

Blondies Bar 205a Lower Clapton Road, Lower Clapton, London E5 8EG Noise Impact Assessment

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On behalf of: Blondies London Limited

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1.0 Qualifications and experience

- 1.1 My name is Richard Vivian. I am the founder and director of Big Sky Acoustics Ltd. Big Sky Acoustics is an independent acoustic consultancy that is engaged by local authorities, private companies, public companies, residents' groups and individuals to provide advice on the assessment and control of noise.
- 1.2 I have a Bachelor of Engineering Degree with Honours from Kingston University, I am a Member of the Institution of Engineering & Technology, the Institute of Acoustics, the Audio Engineering Society and the Institute of Licensing.
- I have thirty years of experience in the acoustics industry and have been involved in acoustic measurement and assessment throughout my career. My professional experience has included the assessment of noise in connection with planning, licensing and environmental protection relating to sites throughout the UK. I have given expert evidence in the courts, in licensing hearings, in planning hearings and inquiries on many occasions.

2.0 Introduction

- 2.1 Big Sky Acoustics Ltd was instructed by Mr Liam O'Hare, acting on behalf of Blondies London Limited, to carry out an assessment of the impact of noise from the proposed variation to licensable activities at Blondies Bar, 205a Lower Clapton Road.
- 2.2 This report was prepared following detailed discussions with the client team. I have previously carried out noise measurement surveys and observations in the immediate area of the bar and am familiar with the site location, and the wider area.
- 2.3 A glossary of acoustical terms used in this report is provided in Appendix A.
- 2.4 All sound pressure levels in this report are given in dB re: 20µPa.

3.0 Site and surrounding area

- 3.1 The site is shown in Appendix B.
- 3.2 The premises has operated since 2015 and is a small themed bar and food offering with a capacity of 55 persons.
- 3.3 It is important when assessing the impact of noise from a new licensable activity in an area that the concept of *additional* noise associated with the new activity is taken into account. The incremental change to noise levels caused by the normal operation of the bar would be undetectable if it is masked by the other noise in the area.

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3.4 It is also a consideration that a bona-fide commercial premises can reduce crime, litter, and other anti-social behaviour as the commercial operation seeks to eliminate this type of activity from the immediate area outside the premises for the benefit and safety of their own patrons and employees. This is achieved through good lighting, CCTV coverage, litter removal and professional security staff who will be able to observe and record all activity in the immediate area.



Figure 1: Blondies Bar



Figure 2: Site location looking south on Lower Clapton Road

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4.0 Criteria

Licensing Act 2003

- 4.1 The premises currently operates under Premises Licence Number 071995 which was granted on 31/10/2015.
- 4.2 The Licensing Act 2003 requires Hackney Council in its role as Licensing Authority, to carry out its various licensing functions so as to promote the following four licensing objectives:
 - The prevention of crime and disorder
 - Public safety
 - The prevent of public nuisance
 - The protection of children from harm
- 4.3 Each objective is of equal importance. It is important to note that there are no other licensing objectives, therefore these four are of paramount importance at all times. The Licensing Authority must base its decisions, in relation to determining applications and attaching any conditions to licences, on the promotion of these licensing objectives.
- 4.4 The Licensing Act 2003 further requires this Licensing Authority to publish a Statement of Licensing Policy (SLP) that sets out the policies the Licensing Authority will apply to promote the licensing objectives when making decisions on applications made under the Act. The current SLP covers the period 2018-2023.
- 4.5 When it comes to the evaluation of noise under the Licensing Act an understanding of the concept of *public nuisance* is essential. Public nuisance is not narrowly defined in the 2003 Act and retains its broad common law meaning. It may include, in appropriate circumstances, the reduction of the living and working amenity and environment of other persons living and working in the area of the licensed premises.
- 4.6 Once those involved in making licensing decisions are satisfied of the existence of a public nuisance, or its potential to exist, the question is how to address it. Home Office Guidance¹ is useful in this regard and explains that in the context of noise nuisance conditions might be a simple measure such as ensuring that doors and windows are kept closed after a particular time, or persons are not permitted in garden areas of the premises after a certain time, noting that conditions in relation to live or recorded music may not be enforceable in circumstances where the entertainment activity itself is not licensable.
- 4.7 The guidance is clear that any conditions appropriate to promote the prevention of public nuisance should be tailored to the type, nature and characteristics of the specific premises and its licensable activities. Licensing authorities should avoid inappropriate or disproportionate measures that could deter events that are valuable to the community.

