivalent continuous sound level in decibels.

L_{AeqT} is a unit that also takes into account fluctuations in sound pressure levels. This unit takes into account both steady and impulsive noises and is defined as the steady, continuous sound pressure level which contains the same energy as the actual, fluctuating sound pressure level. It is necessary to state the time period over which the sound is measured, e.g. $L_{Aeq,(12\text{-hour})}$, typical in the case of daytime working and 5-minute for night-time.

L_{A90} is the level of A-weighted sound exceeded for 90% of the measurement period. It is generally used as a measure of the background noise in environment noise standards.

Appendix 2

Site Photographs



Photo 1 Location 1. 1m ahead of front first floor window



Photo 2 Location 2. On flat roof rear of 11 Market Street premises



Photo 3 Location 3. On steel staircase at Grayton House

Appendix 3 Noise measurement results

Background noise measurements at:

Table A3.1	Location1. 1m ahead of front first floor window
Table A3.2	Location 2. On flat roof at rear of 11 Market Street premises
Table A3.3	Location 3. On steel staircase next to Grayton House

Period start	LAeq	LAmx	LA90	LA10	Octave Band Centre Frequency Hz										
					16	32	64	125	250	500	1k	2k	4k	8k	16k
25/11/2023 16:00	56.5	70.2	49.1	60.3	56.3	50.2	57.0	48.8	59.4	61.1	60.6	59.9	61.4	58.9	55.2
25/11/2023 17:00	57.9	75.2	47	60	61.4	50.3	62.6	49.0	59.3	64.1	60.6	64.7	61.2	59.5	61.3
25/11/2023 18:00	59.5	83	45.8	58.9	58.8	50.4	62.1	49.8	61.4	62.1	60.0	60.8	61.0	59.1	55.9
25/11/2023 19:00	52.9	67	44	56.9	54.2	48.3	54.8	45.8	55.9	57.3	56.9	58.4	57.8	56.8	55.5
25/11/2023 20:00	58.2	79.8	43.9	58.3	58.8	49.2	59.9	50.0	58.3	60.2	59.7	59.7	59.5	58.6	56.3
25/11/2023 21:00	53.7	69.6	44.2	55.9	51.6	49.9	53.5	45.9	52.7	58.3	56.6	55.9	58.3	53.6	51.8
25/11/2023 22:00	50.1	65.7	42.3	52.4	49.2	50.9	52.2	43.1	51.1	54.9	56.2	57.4	55.1	52.9	48.6
25/11/2023 23:00	51.5	66.6	41.2	54.4	50.6	50.1	54.5	44.1	54.7	61.4	55.9	57.5	54.5	53.0	50.1
26/11/2023 00:00	49.1	64.6	39	49.5	46.8	46.8	51.3	42.5	48.9	52.7	52.3	53.9	55.5	50.3	45.8
26/11/2023 01:00	49.3	68.6	37.1	48.7	47.3	48.9	51.2	43.1	50.0	52.3	51.1	52.4	50.4	49.7	47.0
26/11/2023 02:00	47.9	67.4	35.7	45.8	45.4	42.3	46.3	40.5	45.0	45.9	47.7	47.5	49.6	47.6	44.8
26/11/2023 03:00	43.6	66.5	35.3	41.1	42.5	42.2	47.4	36.3	45.9	44.4	45.4	46.2	48.9	42.7	41.7
26/11/2023 04:00	37	48.4	35.1	38	40.1	37.4	42.0	28.0	40.1	41.2	43.1	44.6	43.5	41.2	38.5
26/11/2023 05:00	45	70.8	35.8	40.6	42.9	39.2	43.5	38.8	43.1	44.9	46.4	45.6	44.8	44.0	42.1
26/11/2023 06:00	45.3	65.8	39.2	43.9	44.7	43.7	47.3	38.5	45.6	48.0	48.1	51.9	49.8	48.6	45.9
26/11/2023 07:00	51.3	69.8	42.7	52.8	50.8	44.9	50.1	43.5	49.0	57.4	52.7	52.2	52.0	50.9	48.2
26/11/2023 08:00	55.5	71.9	45.1	57.7	51.8	45.8	52.8	48.2	51.7	54.5	55.2	56.4	54.1	54.6	52.4

