

Acoustic Technical Memorandum

City Beach , Old Truman Brewery, Brick Lane

Amplified Music Feasibility Investigation

11 August 2017
17-0202-0 Noise Feasibility Investigation ATM1 & NMP City Beach 2018

1 INTRODUCTION

Sustainable Acoustics have been instructed to carry out a sound propagation test on the proposed site, which is the car park behind the Truman Brewery Building on Brick Lane, London. Measurements were taken on the evening of the 7th September 2017 by Peter Rogers, a Fellow of the Institute of Acoustics and competent qualified person to conduct such an assessment.

The advice in this acoustic technical memorandum considers the suitability of the site for three types of amplified sound, which are ambient music, amplified music for the purposes of being the focus of the entertainment, and speech amplified through the sound system.

2 THE SITE

The site is located off the busy and vibrant Brick Lane, in a car park behind the Old Truman Brewery.



Figure 1 : Site plan with monitor positions, and closest residential shown



Closest residential

The closest residential is to the SE on Spital Street, and the sheltered housing at the NW of the site on Buxton Street. The distance to the test dancefloor was approximately 65m to the façade of residents on Buxton Street, and 55 to 75m to those on Spital Street.

It is understood from the venue manager that those on Spital Street have tended to be the most sensitive in the past, with some with young families. Those on Buxton Street are close to the areas inside the Old Truman Brewery in which other summer events take place, and are not considered to be overly sensitive by those whom operate that venue.

No contact has been made at this stage to check whether there is a complaint history with Environmental Health, but based on the information available.

A resident called James (who said he occupied flat 17) said that the levels being trialed were acceptable to him, with the windows open, within his flat.

3 THE PROPOSAL

The idea of London City Beach 2018 is of a “pop-up” beach for a period of time, which would include playing music to guests with a dancefloor operating and DJ between approximately 21:00 until 23:00. For the rest of the time it would be ambient music only. The proposed layout is show in Figure 2 below.

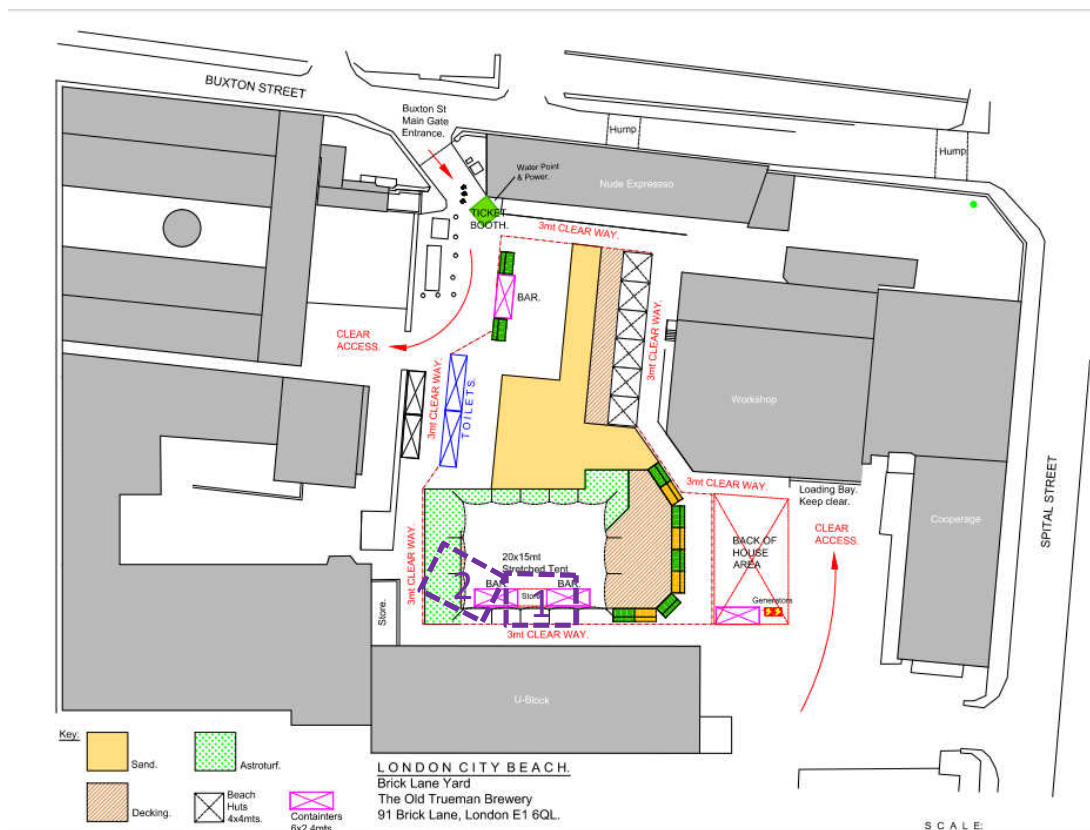


Figure 2 : Proposed event layout, with potential stage areas show with dotted purple lines



