

**THE POET, 82 MIDDLESEX STREET, LONDON E1
NOISE ASSESSMENT CONCERNING LICENCE REVIEW**

**On behalf of:
The Poet Bar Ltd**

Report No. 30140.1v1
October 2008

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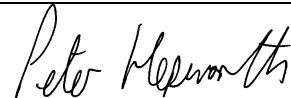
Report prepared by:
Hepworth Acoustics Ltd
Hamilton House
Mabledon Place
London
WC1H 9BB

On behalf of:
The Poet Bar Ltd
82 Middlesex Street
London
E1 7EZ

Report prepared by:
Duncan Newhall BSc (Hons) MIOA - Principal Acoustic Consultant



Report checked by:
Peter Hepworth BSc FIOA – Managing Director



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1.0 INTRODUCTION

- 1.1 Hepworth Acoustics Ltd has been commissioned by The Poet Bar Ltd to carry out a noise assessment of The Poet, 82 Middlesex Street, London E1 3EZ. The premises are located on the basement and ground floor levels of the four-storey building with residences above.
- 1.2 The client has instructed a noise impact assessment to be undertaken at the location of the nearest residences. It is understood that the premises have received noise complaints from local residents, which has resulted in the Local Authority, London Borough of Tower Hamlets (LBTH), calling the licence in for review.
- 1.3 This assessment has considered the most noise-sensitive time during the current operation of the premises.
- 1.4 The assessment has included:
- Daytime site inspection of the premises and environs to establish the location of the nearest residences;
 - Measurement of sample noise levels inside the premises during a Thursday night trading period;
 - Measurement of sample noise levels outside the premises to establish any areas of noise breakout;
 - Measurement of noise levels at locations representative of the nearest residential properties, with and without the premises trading; and
 - Outline recommendations for noise control measures where necessary.
- 1.5 Noise levels referred to in the text of this report have been rounded to the nearest decibel, as fractions of decibels are imperceptible. A description of noise units and noise characteristics is provided in Appendix I.

2.0 DESCRIPTION OF THE PREMISES

- 2.1 The premises include a ground floor bar with amplified music, with supporting areas in basement and ground floors.
- 2.2 The client has confirmed that the premises trade from 11:00-23:00 hours Monday to Friday, and is closed on Saturday and Sunday.
- 2.3 The main entrance is a double door set to Middlesex Street. There is a single door fire exit to Cobb Street, although this does not open directly into the customer area, as there is a further set of doors. It was observed during our survey that all doors were closed during normal trading hours, except to allow access to and from the premises.
- 2.4 There is not a designated external smoking area to the premises. However, customers do use the areas to the front and side of the building on Middlesex Street and Cobb Street near the main entrance.
- 2.5 The majority of properties in the immediate vicinity of the site are office or commercial premises, with several other licensed premises in the immediate area. Middlesex Street is a busy, well trafficked road during the evening period.
- 2.6 The nearest residence is located on the first floor of the premises building, at 84 Middlesex Street, having windows to both Middlesex Street and Cobb Street.

3.0 NOISE LEVEL SURVEYS AND RESULTS

- 3.1 A noise level survey was undertaken on Thursday 11th September, from approximately 21:30-00:10 hours. The client confirmed that a Thursday is typically the busiest trading time. The survey was carried out at these times to enable noise levels to be measured during and after the premises' trading hours.
- 3.2 The noise measurements were carried out at two locations representative of the nearest windows of the closest residence. Location 1 was on the pavement adjacent to the entrance to the residences 84 Middlesex Street, whilst Location 2 was on the pavement on Cobb Street, beneath residential windows. The approximate measurement positions are shown in Figure 1.
- 3.3 Noise measurements were recorded using a Bruel and Kjaer 2260 Type 1 sound level meter (serial no. 2520468). The meter was mounted on a tripod with the microphone approximately 1.5m above ground level and a windshield was fitted to the microphone at all times. The calibration of the meter was checked before and after the survey with no variation in level noted.
- 3.4 Additional noise measurements were carried out during normal trading inside the premises and at locations around the exterior of the site.
- 3.5 Weather conditions were dry with predominantly little or no wind, which represented good conditions for noise measurements.
- 3.6 Table 1 summarises the measured noise levels inside the premises during trading hours on Thursday 11th September.

Table 1: Measured noise levels in The Poet Bar

Location	Comments	Measurement Period		Noise Levels		
		Start	End	L _{Amax}	L _{Aeq,T}	L _{A90,T}
Inside – by the entrance	Amplified music/ customers/ pool playing	21:29	21:35	83	73	67
Inside – centre of premises, to the exterior elevation	Amplified music/ customers/ pool playing	21:35	21:40	89	71	65
Inside – to the rear of premises	Amplified music/ customers/ pool playing	21:41	21:46	85	73	65
Inside – centre of premises, to the bar	Amplified music/ customers/ pool playing	21:47	21:52	81	72	67

3.7 The ambient noise levels at Locations 1 and 2 representative of the nearest residential properties are shown graphically in Appendix II. Measured levels were due predominantly to road traffic, aircraft, pedestrians and occasional emergency vehicle sirens. Mechanical plant noise serving adjacent commercial premises was also noted to the rear of the site, but noise from this did not affect the measured levels at Locations 1 and 2.