all noise levels are in dB

Period start	LAeq	LAmx	LA90	LA10	Octave Band Centre Frequency Hz										
					16	32	64	125	250	500	1k	2k	4k	8k	16k
28/11/2023 16:00	58.1	76.7	47.7	58.2	58.0	63.4	61.0	59.6	61.2	54.6	52.2	48.1	41.0	33.0	22.4
28/11/2023 17:00	60.7	84	46.4	59.4	60.2	64.9	64.4	61.4	60.7	59.5	56.2	50.4	39.4	30.4	21.0
28/11/2023 18:00	55.1	75.2	45.4	58.4	56.5	62.1	60.2	55.8	54.8	53.4	50.2	45.4	39.5	29.5	17.5
28/11/2023 19:00	55.7	75.8	44.6	59	56.8	61.5	59.7	55.3	54.8	53.5	51.6	45.9	38.3	28.6	18.3
28/11/2023 20:00	55.4	75.4	43.2	54.5	56.0	60.2	57.2	53.0	53.6	53.8	51.0	46.1	39.3	32.7	22.7
28/11/2023 21:00	50.9	68.6	42.6	52.6	55.1	60.9	59.2	51.0	49.7	47.9	47.5	41.2	32.9	26.9	15.8
28/11/2023 22:00	47.7	63.9	42	46.9	52.3	56.3	55.4	47.4	47.2	45.1	44.1	37.0	26.4	18.9	10.7
28/11/2023 23:00	49	68.7	42.5	47	51.2	56.8	56.9	49.1	47.6	46.1	45.7	38.8	29.1	24.5	13.9

all noise levels are in dB

Period start	LAeq	LAmx	LA90	LA10	Octave Band Centre Frequency Hz										
					16	32	64	125	250	500	1k	2k	4k	8k	16k
29/11/2023 00:00	44.4	64.8	40.5	44.4	50.7	55.1	55.4	44.9	43.9	43.0	40.1	32.2	21.9	18.7	10.0
29/11/2023 01:00	47.7	69.6	39.4	43.5	48.3	56.5	54.9	48.4	47.8	45.8	42.5	37.8	33.5	25.3	14.5
29/11/2023 02:00	41.4	55.9	38.6	42.5	55.0	56.7	52.3	43.3	39.4	40.6	37.1	25.3	16.4	13.0	18.2
29/11/2023 03:00	43.8	66.7	39.2	42.9	57.1	52.6	49.7	42.7	41.8	42.6	40.0	31.1	24.0	17.9	10.6
29/11/2023 04:00	43.9	59.8	41.2	44.9	51.4	56.7	53.2	44.5	43.1	42.8	40.3	28.1	18.2	13.2	9.7
29/11/2023 05:00	64.4	82.6	43.2	59.1	54.1	58.4	61.3	55.0	57.8	65.1	54.9	50.4	50.4	45.3	35.5
29/11/2023 06:00	65.9	86.1	44.5	64.5	58.9	61.6	63.0	58.9	60.1	66.7	56.5	51.8	48.6	45.4	38.4
29/11/2023 07:00	55.6	68.4	46.1	59.6	58.3	65.4	62.6	54.0	53.2	52.5	52.1	46.2	40.7	30.4	20.3
29/11/2023 08:00	59	77.9	47.5	59.5	59.4	64.2	61.9	61.6	60.5	56.6	54.7	48.3	38.6	30.5	21.7
29/11/2023 09:00	61.5	84.3	47.8	59.1	60.7	64.2	64.3	60.7	60.6	59.2	57.3	52.9	43.0	33.0	23.6
29/11/2023 10:00	55.5	71	47.8	58.3	59.7	65.4	62.1	55.8	53.8	52.7	51.4	46.7	39.9	42.1	26.6
29/11/2023 11:00	57.6	77	49.1	59	60.1	65.7	63.3	63.2	59.4	55.6	51.9	46.9	40.4	35.2	23.3
29/11/2023 12:00	58.7	78	50	59.8	59.6	66.5	63.7	58.1	57.6	56.8	54.0	49.2	44.2	41.8	26.6
29/11/2023 13:00	55.1	67.7	48.7	58	61.5	64.5	63.6	58.8	53.9	53.0	50.3	45.7	39.1	33.7	23.4
29/11/2023 14:00	56.5	76.8	48.3	58.5	59.0	64.4	62.4	57.7	55.1	54.1	52.2	47.9	41.1	33.2	23.3
29/11/2023 15:00	59.4	79	49.5	59.3	58.7	66.8	62.5	60.7	59.8	56.5	55.0	50.7	43.1	33.2	23.8
29/11/2023 16:00	57.4	78.9	47.5	58.9	58.8	63.5	63.3	63.0	57.9	55.1	52.5	47.5	39.3	32.4	23.9
29/11/2023 17:00	63.2	86	46.7	60.2	59.5	66.2	64.6	62.4	61.6	62.0	58.6	53.9	42.5	33.1	27.1
29/11/2023 18:00	54	66.8	44	58.1	58.2	63.4	62.5	54.5	52.6	51.1	50.2	44.6	36.4	36.3	28.5
29/11/2023 19:00	56.9	78.9	43	56.4	58.0	63.1	62.3	55.7	55.8	54.6	53.1	47.4	37.0	29.7	18.6
29/11/2023 20:00	56.4	78.6	42	55.4	56.7	61.9	59.3	60.2	57.7	54.0	51.9	46.1	35.8	26.7	16.7
29/11/2023 21:00	52.1	72.6	40.7	53.3	56.7	61.0	61.0	52.4	51.4	50.0	47.9	42.5	35.9	29.8	18.3
29/11/2023 22:00	53.7	73.9	40.8	54.1	52.9	61.7	57.1	51.1	52.6	52.2	50.0	42.5	31.4	23.2	14.7
29/11/2023 23:00	47.1	64.4	n	46.1	52.8	57.6	56.7	46.9	46.0	44.2	43.5	37.4	28.1	21.3	12.6

