



PREPARED: Tuesday, 21 April 2026

Dunkeswell Kart Club, Dunkeswell RevsFest Dunkeswell Noise Management Plan

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Project Ref:	AS13341	Project Name:	Dunkeswell Kart Club, Dunkeswell
Report Ref:	13341.260417.NMP.V1.1	Report Title:	RevsFest DunkeswellNoise Management Plan
Client Name:	Dunkeswell RaceWay		
Project Manager:	Mike McLoughlin		
Report Author:	Mike McLoughlin		
Clarke Saunders Acoustics Winchester SO22 5BE		This report has been prepared in response to the instructions of our client. It is not intended for and should not be relied upon by any other party or for any other purpose.	

1.0 EXECUTIVE SUMMARY

- 1.1 Clarke Saunders Acoustics have been appointed by Dunkeswell RaceWay to provide acoustic support for a music and car event (RevsFest Dunkeswell) to be held at Dunkeswell RaceWay, Dunkeswell, Honiton EX14 4AH.
- 1.2 A licence for the event is sought, and as part of the licensing process (Ref No. 061564) a Noise Management Plan [NMP] is required to detail how music noise will be managed, and any complaints would be processed.
- 1.3 Based on the proposed operation of the event, a noise management plan including noise limits is proposed to address the potential noise impact on surrounding noise-sensitive receptors.
- 1.4 Dunkeswell RaceWay is committed to incorporating this NMP into the event operations.

2.0 INTRODUCTION

- 2.1 Clarke Saunders Acoustics have been appointed by Dunkeswell RaceWay to provide acoustic support for a music event to be held at Dunkeswell RaceWay, Dunkeswell, Honiton EX14 4AH.
- 2.2 An event licence (Ref No. 061564) is sought for a music event (RevsFest Dunkeswell) to be held at Dunkeswell RaceWay on Saturday 29th August 2025.
- 2.3 This report details the Noise Management Plan [NMP] to be adopted for the event.

2.4 SITE AND EVENT DESCRIPTIONS

- 2.4.1 Dunkeswell RaceWay is located in a rural location, situated approximately 1.2 km to the north-east of the centre of Dunkeswell. The ambient sound climate in the local area is determined by road traffic, permitted karting activities, and aircraft movements from Dunkeswell Aerodrome.
- 2.4.2 Noise-sensitive receptors are located at varying distances from the raceway in each direction, as shown in Figure ASI3341/SP1.
- 2.4.3 The proposals are for a combined music and car festival at the raceway, with a proposed site plan for the event shown in Figure ASI3341/SP2.
- 2.4.4 Gates for the event will open from 11:30 hours and amplified music from the event will conclude at 23:00 hours with a hard stop. A proposed event schedule is provided in Appendix B.

2.5 COMPETENCE

- 2.5.1 Noise predictions and the drafting of the Noise Management Plan have been carried out by Mike McLoughlin, Senior Consultant at Clarke Saunders Acoustics, who is also the author of this report. Mike has over 20 years' experience of acoustics consulting, holding a BSc (Hons) and MSc in acoustic studies.
- 2.5.2 The report adheres with the principles required by the Institute of Acoustics in its Code of Conduct, and the work is within the author's own area of knowledge and expertise.

Where opinions have been expressed these represent true and complete professional opinions on the matters to which they refer.

2.5.3 CSA is a full member of the Association of Noise Consultants (ANC).

3.0 LOCAL AUTHORITY LIAISON, AND CODE OF PRACTICE

3.1 LOCAL AUTHORITY LIAISON

3.1.1 As part of the licencing process, comments have been received from the Environmental Health Department of East Devon District Council, with a recommendation for a condition to be attached to the licence in order to prevent any public nuisance, as detailed below.

"At least four weeks prior to the event, a Noise Management Plan (NMP) will be submitted for approval by East Devon's Environmental Protection Team. On written approval of the NMP, the NMP will be implemented and operated during the hours of the event. The NMP should be designed to cover the prevention of public nuisance criteria detailed within the Licensing Act 2003 by the following:

- *Setting out the methodology for controlling music noise from the event*
- *Ensuring that maximum music noise levels are not exceeded at the boundary of any noise sensitive property*
- *Setting out the methodology for a noise complaint handling procedure is in place. This must ensure that any noise complaints are recorded together with the following actions that have been undertaken*

Between the hours of 07:00 and 23:00 the A-weighted equivalent continuous music noise level (MNL_{15min}) emanating from the premises, when measured or determined at the boundary of any noise sensitive property over any 15-minute period must not exceed 65 dB(A) (MNL_{15min}).

