



id!BriTM

ACOUSTICS & NOISE CONTROL

NOISE MANAGEMENT PLAN

PRODUCED ON BEHALF OF SWALCLIFFE PARK EQUESTRIAN

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Dynamic experiences, Idibri design

CONTENTS

1.	INTRODUCTION	3
2.	NOISE LIMIT	4
3.	PUBLIC ADDRESS SYSTEMS.....	5
4.	POWER GENERATION.....	6
5.	CONSTRUCTION AND DISMANTLING.....	7
6.	TRAFFIC	8
7.	HORSES AND COMPETITION PROCEDURE.....	9
8.	COMMUNICATION AND COMPLAINTS MANAGEMENT	10
9.	NOISE MONITORING.....	11
	APPENDIX A: GUIDANCE & CRITERIA.....	12
	APPENDIX B: PLAN CDC-01 NOISE SENSITIVE LOCATIONS.....	15
	APPENDIX C: TECHNICAL INFORMATION.....	16

1. INTRODUCTION

- 1.1 Idibri has prepared this Noise Management Plan (NMP) on behalf of Swalcliffe Park Equestrian (SPE) applicable only to events which include more than fifty horses.
- 1.2 This NMP provides details required under proposed condition 5 of the officers report recommending approval of application 14/01762/F by Cherwell District Council. The draft condition wording is shown in Appendix A.
- 1.3 This NMP addresses the control of noise from:
 - Public address systems
 - Power generation equipment
 - Construction and dismantling activities
 - Traffic movements
 - Animal sounds
- 1.4 The NMP also outlines a strategy for noise monitoring from public address systems and for complaints management.
- 1.5 Discussion of the relevant guidance and criteria on which this NMP is based is provided in Appendix A for information and context.

2. NOISE LIMIT

- 2.1 Application 14/01762/F for Swalcliffe Park Equestrian is recommended for approval subject to the following condition regarding noise:

'Prior to any further equestrian events of greater than 50 competing horses taking place on a site, a Noise Management Plan (NMP) detailing the methods to be employed to achieve compliance with a noise limit of 45 dB $L_{Aeq,15min}$ '

- 2.2 The specified limit of 45 dB $L_{Aeq,15min}$ is set at nearby noise sensitive dwellings which are the dwellings shown on a plan of the application site in Appendix B.
- 2.3 This NMP sets out a strategy for noise monitoring in Section 9.
- 2.4 During commissioning, the public address system will be monitored close to loudspeakers and set so as not to exceed 45 dB $L_{Aeq,15min}$ at nearby noise sensitive receptors.

3. PUBLIC ADDRESS SYSTEMS

Introduction

- 3.1 The potential for disturbance at nearby noise sensitive receptors will be minimized by:
- Setting levels for PA systems appropriately.
 - Locating and orientating speakers away from noise sensitive receptors
 - Using a greater number of low powered speakers to provide sound coverage
 - Where necessary, providing screening by hay bales or similar to achieve additional reduction in noise levels.

Equipment

- 3.2 Horn loudspeakers are used for public address at events. A typical loudspeaker type is the Atlas CJ-46. The directivity response for the Atlas CJ-46 is shown in Appendix C which will be used to set appropriate near field levels and orientation during commissioning prior to events.

On-Site Engineer

- 3.3 SPE team and/or an audio engineer will be present on site prior to and during events to set-up, commission and control the PA systems.
- 3.4 SPE and/or the on-site engineer will maintain a direct line of communication with the person assigned to handle complaints during events. This will allow a timely response to any justified complaints regarding noise from public address systems.

4. POWER GENERATION

Introduction

- 4.1 Power at events is typically provided by portable, local generators.
- 4.2 Noise from generators will be controlled by:
- Selection/specification of low noise generators, where possible
 - Appropriate location of generators away from nearby noise sensitive dwellings
 - Where necessary, the use of hay bales or similar to provide additional attenuation by screening
- 4.3 It is expected that noise from portable generators can meet the specified noise level limit at nearby noise sensitive dwellings.

Power for Public Address Systems

- 4.4 Public address systems at events are typically powered using Honda type EU20i generators and the manufacturer's specification for this unit is shown in Appendix C.
- 4.5 A representative noise level for this type of unit is 54 dB L_{pA} at a distance of 1 m. Therefore, a minimum required distance between a generator and the site boundary is 10 m.
- 4.6 SPE will take into consideration the required minimum distance where a number of generators are located close together.
- 4.7 SPE will review requirements for minimum distances between generators and the site boundary where alternative units are used. This type of assessment can be based on measured or manufacturer's noise level data for a particular generator.