all noise levels are in dB

Period start	LAeq	Lamax	LA90	LA10	Octave Band Centre Frequency Hz										
					16	32	64	125	250	500	1k	2k	4k	8k	16k
30/11/2023 00:00	45.2	65.4	35.5	43.8	54.0	55.1	55.2	46.2	44.6	42.1	41.5	35.4	25.5	18.8	10.5
30/11/2023 01:00	45.5	63.3	34.8	46.4	50.4	50.7	49.7	52.0	47.8	42.6	39.2	33.6	23.8	18.5	10.9
30/11/2023 02:00	48.6	71.9	33.8	40.9	55.5	58.2	53.1	47.7	47.3	47.5	43.8	39.2	33.5	27.7	16.7
30/11/2023 03:00	46.7	66.5	34.2	41.4	50.5	50.6	50.9	50.9	49.8	44.4	40.5	35.7	31.7	27.1	13.8
30/11/2023 04:00	42	63.2	35.7	42.6	57.7	53.9	53.3	44.1	42.3	40.4	36.8	30.6	25.6	24.6	16.4
30/11/2023 05:00	47.5	68	39.1	47.2	61.3	59.7	58.9	48.0	46.6	44.6	43.2	37.9	33.9	26.6	18.1
30/11/2023 06:00	66.9	83.8	45	69.3	61.7	61.7	64.9	60.4	62.2	67.2	57.7	54.6	54.3	49.9	40.4
30/11/2023 07:00	53.8	69	45.2	57.4	60.4	62.6	61.0	53.8	52.5	50.4	49.8	44.5	36.9	41.9	18.2
30/11/2023 08:00	59.9	78.8	47.3	60.3	61.6	65.7	64.2	62.3	60.8	57.6	55.3	50.3	42.7	33.7	25.3
30/11/2023 09:00	62.1	82.9	48.8	59.1	62.4	66.1	64.7	61.5	61.1	60.8	57.5	52.8	41.7	33.0	29.4
30/11/2023 10:00	57.9	78.2	50.8	59.4	63.1	66.0	63.2	61.8	59.5	55.2	52.5	48.5	42.3	37.7	27.2
30/11/2023 11:00	55.2	71.1	49.8	57.7	63.2	64.9	62.3	55.7	53.6	53.3	50.6	46.3	40.2	34.5	29.3
30/11/2023 12:00	60	78.5	51.1	60.7	65.7	68.1	65.3	59.2	58.4	57.9	55.9	50.7	41.8	36.7	27.8
30/11/2023 13:00	57.9	75.1	51.8	59.7	64.3	66.5	64.2	59.9	56.9	55.3	53.1	49.6	43.3	35.2	25.8
30/11/2023 14:00	59.1	79.4	49.7	59.4	62.8	65.8	64.0	65.4	59.2	57.4	53.8	48.8	41.1	34.7	27.4
30/11/2023 15:00	58.4	81	49.9	59.5	63.3	66.4	64.2	58.3	57.8	56.2	54.2	49.3	41.0	35.0	24.9
30/11/2023 16:00	59.6	79.3	49	60.2	59.6	65.6	65.5	62.9	59.9	57.6	54.8	49.9	41.8	34.0	26.4
30/11/2023 17:00	62.7	85.1	51.2	60.7	62.4	68.2	70.2	69.1	62.7	61.5	57.0	51.9	41.3	34.7	26.8
30/11/2023 18:00	60.4	83.4	46.1	59.6	62.6	64.5	64.3	62.4	60.3	58.5	55.9	50.8	40.6	32.1	23.1
30/11/2023 19:00	57.5	78.2	44.9	57.9	60.4	64.4	61.5	62.0	58.0	55.6	52.7	47.5	37.5	31.1	21.7
30/11/2023 20:00	60.5	80.8	43.7	57.2	58.8	61.2	60.8	64.0	61.7	58.6	55.8	49.8	39.0	29.5	22.2
30/11/2023 21:00	53.4	71.7	43.5	54.7	59.1	59.9	57.9	54.7	53.6	50.8	49.7	43.1	33.4	26.9	17.2
30/11/2023 22:00	50	68.2	40.2	50	53.5	57.1	55.3	53.3	49.0	47.1	46.5	39.7	30.6	24.8	13.8
30/11/2023 23:00	47.1	65.6	38.5	45.6	51.7	59.3	57.5	46.8	45.7	44.0	43.8	37.2	27.4	21.2	11.7