Between the hours of 23:00 and 07:00 the A-weighted equivalent continuous music noise level (MNL_{5min}) emanating from the premises, when measured or determined at the boundary of any noise sensitive property must not exceed 45 dB(A) (MNL_{5min}).

Reason: For the prevention of public nuisance"

3.1.2 CSA has consulted with the Environmental Health Department of East Devon District Council (Ian Winter via phone / e-mail), to discuss the key considerations for the noise management plan.

3.1.3 Discussions included the requirements of the noise management plan and off-site noise monitoring of the event. It was agreed that a single off-site noise monitor would be suitable for monitoring, located at the worst case off-site residential dwelling.

3.1.4 The location of this monitor would be determined by noise predictions of the MNL_{15min} , to be agreed with the LPA.

3.2 CODE OF PRACTICE ON ENVIRONMENTAL NOISE CONTROL AT CONCERTS

3.2.1 The 'Code of Practice on Environmental Noise Control at Concerts', provides guidance on the noise limits and operational procedures of the control of noise from concerts. The guidance states a number of guideline noise criteria for Music Noise Level (MNL) dependant on the number of events a year, as duplicated below.

CONCERT DAYS PER CALENDAR YEAR, PER VENUE	VENUE CATEGORY	GUIDELINE
1 - 3	Urban Stadia or Arenas	The MNL should not exceed 75 dB(A) over a 15-minute period
1 - 3	Other Urban and Rural Venues	The MNL should not exceed 65 dB(A) over a 15-minute period
4 - 12	All Venues	The MNL should not exceed the background noise level by more than 15 dB(A) over a 15-minute period

Table 3.1 – Code of Practice on Environmental Noise Control at Concerts Guidance

3.2.2 In the guidelines, the MNL is defined as the noise level measured one metre from the façade of any noise-sensitive premises over a 15-minute period for events held between the hours of 09:00 and 23:00.

3.2.3 The code also highlights that;

"Research shows that the music noise level in the audience by the mixer position at pop concerts is typically 100 dB(A), and that levels below 95 dB(A) will be unlikely to provide satisfactory entertainment for the audience."

3.3 PROPOSED NOISE LIMITS

3.3.1 It is proposed that the noise level for the event will be set so as not to exceed MNL_{15min} 65 dB(A) at the boundary of the nearest residential noise-sensitive premises, with the music event stopping at 23:00 hours.

4.0 NOISE PREDICTIONS

- 4.1 Noise predictions of the overall MNL have been made at the surrounding noise-sensitive receptors, to determine the worst case noise-sensitive receptor.
- 4.2 The Code of Practice Guidance indicates that limiting the noise levels below $L_{Aeq, 15min}$ 95 dB at the front of house (the mixer position within the audience) may lead to an unsatisfactory event.
- 4.3 Noise predictions have been made based on achieving these range of levels at the front of house position located 25m in front of the stage, with the frequency spectrum¹ detailed below.

NOISE LEVELS	63	125	250	500	1K	2K	4K	8K	dB(A)
Front of House Noise levels	105	95	92	92	91	87	81	78	95

Table 4.1 – Front of house noise levels – Sound pressure level

- 4.3.1 Discussions have been conducted with the production team, who have confirmed that L_{15min} 95 dBA at the FoH position would provide suitable event levels.
- 4.3.2 Noise predictions have been carried out for the proposed loudspeaker arrays by contour modelling using the calculation protocols defined within ISO 9613-2:2024, as implemented within CadnaA noise prediction software.
- 4.3.3 The model has incorporated LIDAR ground terrain data, buildings, and assumed reflective building envelope.
- 4.3.4 Meteorological conditions have been integrated within the model with ambient temperature of 15 °C, relative humidity 70%, and wind speed of 3 m/s. The ISO 9613-2:2024 calculation procedure is based on downwind directions favourable to propagation from sources of noise, or under a well-developed moderate ground-based temperature inversion which can commonly occur on clear calm nights.
- 4.3.5 Details of the sound system design have been provided by the production team and consist of the following for the stage left and right PA.
 - 16 x EM Acoustics HALO C Array Element
 - 2 x EM Acoustics MSE218 Sub
 - 2 x EM Acoustics MSE118 Sub
 - 4 x HK Audio L5112XA Stage Monitor
- 4.3.6 Loudspeaker directivity has been incorporated into the noise model by utilising Common Loudspeaker Format (CLF) data for similar loudspeaker models where data is not available for the proposed speakers.