4 THE SOUND SOURCE

Zone Array

The sound source being used during the trial is called a Zone Array, which is a sound ceiling made from a large number of small loud speakers, mounted in panels, which are suspended at approximately 3m height. The interference between the speakers creates the full range of sound required for amplified music, but with a fast drop off over the initial distance. This means it can be used in tight sites close to residents where sound levels need to be tightly controlled.



Photo 1 : Zone Array dancefloor speaker system providing the sound source

5 EQUIPMENT & METHODOLOGY

Instrumentation

The instrumentation used to measure the sound levels is set out overleaf in Table 1:



				For
NA28				
Rion Class 1 sound level meter	NA-28	00170246	06/04/17	U18435
Preamplifier	NH-23	60254	06/04/17	U18435
Microphone	UC-59	00299	06/04/17	18433
Rion Calibrator	NC-74	34773049	06/04/17	U18434
Svan 971				
Svantek Class 1 Sound Level Meter	971	60022	06/02/17	On request
Preamplifier	SV18	58927	06/02/17	On request
Microphone	7052E	63263	06/02/17	On request
Svantek Sound Level Calibrator	SV33	58228	06/10/16	On request

Table 1: Equipment used in investigations on the 11th July 2017

Both meters were calibrated before and after measurements and no significant drift was noted.

The weather during measurements was overcast and muggy (temp 17 to 19 degrees Celsius). There was light precipitation intermittently but not sufficient to affect measurements or the equipment, which was set up unprotected in the open air.

Measurements were completed alongside the production Type 2 SLM, to assist the Sound Engineer to train of the familiarity of its use, for operational site checks, and to check the levels were comparable with the Type 1 results.

Methodology

The sound source was energised and a variety of popular music and dance music played through it at various levels that were considered suitable for the :

- ambient music support
- Dancefloor music levels
- Speech address levels

The NL32 was located at position A, and logged L_{Aeq} , L_{AMax} and L_{A90} sound levels continually every 5 minutes during the investigation period.

Handheld measurements were made beneath the dancefloor and at position A and B for different set-ups and when the music was off to get the ambient as Octave Band values.

6 RECEIVER POSITIONS

The logger positioned at monitoring location A is shown in photo 2 below, with the residential beyond.



Photo 2 : Position A , with residential visible beyond to the right and left beyond the trees



Photo 3 : Position B is 3m from the gates (marked with the blue cross) with residential visible beyond



7 CRITERIA

The appropriate targets are difficult to determine, but in an urban environment such of this, for a few number of events (up to approximately 3 times year) the guidance from Code of Practice of Environmental Noise Control a Concerts, 1993, in urban (non stadia) locations is clear that up to $L_{Aeq, 15min}$ 65dB(A) should be appropriate up to 23h00. This should be used as the feasibility test for whether the site is suitable for a small number of events.

For event noise limits / targets daytime levels, but after 18h00 it is considered appropriate to tighten this to be a target of not more than 60dB(A) in my experience.

However to control the levels of bass more tightly will be to minimise one of the key areas where sound from music can be disturbing. In order to achieve this levels of 80dB at 63Hz and 125Hz are considered appropriate for daytime hours (up 07h00 to 18h00) , reducing to 70dB between 18h00 and 23h00 , when the event is planned to continue to.

8 RESULTS

8.1 Logging results

The logger at position A revealed the following time history, as shown below in Figure 3.

