

Noise Management Strategy

Corporate Marquee Provision
Chelsea Football Club
Stamford Bridge
Fulham Road
SW6 1HS



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Client Chelsea Football Club Holdings Ltd
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An introduction to Joynes Nash

Joynes Nash is a leading consultancy for the live events industry. We have extensive experience of live music events and a proven track record of working with event organisers to enhance the audience's experience, whilst preserving the image of events and venues.

Our consultants experience has ranged from relatively small scale to major events staged both in urban and residential environments, providing for tens of thousands of people. Projects and clients have included Junction 2, Carfest (North and South), Garage Nation Festival, BBC Introducing, Guards Polo Club, Tramlines Festival, Kendal Calling, Liverpool Sound City, Red Bull Music Academy, Tobacco Dock, Hampton Court Palace Festival and Donington Park Raceway.

We consider despite the many technical challenges that events bring, that relationships between all interested parties are of paramount importance and that each and every one of these understands situations clearly. We therefore approach each event not in isolation, but carefully consider the public image of events, the venues and the thoughts of the wider community to make events successful and to secure venues for future years.

About The Team

Peter Nash BSc(Hons), MSc, CEnvH, MCIEH, MIOA, TechIOSH

Peter Nash has 16 years' experience as a Local Authority Environmental Health Officer, up to Technical Manager Level and has 15 years of Professional Practice within the Environment Industry. He holds a BSc(Hons) in Environmental Health, the IOA Diploma in Acoustics and Noise Control and an MSc in Applied Acoustics. He is a Chartered Environmental Health Practitioner and registered with the Environmental Health Registration Board. Peter is a Member of the Chartered Institute of Environmental Health, and a Member of the Institute of Acoustics. He has appeared as an expert witness in a number of significant noise nuisance and planning cases, public inquiries and appeals.

Simon Joynes BSc(Hons), MSc, CEnvH, MCIEH, AMILM, AMIOA

Simon Joynes has over 20 years' experience in both Private Sector and Local Government. He has acted as a senior advisor and has significant experience in the technical aspects and practical application of environmental law, including acting as an expert witness in courts and planning enquiries and the preparation and reviewing of environmental reports and mitigation strategies. (Air Quality, Land Contamination, Acoustics, Water Quality, Odour Management & Industry Regulation). He holds a BSc (Hons) Environmental Health, MSc in Contaminated Land Remediation, the IOA Diploma in Acoustics and Noise Control, Certificates of Competence Environmental Impact Assessments. He also holds affiliations with the Chartered Institute of Environmental Health, the Institute of Acoustics and is an Associate Member of the Institute of Leadership and Management.

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1. Introduction

Joynes Nash has been tasked with the preparation of a strategy to consider the management and control of noise from proposed Corporate Marquee to be positioned on the concourse outside of the West Stand at Chelsea Football Club, Stamford Bridge, London, SW6 1HS.

2. About the Noise Management Strategy

Our client is currently seeking relevant permissions for the proposal through the Licensing Act 2003 and in taking a proactive approach to the management and control of noise. This strategy therefore looks to detail the necessary mechanisms through which noise can be managed and controlled to prevent a 'Public Nuisance'. It also provides for an overview of monitoring, mitigation and review mechanisms which may be applicable.

3. Introduction to The Proposal & Site

It is proposed that a marquee will be provided for on the concourse outside of the West Stand (towards Britannia Gate) at Stamford Bridge. It's primary focus will be for corporate events, including functions, experiential, hospitality event or social activities.

To clarify the intended use our clients have provided the following envisaged uses:

- As a pre-reception space with a bar providing facilities for those who may be attending functions within the Great Hall (already licensed and within the West Stand). Our clients have found that there is very little space to accommodate customers and attendees before they are invited to sit down for their meal or event in the Great Hall when laid out to tables and chairs. This marquee will therefore provide a suitable area in which customers may be accommodated prior to being invited into the Great Hall.
- This same space may also be used to accommodate customers and allow for better socialising/ networking when they have finished the seated part of the event within the Great Hall.
- Thirdly this marquee will seek to accommodate customers at pre-booked Christmas related events. Save for the lavatories (which will remain within the West Stand/concourse and will be accessed through the tunnel which will join the marquee to the West Stand), all other facilities including tables, chairs, alcohol dispense will be accommodated within the marquee itself.