¹ An Evaluation of UK And International Guidance for The Control of Noise at Outdoor Events, Wheeler et al, Proceedings of the Institute of Acoustics. Vol.42.Pt.3 2020

- 4.3.7 Low frequency music noise within the 63 Hz and 125 Hz octave bands have been modelled from the subwoofer speakers. Array loudspeakers have been modelled with noise emissions from the 250 Hz octave band and above
- 4.3.8 The predicted noise levels ($L_{Aeq,15min}$) at the nearest receptors based on the proposed loudspeakers are shown in Figure ASI3341/N1.
- 4.3.9 A summary of the predicted noise levels at key locations and noise sensitive receptors are detailed in the table below.

LOCATION	PREDICTED MUSIC NOISE LEVEL ($L_{Aeq,15min}$)
Front of House (@25m)	95 dB
Slade Farm (worst case off-site residential property)	60 dB
Closest Eastern Receptors	56 – 58 dB
Northern Receptor	58 dB
Sheldon Village	54 dB
Dunkeswell	50 dB

Table 4.2 – Predicted Music Noise Levels

[dB ref. 20 μ Pa]

- 4.3.10 The predicted music noise levels are below the proposed noise criterion for the event. There is an inherent uncertainty in relation to noise predictions, however the noise model predictions demonstrate that the event is feasible in relation to controlling noise emissions below the identified noise level at noise-sensitive receptors whilst maintaining a suitable volume for audiences.
- 4.3.11 Controls will be put in place in the form of sound propagation tests and on-site monitoring during events to ensure that noise emissions are controlled.
- 4.3.12 It is noted that some meteorological conditions such as high wind or temperature inversions can significantly affect sound propagation. The model does, however, assume the worst-case meteorological propagation conditions in all directions.

5.0 EVENT MANAGEMENT PLAN

- 5.1 The following measures are recommended in order to minimise impacts of event noise as far as practicable. These measures would form part of an Environment Management Plan (EMP), which should be agreed with the Local Planning Authority.

5.2 PRE-EVENT INFORMATION

- 5.2.1 At least two months before the event, notice shall be provided to local residents within at least a 1-mile radius of the premises with information placed on social media and the Licence Holder's website which will include the date, time and nature of the event and details of a dedicated noise complaint line which will be staffed and responded to throughout the event.
- 5.2.2 The licensee will provide details to the Environmental Health Department of the proposed times of any rehearsal or sound checks, sound propagation tests, event times, and set up and break down periods.

5.3 SOUND PROPAGATION TESTS

- 5.3.1 A sound propagation test will be carried out on the day of the event which would not commence before 09:30 hours. The propagation test will involve music being played through the event speaker system of the event artist(s) or a similar artist(s) within the same genre.
- 5.3.2 During the sound propagation test the MNL will be monitored at a pre-determined off-site fixed monitoring location representative of the worst-case noise sensitive receptor.
- 5.3.3 These tests will determine the maximum level at the mixer location / Front of House which will meet the MNL at surrounding noise-sensitive receptors, allowing subsequent adjustment of running noise levels of the event. The tests allow for consideration of atmospheric absorption and meteorological conditions.
- 5.3.4 It is noted that some meteorological conditions such as high wind or temperature inversions can significantly affect sound propagation. Where these conditions are present, a balance will need to be considered in relation to suitable event noise levels (e.g. 95 dB(A) at FOH) and noise levels at receptors.

5.4 EVENT NOISE MONITORING

- 5.4.1 An appointed person, as part of the event team, will have overall responsibility by the event organiser for monitoring noise levels and has the ability and authority to make decisions and implement changes in music noise level during the event.
- 5.4.2 All other parties including production staff, artists, stage managers, and sound engineers are not to alter sound levels without express permission from the appointed person.
- 5.4.3 A class 1 sound level meter will be located at the pre-determined off-site fixed monitoring location, which will monitor 1-minute and 15-minute overall L_{Aeq} noise levels.
- 5.4.4 Off-site noise measurements will be conducted during the event with a class 1 sound level meter at the worst-case off-site residential property, which will be agreed with the local authority.

