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APPROVED ADMIRAL ADULT GAMING CENTRE AT 218 HIGH STREET, CHELTENHAM

NOISE ASSESSMENT RE CONDITION 3

On behalf of:

Luxury Leisure

Report Number P24-082-R01v1
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NOISE ASSESSMENT RE CONDITION 3

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1.0 INTRODUCTION

1.1 Hepworth Acoustics Ltd has been commissioned by Luxury Leisure to carry out a noise assessment in connection with an approved adult gaming centre at 218 High Street, Cheltenham.

1.2 Planning consent was granted as per Appeal Ref: APP/B1605/W/23/3325026 for change of use of the ground floor from a retail unit (Class E) to an Adult Gaming Centre (Sui Generis) and first floor to associated storage and staff area with external alterations and associated works.

1.3 A number of conditions are attached to the consent, including Condition 3, which pertains to noise, as follows:

> *3) Prior to the commencement of the use hereby permitted, an acoustic assessment of the anticipated operation of the use together with details of proposed mitigation shall be submitted to the local planning authority for its agreement and approval. The agreed scheme of mitigation shall be fully installed and operational prior to the commencement of the use and thereafter shall be permanently retained.*

1.4 In addition to this, Condition 4 limits the hours of operation to 0900 – 0000hrs on weekdays and Saturdays, and 1000 – 2200hrs on Sundays.

1.5 The purpose of this assessment is to address the requirements of Condition 3.

1.6 The approved development will comprise the customer area of the adult gaming centre at ground floor level, to include slot machines and other electronic gaming machines, with staff and storage areas at first floor level. The premises also includes a second floor area, however this is currently void and inaccessible, and no change is proposed in that regard.

1.7 The premises are located in a town centre location. The building is currently vacant.

1.8 To the front is High Street, which is a one-way (westward) bus route, including numerous bus stop points in the general vicinity of the site. The premises adjoin the neighbouring building to the west, which includes commercial premises at ground floor level, and residences at upper floors. The premises are separated from the neighbouring building to the east by a narrow alleyway. Otherwise, the general surroundings to the front are a mixture of commercial premises at ground floor with ancillary or residential areas to upper floors.

1.9 To the rear, the ground floor of the premises extends to the full length of the building footprint. However the rear wall of the trading area is separated from the rear of the building by a lobby, which includes access to the stairs to first floor level. There is also a metal fire escape door to the rear of the building within this lobby at the foot of the stairs.

1.10 The first floor areas generally extend only about half the distance back from the front elevation. The exception is the stairway and landing to the first floor area, which is formed of a narrow enclosed section rising from the rear of the building, and extending along the eastern edge of the building footprint, essentially partly enveloping the flat roof above the rear section of the ground floor area.

1.11 The rear flat roof area is overlooked by first and second floor windows of residences that are above the adjacent commercial premises to the west, extending back to the rear section of that building.

1.12 There is some existing plant noise in the area to the rear of the site, including low-level noise from a small ground level electrical substation, and also rooftop plant, assumed to relate to the McDonalds restaurant, two-doors west of the development building.

1.13 Otherwise to the rear is a church and churchyard.

1.14 A site inspection has been carried out. Precise building fabric specifications are not known, however a precis of the general form is provided below.

1.15 The existing frontage is glazed, with unsealed, glazed entry doors. This is single glazing and appears to be at least 6mm thick, though may be thicker given the large size of the panes.

1.16 Internally, the ground floor trading area includes a decorative suspended tiled ceiling. Also, the party wall to the adjoining property is lined with a plasterboard finished, formed on to a cavity. At first floor level the flank walls are exposed painted brick, on which basis it is assumed that the construction of the party wall at ground floor is also solid brickwork (e.g. 215mm thick as would be typical).

1.17 The rear flat roof construction is not known, but is likely to be either concrete or timber joist construction.

1.18 Presently, there are no external plant items at the premises, however as part of proposals a small number of air-conditioning condensers are required to be installed. We understand that these will be from the Panasonic PACi NX R32 range. Specific plant details are yet to be confirmed.