Period start	LAeq	LAmx	LA90	LA10	Octave Band Centre Frequency Hz										
					16	32	64	125	250	500	1k	2k	4k	8k	16k
01/12/2023 00:00	44	64.4	38.1	43.3	50.2	57.6	58.8	46.0	42.8	42.3	39.4	33.4	24.9	20.0	10.8
01/12/2023 01:00	46.9	67.9	37.2	42.4	47.7	59.3	55.6	52.2	45.5	45.3	42.9	35.4	25.3	18.8	10.9
01/12/2023 02:00	48.7	75.5	36.1	40.4	53.0	59.7	54.8	48.5	47.5	48.0	43.1	39.3	34.5	28.1	16.6
01/12/2023 03:00	43.3	65.1	36.6	40.5	49.5	49.7	50.1	42.8	41.3	42.0	38.7	33.9	26.8	20.0	11.1
01/12/2023 04:00	45.5	67.1	37.8	44	48.6	53.9	54.8	44.0	44.3	42.4	42.4	35.5	24.6	18.8	11.1
01/12/2023 05:00	59	77.4	40.4	49.6	54.6	57.9	61.7	53.0	53.9	59.9	51.4	45.4	41.5	37.2	29.5
01/12/2023 06:00	69.9	86	44.3	71.6	58.5	61.5	66.6	61.0	63.8	70.4	61.0	56.4	55.2	51.8	44.5
01/12/2023 07:00	56.5	70.9	46.8	60.4	59.7	65.4	63.9	56.3	55.2	53.6	52.0	48.0	43.5	40.8	27.2
01/12/2023 08:00	57.8	78.6	47.6	58.8	58.1	64.0	61.9	57.1	57.0	55.6	54.1	48.1	38.3	31.3	21.7
01/12/2023 09:00	61.3	82.8	50.2	60.2	59.7	66.6	64.5	63.3	61.7	59.0	57.2	51.7	42.6	35.1	26.7
01/12/2023 10:00	58.4	80.1	50.3	59.9	60.0	65.7	63.0	61.0	58.4	56.6	52.8	47.4	46.5	46.5	27.0
01/12/2023 11:00	59.1	83.2	50.8	59.3	60.4	67.1	64.0	58.5	57.6	56.4	54.9	51.3	42.3	35.8	31.4
01/12/2023 12:00	58.6	79.4	51.5	59.8	59.8	67.9	66.7	60.0	58.3	56.9	53.9	48.8	41.9	35.2	27.9
01/12/2023 13:00	58.9	76.7	50	61.8	59.5	65.5	63.2	60.9	60.3	56.1	53.6	49.7	43.3	38.4	24.1
01/12/2023 14:00	62.4	82.7	49.4	61	60.3	68.1	67.0	62.6	62.3	60.6	57.8	53.0	43.9	35.0	25.5