- 5.4.5 Based on noise predictions of MNLs at off-site residential dwellings, the proposed off-site monitoring location is Slade Farm which has been determined as worst-case off-site residential property, as shown in Figure ASI3341/N1.
- 5.4.6 Where any exceedance of the event MNL is measured, the appointed person shall immediately contact the production team / FOH via two-way radio to reduce music noise levels. Noise measurements will continue until levels achieve the event noise limits.
- 5.4.7 All amplified music from the event are required to conclude at 23:00 hours with a hard stop.

5.5 COMPLAINTS PROCEDURE

- 5.5.1 A clear and detailed complaints procedure shall be provided to local residents to enable them to report potential issues relating to noise, including details of a dedicated noise complaint line which will be staffed during the event.
- 5.5.2 Noise complaints will be logged and investigated where appropriate, with a record kept of complainant concerns, contact details, precise timings and any involvement with the Local Planning Authority. Complainants' consent for their details to be held on file must be secured for GDPR compliance.
- 5.5.3 If a complaint is received / recorded, the telephone staff shall immediately inform the appointed person supporting the event and will email details to the appointed person where appropriate. The appointed person has the ability and authority to make decisions and implement changes in noise level during the event.
- 5.5.4 The appointed person will contact the production team via two-way radio to notify them of the complaint and determine the requirement for investigation. Where necessary, the appointed person may visit the complainant's property to take noise measurements.
- 5.5.5 Where music noise levels are measured to be above the event noise limits, the appointed person shall immediately contact the production team / FOH via two-way radio to inform the need to reduce music noise levels.
- 5.5.6 Any practical action identified by the licensee should be documented and logged alongside the complaint with feedback to the complainant on any actions and timescales.
- 5.5.7 The licensee should investigate the cause of the complaint, making contact with the complainant and visiting their premises, if required.
- 5.5.8 Any complaints received should be logged by the licensee using the complaints reporting form (Appendix C) or similar.
- 5.5.9 The complaints log shall be held at the licensee's office register and made available to the Local Planning Authority on request.

5.6 POST EVENT REPORTING

- 5.6.1 After the event has concluded, a post event report will be provided to the local authority within 28 days of the event. This report will detail noise measurements recorded on site, as well as noise measurements recorded at surrounding noise-sensitive receptors

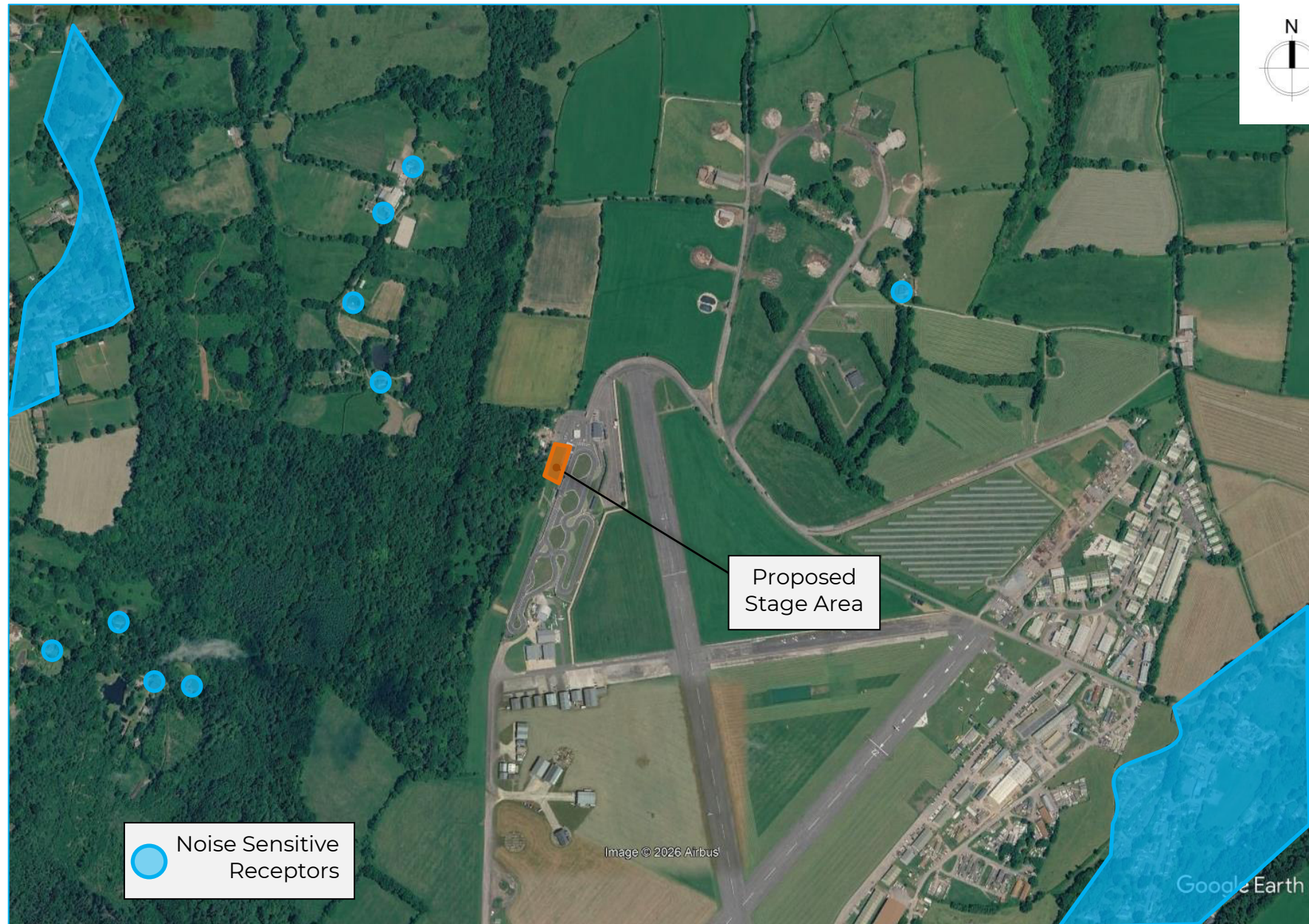
5.6.2 The report will detail any complaints received and actions taken, including noise measurements. Details of any complaints can be made available to the Local Planning Authority on request before the 28-day period.