¹ Revised Guidance issued under section 182 of the Licensing Act 2003, April 2018

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- 4.8 The guidance also states that any appropriate conditions should normally focus on the most sensitive periods. For example, the most sensitive period for people being disturbed by unreasonably loud music is at night and into the early morning when residents in adjacent properties may be attempting to go to sleep or are sleeping. (This is why there is still a need for a licence for performances of live music between 11 pm and 8 am even though it is deregulated at other times).
- 4.9 As with all conditions, those relating to noise nuisance may not be appropriate in circumstances where provisions in other legislation adequately protects those living in the area of the premises.

Other relevant legislation

- 4.10 In addition to the protection afforded under planning controls, and the Licensing Act 2003, members of the public are protected from noise that is a nuisance.
- 4.11 The Environmental Protection Act 1990 part III deals with statutory nuisance which includes noise. This Act allows steps to be taken to investigate any complaints which may then result in the issuing of an abatement notice and a subsequent prosecution of any breach of the notice. A statutory nuisance is a material interference that is prejudicial to health or a nuisance.
- 4.12 The Clean Neighbourhoods and Environment Act 2005 deals with many of the problems affecting the quality of the local environment and provides local authorities with powers to tackle poor environmental quality and anti-social behaviour in relation to litter, graffiti, waste and noise. A fixed penalty notice can be issued when noise exceeds the permitted level at night as prescribed under the Noise Act 1996 as amended by the Clean Neighbourhoods and Environment Act 2005. The permitted noise level using A-weighted decibels (the unit environmental noise is usually measured in) is 34dBA if the underlying level of noise is no more than 24dBA.

British Standard 8233

4.13 BS8233:2014 states that for steady external noise sources, it is desirable that the internal ambient noise level in dwellings does not exceed the guideline values in the table shown below.

Activity	Location	07:00 to 23:00	23:00 to 07:00
Resting	Living room	35 dB L _{Aeq,16hour}	-
Dining	Dining room/area	40 dB L _{Aeq,16hour}	-
Sleeping (daytime resting)	Bedroom	35 dB L _{Aeq,16hour}	30dB L _{Aeq,8hour}

Figure 3: Indoor ambient noise levels for dwellings (from BS8233 Table 4)

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4.14 Annex G of BS8233 informs that windows, and any trickle ventilators, are normally the weakest part of a brick and block façade. Insulating glass units have a sound insulation of approximately 33 dB $R_{\rm w}$ and, assuming suitable sound attenuating trickle ventilators are used, the resulting internal noise level ought to be determined by the windows. If partially open windows are relied upon for background ventilation, the insulation would be reduced to approximately 15 dB.

Operational objectives

- 4.15 The applicant is keen to promote good relationships with all commercial and residential neighbours, and has successfully done this since the original licence was granted in 2015. Therefore, in addition to all statutory obligations, it is a primary operational objective that noise from the normal commercial operation of the bar does not have a detrimental impact on neighbours resting or sleeping in their homes.
- 4.16 A comprehensive suite of operational policies has been prepared adopting the good practice already in place and adding further controls to the premises. These can be found at Appendix C.

5.0 Predicted noise from customers outside smoking

- 5.1 No additional use of the rear area is proposed with this application. There is a need for smokers to go outside and this is proposed to be to the front of the premises on the pavement.
- 5.2 In order to assist in the comprehension of actual noise levels produced by people outdoors it is important to understand the effects of the noise source (i.e. people talking) and how that noise level increases as the number of people talking increases.
- 5.3 Referring to data held in our own library; normal conversation is typically in the range of 55-60dBA when measured at 1 metre. In assessing the noise levels for a group of people outside I have considered a group of 10 people are talking in the front smoking area.
- 5.4 In normal conversation no more than 50% of them would be talking (there will be at least one listener for each talker). If we now consider people to be talking at the upper end of the normal speaking range, and look at a worst case scenarios of half of the people talking concurrently at 60dBA then in order to calculate the total noise level we logarithmically sum 5 sources of 60dB as follows:

$$\sum = 10 \log \left(n \times 10^{\left(\frac{60}{10}\right)} \right)$$

where n is the number of people talking

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- 5.5 The formula above gives a value for total sound pressure level for a group of 10 people to be 67dBA².
- 5.6 It is important to remember that this is a worst-case value, when 50% of the people are talking simultaneously and loudly. In reality general lulls in the conversation, smoking, or conversations where there are more than one listener to each talker mean that less than 50% of an average group will be talking simultaneously. I have also observed that groups in close proximity to each other talk with more hushed voices than groups of people spread out when, for example, seated at large tables in a busy pub beer garden in the middle of the day.
- 5.7 67dBA is the predicted noise from a group of 10 people talking loudly outside when measured at 1 metre. Sound is attenuated in air and this effect is noticeable as the listener moves away from the source.
- 5.8 In calculating distance attenuation, the noise of people talking is assumed to be a number of discreet point sources and therefore is attenuated by 6dB with each doubling of distance. So if the noise source is 67dBA at 1 metre then at 2 metres it becomes 61dBA, at 4 metres 55dBA.
- 5.9 Attenuation due to distance is calculated using:

Attenuation = 20 log (R2 / R1)

Where R1 = distance from source to measurement position

R2 = distance from source to receptor position

- 5.10 There is a separation distance of greater than 50 metres from the noise source to the closest receptor position opposite (the front façades of houses on the other side of the play area). At a distance of 50m the predicted noise from a group of 10 people talking outside is calculated to be 33dBA which is below the typical urban background noise level measured at a residential location away from roads and substantially below background noise levels previously recorded at this location.
- 5.11 A further attenuation of the noise source is achieved by the insertion of any barrier that obscures line-of-sight to the receptor position.
- 5.12 Inside a residential property all external noise sources are attenuated by the glazing, by the distance from the noise source to the window, and by any physical obstruction of clear line of sight to the noise source.
- 5.13 Calculations indicate that the resultant noise level at this location will be in compliance with the relevant standards and guidance and that desirable internal ambient noise levels in dwellings would not be affected by the noise from people talking in front of the premises. For dwellings that are further from the source, and/or obscured from line-of-sight, then noise levels would be even lower.

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 $^{^2}$ Alternative calculation method according to Growcott, D (Consideration of Patron Noise from Entertainment Venues, Australian Association of Acoustical Consultants Guideline, Australia, 2009) using $L_{Aeq} = 21*log(N)+43$ gives 64dBA.

6.0 Recommendations for noise control - remedial works

- 6.1 The building has successfully contained noise from the normal operation of the bar for over six years. In this time over 100 events have been held using TENs and these have occurred without complaint of public nuisance. As such the building has been thoroughly tested.
- 6.2 An additional corridor to access the back area is being installed to further reduce noise breakout after 22:00.
- 6.3 There is some music noise breakout to the area in front of the premises when the door is opened for access. The solution for improved control of noise breakout is a lobby door system although the size of the premises does not lend itself to the loss of floorspace that this would require.
- 6.4 It should also be noted that historically there has not been a requirement for a limiter on the sound system, but this proposal volunteers a limiter condition which will control noise breakout from amplified music.

7.0 Recommendations for noise control - operational

- 7.1 A comprehensive suite of operational policies has been prepared. These are a formalisation of the existing best practice procedures that have historically been employed at the premises. Additional measures are also proposed reflecting the intent for a higher standard of operation going forward.
- 7.2 Noise management procedures will be an integral part of all employee training and be regularly reviewed.
- 7.3 Additional premises licence conditions have been proposed in consultation with the Senior Environmental Protection Officer.

8.0 Recommendations for noise control - sound system

- 8.1 A limiter has now been fitted to the sound system and a condition requiring a limiter is proposed.
- 8.2 The limiter is a Citronic CL22 compressor/limiter/gate which is designed to control the dynamic range of the signal and is set to ensure that a predetermined maximum operating level is not exceeded.

9.0 Proposed conditions

9.1 Following a productive round of negotiations with Mr Rockwell Charles, Senior Environmental Protection Officer in the Environmental Protection Team, the following conditions have been proposed by Mr Charles:

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A Sound Limiting device within the premises shall be provided to control all amplified sound levels generated on the premises.

The device shall be approved by and set to the Council's satisfaction and thereafter maintained for the duration of use.

Recorded music shall be played at such a level to ensure that nuisance is not caused in any un-associated neighbouring premises.

The designated smoking area is located at the front of the premises facing onto Lower Clapton Road. The use of this area shall be limited to no more than 6 patrons at any one time.

9.2 The constraint on the smoking area is restrictive and not necessary in the daytime or early evening. It is hoped that the committee would instead consider the following revision:

The designated smoking area is located at the front of the premises facing onto Lower Clapton Road. <u>After 23:00hrs</u> the use of this area shall be limited to no more than 8 patrons at any one time.

10.0 Conclusions

- 10.1 Big Sky Acoustics Ltd was instructed by Mr Liam O'Hare, acting on behalf of Blondies London Limited, to carry out an assessment of the impact of noise from the proposed variation to licensable activities at Blondies Bar, 205a Lower Clapton Road.
- 10.2 The premises has successfully operated for six years and later hours of operation have been tested under many TENs events.
- 10.3 This is a small bar with a capacity of 55 persons. Amplified music is now proposed to be controlled by a limiter, and operational practices have been formally documented reflecting industry best practice for the management of noise from licences premises. The normal commercial operation of the bar has not previously adversely impacted on the licensing objective of the prevention of public nuisance.
- 10.4 Given the location, style of operation, the updated controls, and a willingness to take on board further controls if necessary, it is my professional opinion that the premises is unlikely to adversely impact on the licensing objectives as controlled activity at Blondies Bar would not result in an increase of average noise levels in the area and therefore is highly unlikely to result in a public nuisance.