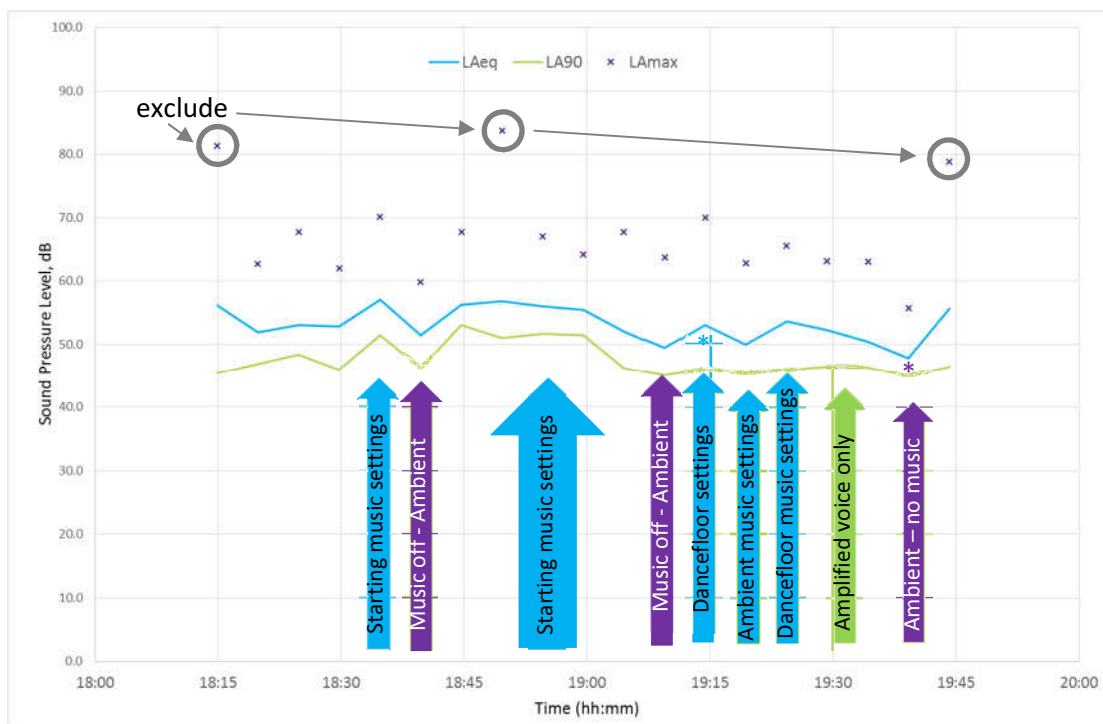


Figure 3 : Time History of noise levels during the sound test period at position A.

From this data it can be seen that the following is typical at position A:

- Ambient noise levels , with no music, was dominated by local traffic breeze through trees, distant aircraft activity, which resulted in $L_{Aeq, 5min}$ 51 to 48* dB(A), $L_{A90, 5min}$ 45* dB(A), L_{AMax} 60 to 56* dB(A). (Note: The period when levels were lowest (quietest) up are those marked with *).



- Dancefloor music levels result in $L_{Aeq, 5min}$ 57 to 53* dB(A), L_{AMax} 70* to 65dB(A). (Note: The levels when set to acceptable saved set up are those marked with *). This caused a noticeable but low /minor subjective impact at A against a period where there was no music. The bass was not strongly noticeable, and would be unlikely to cause disturbance at residential, in my view.
- Ambient music levels (ie. those intended to create an atmosphere, rather than be the focal point of the entertainment) did not affect background levels, and resulted in $L_{Aeq, 5min}$ 50 dB(A), L_{AMax} 63dB(A). This caused no subjective impact at A.
- Amplified voice levels (ie. those to make announcements) was barely audible at position A, subjectively and did not affect background levels, $L_{Aeq, 5min}$ remained at 50 dB(A), with L_{AMax} 63dB(A). This caused no subjective impact at A.