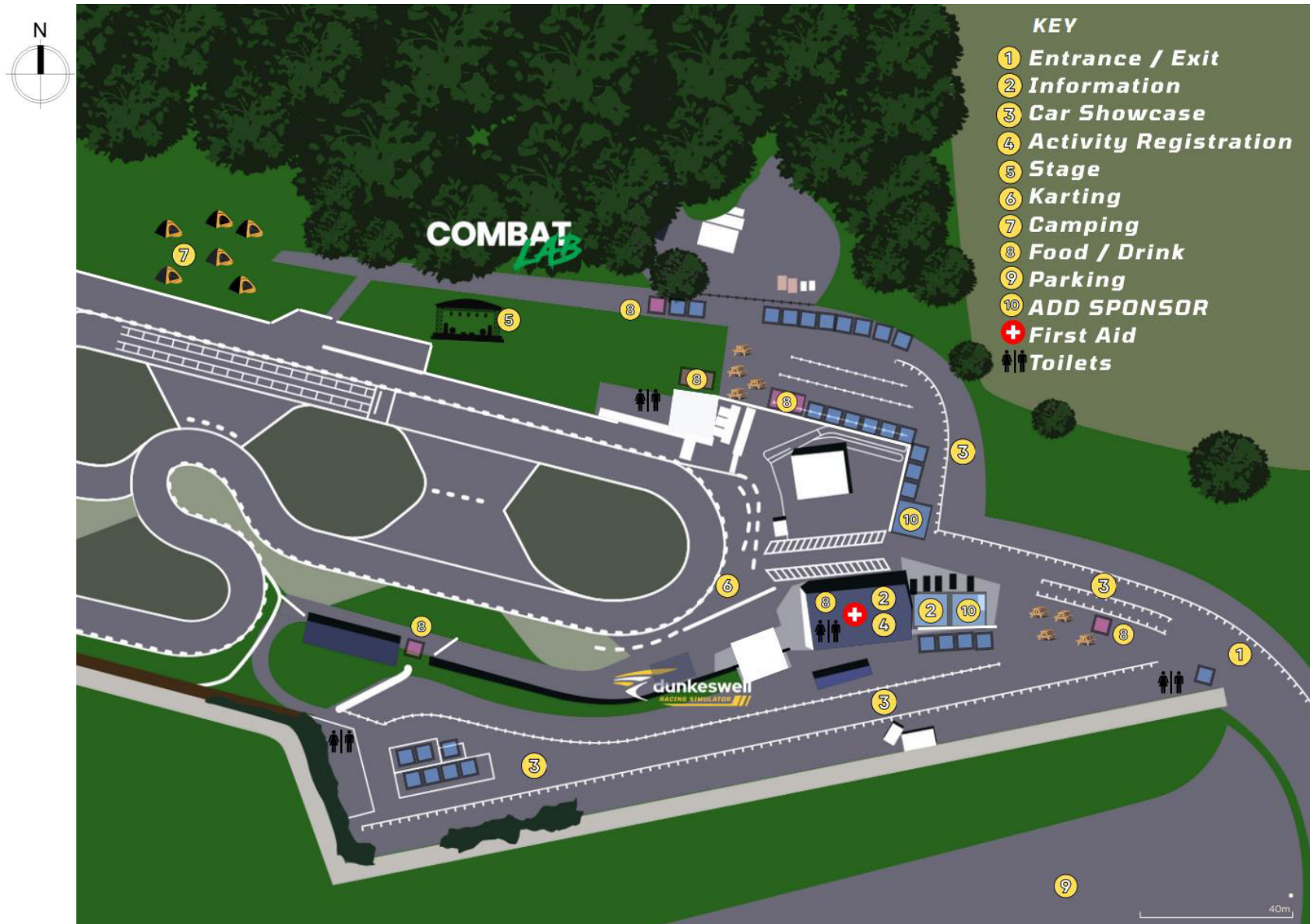
6.0 CONCLUSIONS

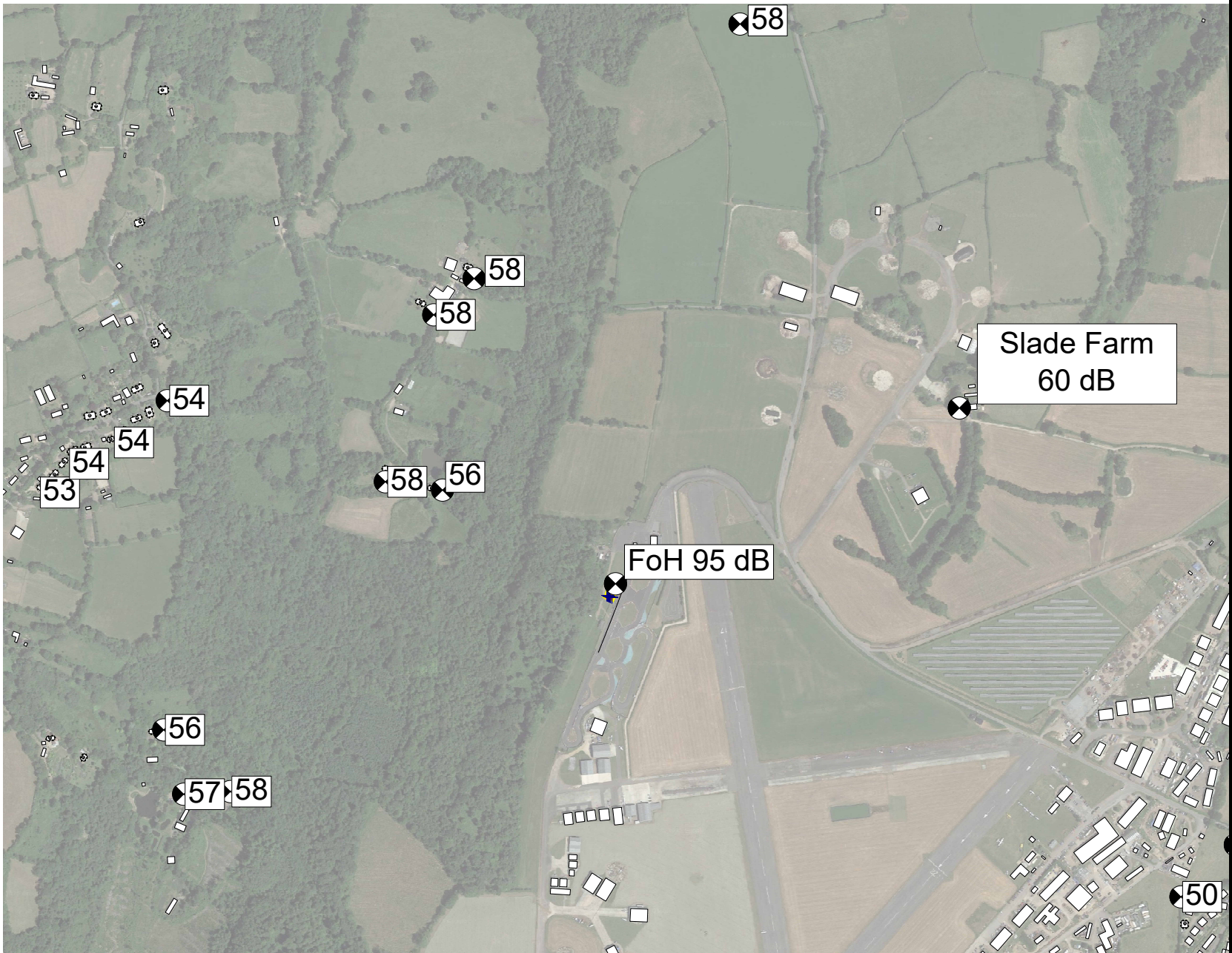
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- 6.2 A licence for the event is sought, and as part of the licensing process a Noise Management Plan has been created which has detailed how music noise will be managed, and any complaints would be processed.
- 6.3 This report details the noise management plan to be adopted for the event.