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Appendix A - Terminology

Sound Pressure Level and the decibel (dB)

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 140 dB (threshold of pain).

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 20,000 Hz. However, the upper frequency limit gradually reduces as a person gets older.

A-weighting

The ear does not respond equally 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 dBA. A change of 3dBA is the minimum perceptible under normal everyday conditions, and a change of 10dBA corresponds roughly to doubling or halving the loudness of sound.

C-weighting

The C-weighting curve has a broader spectrum than the A-weighting curve and includes low frequencies (bass) so it i can be a more useful indicator of changes to bass levels in amplified music systems.

Noise Indices

When a noise level is constant and does not fluctuate over time, it can be described adequately by measuring the dB level. However, when the noise level varies with time, the measured dB level will vary as well. In this case it is therefore not possible to represent the noise level with a simple dB value. In order to describe noise where the level is continuously varying, a number of other indices are used. The indices used in this report are described below.

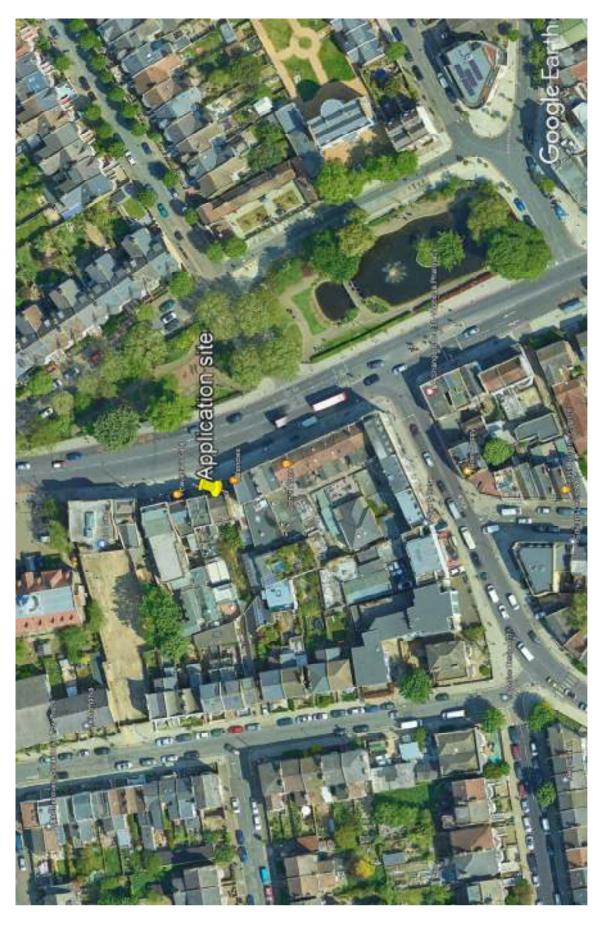
- The equivalent continuous sound pressure level which is normally used to measure intermittent noise. It is defined as the equivalent steady noise level that would contain the same acoustic energy as the varying noise. Because the averaging process used is logarithmic the L_{eq} is dominated by the higher noise levels measured.
- **L**_{Aeq} The A-weighted equivalent continuous sound pressure level. This is increasingly being used as the preferred parameter for all forms of environmental noise.
- **L**_{Ceq} The C-weighted equivalent continuous sound pressure level includes low frequencies and is used for assessment of amplified music systems.
- **L**_{Amax} is the maximum A-weighted sound pressure level during the monitoring period. If fast-weighted it is averaged over 125 ms , and if slow-weighted it is averaged over 1 second. Fast weighted measurements are therefore higher for typical time-varying sources than slow-weighted measurements.
- L_{A90} is the A-weighted sound pressure level exceeded for 90% of the time period. The L_{A90} is used as a measure of background noise.

Example noise levels:

Source/Activity	Indicative noise level dBA
Threshold of pain	140
Police siren at 1m	130
Chainsaw at 1m	110
Live music	96-108
Symphony orchestra, 3m	102
Nightclub	94-104
Lawnmower	90
Heavy traffic	82
Vacuum cleaner	75
Ordinary conversation	60
Car at 40 mph at 100m	55
Rural ambient	35
Quiet bedroom	30
Watch ticking	20

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Appendix B - application site location



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Appendix C - Operational policies

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