8.2 Handheld results

Date and Time	LAMax in dB	LAeq in dB	LA90 in dB	Leq 63Hz	Leq 125Hz	Notes
07/08/2017 18:38:54	103.5	93.1	80.0	95.5	101.1	Beneath source - baseline
07/08/2017 18:44:00	93.7	87.2	78.1	80.6	88.3	At edge of dancefloor
07/08/2017 18:45:20	84.4	79.1	73.7	76.1	74.9	at 10m from dancefloor
07/08/2017 18:46:41	82.7	71.4	65.5	73.3	72.1	at 20m from dancefloor
07/08/2017 18:48:10	71.0	64.7	60.6	70.9	68.4	at 40m from dancefloor
07/08/2017 18:50:57	71.0	63.6	59.3	65.2	63.9	at 50m from dancefloor
07/08/2017 18:54:42	73.8	60.9	54.2	71.1	66.9	at 3m from gate (B)
07/08/2017 18:55:21	66.2	59.3	55.1	66.7	66.0	at 3m from gate (B)
07/08/2017 19:05:30	59.4	51.0	47.4	60.1	57.9	Ambient - no music at B*
07/08/2017 19:07:14	53.3	47.4	45.7	55.9	51.0	Ambient - no music at A*
07/08/2017 19:09:16	55.8	49.5	44.8	57.1	52.4	At Position A - music on
07/08/2017 19:10:02	53.5	49.0	44.4	61.2	54.4	At Position A - music on
07/08/2017 19:14:55	100.8	94.9	86.9	98.2	101.7	Dancefloor at settings *
07/08/2017 19:18:14	80.9	72.4	63.5	77.2	81.1	Ambient music only - dancefloor
07/08/2017 19:19:49	55.2	48.8	46.0	59.0	51.2	Ambient music only - A
07/08/2017 19:21:54	50.5	44.7	42.2	51.3	49.0	Ambient music only - B
07/08/2017 19:24:10	103.8	93.9	88.2	93.0	96.1	Dancefloor at settings
07/08/2017 19:28:50	99.7	87.5	47.5	74.5	91.8	Voice only *
07/08/2017 19:32:55	65.0	52.6	47.5	59.4	56.0	Voice at A - barely audible
07/08/2017 19:34:32	64.0	56.3	46.0	60.1	62.7	Voice at B - audible
07/08/2017 19:35:21	103.1	92.4	53.5	75.9	98.8	Dancefloor at settings

Table 1: Hand held measurements results with music max desirable settings at source (*), ambient (*), voice source only (*)

- The results show that dancefloor levels, once set for the commercially desirable levels (indicated by an *) were Music Noise Levels ($L_{Aeq,1min}$) = 93dB(A), with bass levels of $L_{eq,63Hz}$ =98dB, and $L_{eq,125Hz}$ =102dB.
- Ambient levels (no music) at A were confirmed to be ($L_{Aeq,1min}$) = 47dB(A), with bass levels of $L_{eq,63Hz}$ =56dB, and $L_{eq,125Hz}$ =51dB.
- With music on at the above levels at A levels rose by 3dB(A) overall to ($L_{Aeq,1min}$) = 50dB(A), with bass levels increasing by 5dB to $L_{eq,63Hz}$ =61dB, and by 3dB to $L_{eq,125Hz}$ =54dB. These are very minor increases, which are barely noticeable against the ambient soundscape.



- With music on at the above levels at B rose to an overall to ($L_{Aeq,1min}$) = 66dB(A), with bass levels of $L_{eq,63Hz}$ =67dB, and $L_{eq,125Hz}$ =66dB. These were noticeable, but confirmed by the resident of Flat 17 (called “James”) to be acceptable in his view.

9 ANALYSIS

9.1 Sound fall off over distance

The sound levels reduce from the centre of the dancefloor area

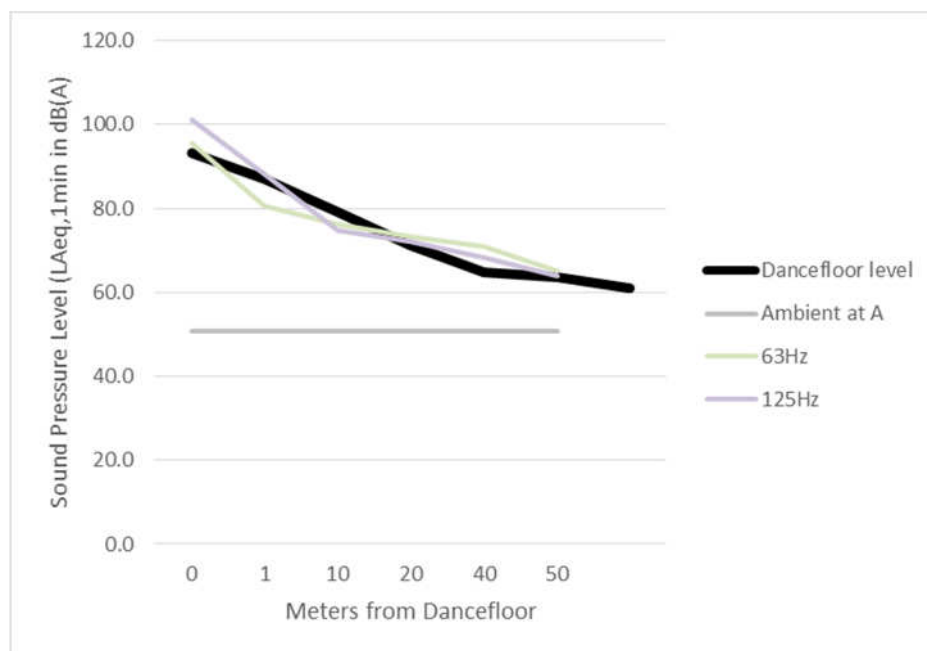


Figure 4: Drop off of sound level with distance in direction of B (no screening)

The sound levels fall by 30dB(A) over 40m, and then shows a plateau in reduction as it nears the ambient noise levels. However by 60m a reduction of 35dB(A) has occurred, with similar falls in the low frequency bands. This works out as an average of -5dB per doubling of distance in this worst case direction of propagation.