Independent Retailers

- 4.8 Independent retailers will be present at events. Some retailers require power and will bring generators.
- 4.9 Assessment has shown that a distance of 50 m between retail generators and the site boundary is sufficient to achieve the specified noise level limit at nearby noise sensitive receptors.
- 4.10 The guideline for a minimum distance is based on a measured noise level of 75 dB L_{pA} (at 1 m) for the generator with the highest power rating used by an independent retailer at a previous event.

Discussion

- 4.11 Noise from portable generators is not considered significant. This is based on assessment and observations from previous events.

5. CONSTRUCTION AND DISMANTLING

Typical Activities and Noise Control

- 5.1 Construction and dismantling activities are undertaken at events for the following:
- Jumps
 - Judges/commentator's cabins
 - Tents and gazebos for retail and refreshments
 - Delivery/collection of portable toilets
 - Installation of temporary stabling
- 5.2 The potential for disturbance by noise from general event construction and dismantling activities described above will be minimized by:
- Adherence to the stated operating hours.
 - Locating loading and unloading areas away from noise sensitive receptors, where practicable.
 - Allocating clear site operations and vehicles routes away from nearby noise sensitive dwellings and to minimize the need for reversing movements.
 - Switching off idling engines, plant or equipment between works.
 - Where possible, undertaking potentially loud fabrication or assembly works off site or in enclosed workshops nearby.
 - Where appropriate, using modern equipment and plant which complies with relevant noise emissions standards.
- 5.3 SPE will seek to maintain good public relations as this can be essential to minimize the potential impact of construction noise.
- 5.4 The character, intensity, duration and operating hours of the construction and dismantling activities associated with events are in keeping with normal agricultural activity.

Temporary Stabling

- 5.5 Temporary stabling is currently used at one event in the season and is a flat-packed semi-rigid system with a tent-like roof which can be erected and dismantled quickly and with minimal noise.
- 5.6 Where possible, temporary stabling will be located away from the noise sensitive receptors identified in Appendix B.
- 5.7 Temporary stabling is transported by heavy goods vehicle. The driver of this vehicle will be instructed to turn off the vehicles engine while the stables are loaded and unloaded.
- 5.8 Loading and unloading of temporary stabling is undertaken by a tractor. Noise from this source is considered typical in a rural environment.

6. TRAFFIC

Arrivals and Departures

- 6.1 As part of an effort to control noise, SPE will follow the guidance and protocol stated in the DTPC Transport Statement dated October 2014.

On the Site

- 6.2 Noise from slow moving vehicles traversing the site is insignificant compared with levels generated by both events and non-events traffic travelling at greater speeds on nearby roads and in closer proximity to the noise sensitive dwellings identified in Appendix B.
- 6.3 Visitor will be encouraged to turn off vehicle engines where possible while parked for events.
- 6.4 Visitors will be discouraged from playing loud music from radios in their vehicles and from other similar equipment.

7. HORSES AND COMPETITION PROCEDURE

Horses

- 7.1 Previous assessment has identified that the whinnying of horses can be a significant source of audible sound at the site boundaries.
- 7.2 For the NMP we consider this a normal and acceptable type of sound in a rural setting. Further, monitoring and/or effective control of noise from horses is impracticable.
- 7.3 SPE, competitors and spectators alike understand that the comfort and welfare of participating horses is paramount. By enacting this principle, any unnecessary whinnying or other sound from horses is avoided.

Competition Procedure

- 7.4 Equestrian events such as show jumping and dressage often use audible signals to call competitors to competition.
- 7.5 Audible signals can include a bell, buzzers or car horns.
- 7.6 Previous assessment and observations during events has established that these signals, although sometimes audible at the perimeter are not significant in terms of level or duration.

8. COMMUNICATION AND COMPLAINTS MANAGEMENT

Communication

- 8.1 Where appropriate, SPE will notify nearby residents and other interested parties as to the details of forthcoming events as this can be one of the most effective ways to ensure that the potential for disturbance is minimized.
- 8.2 SPE will inform all relevant event partners (construction staff, independent retailers, etc) of the importance of noise control. Where appropriate, events partners will be expected to accept restrictions on their activities should these be reasonable and justified in the interests of controlling noise.
- 8.3 SPE will seek to maintain the appropriate level of awareness amongst permanent and temporary staff as to the details and general principles of the NMP.