1.19 This assessment has included the following:

- A site inspection;
- A survey of the prevailing environmental noise levels at the site;
- Measurement of reference noise activity noise at a similar Admiral premises;
- Assessment of noise impact on nearby noise-sensitive premises;
- Commentary on plant/equipment noise, along with recommended design limits.

1.20 All recommendations in this report are given for acoustics reasons only. Compliance with other requirements (e.g. fire, structural, thermal, etc.) must be checked by others.

1.21 The various noise units and indices referred to in this report are described in Appendix I. All noise levels mentioned in the text have been rounded to the nearest decibel, as fractions of decibels are imperceptible.

2.0 ACOUSTIC CRITERIA

2.1 The *National Planning Policy Framework* (NPPF), December 2023, provides some general guidance to local authorities on taking noise into account in planning policies and decisions. NPPF paragraph 185, a) states that planning policies and decisions 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"*.

2.2 For the internal noise limits for the nearby residences, we have referred to the guidance in British Standard 8233: 2014 *Guidance on sound insulation and noise reduction for buildings*.

2.3 BS 8233, which carries the full weight of an adopted British Standard, recommends guidance on design criteria for acceptable noise levels within residential accommodation. BS 8233 guidelines for the daytime (0700 – 2300hrs) and night-time (2300 – 0700hrs) periods are summarised in Table 1.

Table 1 : BS 8233 Recommended Acoustic Design Criteria for Dwellings

Activity	Location	Internal Noise Levels	
		Daytime 0700 – 2300 hrs	Night-time 2300 – 0700 hrs
Resting	Living room	35 dB $L_{Aeq,16hr}$	-
Dining	Dining room / area	40 dB $L_{Aeq,16hr}$	-
Sleeping (daytime resting)	Bedroom	35 dB $L_{Aeq,16hr}$	30 dB $L_{Aeq,8hr}$

2.4 BS 8233 clarifies that the above guidance relates only to noise without 'specific character' (e.g. such as that which has a distinguishable, discrete and continuous tone, is irregular enough to attract attention, or has strong low-frequency content) and that where such characteristics are present, lower noise limits might be appropriate.

2.5 The type of noise associated with the proposed gaming machines has 'specific character'. To account for this, we recommend that any noise intrusion from the ground floor trading area to any nearby residences should be controlled to be within NR 20 for living rooms during the daytime, and NR 15 for bedrooms at night. These are equivalent to no more than around 28 dB L_{Aeq} and 23 dB $L_{Aeq,}$ respectively, and are therefore well within the BS 8233 design limits stated in Table 1.

2.6 BS 8233 also recognises that regular individual noise events at night can cause sleep disturbance. Peaks of noise from individual events are usually described in terms of L_{Amax} values and these can be highly variable and unpredictable. Research described in WHO *Community Noise Guidelines* states, "*for a good sleep, it is believed that indoor sound pressure levels should not exceed approximately 45 dB L_{Amax} more than 10-15 times per night*".

2.7 For control of noise from external building services plant, we have referred to the guidance in British Standard 4142: 2014 +A1:2019 *'Methods for rating and assessing industrial and commercial sound'.*

2.8 BS 4142 requires the 'rating' noise level for the plant to be compared with the background (L_{A90}) noise level in the absence of the operational noise being assessed. The 'rating' level is derived based on the 'specific' L_{Aeq} noise level attributable to the operation with an *'acoustic feature'* penalty added for any noise sources which give rise to tonal, impulsive, intermittent, or other characteristics readily distinctive against the residual acoustic environment.

2.9 An initial estimate of the impact of the operation is determined by subtracting the background level from the rating level. BS 4142 states that:

- Typically, the greater this difference, the greater the magnitude of the 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 level, the less likely it is that the operation 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.

2.10 Where the initial estimate of the impact needs to be modified due to the context, all pertinent factors should be taken into account, including:

- The absolute level of sound;
- The character and level of the residual sound;
- The sensitivity of the receptor and whether dwellings … will already incorporate design measures that secure good internal and/or outdoor acoustic conditions.