The reflective ground conditions of the tarmac car park, and having the speakers close to the large vertical surface of the building reflect sound and result in less of a fall in sound levels over distance, than if it were on open, soft ground.

9.2 Predicted MNL at residential

In the direction of each of the residential receptors the following predictions of the Music Noise levels (MNL) can be made for worst case levels, at the settings tested:

- Residential opposite on Spital Street (~85m distance), with partial screening and no building reflection (expect -6dB per doubling of distance and at least 5dB of screening) :
 $L_{Aeq(predicted)} = 87$ (sound level at edge of dancefloor) $- 20 \log(85) - 5 = 87 - 39 - 5 = 43$ dB(A)



Validating this can be done by using the 19:07 to ambient level with no music, which was 47dB; so combining the predicted music level results to this gives 48dB(A), which is 1 dB below the 49dB(A) that was measured. Taking an adjustment for the distance to “A”, instead of residential façade, a correction of +1 can be added, which makes 49dB(A), which validates the prediction to this residential. Therefore in this source position a reduction of at least 44dB(A) is expected to be achieved from the L_{Aeq} at 1m from the edge of the dancefloor.

- Residential block to the south of position A, on Spital Street (~55m distance), but heavily screened: $L_{Aeq(predicted)} = 87$ (sound level at edge of dancefloor) $- 20 \log(55) - 15 = 87-23-15 = 49dB(A)$
- Residential block to the north, beyond position B, on Buxton Street (~65m distance), and no screening above first floor from structure of zone array: $L_{Aeq(predicted)} = 87$ (sound level at edge of dancefloor) $- 20 \log(65) - 0 = 87-36-0 = 51dB(A)$

Validating this again can be done by using the 19:05 to ambient level with no music, which was 51dB; so combining the predicted music level results to this gives 54dB(A), which is 6 dB below the 60dB(A) that was measured at position B. Taking an adjustment for the distance to “B”, instead of residential façade, a correction of +3 can be added, which makes 57dB(A), which is within a reasonable estimate given the fluctuation of the ambient and validates the prediction to this residential location. Therefore in this source position a reduction of at least 36dB(A) can be allowed to be achieved from the L_{Aeq} at 1m from the edge of the dancefloor.

In summary the MNL are predicted, with dancefloor levels of 95dB(A) and no further mitigation to provide the following MNL at each closest residential, as an estimated the $L_{Aeq 15 min}$:

- | | |
|--------------------------------------|-----------------------------|
| • Buxton Street facing residential | $L_{Aeq 15 min}$ 51-54dB(A) |
| • Spital Street unscreened residents | $L_{Aeq 15 min}$ 43dB(A) |
| • Spital Street screened tower | $L_{Aeq 15 min}$ 49dB(A) |

MNL Target (07:00-18:00)	$L_{Aeq 15 min} \leq 65dB(A)$
MNL Target (18:00-23:00)	$L_{Aeq 15 min} \leq 60dB(A)$

Comments - All locations will be expected to achieve these targets with no further mitigation

10 MITIGATION

To further reduce noise from the speakers a number of suggestions are made, to minimise the disturbance caused, which are :

1. Move the dancefloor into the corner were the two buildings meet
2. Add heavy Coi matting hangings (at least 14mm thick) to line the dancefloor on the two sides that face the buildings to reduce the sound spilling from the dancefloor and reflections from the building
3. An acoustic hood for the dancefloor ceiling should be added (that includes a layer of Techsound50), which decends at least 600mm over the sides on all sides, to provide additional local screening of the speaker array, and prevents sound escaping strongly vertically, where wind strength and direction could affect sound reduction characteristics over distance, for elevated residential receiver positions, such as the block of flats.