all noise levels are in dB

Table A3.1 Background noise measurements at Location1. 1m ahead of front first floor window

Period start	LAeq	LAmx	LA90	LA10	Octave Band Centre Frequency Hz										
					16	32	64	125	250	500	1k	2k	4k	8k	16k
25/11/2023 16:00	47.8	66.8	44.1	48.5	55.9	57.0	56.6	51.3	47.1	45.0	44.4	37.5	29.9	21.7	11.1
25/11/2023 17:00	52.2	73.6	44.1	51.8	57.7	61.5	60.2	54.1	49.5	49.6	49.1	41.9	29.3	20.5	14.2
25/11/2023 18:00	49.6	68.5	44.4	49.9	55.3	57.5	57.6	53.2	48.7	45.6	46.7	39.4	28.3	19.0	12.3
25/11/2023 19:00	47.7	64.2	43.4	46.7	52.7	54.7	55.9	50.4	44.8	43.5	45.4	37.1	24.4	15.1	10.2
25/11/2023 20:00	51.4	72.2	43.4	49.7	53.6	56.3	57.0	54.4	51.7	46.7	48.2	42.0	31.3	23.5	12.1
25/11/2023 21:00	48.2	63.2	42	50.6	53.4	55.7	55.0	49.5	44.9	43.9	45.7	39.0	26.8	17.9	10.4
25/11/2023 22:00	46.5	62.9	41.6	44.9	55.2	55.8	55.7	48.6	43.3	41.8	44.3	36.2	24.1	15.1	10.1
25/11/2023 23:00	46.9	66.1	41	44.2	54.5	55.3	56.1	47.9	42.6	43.6	43.8	37.7	27.6	18.8	10.9