Complaints Handling

- 8.4 SPE will designate a senior member of staff who will be responsible for the handling of complaints during events.
- 8.5 SPE will operate a complaints telephone number and email address through which noise complaints can be directed. This will enable an immediate response to be made to any reasonable complaints and for SPE, or their designated representative, to judge whether or not action is required.
- 8.6 Information regarding complaints will be recorded on a standard template which will include but is not limited to:
- The date and time of the complaint.
 - The method by which the complaint was made.
 - Details of the complainant such as their location, an email address or phone number for follow-up action.
 - The nature of the complaint.
 - The action taken by SPE in response to the complaint.
 - Details of any follow-up contact with the complainant.
 - If no follow-up action then the reasons of this.
- 8.7 SPE will fully investigate all complaints and where reasonable and practicable, will put in place measures to address the issue raised.

9. NOISE MONITORING

- 9.1 Noise monitoring can be undertaken at intervals during events or in direct response to complaints.
- 9.2 Specific monitoring of noise from public address systems can be undertaken by measurement in close proximity to speakers and compliance with the specified noise level limit then demonstrated by calculation. This would take place during commissioning of the public address system.
- 9.3 It is common that officers from the responsible authority also undertake monitoring of similar events and SPE will provide full cooperation.

APPENDIX A: GUIDANCE & CRITERIA

Application 14/01762/F – Condition 5

‘Prior to any further equestrian events of greater than 50 competing horses taking place on a site, a Noise Management Plan (NMP) detailing the methods to be employed to achieve compliance with a noise limit of 45 dB $L_{Aeq,15min}$, when measured free field at noise sensitive locations adjacent the residential properties of Partway House, Elm Farm, Swalcliffe House and Wykham, shown on the attached plan ref. CDC-01, shall be submitted to and approved in writing by the Local Planning Authority.

The NMP must identify all sources of noise generated by the equestrian use which may include those sources of noise associated with the construction and/or dismantling of any temporary structures, the operation of any sound amplification equipment, the internal movement of traffic within the site, hours of operation of the site in all phases of use, etc. The NMP must indicate the means that will be used to reduce noise at source to a minimum and where noise levels cannot be reduced the means of mitigation must be stated. Mitigation may include the sensitive positioning of certain elements of the use in such a way as to minimise the impact of a particular activity on noise sensitive premises. The NMP must also include a method and timetable for the periodic quantitative monitoring of noise emitted from the site and a procedure for recording and responding to complaints received either directly from local residents or via the Local Authority.

The NMP once approved must thereafter be implemented. Should justified complaints be received the NMP will be amended in such a way that prevents the recurrence of complaints of that type in the future. No operational changes shall be made in relation to noise without prior written approval by the Local Planning Authority in which case a revised NMP shall be submitted approved through the submission of a further ‘approval of details reserved by condition’ application.

Reason - In order to safeguard the amenities of the area and to comply with Policy ENV1 of the Adopted Cherwell Local Plan and Government guidance contained within the National Planning Policy Framework.’

Cherwell Local Plan

Cherwell Local Plan (1996) is prepared by Cherwell District Council under the provisions of the Town & Country Planning Act, 1990 as amended by the Planning & Compensation Act, 1991.

Policy ENV1 is referenced in 14/01762/F condition 5 and states:

‘Development which is likely to cause materially detrimental levels of noise, vibration, smell, smoke, fumes or other type of environmental pollution will not normally be permitted.’

National Planning Policy Framework

The NPPF states that planning policies and decisions should aim to:

- *avoid noise from giving rise to significant adverse impacts on health and quality of life as a result of new development.*
- *Mitigate and reduce to a minimum other adverse impacts on health and quality of life arising from noise from new development including through the use of conditions.*
- *recognise that development will often create some noise and existing businesses wanting to develop in continuance of their business should not unreasonable restrictions put on them because of changes in nearby land use since they were established.*
- *Identify and protect areas of tranquility which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.*

The NPPF refers to the Noise Policy Statement for England (NPSE, 2010).