4. Any distributed speakers that are used to reinforce sound around the site, should be enclosed with acoustic shrouds made of the same material as in 3, to reduce rear propagating sound, and levels set up so that the overall levels at the residential from the dancefloor is not raised.
5. A noise limiting device should be included within the sound tech specification, that is capable to limiting the sound output at each octave band frequency, and be set for the duration of the event. A suitably qualified acoustician should set those levels and seal the adjustment port to prevent it being tampered with once set up.
6. A noise management plan (NMP) should be prepared for the event, and implemented throughout. A suggested draft version (including monitoring forms) is included in Appendix A.
7. The NMP should include periodic sound monitoring at the boundary, records of the values and conditions, details of any complaints received and the steps taken to investigate that the NMP is being implemented. It shall also include a complaint line number.
8. Training to be given to sound engineers on how to correctly use the Type 2 sound level meter, which they will use for monitoring. This was given during the site investigation, and side by side measurements made to test the repeatability and accuracy of the instrument.

11 CDM RISKS

We are classified as Designers under CDM Regulations (2015), and have a duty to identify any threats or risks that we may be aware of, or our advice may affect. We would like to identify the following points for further consideration by the team and the CDM Principal Designer, in order to minimise the potential risks:

- Manual handling and the structural loads of acoustic treatments and drapes should be considered as part of the risk assessment for the event.
- The requirement to monitor on the boundary of the site late at night may place staff at risk of assault, and this should be included on the risk assessment and consideration given for how to keep staff safe.
- Dancefloor sound levels are high noise environments and can cause personal noise exposure of staff to exceed the thresholds that require a Noise at Work assessment to be carried out. It may be appropriate to consider hearing protection, or time limiting the periods staff are in those environments, but a proper assessment should be carried out as part of the risk assessment for the event, and how staff exposure levels will be controlled in line with the Control of Noise at Work Regulations 2005.



12 CONCLUSIONS

Sustainable Acoustics have carried out a sound propagation test on the proposed site, which is the car park behind the Truman Brewery Building on Brick Lane, London on the evening of the 7th September 2017. The assessment was completed by Peter Rogers, a Fellow of the Institute of Acoustics, who is competent qualified person to conduct such an assessment.

The assessment considered the suitability of the site for amplified sound as the focal part of the entertainment, and as ambient music, amplified music, and speech amplified through the sound system. Applying the guidance for infrequent events in non stadia venue within the Code of Practice of Environmental Noise Control a Concerts, 1993 a limit of 65dB(A) was used as a daytime upper threshold and 60dB(A) for the evening limit threshold for up to 3 events a year.

The results showed that sound reduces by between 36 to 44dB(A) depending on the direction and screening, from the edge of the dancefloor to the boundary monitoring point near the closest residential. Predicted levels for dancefloor levels of $L_{Aeq,15min}$ 95dB(A) were 43 to 54dB(A) at residential, indicating that the site is viable to operate in this configuration without any further mitigation. Noise levels for ambient and voice announcements are far below these levels, and so not considered to be likely to cause an adverse impact up to 23:00 operation.

However seven additional points for further mitigation steps have been identified to maximise the reduction of the noise impact on the surrounding residents, and with these steps implemented I would not consider it likely that noise from the amplified systems will be likely to cause complaints for infrequent pop up events up to 3 times a year.



APPENDIX A

Draft Noise Management Plan

Draft Noise Management Plan

City Beach 2018, London

Introduction

- 1.1 Operational noise from the site create a risk of causing a detrimental impact to residents and their quality of life, therefore compliance with this noise protocol is part of proactively prevention such risk of public nuisance occurring. Whilst this may not prevent every complaint occurring it puts in place a structure which must be followed during every event to minimise the disturbance from noise.

This includes such sources as:

- Live and pre-recorded amplified music
- Non amplified music
- Plant noise
- Delivery noise
- Bottling out noise
- Dispersal noise
- People noise
- Taxi noise
- Other sources

1.0 Code of Best Practice for Noise Control on site

- 2.1 **Early morning site services** – all supplier deliveries and collections will take place after 09:00 and before 21:00. A delivery supervisor will oversee all incoming and outgoing traffic to the site to ensure all road traffic safety protocols are adhered to by all of our site suppliers.
- 2.2 **Guest exiting the venue** – a taxi marshal will oversee the guests as they leave whilst pre-arranged relationships with carriage companies ensure people leave promptly and quietly, wherever possible.
- 2.3 **Generator type and positioning** – as an organisation, Awesome Events take the impact of their actions on the environment seriously. The generator type used has the minimum impact on the surrounding environment, including noise reduction elements and reduced CO2 emissions. The proposed system to use allows Awesome Events to manage this aspect as follows:
- It is an automatic system of three or four generators that only operate when required ;
 - This efficient approach reduces noise levels and the amount of fuel deliveries ;
 - The generators will be positioned with consideration to the surrounding environment and residents as well as being sectioned off with hoarding to mitigate against noise.
- 2.4 **Waste bins** will be provided at the exit and be removed in conjunction with the onsite recycling policy.
- 2.5 **Bottling out** – where possible, all bottles will be stored on-site overnight and collected after 09:00 the following day. No glass will be put into waste bins after 23:00.