all noise levels are in dB

Period start	LAeq	Lamax	LA90	LA10	Octave Band Centre Frequency Hz											
					16	32	64	125	250	500	1k	2k	4k	8k	16k	
26/11/2023 00:00	44.6	61	40	46	51.8	52.4	55.8	47.4	41.8	40.8	41.6	35.1	26.5	19.1	10.4	
26/11/2023 01:00	42.1	59	39	42.2	51.7	49.7	54.1	46.4	39.8	39.0	39.1	30.5	20.3	12.7	10.0	
26/11/2023 02:00	40.1	48.1	38.1	41.3	48.4	46.1	53.1	45.1	38.2	37.9	36.8	26.7	18.7	11.9	10.0	
26/11/2023 03:00	39.1	47.3	37.2	40.5	47.9	45.8	50.6	44.4	38.1	36.9	35.7	25.7	18.0	11.7	10.0	
26/11/2023 04:00	39.3	53.9	37.1	39.7	46.2	45.5	49.6	45.0	38.2	36.7	35.8	27.4	19.3	12.2	10.0	
26/11/2023 05:00	41.7	49	38.4	43.7	47.9	46.5	50.7	46.0	39.9	40.0	38.5	26.4	19.3	19.8	10.1	
26/11/2023 06:00	44.4	56.3	41	45.2	50.9	52.0	52.5	47.7	42.3	40.9	40.5	35.1	31.8	25.4	12.0	
26/11/2023 07:00	47.8	58.7	43.6	50.4	51.5	51.4	55.1	48.9	43.9	42.7	43.7	41.1	35.8	23.0	10.6	
26/11/2023 08:00	52.2	67.5	46.5	53.5	53.3	54.4	56.8	53.8	50.8	51.0	48.4	39.9	31.8	23.2	10.5	
26/11/2023 09:00	59.8	83.8	48.2	53.9	55.2	58.0	60.6	59.4	60.1	57.4	55.7	50.4	40.2	21.1	15.2	
26/11/2023 10:00	55.2	65.5	53	56	56.7	58.2	60.0	56.1	53.1	52.8	52.7	41.6	32.0	21.6	11.9	
26/11/2023 11:00	55.4	66.5	53	56.8	56.8	58.6	60.3	56.5	52.7	53.6	52.5	43.2	30.7	19.9	11.1	
26/11/2023 12:00	53.4	63.5	51.3	54.2	55.7	57.5	58.8	54.8	50.6	50.7	50.9	41.5	30.0	24.8	12.9	
26/11/2023 13:00	51	64.4	48.6	51.6	56.5	57.3	58.6	52.6	48.7	47.1	48.4	40.6	29.7	24.7	22.5	
26/11/2023 14:00	53.6	67.5	48.5	54.9	55.6	56.5	58.4	57.0	53.1	51.4	49.7	43.1	34.5	25.9	18.9	
26/11/2023 15:00	53.5	67.3	49.9	55.2	55.4	57.6	59.2	54.4	51.6	50.7	50.0	44.2	37.7	32.9	24.7	
26/11/2023 16:00	54.4	74.8	48.8	55.5	55.5	57.6	59.1	55.5	53.2	51.5	50.6	45.7	37.2	31.9	23.4	
26/11/2023 17:00	54.9	71.6	52.1	56.2	55.5	57.4	60.9	56.9	52.2	51.2	51.4	46.3	39.4	37.4	28.5	
26/11/2023 18:00	53.9	66	52.1	54	53.7	56.2	59.1	52.5	49.9	48.9	50.8	45.9	39.6	37.6	27.5	
26/11/2023 19:00	54.5	69.2	50.9	56.3	56.1	56.1	58.6	54.0	52.1	50.5	50.8	46.9	39.4	35.6	27.1	
26/11/2023 20:00	54.5	74.8	48.8	55.7	53.7	55.8	61.4	57.0	54.6	51.2	50.2	46.3	36.7	31.8	21.1	
26/11/2023 21:00	50.8	63.4	47.2	51.7	55.6	53.3	55.9	52.5	49.5	45.3	47.2	43.8	33.5	29.1	22.4	
26/11/2023 22:00	47.5	61.7	45.2	47.5	56.7	52.3	54.1	47.3	46.1	42.4	43.6	40.9	30.2	25.4	22.2	
26/11/2023 23:00	45.3	58.8	44	45.7	55.0	50.2	51.0	45.3	44.4	40.4	40.9	38.6	27.4	22.9	20.5	