- Finally with the World Cup taking place in the Middle-East through November and the first half of December, it is intended to operate this marquee as the equivalent of a function suite. Customers will be able to attend ticketed events where they may watch the World Cup accompanied by food and drink.
- The World Cup accommodations will only seek to permit licensable activities to take place within this marquee until 10:00pm (although a little leeway should late matches go to penalties would be built into the application). However for the other events it is intended that the marquee be open to customers until 1am as per the West Stand permission.

Such facilities are not uncommon in urban areas and providing that they are operated in an appropriate manner are unlikely to cause a Public Nuisance. One of the key controls is on the provision of live music and amplified speech for which appropriate controls are discussed below.

In the terms of the site, there are a number of noise sensitive receptors in the vicinity including those residential units on Fulham Road and more specifically the occupied spaces in the Sir Oswald Stoll Foundation buildings immediately adjacent to the site. In addition there are a number of residential units situated in Hilary Close also immediate to the application site but to a greater extent protected by a significant concrete boundary wall which offers a level of mitigation.



Figure 1 – Map of Event Site

4. Relevant Legislation and Guidance

This section briefly describes the legislative framework in which a typical event would operate, and upon which the organisers overall approach is based. It also highlights other (UK) guidance which have informed any relevant technical elements of this document.

Licensing Act 2003

Any premises where regulated entertainment or the sale or supply of alcohol takes place will either have a Premises Licence (PL) or must be the subject of a Temporary Event Notice (TEN). If the event site already holds a PL then any proposed activities will be restricted to the terms and conditions of the Premises License, in this instance to prevent episodes of Public Nuisance.

Environmental Protection Act 1990

Where it is established that noise from an event is causing, or is likely to cause, a statutory nuisance under Part III of the Environmental Protection Act 1990, the Council is required to serve an Abatement Notice, requiring that the nuisance is abated. It is a criminal offence not to comply with such a notice and may result in prosecution. Some of the key elements in nuisance is the frequency with which a disturbance arises, the time of day of the disturbance, the nature of the area, and the level of disturbance experienced.

5. Premises Licenses & Adopted Control Mechanisms

The operators are currently seeking an appropriate Premises Licenses and it is reasonable expected that should a license be granted, an appropriate condition requiring a noise management plan will be included in any such license.

The following overall commitments are made:

- That those responsible will routinely assess the neighbourhood, their activities and impact on local residents and take actions to mitigate such should it be deemed necessary so as to prevent public nuisance.
- To publicise an event hotline and to respond to any complaints in a timely manner.
- To identify key staff and conduct training on the prevention of Public Nuisance.
- In order to reduce any impact set appropriate control limits at any sound mixer position and ensure that any adjustments to such are only conducted by authorised personnel.

- For an independent noise consultant to attend should any complaints not be satisfactory resolved. Attendance should be within 5 working days and any recommendations arising from such shall be implemented and duly recorded.
- To have an assigned individual throughout to consider noise management, be available throughout the duration of any event and have complete authority to ensure that noise is minimised without interference from the Premises License holder or any other party on behalf of the event. The responsible person will maintain a noise / complaints log which will be available for inspection by the Council or other interested parties.

6. Provision of Music / Speech through Amplification Systems

The greatest risk of impact from such proposals arises from the amplification of music and speech. With regards to the latter this can be controlled through compressors or the use of appropriate speaker systems (as discussed below). With regard to amplified music then our client is acutely aware of the risks and from the proposed uses their intention is to have limited music content. Indeed, any such provision will be ambient / incidental music rather than providing for as the main event.

7. Overall Sound System Recommendations

The careful and detailed alignment of the sound system will be considered to optimise the coverage throughout the audience and balance this against offsite environmental noise impact.

It is therefore not intended that traditional speaker systems designed to amplify sound over a wide area shall be used. Rather, smaller and more distributed systems (sometimes referred to as directional or zone array systems) will be deployed to provide a narrow beam of focussed sound to a desired area. This type of sound control system has been proven to work in such locations without creating noise issues in surrounding environments.

8. Definition of Inaudibility

In terms of inaudibility we refer to the subjective assessment guidance taken from the Institute of Acoustics Guidance. This is where noise is at a sufficiently low level such that it is not recognisable as emanating from the source in question and it does not alter the perception of the ambient noise environment that would prevail in the absence of the source in question. The strict dictionary definition of being 'unable to be heard' is not appropriate in this instance.