3.0 NOISE SURVEYS

Baseline Environmental Noise

3.1 Environmental noise measurements were carried out at the site to determine the prevailing ambient noise levels of the area.

3.2 The noise measurements were carried out from 2000hrs on Wednesday 6 March 2024 until 0000hrs the following morning, hence encompassing the latest permitted hours of operation, as per Condition 4 of the planning consent.

3.3 Noise levels were measured in sequential 15-minute samples in two locations, as identified in Figure 1.

3.4 At Location 1 the measurement microphone was extended 1m laterally from a first floor window on the elevation overlooking High Street, considered representative of neighbouring residences to the front.

3.5 At Location 2 the measurement microphone was extended 1m laterally from a first floor window of the enclosed landing, leading to the main first floor area, overlooking the rear flat roof, and considered representative of neighbouring residences also overlooking the rear flat roof.

3.6 The weather conditions throughout the noise survey were dry and clear with wind speeds below 5 m/s.

3.7 The results of the noise survey are detailed in Appendix II.

3.8 The hourly noise levels are summarised in Table 2. The L_{Aeq} and L_{A90} values in Table 2 are the logarithmic and arithmetic average respectively of the samples at each location for the relevant time period.

Table 2: Measured Baseline Noise Levels Summary

Hourly Period	Noise level dB					
	Location 1			Location 2		
	$L_{Aeq,T}$	L_{Amax}	$L_{A90,T}$	$L_{Aeq,T}$	L_{Amax}	$L_{A90,T}$
2000 - 2100hrs	61	83	51	47	64	46
2100 - 2200hrs	58	84	49	48	78	46
2200 - 2300hrs	59	88	47	47	66	46
2300 - 0000hrs	57	77	46	47	62	45

3.9 Noise levels at Location 1 were due to pedestrians and vehicles on High Street. As would be expected, noise levels at Location 1 reduced gradually throughout the survey period, in line with reducing levels of activity throughout the evening and into the beginning of the night-time.

3.10 Noise levels at Location 2 were due to plant associated with nearby commercial premises. As such, it is as expected that the noise levels remained fairly steady for the whole survey period. Nonetheless, the existing plant noise level did reduce shortly before midnight (i.e. during the final 15-minute measurement sample) and this is reflected in the slightly lower averaged level for the final hour.

Reference Noise Levels

3.11 Noise measurements were taken inside an existing operational Admiral premises at 3 Seven Sisters Road, London N7 6AJ from 18.45 to 19.45 on Thursday 29th November 2018. This time was selected following consultation with staff to be representative of a typical busy period. The results are shown in Appendix II and summarised in Table 3.

Table 3: Typical Admiral internal trading noise levels (dB)

	Octave Band Centre Frequency (Hz)								A
	63	125	250	500	1k	2k	4k	8k	
L_{eq}	61	63	65	61	60	58	56	48	66
Typical L_{max}	89	85	83	81	79	74	79	69	85

3.12 Therefore, the trading noise is characterised by fairly modest average noise levels interspersed with occasional periods of more elevated peaks of noise.

Sound Level Meter Details

3.13 The environmental noise measurements were undertaken at Location 1 using a NTi Audio XL2-TA Class 1 Sound Analyser (serial no. A2A-23512-E1) and at Location 2 using a Norsonic 140 Class 1 Integrating sound level meter (serial no. 1406529). The calibration level of both meters was checked before and after the survey with a Norsonic 1251 acoustical calibrator (serial no. 20804). No significant calibration deviation was observed.

3.14 The noise measurements inside Admiral Seven Sisters, were carried out using a Brüel & Kjær Type 2250 Class 1 sound level meter (serial no. 3011626). The calibration level of this meter was checked before and after the surveys with a Brüel & Kjær Type 4231 sound calibrator (serial no. 2412667) and no significant calibration deviation was observed.