All noise levels are in dB

all noise levels are in dB

Period start	LAeq	LAmx	LA90	LA10	Octave Band Centre Frequency Hz											
					16	32	64	125	250	500	1k	2k	4k	8k	16k	
27/11/2023 00:00	44.7	61.5	41.9	44.6	49.8	47.2	52.3	45.1	44.2	39.9	40.4	37.7	25.8	20.7	16.2	
27/11/2023 01:00	41.7	51.1	40.5	42.3	51.9	47.1	51.4	43.0	38.2	36.8	37.3	36.1	23.9	19.8	20.1	
27/11/2023 02:00	41.4	43.5	40.5	42.1	50.4	45.8	50.1	42.7	37.9	36.9	37.1	35.5	23.0	18.2	16.7	
27/11/2023 03:00	42.3	54.8	40.4	43.9	50.5	47.4	50.9	43.1	38.6	37.8	38.3	36.1	26.9	22.9	18.3	
27/11/2023 04:00	49.1	57.4	46.2	50.6	50.2	48.5	52.0	44.5	41.6	43.0	44.9	43.3	37.7	36.0	29.2	
27/11/2023 05:00	55.8	73.5	50.5	54.5	54.8	55.5	59.6	50.0	49.1	49.6	51.3	50.0	45.4	39.7	30.2	
27/11/2023 06:00	54.6	69.1	50.2	58.3	56.8	54.4	58.8	51.4	50.0	53.2	49.2	46.1	39.7	36.2	24.5	
27/11/2023 07:00	53.2	64.1	49.8	55.7	56.7	56.7	58.5	53.1	49.1	48.3	49.2	46.1	42.0	35.1	18.9	
27/11/2023 08:00	55	68.7	50	58	59.6	58.2	60.0	55.8	53.1	51.7	51.3	46.7	39.5	32.4	21.2	
27/11/2023 09:00	56	73.5	49.4	58.5	58.7	58.8	60.3	57.1	56.7	53.4	51.6	46.3	39.5	32.6	21.0	
27/11/2023 10:00	55.2	67.6	49	57.8	60.0	58.0	59.6	54.9	54.6	52.5	50.7	46.3	42.1	37.6	25.5	
27/11/2023 11:00	55.3	67	48.9	58.5	59.7	59.8	61.0	56.7	55.1	52.5	50.5	47.1	41.7	34.7	23.9	
27/11/2023 12:00	59.8	77.9	48.1	59.3	62.2	60.9	60.5	55.3	54.7	59.7	53.2	48.8	44.9	38.1	29.3	
27/11/2023 13:00	53.9	74.3	47.8	54.9	61.3	58.4	59.6	55.4	53.1	50.7	49.5	45.4	40.5	36.7	27.8	
27/11/2023 14:00	53.2	70.2	48.5	53.8	61.1	58.3	58.1	56.7	53.3	49.9	49.2	44.0	37.0	29.5	26.5	
27/11/2023 15:00	53.4	73.6	47	52	60.0	58.2	56.6	56.0	54.2	51.7	48.6	43.3	33.9	25.1	24.6	
27/11/2023 16:00	57.2	78.2	46	51.7	61.2	57.6	57.9	61.2	58.6	54.9	52.3	47.9	37.3	26.1	27.2	
27/11/2023 17:00	58.7	83.1	46.1	53.8	62.5	59.1	59.5	55.3	55.6	55.2	54.8	51.9	42.0	31.6	28.3	
27/11/2023 18:00	59.9	83.7	45.3	51.7	59.9	60.9	60.4	58.0	58.9	59.5	55.1	50.4	37.8	25.0	26.5	
27/11/2023 19:00	59.6	79.1	44.4	51.3	59.9	56.6	57.8	59.9	58.4	57.6	55.9	50.1	36.8	25.0	26.2	
27/11/2023 20:00	55.9	78.4	44	53.4	57.6	56.5	57.7	63.8	58.0	53.6	50.1	44.7	33.5	21.2	23.8	
27/11/2023 21:00	46.4	60.9	42.7	47.4	58.4	56.0	53.9	47.4	44.8	43.1	43.5	36.3	26.7	20.6	24.7	
27/11/2023 22:00	48.4	67.4	41	48.5	56.5	54.3	53.9	48.1	45.4	44.0	44.5	41.4	34.1	25.5	19.9	
27/11/2023 23:00	42.9	60.2	39.2	42.2	54.1	51.7	52.7	44.3	40.0	39.0	40.4	32.8	23.0	16.9	20.0	