It is also worth noting that the use of such 'inaudibility' criteria has been debated for some time and there are arguments raised for and against the use of such. Inaudibility is not necessarily an objective test and there are variabilities in tolerance / interpretation which are inevitable. These may include an individual's level of hearing, background noise, weather conditions and lifestyle

etc. One of the biggest difficulties for the operators of the venue remains that they have no access to residences to observe impact. However, should any residences contact the venue to enquire of noise or make a complaint, they are offered the opportunity for consultants at an appropriate time to attend their property during an event to observe the noise and make any necessary improvements. Thus enabling a clear understanding of any noise impact both occurring within properties and especially useful for high rise where characteristics may differ to ground level.

9. Complaints Management

Whilst the strategies shown in this document are aimed at minimising impact, venues are from time to time expected to receive complaints. The key source of concern amongst local communities is typically who to contact, the various roles and responsibilities and the response time to complaints.

Those responsible will therefore operate a policy of informing the local community ahead any events, typically through a leaflet drop but increasingly through the use of media (social media), electronic communications and signage at the venue. This includes a phone number and email address to be given to residents in the surrounding neighbourhood.

10. Noise Monitoring Procedure

Throughout events where monitoring is identified as necessary, those responsible will appoint or assign competent persons to proactively manage noise. Those individuals will make objective assessments within the community and optimise the sound systems being used. This will consist of checks internally around the boundary. Should these observations note any form of impact then additional checks are conducted externally of the premises as appropriate. These are typically conducted at least once every hour or in response to a change in the nature of the noise being generated during any event or in response to a complaint etc.

A proforma which is used by those responsible is also included in the appendices.

If it is felt necessary following either complaints or concerns raised by those competent persons that further assistance is required, consultants will be invited to assist accordingly.

11. Wider Sound Management

Third Party Amplification Equipment

Those responsible will ensure that amplification equipment is not brought onto site unless:

- a) It is for use as part of the licensed entertainment

Thereafter we will affect full control over any organisations and traders on site where there is amplified music being played.

People / Crowd Noise

Whilst there is no formal mechanism for evaluating or controlling crowd noise, consideration will be given to minimising such as critical points such as arrival and dispersal from the event.

Access and egress for customers would be by the main Britannia Gate entrance. Marshals will marshal and monitor the entrance and egress from the premises including the behaviour of those within the vicinity of the premises. This will help achieve orderly arrival and departure of persons and will reduce the risk of nuisance occurring.

The marshalling of persons arriving at the premises will seek to reduce so far as reasonably practicable, persons queuing outside the premises or in a location likely to disturb residents.

Generators

It is unlikely that generators will be required, but should they be utilised for temporary refrigeration etc consideration will be given to their location not just in terms of accessibility for refuelling purposes but also in terms of their proximity to residential properties. Silenced generators may need to be selected and/or may have to be acoustically enclosed using propriety products such as EchoBarrier. The same applies to tower lights.

Minicabs and Taxis

Preferred minicab companies shall be made available and publicised to encourage people to leave the premises promptly. Such companies (where practicable) should be informed of appropriate set down and pick up points and appropriate marshalling provided during events to ensure that such does not have a detrimental impact on local communities. All such facilities should be within the site or away from residential properties to discourage people from the public highway.

Deliveries and other Vehicle Movements (i.e waste collection)

It is acknowledged that noise from vehicles can be a constant source of noise both on the site and in the surrounding neighbourhood. Careful consideration should be given to vehicle routing, times of operation and deliveries and the need for vehicles to use reversing alarms or refrigerated plant etc. Deliveries (audible at the residential premises) will be restricted to 08.00 to 20.00hrs Monday to Friday & 09.00 to 18.00hrs Saturday /. Sunday & Bank Holidays.

Bottle Emptying & Cellar Replenishment

Activities such as emptying of used bottles and cellar replenishment activities can give rise to unacceptable levels of noise. In order to mitigate such, activities should not take place beyond 21.00hrs or before 09.00hrs daily.

12. Staff Training

All staff specifically those at events in charge of sound equipment shall be fully briefed in the contents of the document and the need to ensure that noise is kept within acceptable parameters.

13. Local Authority Liaison

The Local Authority will be provided with contact details of those responsible (See Appendix B)

Competent Persons and acoustic consultants will work closely with the Local Authority, agreeing any changes to off-site monitoring positions, sharing noise data observations and other information wherever possible. The role of the Competent Persons is to ensure that any requests by the Local Authority are actioned by the venue management. All requests relating to noise will be routed through them to ensure that any noise issues are properly managed and dealt with as soon as possible.