3.8 The measured levels at Locations 1 and 2 are summarised in Table 2 below:

Table 2 – Summary of measured ambient noise levels (dB)

Location		Noise Levels			Comments
		L _{Amax}	L _{Aeq,5min}	L _{A90,5min}	
1 – Last hour of trading	Range	78-101 (78-85 with no siren)	59-80 (59-70 with no siren)	50-54 (50-54 with no siren)	Road traffic noise, aircraft, pedestrians, emergency sirens
	Mean	93 (82 with no siren)	73 (66 with no siren)	52 (52 with no siren)	
1 – Premises closed	Range	79-87	60-68	50-52	Road traffic noise, aircraft, pedestrians
	Mean	84	66	51	
2 – Last hour of trading	Range	70-78	55-61	48-49	Road traffic noise, aircraft, pedestrians
	Mean	75	58	48	
2 – Premises closed	Range	72-95 (72-78 with no siren)	57-72 (57-61 with no siren)	47-48 (47-48 with no siren)	Road traffic noise, aircraft, pedestrians, emergency sirens
	Mean	87 (75 with no siren)	66 (60 with no siren)	48 (48 with no siren)	

3.9 At Location 1, measured noise levels ranged between 59-80 dB L_{Aeq} and 50-54 dB L_{A90}, with L_{Amax} levels between 78-101 dB during trading hours. The highest recorded levels were due to an emergency vehicle siren. Without this source present, the measured ranges were 59-70 L_{Aeq}, 50-54 L_{A90} and 78-85 L_{Amax}.

- 3.10 After the premises had closed, the measured noise level range at location 1 was 60-68 dB L_{Aeq} , 50-52 dB L_{A90} and 79-87 dB L_{Amax} with premises closed.
- 3.11 At Location 2, measured noise levels ranged between 55-61 dB L_{Aeq} and 48-49 dB L_{A90} with L_{Amax} levels between 70-78 dB during trading hours. After the premises had closed, the measured noise levels at Location 2 were 57-72 dB L_{Aeq} , 47-48 L_{A90} and 72-95 dB L_{Amax} . As at Location 1, the highest measured levels were due to an emergency vehicle siren. Without this source included, the measured ranges were 57-61 L_{Aeq} , 47-48 L_{A90} and 72-78 L_{Amax} .

4.0 NOISE ASSESSMENT

- 4.1 During the survey there were relatively few customers at the premises, typically around 15 inside and no more than four customers were outside the premises at any time. The Manager confirmed that this is the typical situation after 21:00 hours, on a Thursday night.
- 4.2 Table 1 shows that measured noise levels within the premises are relatively low at 71-73 dB L_{Aeq} . Noise levels of this magnitude are typical of raised conversation level and amplified music noise was being played only at 'background' levels.
- 4.3 Table 2 above and the graphical representation in Appendix II show that the measured levels at Locations 1 and 2 are generally high, regardless of whether the Poet premises are trading or not. There is no significant reduction in noise levels following the closure of the premises at 23:00 hours.
- 4.4 Note that at Location 1, the measurement sample starting at 22:43 hours was dominated by a police siren, elevating the measured L_{Aeq} and L_{Amax} noise level for this period. A siren also occurred at Location 2, for the last measurement sample starting at 00:03 hours.
- 4.5 With the exception of these two events, L_{Amax} levels at both measurement locations were found to be relatively uniform and consistently high during the entire survey.
- 4.6 The measured background noise levels were practically constant throughout the entire survey at both locations, during and after trading hours.
- 4.7 The dominant noise source in the area was road traffic on Middlesex Street and Cobb Street. This source determined measured noise levels throughout the survey, both during and after trading hours at The Poet premises.
- 4.8 Pedestrians were also present, the numbers of which tended to remain constant throughout the entire survey. The noise contribution from pedestrians was difficult to quantify but it is

sufficient to note that pedestrian noise was not the dominant noise source in the area. Middlesex Street is a busy street and there are several other licensed venues in the immediate area. This ensures that the noise contribution from customers leaving The Poet premises is low.

4.9 Importantly, noise from music/customer noise break-out from within the premises was not audible at the measurement locations.

4.10 Measured noise levels, after the Poet ceased trading, remained high, with a mean value of 66 dB L_{Aeq} at Locations 1 and 2. BS 8233:1999 '*Sound insulation and noise reduction for buildings – code of practice*', recommends noise levels in bedrooms should be within the range 30-35 dB L_{Aeq} to ensure good/reasonable sleeping conditions. BS 8233: 1999 also states that an open window will typically provide around 10-15 dB attenuation (13 dB is assumed here). With an open window at the property, the noise level inside bedrooms will be around 53 dB, with no activity at The Poet. This is considerably in excess of the recommended range of 30-35 dB L_{Aeq} inside bedrooms and demonstrates that the area is one with generally high noise levels, regardless of whether the premises are trading or not.