Mike McLoughlin MIOA
CLARKE SAUNDERS ACOUSTICS





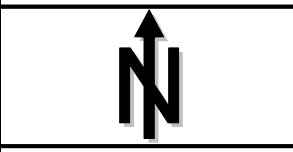


**Clarke Saunders
Associates**

Dunkeswell Kart Club
Predicted MNL, 15min
(dBA)

Receptor Height:
1.5m AGL

Figure
AS13341/N1



Scale 1:10000@ A4

1.1 Acoustic Terminology

The human impact of sounds is dependent upon many complex interrelated factors such as 'loudness', its frequency (or pitch) and variation in level. In order to have some objective measure of the annoyance, scales have been derived to allow for these subjective factors.

Sound	Vibrations propagating through a medium (air, water, etc.) that are detectable by the auditory system.
Noise	Sound that is unwanted by or disturbing to the perceiver.
Frequency	The rate per second of vibration constituting a wave, measured in Hertz (Hz), where 1Hz = 1 vibration cycle per second. The human hearing can generally detect sound having frequencies in the range 20Hz to 20kHz. Frequency corresponds to the perception of 'pitch', with low frequencies producing low 'notes' and higher frequencies producing high 'notes'.
dB(A):	Human hearing is more susceptible to mid-frequency sounds than those at high and low frequencies. To take account of this in measurements and predictions, the 'A' weighting scale is used so that the level of sound corresponds roughly to the level as it is typically discerned by humans. The measured or calculated 'A' weighted sound level is designated as dB(A) or L_A .
L_{eq}:	<p>A notional steady sound level which, over a stated period of time, would contain the same amount of acoustical energy as the actual, fluctuating sound measured over that period (e.g. 8 hour, 1 hour, etc).</p> <p>The concept of L_{eq} (equivalent continuous sound level) has primarily been used in assessing noise from industry, although its use is becoming more widespread in defining many other types of sounds, such as from amplified music and environmental sources such as aircraft and construction.</p> <p>Because L_{eq} is effectively a summation of a number of events, it does not in itself limit the magnitude of any individual event, and this is frequently used in conjunction with an absolute sound limit.</p>
L_{10} & L_{90}:	<p>Statistical L_n indices are used to describe the level and the degree of fluctuation of non-steady sound. The term refers to the level exceeded for n% of the time. Hence, L_{10} is the level exceeded for 10% of the time and as such can be regarded as a typical maximum level. Similarly, L_{90} is the typical minimum level and is often used to describe background noise.</p> <p>It is common practice to use the L_{10} index to describe noise from traffic as, being a high average, it takes into account the increased annoyance that results from the non-steady nature of traffic flow.</p>
L_{max}:	The maximum sound pressure level recorded over a given period. L_{max} is sometimes used in assessing environmental noise, where occasional loud events occur which might not be adequately represented by a time-averaged L_{eq} value.
Music Noise Level (MNL)	<i>The L_{AEQ} of the music noise measured at a particular location.</i>
Noise Consultant	A person given responsibility by the organiser of the event for monitoring noise levels in accordance with the prevailing Conditions, and who has the ability

and authority to make decisions and implement changes in noise level during the event

Sound Engineer *Person employed to control the sound quality of the music for the audience.*