4.0 ASSESSMENT

Noise Break Out via Frontage

4.1 We understand that the existing glazed frontage and glass entry door for the ground floor will be retained. We would expect this to provide an overall sound reduction comfortably in excess of 20dB R_w.

4.2 Based on the reference trading noise levels shown in Table 3, and by taking typical values for the sound reduction indices (SRIs) equating to 20dB R_w for a cautious assessment, as well as the area of the façade, the noise break-out levels at 4m have been calculated, as shown in Table 4.

Table 4: Predicted Noise Break-Out at 4m from Frontage

	Octave Band Centre Frequency (Hz)								A
	63	125	250	500	1k	2k	4k	8k	
Trading Noise L_{eq}	61	63	65	61	60	58	56	48	66
Trading Noise L_{max}	89	85	83	81	79	74	79	69	85
Frontage SRI	12	15	20	25	25	23	20	20	
Noise Break-Out L_{eq}	36	35	32	23	22	22	23	15	**30**
Noise Break-Out L_{max}	64	57	50	43	41	38	46	36	**51**

4.3 To note, 4m is representative of the nearest residential window at the adjoining building to the west, although realistically noise levels at that position will be lower, as that there is no view from that point towards the premises frontage.

4.4 Nonetheless, the predicted worst-case noise break-out levels are considerably lower than the corresponding baseline noise levels at Location 1, as set out in Table 2. Therefore, no adverse impacts due to break out of noise through the premises frontage are anticipated.

Noise Break Out to Rear

4.5 Due to the lobby area to the rear of the premises, no appreciable noise break-out via the rear fire escape door is anticipated.

4.6 However, as the flat roof the rear part of the trading area is overlooked by nearby residences, this has been considered in our assessment.

4.7 As already stated, the rear flat roof construction is not known. However this is likely to be either concrete or timber joist construction. In the worst-case, we would expect this to provide an overall sound reduction comfortably in excess of 40dB R_w. This takes no account of the decorative ceiling in the trading area, which will further enhance the sound insulation of the overall construction.

4.8 Based on the reference trading noise levels shown in Table 3, and by taking typical values for the sound reduction indices (SRIs) equating to 40dB R_w for a cautious assessment, as well as the area of the flat roof, the noise break-out levels at 4m (representative of the nearest residential window to the nearest part of the flat roof) have been calculated, as shown in Table 5.

Table 5: Predicted Noise Break-Out at 4m from Rear Flat Roof

	Octave Band Centre Frequency (Hz)								A
	63	125	250	500	1k	2k	4k	8k	
Trading Noise L_{eq}	61	63	65	61	60	58	56	48	66
Trading Noise L_{max}	89	85	83	81	79	74	79	69	85
Flat Roof SRI	15	22	30	35	40	40	40	40	
Noise Break-Out L_{eq}	36	31	25	16	10	8	6	-2	**21**
Noise Break-Out L_{max}	64	53	43	36	29	24	29	19	**43**

4.9 The predicted worst-case noise break-out levels via the rear flat roof are considerably lower than the corresponding baseline noise levels at Location 2, as set out in Table 2. Therefore, no adverse impacts due to break out of noise through the rear flat roof are anticipated.

Internal Noise Transmission

4.10 In terms of internal noise transmission to structurally adjoining area, notably residences at upper floor level to the adjacent building to the west, it is possible only to accurately predict noise transmission between areas sharing common areas of party wall.

4.11 Regarding the situation at the site, there will still be some potential for noise transmission via acoustic energy entering the party wall within the ground floor trading area, and re-radiating from the same wall at first floor level to the opposite side. However, this noise would be at a lower level than that transmitted directly across the party wall at ground floor level. It therefore represents a very robust approach to base the assessment on noise transmission directly across the party wall.

4.12 This has therefore been done based on the reference L_{eq} trading noise levels shown in Table 3, and by taking typical values for the sound reduction indices (SRIs) across 215mm thick brickwork. The calculation has included robust and cautious assumptions for other relevant variables relating to the characteristics of a notational receiver space to the opposite side of the wall. This also ignores the likely benefit of the wall lining at ground floor level, hence further ensuring a robust approach.