5.0 SUMMARY AND CONCLUSIONS

- 5.1 A noise assessment has been undertaken of the Poet Bar at 82 Middlesex Street, Tower Hamlets, London E1, to assess noise impact at the nearest residences.
- 5.2 The nearest residences are located on the first floor of the same building as the Poet Bar, at 84 Middlesex Street.
- 5.3 The assessment has included measurements to assess existing noise levels at the nearest residences during a Thursday evening, both during and after trading hours.
- 5.4 Noise levels at the residences are generally high due to road traffic in the area and there is no noticeable reduction in noise levels when the premises are closed.
- 5.5 The existing ambient (L_{Aeq}), background (L_{A90}) and maximum (L_{Amax}) noise levels in the area are dominated by road traffic. The noise contribution from pedestrians is not the dominant source in the area and has minimal effect on the measured levels.
- 5.6 Noise from within the venue was not audible at the measurement locations.
- 5.7 Given the high noise levels in the area from road traffic, it has been demonstrated that there is no impact on residential amenity from the current operation of the Poet Bar premises.

Figure 1. Location of the Noise Measurement Position



Figure 1 - Approximate location of noise measurement positions

Appendix I – Noise units and indices

a) 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 120 dB (threshold of pain).

b) 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.

c) Glossary of Terms

When a noise level is constant and does not fluctuate over time, it can be described adequately by measuring the dB(A) level. However, when the noise level varies with time, the measured dB(A) level will vary as well. In this case it is therefore not possible to represent the noise climate with a simple dB(A) value. In order to describe noise where the level is continuously

varying, a number of other indices, including statistical parameters, are used. The indices used in this report are described below.

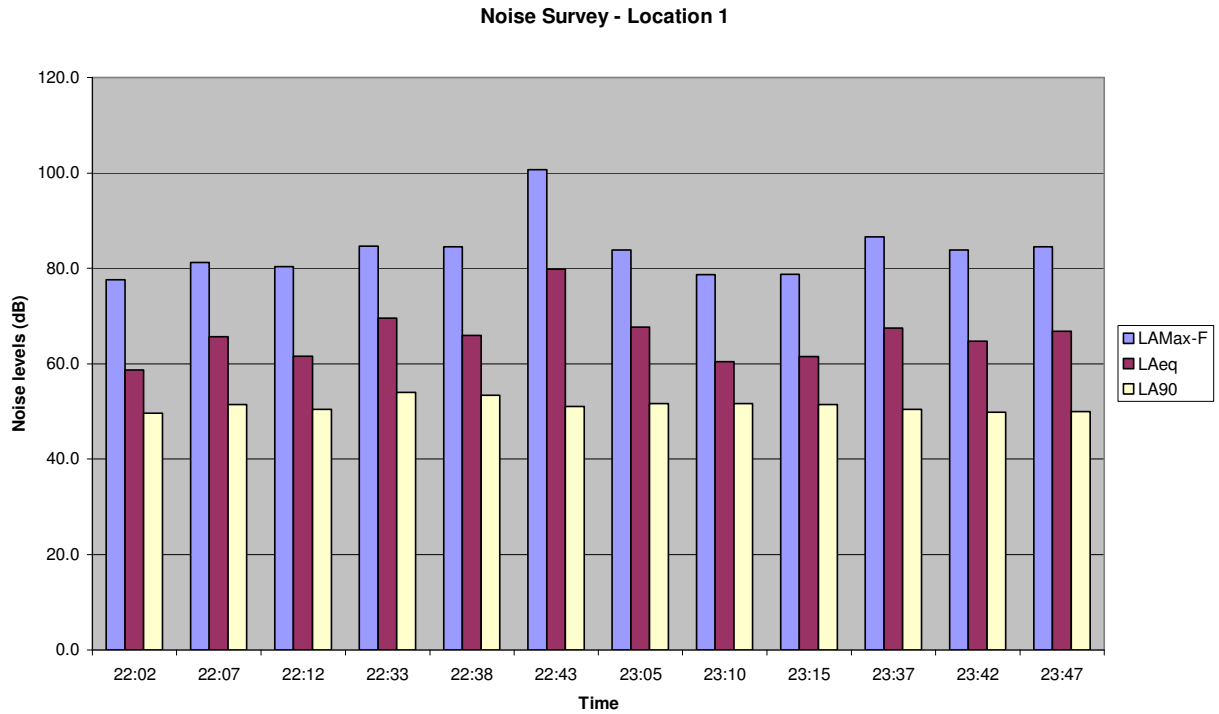
L_{Aeq} This is the A-weighted 'equivalent continuous noise level' which is an average of the total sound energy measured over a specified time period. In other words, L_{Aeq} is the level of a continuous noise which has the same total (A-weighted) energy as the real fluctuating noise, measured over the same time period. It is increasingly being used as the preferred parameter for all forms of environmental noise.

L_{Amax} This is the maximum A-weighted noise level that was recorded during the monitoring period.

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

Appendix II – Results of noise survey

Dates: Thursday 11th September 2008
Equipment: Bruel & Kjaer 2260 Type 1 integrating sound level meter.
Weather: Mainly dry with little or no wind



Nose Survey - Location 2