- 2.6 **Outside smoking areas** – these areas will be a continuation of the marquee structure with a roof to maximise noise control to the surrounding residents. These areas will not be comfortable places in order to keep as many people inside the structure as possible, for the duration of the event.
- 2.7 **Signage** will be placed in prominent positions to remind guests to be considerate to neighbouring residents as they disperse. No drinks will be allowed in these areas and a designated member of staff will marshal this at all times. Large groups will be discouraged from going out together; however should this be necessary, this will be managed effectively.
- 2.8 **PA Sound system** – there will be a small vocal PA system for background music and to usher guests through to dinner. PA and public announcements – the use of the in house public address system will not be permitted except in the case of an emergency after 23:00.
- 2.9 **The dance floor** will be provided with sound through a speaker arrangement which will focus sound directly onto the dance floor to reduce the overall music noise levels (MNL) and in particular the bass frequencies (BMNL) that reach residential to a minimum. In this regard the sound system will be set up during the sound check to achieve the MNL and BMNL set out in Table 1 during a sound check, and the system limited and sealed to avoid variation significantly above these target levels. London Borough of Lambeth will be invited to check these levels during sound check, and to seal the limiter (or check the seal from previous seasons). Regular checks will then be carried out during each event and records kept and made available for inspection on reasonable request from the Local Authority.
- 2.10 **Bands and discos** – Awesome Events actively discourages their clients booking live bands and do not include live bands in their packaged events. However, in the unlikely event that this does occur noise levels will be monitored throughout sound check and performance to the MNL and BMNL set out in Table 1. Each act or performer must sign prior to the event our performance protocol document. At all times any performance which falls outside of speech or vocal reinforcement will be strictly managed by qualified Audio Engineers contracted for the duration of the site being active.
- 2.11 **The audio engineers** will be involved in the event surveys, design and installation of the audio system to ensure all possible safety measures have been implemented to give us maximum control of noise leakage from the structure. They will also be responsible for monitoring noise levels during the event and completing records to capture how the noise protocol is being complied with.
- 2.12 **General** – throughout the duration of attendance at an event venue, every band, musician or performer shall comply strictly with the reasonable requests or instructions of staff, who shall have full and overriding authority at all times.
- 2.13 **Sound levels** – should any band or musical performer require additional equipment to that supplied by the Awesome Events it is recommended that such technical specifications or riders are supplied to the Event Manager at the earliest practical opportunity so that appropriate arrangements can be made and costs finalised. All volume levels will be solely under the control of the Events Team and the MNL and BMNL monitored to check compliance and the outputs reduced until targets are achieved.
- 2.14 **Sound checks and performance** – unless advised to the contrary, sound checks at venues by performers are not permitted to take place prior to the 16:30 and must be completed by 18:00. Sound check time can be limited, but must be agreed in advance and be used as efficiently as possible.
- 2.15 **Potential noise during setup and post event dismantling** – wherever possible set up and post event dismantling will take place the following day after 09:00. The technical specifications of the venue



have been designed that minimum extra equipment and turnaround are required.

2.16 Complaints – a telephone number shall be published which residents can call if they feel that noise levels are unreasonably intrusive. This number must be manned directly or indirectly by the Events Team, who then must notify the Events Manager and the production team, who should carry out checks of sound levels against those set out in Table 1, and compliance with the other measures herein. Where non compliance is found this should be rectified and where compliance is confirmed then further reasonable steps taken to minimise the disturbance described, and the complainant informed of the steps taken where they indicate their wish to be updated. Notes should be made of the details of the complaint, the contact details of the complainant and the steps taken on the relevant forms.

2.17 Community Engagement – at the end of the event run efforts should be made to seek feedback on how successful the control of noise was from residents, and whether there are areas where improvements could be made, which could lead to revision in the Noise Protocol. London Borough of Lambeth should also be asked whether they have any feedback or received any complaints relating to noise.

2.18 Updates to the Noise Protocol – are a natural part of evolving the noise management in line with best practise, but a copy of any amendments should be provided to London Borough of Lambeth in advance on the next event run at which it is intended to be run.