4.13 The calculated noise transmission levels, in terms of L_{eq}, are presented in Table 4.

Table 4: Predicted Worst-case L_{eq} Noise Transmission to Structurally Adjoining Residences

	Octave Band Centre Frequency (Hz)								A
	63	125	250	500	1k	2k	4k	8k	
Trading Noise L_{eq}	61	63	65	61	60	58	56	48	66
Trading Noise L_{max}	89	85	83	81	79	74	79	69	85
Party Wall SRI	30	36	37	40	46	54	57	60	
Transmitted Noise L_{eq}	22	18	19	12	5	-5	-10	-21	**14**
NR15 Criteria	45	35	26	19	15	12	9	7	
Exceedance over NR15	-	-	-	-	-	-	-	-	
Transmitted Noise L_{max}	50	40	37	32	24	11	13	0	**33**

4.14 The data in Table 4 indicates that noise transmission to the adjacent ground floor space via the party wall will be well within the adopted NR15 criteria. The overall level of transferred noise is anticipated to be 14dB L_{Aeq}. Transmitted 'peak' noise will therefore be well within the 45dB L_{Amax} guideline in the adjacent space. Furthermore, as set out above, somewhat lower noise transmission levels would be expected in the upper floor residences.

4.15 Therefore, no additional sound insulation measures will be necessary in order to control internal trading noise transmission to adjoining residences and no adverse impacts are anticipated.

4.16 Furthermore, the above assessment indicates that no noise disturbance to or from the adjacent retail premises through the party walls is anticipated.

Outdoor Customer Noise

4.17 In consideration of the potential noise impact from customers arriving at or leaving from the premises, based on our experience of monitoring the existing Admiral premises at 3 Seven Sisters Road, customers mostly arrive and leave alone or in pairs, and do not make significant noise. We expect similar to occur at this location.

4.18 Based on expected customer numbers, around two to three customers are likely to arrive or leave in a 15-minute period at peak times. The occupancy numbers for other similar-sized Admiral premises for the period 2000 – 0000hrs from Thursday to Saturday are shown in Appendix III for reference.

4.19 If customers have a conversation when arriving/leaving that is audible for 30-seconds each as they approach / disperse, then based on three instances in a 15-minute period, and typical speech noise levels of 65 dB(A) at 1 metre, this will equate to a reference noise level of 55dB L_{Aeq} at 1 metre. Assuming an average distance to any residential window of 5m, this will result in a noise level of up to 41dB L_{Aeq}.

4.20 This noise level is considerably lower than the corresponding baseline noise levels at Location 1, as set out in Table 2. Therefore, no adverse impacts due to customers arriving at or leaving from the premises are anticipated.

External Plant Noise

4.21 As stated, a small number of air-conditioning condensers are required to be installed. We understand that these will be from the Panasonic PACi NX R32 range, however specific details of plant are yet to be confirmed.

4.22 From our inspection of the premises, it is likely that the plant may be located to the first floor rear flat roof area, which is overlooked by existing residential windows.

4.23 Based upon the results of the baseline noise survey at Location 2, the representative background noise level in this area at the latest time of operation is 45dB L_{A90}. Accordingly, based on the provisions of BS 4142, **it is recommended that the combined 'rating' sound level from all new plant is controlled to a value no more than 45dB L_{Ar} at the nearest residential window**.

4.24 In the absence of confirmed details, to provide an indicative and representative assessment, from our experience of numerous similar Admiral sites, it is anticipated that (from the stated Panasonic range) two Panasonic U-125PZ3E8 units would typically be required.

4.25 Based on manufacturer's published technical data, these units emit a sound pressure level of 55dB(A) at 1m (each).

4.26 Assuming two units mounted on the flat roof and close to one other acoustically reflective surface (e.g. the enclosed stairway and landing to the first floor area) and assuming a distance of at least 8.5m to the nearest window, a resulting noise level of 42dB L_{Aeq} is calculated.