1.2 Octave Band Frequencies

In order to determine the way in which the energy of sound is distributed across the frequency range, the International Standards Organisation has agreed on "preferred" bands of frequency for sound measurement and analysis. The widest and most commonly used band for frequency measurement and analysis is the Octave Band. In these bands, the upper frequency limit is twice the lower frequency limit, with the band being described by its "centre frequency" which is the average (geometric mean) of the upper and lower limits, e.g. 250 Hz octave band extends from 176 Hz to 353 Hz. The most commonly used octave bands are:

Octave Band Centre Frequency Hz	63	125	250	500	1000	2000	4000	8000
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1.3 Human Perception of Broadband Noise

Because of the logarithmic nature of the decibel scale, it should be borne in mind that sound levels in dB(A) do not have a simple linear relationship. For example, 100dB(A) sound level is not twice as loud as 50dB(A). It has been found experimentally that changes in the average level of fluctuating sound, such as from traffic, need to be of the order of 3dB before becoming definitely perceptible to the human ear. Data from other experiments have indicated that a change in sound level of 10dB is perceived by the average listener as a doubling or halving of loudness. Using this information, a guide to the subjective interpretation of changes in environmental sound level can be given.

INTERPRETATION

Change in Sound Level dB	Subjective Impression	Human Response
0 to 2	Imperceptible change in loudness	Marginal
3 to 5	Perceptible change in loudness	Noticeable
6 to 10	Up to a doubling or halving of loudness	Significant
11 to 15	More than a doubling or halving of loudness	Substantial
16 to 20	Up to a quadrupling or quartering of loudness	Substantial
21 or more	More than a quadrupling or quartering of loudness	Very Substantial

1.4 Earth Bunds and Barriers - Effective Screen Height

When considering the reduction in sound level of a source provided by a barrier, it is necessary to establish the "effective screen height". For example if a tall barrier exists between a sound source and a listener, with the barrier close to the listener, the listener

will perceive the sound as being louder if he climbs up a ladder (and is closer to the top of the barrier) than if he were standing at ground level. Equally if he sat on the ground the sound would seem quieter than if he were standing. This is explained by the fact that the "effective screen height" is changing with the three cases above.

In general, the greater the effective screen height, the greater the perceived reduction in sound level.

Similarly, the attenuation provided by a barrier will be greater where it is aligned close to either the source or the listener than where the barrier is midway between the two.

APPENDIX B

Time	Event Schedule	Responsible
	Cars to set up from this time	
9:00	Camping access from this time	
11:00	Last entry for car showcase and cars for camping	
11:30	No more car movement. Prep site for opening	
	Gates open	
	Car Showcase open	
12:00	Background music on at Stage	DJ Paul Gannon
12:10	Simulators begin	
	Opening act - Solo singer / acoustic duo	Angelica
12:30	Activities Begin - Karting and Combat Labs	
13:30	Turn around DJ/Background music	DJ Paul Gannon
14:00	Mid tempo Band	Snapshot band
15:00	Turn around DJ/Background music	DJ Paul Gannon
15:30	Emerging local band	Save the Cheerleader
16:30	Turn around DJ/Background music	DJ Paul Gannon
17:00	Beatboxing	Bloxed beats
17:30	Car Show awards	DJ Paul Gannon
18:00	Mid tempo Band	Ironhide
18:00	End of karting and simulators	
18:30	Cars can depart	
19:00	Turn around DJ/Background music / Pictures on track?	DJ Paul Gannon
19:30	High energy band	The Velociraptors
19:00	End of combat labs	
20:00	<i>Sun sets</i>	
	End of band straight into DJ	
21:00	Headline DJ	DJ Paul Gannon
22:00		
	Music license ends. No amplified music played past this time.	
23:00		
23:00	Audience to depart	
0:00	Site close / Camping	

Noise Complaints Report Form	
Complaint Number	
Time and date of complaint	
Name and address of complainant	
Complainant's contact details (Telephone / E-mail)	
Time and date of activity related to complaint	
Weather at time of complaint activity	
Wind conditions at time of complaint activity (speed / direction)	
Complainant's description of noise issue	
Any other issues relating to the complaint	
Indicated cause of complaint	
Other relevant information	
Operations / activities on site at time of complaint activity	
Follow up	
Actions taken	
Investigation outcome (if required)	

Completed by:	
Reviewed / Authorised by:	