2.0 Music Noise Limits

2.1 The noise limits for amplified music set out in Table 1 below should be used as a target to set the noise limiting device that controls the sound output of the sound system, and although there will be minor variation from track to track and in different weather conditions the targets should not be exceeded, unless through an exception granted by the London Borough of Lambeth.

		Leq,15min Target (dB) (free field) at logger position		
Time Period (Hrs:mins)		Overall MNL	BMNL 63 Hz	BMNL 125Hz
Mon - Sat	07:00 – 18:00	65	80**	80**
	18:00 – 23:00	60	70**	70**
	After 23:00 up to midnight*	-	-	-
Sundays	07:00 – 18:00	60	80**	80**
	18:00 – 23:00	60	70**	70**
	After 23:00 up to midnight*	-	-	-

Table 1: Target Music Noise Level include bass guideline targets only**, measured at the logger position or some proxy location equivalent to 1m from the closest residential boundary. This can be corrected for the background where that information is available.

3.2 Compliance checks should be completed by staff that have been given competence training by a qualified acoustic consultant. Then at least a Type 2 sound level meter should be used to check the overall MNL over at least a 1 minute period at not between 3m and 1m of the nearest residential facade, with notes taken of meteorological conditions at the time of measurement. Completion of the form provided with this information is necessary, and should be stored for future inspection.



APPENDIX B

Event Noise Forms



The following forms should be provided to the event manager and production team for each event.

**Staff Memorandum
(AE Event Manager)**

From: Peter Rogers

Reference: 1 7 - 0 2 0 3 - 0

Subject: NOISE CONTROL – EVENT NOISE MANAGEMENT PLAN COMPLIANCE

FOR AWESOME EVENTS LTD

Duty Manager:

Date of Event :

Duration:

The Event Noise Protocol has been implemented (Sign):

Summary of Agreed Noise Protocol

- Regular checks of noise levels are taking place (min 1 position – 3m in front of closest residential)
- By 23h00 all Amplified use to end, unless a midnight finish is authorised and in line with licence

Checks to complete

- Has the Production team monitoring sheet been received and completed ?
- Has the record been filed ?
- Was a complaint received ? (if so give details below of action taken to resolve)



PRODUCTION MEMO

From: Peter Rogers **Reference:** 1 7 - 0 2 0 3 - 0

Subject: NOISE CONTROL – EVENT NOISE MANAGEMENT COMPLIANCE

EVENT NAME : CITY BEACH 2018, LONDON

Survey by:

Approved by :

Date of Event:

Duration:

Temperature:

Weather :
(inc. wind
direction and
strength, rain ?)

Introduction

This is to form the record your compliance with the levels set out in the Noise Management Plan. The purpose of this is to deliver a proactive and preventative approach to minimising the risk of causing a public or private nuisance to the surrounding residents; which is an objective of the Licensing Act 2003 and Environmental Protection Act 1990 and compliance with planning condition 7, 8 and 9. You should also observe and comply with the best practice measures, which forms part of that document.

Part of this is to complete this sheet for each event and carry out regular (hourly) measurements at the agreed positions (min of 2 , one at around 22:00pm and one at around 23:00 pm). Where you have Sound Meter capabilities (at least type 2), and the competence to use it complete the objective part of the record sheet overleaf over a decent sample of at least a minute as an estimate, otherwise just complete the subjective column with as complete descriptions of what you hear.

The target limits at the agreed boundary monitoring positions are :

Monday to Saturday $L_{Aeq15min}$ 65dB(A) between 07:00 and 18:00, and $L_{Aeq15min}$ 60dB(A) up to 23:00;

Saturdays $L_{Aeq15min}$ 60dB(A) between 07:00 and 23:00.



Record Sheet

Objective Measurement				Subjective Observations and Comments
Time	L _{Aeq}	Peak L _{Aeq}	Duration	

In the event of complaints:

- You are expected to do whatever reasonable to check that you can confirm or deny whether you are complying with the agreed limits, and using the correct desk and limiter settings (where that is applicable).
- You should immediately carry out a monitoring check to see if levels are higher than expected, and take action where they are.
- You should record on the sheet what action is taken, and inform the complainant where appropriate to.

The Event Noise Protocol states as follows : A nominated personnel will carry out spot checks of the boundary noise levels throughout each event. *It is usually sufficient to do this once an hour.*



Continuation sheet ...

Objective Measurement				Subjective Observations and Comments
Time	L _{Aeq}	Peak L _{Aeq}	Duration	