Period start	LAeq	LAmx	LA90	LA10	Octave Band Centre Frequency										
					16	32	64	125	250	500	1k	2k	4k	8k	16k
28/11/2023 00:00	41.8	61	37.8	42.3	52.6	54.0	51.1	44.3	40.0	38.3	38.8	31.9	23.3	16.0	16.5
28/11/2023 01:00	41.1	59.8	37.8	40.6	53.2	49.9	51.9	43.3	38.9	37.8	38.1	30.9	22.3	16.5	19.8
28/11/2023 02:00	39.5	43.7	38	40.7	56.4	51.6	48.4	42.2	38.1	37.1	36.0	28.5	22.1	19.0	23.6
28/11/2023 03:00	39.5	50.1	37.7	40.8	54.4	47.5	48.2	42.2	37.4	37.0	36.2	28.6	21.4	16.7	20.2
28/11/2023 04:00	40.8	54.6	38.7	41.7	50.1	48.9	50.8	42.7	37.5	38.3	37.9	29.1	20.9	14.9	13.7
28/11/2023 05:00	45.3	63.9	41.2	46	52.6	52.7	53.7	46.6	41.9	41.7	42.2	36.5	28.6	19.0	11.2
28/11/2023 06:00	56.6	74.7	46.2	57.2	56.9	56.6	57.2	52.7	53.0	57.4	48.4	41.9	34.8	27.4	11.9
28/11/2023 07:00	52.4	67.3	46.2	56.7	57.1	60.4	57.1	49.8	47.2	46.3	48.0	46.3	42.5	34.9	23.7
28/11/2023 08:00	59.6	78.2	47.9	60.2	58.3	59.3	62.8	64.2	59.6	57.3	54.9	50.5	42.6	32.9	19.8
28/11/2023 09:00	62.5	83.5	46.4	57.4	59.3	60.4	62.4	63.3	61.7	59.9	58.2	54.4	44.5	33.0	21.7
28/11/2023 10:00	57.9	79.4	44.7	57.9	58.4	59.6	60.4	57.6	54.6	54.1	53.8	50.8	44.7	39.2	27.0
28/11/2023 11:00	55.8	74.5	46.6	58.9	58.8	59.6	59.7	61.0	55.7	53.5	50.2	46.7	42.7	37.7	24.8
28/11/2023 12:00	54.4	72	45.9	57.6	59.7	60.4	63.3	56.2	54.7	51.8	49.9	45.3	38.0	29.6	15.8
28/11/2023 13:00	56.1	76.4	45.2	57.3	60.0	59.2	59.8	60.8	56.2	52.7	51.3	47.0	39.0	30.3	17.7
28/11/2023 14:00	57.3	76.9	47.4	58.2	58.7	59.5	66.7	61.9	56.8	54.6	52.1	48.5	42.6	34.6	22.1

all noise levels are in dB

Table A3.2 Background noise measurements at Location 2. On flat roof at rear of 11 Market Street premises

Period start	LAeq	Lamax	LA90	LA10	Octave Band Centre Frequency Hz										
					16	32	64	125	250	500	1k	2k	4k	8k	16k
25/11/2023 16:00	52.7	67.8	49	54	52.0	56.4	55.6	56.4	52.0	50.1	48.8	42.7	35.9	29.6	19.8
25/11/2023 17:00	54.4	73.6	49.5	54.2	53.1	58.1	58.4	57.7	52.8	52.0	50.8	43.6	35.5	28.5	28.5
25/11/2023 18:00	52.8	66.9	50.1	53.3	52.9	57.3	56.5	57.5	51.5	49.4	49.4	42.5	35.1	27.1	13.9
25/11/2023 19:00	52.1	66.2	49.6	52.1	51.1	53.7	55.7	57.5	50.6	48.9	48.5	41.3	34.6	26.7	13.3
25/11/2023 20:00	55.4	76.3	49.8	54.7	51.8	55.6	56.9	59.4	56.2	51.1	51.4	45.9	37.9	31.0	18.9
25/11/2023 21:00	52.7	66.1	48.7	53.5	51.7	54.1	55.1	57.1	50.5	49.4	49.1	43.1	35.8	28.9	14.8
25/11/2023 22:00	51.4	66.6	48.2	51.2	55.1	55.3	54.9	56.6	50.0	47.7	48.0	41.2	34.3	27.4	16.8
25/11/2023 23:00	51	69.4	47.4	50.3	52.1	54.0	55.1	56.6	49.2	48.0	46.9	41.4	33.7	25.3	14.1
26/11/2023 00:00	50.6	64.2	47.3	52.5	51.5	52.5	55.5	56.8	49.7	47.6	46.5	40.4	33.8	25.2	13.1
26/11/2023 01:00	48.2	64.3	46.4	48.9	49.1	50.4	53.0	55.8	47.3	45.2	44.0	36.8	30.7	20.9	11.0
26/11/2023 02:00	46.9	49.8	46	48.1	47.7	46.9	51.7	55.3	46.5	44.0	42.3	35.5	30.5	20.4	10.7
26/11/2023 03:00	46.8	49.8	46	47.8	46.8	47.0	50.6	55.3	46.3	43.8	42.2	35.2	30.1	20.3	10.7

all noise levels are in dB

Table A3.3 Background noise measurements at Location 3. On steel staircase next to Grayton House