All complaints received by the Local Authority will be logged and notified to the Competent Person. If specific details are not forthcoming, details of a representative position of the complaint will be provided to allow appropriate investigation. Results of any investigations and actions will be fed back to the Local Authority as soon as practicable or as agreed.

References to contact with Local Authority Officers will be dependent upon the Authority determining that it wishes to attend any event and does not infer any commitment on the part of that Authority.

14. Strategy Review Procedure

In order to ensure that the strategy continues to fulfil its aims and objectives it is reviewed and updated regularly. Whilst this is a continual exercise after each event, a formal review and report is conducted at least annually for the venue. This includes an assessment of compliance of noise and time limits, review of complaints data and any community or regulatory feedback. The results of which are made available to the various stakeholders as necessary.

15. Conclusion

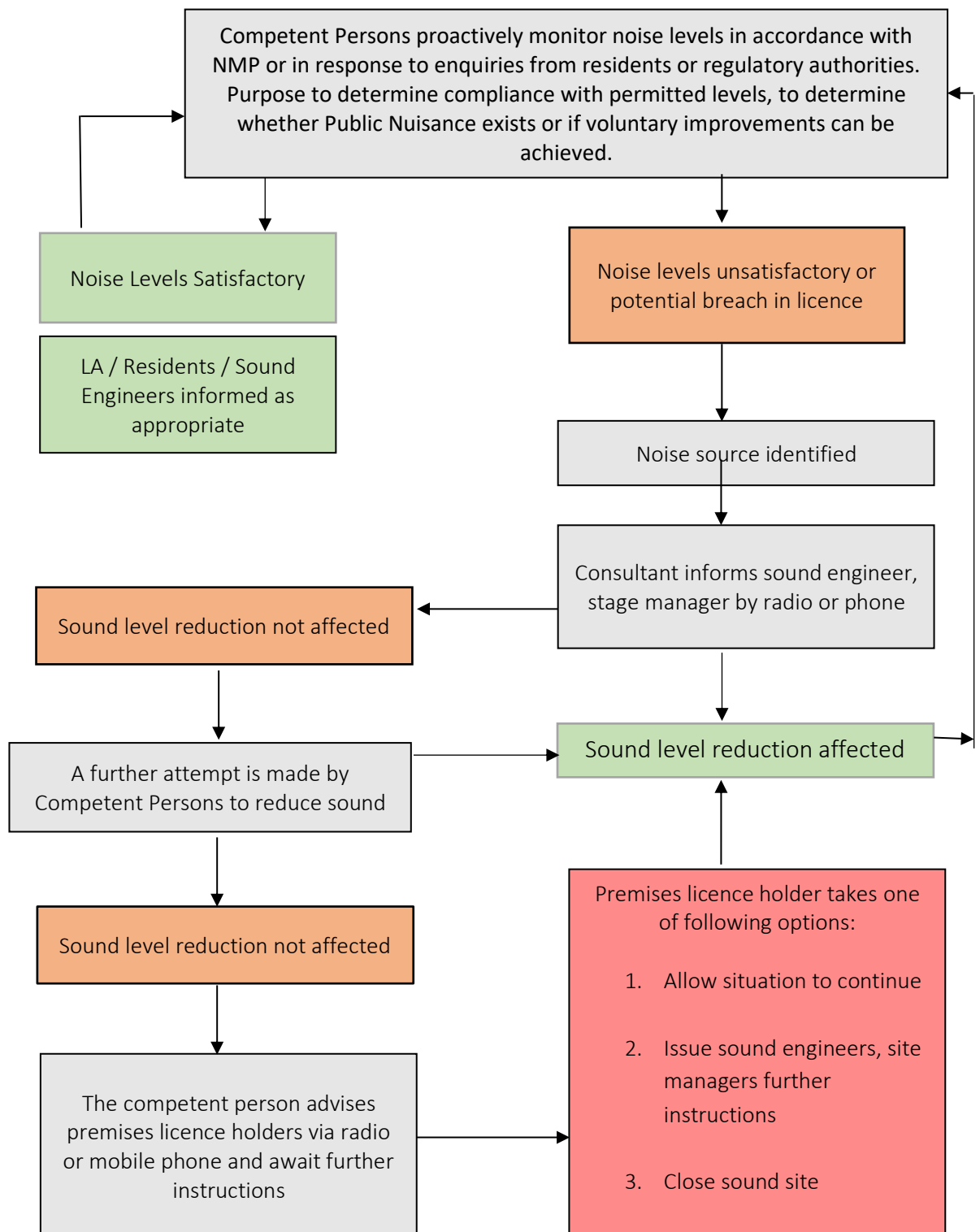
The implementation of this strategy will provide a robust but flexible way to manage noise and proactively prevent public nuisance being caused. The strategy builds on existing principles and practices and the review mechanisms allow those responsible along with their advisors to learn and develop the strategy to minimise any impact and disturbance.