Noise Policy Statement for England

The Noise Policy Statement for England (NPSE, 2010) provides guidance regarding acceptable noise burden.

The stated aims of the NPSE are:

'Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:

- *avoid significant adverse impacts on health and quality of life;*
- *mitigate and minimise adverse impacts on health and quality of life; and*
- *where possible, contribute to the improvement of health and quality of life.'*

The NPSE provides three key phrases which are borrowed from concepts of toxicology:

- No Observed Effect Level (NOEL)
- Lowest Observed Adverse Effect Level (LOAEL)
- Significant Observed Adverse Effect Level (SOAEL)

No Observed Effect Level

This is the level of noise below which no effect can be detected and there would be no discernible negative effect on health or quality of life.

Lowest Observed Adverse Effect Level

This is the lowest level of noise above which adverse effects on health or quality of life can be detected.

Significant Observed Adverse Effect Level

This is the level above which significant adverse effects on health and quality of life occur.

Design proposals and recommendations should always seek to avoid noise impact which could be categorized as SOAEL.

Code of Practice on Environmental Noise Control at Concerts

Section 4.0 of The Noise Council's 'Code of practice on environmental noise control at concerts' provides procedural recommendations for noise control.

Before an event, it is recommended that a loudspeaker system is installed early enough to enable alignment and orientation to be optimized to minimize potential noise disturbance.

The code of practice recommends the control of noise at nearby noise sensitive receptors to the limits shown below.

Concert Days per Calendar Year, per Venue	Venue Category	Guidelines
1 to 3	Urban stadia or arenas	The MNL should not exceed 75 dB(A) over a fifteen minute period
1 to 3	Other urban and rural venues	The MNL should not exceed 65 dB(A) over a fifteen minute period.
4 to 12	All venues	The MNL should not exceed the background noise level by more than 15 dB(A) over a fifteen minute period.

The Noise Council recommended limits for noise from concerts

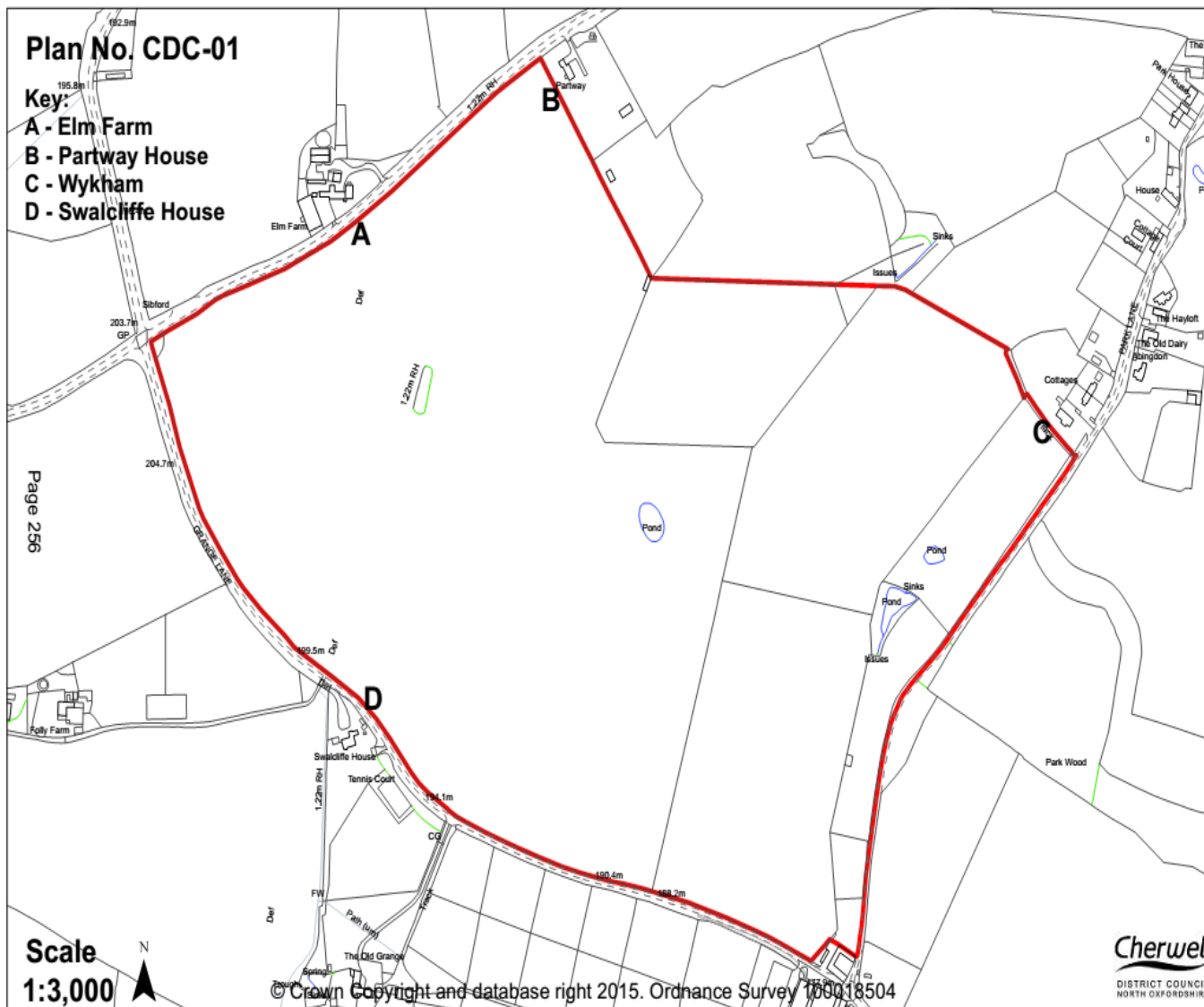
Swalcliffe Park Equestrian will host nine (9) events in the 2015 season.