4.27 Based on the manufacturer's data and our experience of this type of equipment, no tonal or impulsive characteristics readily distinctive against the residual acoustic environment are anticipated. However, the condensers will operate on demand and therefore will be intermittent. As such, a +3 dB acoustic feature correction is applicable.

4.28 This hence yields a 'rating' level of 45dB L_{Ar} at the nearest residential window, which is within the recommended noise limit based on BS 4142.

4.29 It is stressed that this is an indicative assessment at this stage, but this nonetheless demonstrates that there should be no impediment to achieving the recommended noise limit of 45dB L_{Ar}. However, this should be reviewed prior to installation based on finalised designs. If necessary, simple noise mitigation measures such as physical acoustic screening may be employed to ensure that the recommended noise limit is not exceeded. However, in the first instance, an approach based on selection of suitably quiet units and maximising separating distance to the nearest residential window (in line with the indicative installation considered in this assessment) is recommended, to obviate the need for any additional measures.

5.0 CONCLUSIONS

5.1 A noise assessment of the approved adult gaming centre at 218 High Street, Cheltenham has been carried out.

5.2 This assessment has involved carrying out a baseline noise monitoring survey to establish the existing noise climate outside the building.

5.3 Noise measurements have been made in an existing Admiral premises to provide reference internal noise levels for the expected gaming activities at the proposed development.

5.4 Based on the reference noise levels, the predicted acoustic separation, and our recommended internal noise limits, no enhancements to the existing building fabric are considered necessary to control potential noise impacts.

5.5 Comments on the likely noise impact of customers arriving and leaving the premises at night have also been provided.

5.6 Appropriate noise design limits have been recommended for the mechanical plant associated with the development, and an indicative assessment and guidelines for appropriate noise control have been provided.

5.7 On the basis of these assessment, no discernible loss of amenity at local residences is anticipated as a result of the approved development. It is therefore recommended that Condition 3 attached to the planning consent should be discharged.

Figure 1: Site Location

Appendix I: Noise Units & Indices

Sound and the decibel

A sound wave is a small fluctuation of atmospheric pressure. The human ear responds to these variations in pressure, producing the sensation of hearing. The ear can detect a very wide range of pressure variations. In order to cope with this wide range of pressure variations, a logarithmic scale is used to convert the values into manageable numbers. Although it might seem unusual to use a logarithmic scale to measure a physical phenomenon, it has been found that human hearing also responds to sound in an approximately logarithmic fashion. The dB (decibel) is the logarithmic unit used to describe sound (or noise) levels. The usual range of sound pressure levels is from 0 dB (threshold of hearing) to 120 dB (threshold of pain).

Due to the logarithmic nature of decibels, when two noises of the same level are combined together, the total noise level is (under normal circumstances) 3 dB(A) higher than each of the individual noise levels e.g. 60 dB(A) plus 60 dB(A) = 63 dB(A). In terms of perceived 'loudness', a 3 dB(A) variation in noise level is a relatively small (but nevertheless just noticeable) change. An increase in noise level of 10 dB(A) generally corresponds to a doubling of perceived loudness. Likewise, a reduction in noise level of 10 dB(A) generally corresponds to a halving of perceived loudness.

The ear is not equally sensitive to sound at all frequencies. It is less sensitive to sound at low and very high frequencies, compared with the frequencies in between. Therefore, when measuring a sound made up of different frequencies, it is often useful to 'weight' each frequency appropriately, so that the measurement correlates better with what a person would actually hear. This is usually achieved by using an electronic filter called the 'A' weighting, which is built into sound level meters. Noise levels measured using the 'A' weighting are denoted dB(A) or dBA.

Frequency and Hertz (Hz)

As well as the loudness of a sound, the frequency content of a sound is also very important. Frequency is a measure of the rate of fluctuation of a sound wave. The unit used is cycles per second, or hertz (Hz). Sometimes large frequency values are written as kiloHertz (kHz), where 1 kHz = 1000 Hz.