Appendix A - Site Plan and Location of Critical Receptors



Appendix B - Indicative Noise Control Flow Chart

(Joynes Nash and Competent Persons Interchangeable depending on nature of event)



Contact Numbers and Responsibilities

Event Hotline Number

(subject to approval)

Licence Holders

DPS (License Holder)

(subject to approval)

Venue Management

TBC

Noise Consultants

Simon Joynes

Tel: 07870 508492

Appendix C -Premises License

(Subject to Approval)

Appendix D – Monitoring Proformas

Noise Observation Reporting

Date:	
Name of Event:	
Event Duration:	
Event Description:	(Number of Arenas, Audience Size, Sound System used and Orientation etc)

Details of Observations Undertaken

MONITORING LOCATION	TIME	SUBJECTIVE ASSESMENT / MEASUREMENTS	REMEDIAL ACTIONS REQUIRED / TAKEN
<i>Example - New Street, Eccles</i>	<i>00.10 - 00.15</i>	<i>Noise from event largely inaudible within external to No.11. Very occasional and low bass beat detectable between lulls in traffic noise, not detectable in vehicle and unlikely to be audible within residential units.</i>	<i>No action taken / action taken to reduce low frequency to minimise any potential impact as levels at source can accommodate such reductions.</i>

[illegible]

Complaints Received

COMPLAINT ADDRESS	TIME	NATURE OF COMPLAINT	SUBJECTIVE ASSESMENT / MEASUREMENT	TIME OF VISIT	REMEDIAL ACTIONS REQUIRED / TAKEN
<i>Example - New Street, Eccles</i>	<i>00.10 - 00.15</i>	<i>What are they hearing, when and how effecting property? Is this regular and how long been happening</i>			<i>No action taken / action taken to reduce low frequency to minimise any potential impact as levels at source can accommodate such reductions.</i>

Appendix E - Noise Units

1. Noise is defined as unwanted sound. The range of audible sound is from 0 dB to 140 dB. The frequency response of the ear is usually taken to be about 18 Hz (number of oscillations per second) to 18000 Hz. The ear does not respond equally to different frequencies at the same level. It is more sensitive in the mid-frequency range than the lower and higher frequencies and because of this, the low and high frequency components of a sound are reduced in importance by applying a weighting (filtering) circuit to the noise measuring instrument. The weighting which is most widely used and which correlates best with subjective response to noise is the dB(A) weighting. This is an internationally accepted standard for noise measurements.
2. For variable noise sources such as traffic, a difference of 3 dB(A) is just distinguishable. In addition, a doubling of a noise source would increase the overall noise by 3 dB(A). For example, if one item of machinery results in noise levels of 30 dB(A) at 10 m, then two identical items of machinery adjacent to one another would result in noise levels of 33 dB(A) at 10 m. The 'loudness' of a noise is a purely subjective parameter but it is generally accepted that an increase/decrease of 10 dB(A) corresponds to a doubling/halving in perceived loudness.
3. External noise levels are rarely steady but rise and fall according to activities within an area. In an attempt to produce a figure that relates this variable noise level to subjective response, a number of noise metrics have been developed. These include:

LAeq noise level - This is the 'equivalent continuous A-weighted sound pressure level, in decibels' and is defined in BS 7445 [1] as the 'value of the A-weighted sound pressure level of a continuous, steady sound that, within a specified time interval, T, has the same mean square sound pressure as a sound under consideration whose level varies with time'. It is a unit commonly used to describe community response plus, construction noise and noise from industrial premises and is the most suitable unit for the description of other forms of environmental noise. In more straightforward terms, it is a measure of energy within the varying noise.

LA90 noise level - This is the noise level that is exceeded for 90% of the measurement period and gives an indication of the noise level during quieter periods. It is often referred to as the background noise level and issued in the assessment of disturbance from industrial noise.

LA10 noise level - This is the noise level that is exceeded for 10% of the measurement period and gives an indication of the noisier levels. It is a unit that has been used over many years for the measurement and assessment of road traffic noise.