Footnotes to the above table state, 'the use of inaudibility as a guide is not universally accepted as appropriate method of control'.

This is relevant to site at Swalcliffe where background noise is relatively low which means inaudibility or thereabouts is impracticable.

It is significant that the measured Background Noise Level at plus 15 dB (dB $L_{A90} + 15$ dB) is approximately equal to the World Health Organization community noise level limit of 55 dB $L_{Aeq,T}$.

APPENDIX B: PLAN CDC-01 NOISE SENSITIVE LOCATIONS

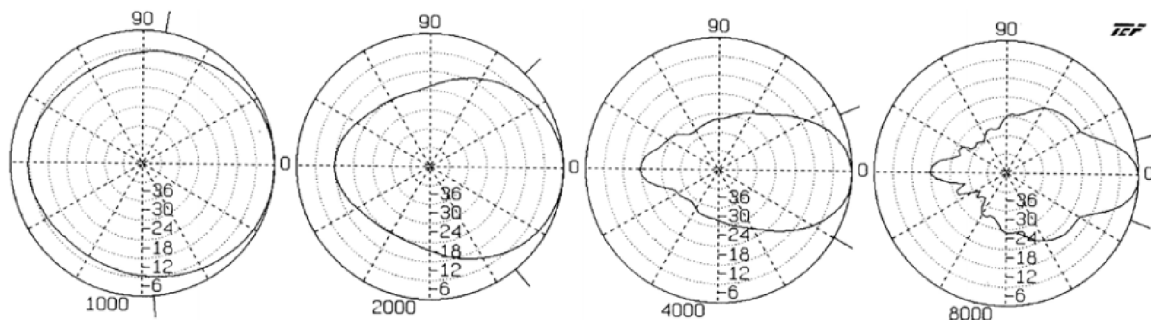


APPENDIX C: TECHNICAL INFORMATION

Atlas CJ-46 Horn Loud Speaker

The directivity of the Atlas CJ-46 is shown below and is taken from the manufacturers' technical data.

CJ-46 (Normalized to Zero on Axis) (-6dB)



Honda EU20I Generator Specification

Primary usage	Leisure Use
Type	Portable
Max output (W)	2000
Voltage stability (%)	+ or - 1
Output voltage (V)	230
Rated output (W)	1600
Frequency rating (Hz)	50
DC voltage (volts)	12
Power Stability	Inverter Technology®
DC current (amps)	8
Engine type	GX100
Type	single cylinder 4-stroke OHV air cooled
Oil capacity	0.4 litre with Oil Alert®
Starter system	recoil
Length (mm)	510
Width (mm)	290
Height (mm)	425
Dry weight (kg)	21
Noise Level (1/4 load) (dB(a))	52
Run Time, up to (hrs)	10
Fuel tank capacity (litres)	4.1
Fuel type	Unleaded petrol