Young people with normal hearing can hear frequencies in the range 20 Hz to 20 kHz. However, the upper frequency limit gradually reduces as a person gets older.

Glossary of Terms

$L_{Aeq,\,T}$ This is the A–weighted 'equivalent continuous noise level' which is an average of the total sound energy measured over a specified time period, T. In other words, $L_{Aeq,T}$ is the level of a continuous noise which has the same total (A–weighted) energy as the real fluctuating noise, measured over the same time period, T. It is increasingly being used as the preferred parameter for all forms of environmental noise.

$L_{Amax,f}$ This is the maximum A–weighted noise level that was recorded during a sample duration, with the sound level meter on the 'fast' setting.

$L_{A90,T}$ This is the A–weighted noise level exceeded for 90% of the time period, T. $L_{A90,T}$ is used as a measure of background noise.

L_W This is the sound power level of a sound source, in decibels, which is 10 times the logarithm to the base 10 of the ratio of sound power radiated by the source to a reference power. The reference power is 1 picowatt (1×10^{-12} watt). The sound power level is the fundamental measure of the total sound energy radiated by a source per unit time.

Appendix II: Noise Survey Results

Baseline environmental noise levels at 218 High Street, Cheltenham

Date	Time		Noise Level dB					
			Location 1			Location 2		
	Start	End	L_{Aeq}	L_{Amax}	L_{A90}	L_{Aeq}	L_{Amax}	L_{A90}
06/03/24	20:00	20:15	63	83	53	47	60	46
06/03/24	20:15	20:30	61	81	51	47	60	46
06/03/24	20:30	20:45	60	76	51	48	64	46
06/03/24	20:45	21:00	60	78	51	48	57	47
06/03/24	21:00	21:15	58	74	51	48	63	46
06/03/24	21:15	21:30	59	79	50	47	61	46
06/03/24	21:30	21:45	58	84	48	48	78	46
06/03/24	21:45	22:00	57	75	46	47	57	46
06/03/24	22:00	22:15	59	83	49	47	57	46
06/03/24	22:15	22:30	57	75	49	48	66	46
06/03/24	22:30	22:45	61	88	47	47	56	46
06/03/24	22:45	23:00	58	80	45	47	59	46
06/03/24	23:00	23:15	57	76	48	47	59	46
06/03/24	23:15	23:30	57	75	45	47	62	46
06/03/24	23:30	23:45	58	77	45	47	57	46
06/03/24	23:45	00:00	56	74	45	46	54	43

Reference internal noise levels at existing Admiral venue, 3 Seven Sisters Road, London

Date	Time		Noise Level dB		
	Start	End	L_{Aeq}	L_{Amax}	L_{A90}
26/11/18	18:45	18:50	78	66	60
26/11/18	18:50	18:55	91	68	61
26/11/18	18:55	19:00	89	67	61
26/11/18	19:00	19:05	81	65	61
26/11/18	19:05	19:10	72	64	60
26/11/18	19:10	19:15	77	61	57
26/11/18	19:15	19:20	90	65	60
26/11/18	19:20	19:25	82	66	62
26/11/18	19:25	19:30	77	68	60
26/11/18	19:30	19:35	79	63	58
26/11/18	19:35	19:40	82	64	61
26/11/18	19:40	19:45	80	64	60
26/11/18	18:50	18:55	91	68	61

Appendix III: Headcount Data from Other Admiral Premises

Day	Venue	Hourly Period			
		2000 - 2100hrs	2100 - 2200hrs	2200 - 2300hrs	2300 - 0000hrs
Thursday	Wood Green	2	2	2	2
	Hackney	9	8	7	6
	Basildon	2	2	3	2
	Streatham	4	3	4	4
Friday	Wood Green	2	5	3	7
	Hackney	11	8	9	10
	Basildon	4	4	3	3
	Streatham	3	2	1	3
Saturday	Wood Green	8	6	6	3
	Hackney	7	5	8	8
	Basildon	4	4	3	2
	Streatham	6	7	6	6