28 September 2017 at 10.30 am

Council Chamber, Argyle Road, Sevenoaks
Despatched: 27.09.17

Sevenoaks
DISTRICT COUNCIL

Licensing Hearing

Supplementary Agenda (2)

Pages

3. **Chafford Park Granary Barn at Chafford Park - further submission from the Applicant's representative** (Pages 1 - 80)

1740

CHAFFORD PARK

Sevenoaks District Council Licensing Sub-Committeee

28/09/17

The Granary Barn, Chafford Park

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*NB: The page numbers referred to below are the **handwritten numbers** located at the bottom left of each page*

TAB ONE

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Date 25 September 2017
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Dear Councillors

Licensing Act 2003
Application for a new premises licence by Chafford Park Ltd

We represent Chafford Park Ltd, the applicant for a new premises licence at The Granary Barn, Chafford Park, Chafford Lane, Fordcombe, Kent TN3 9UR ("the Site").

We are in receipt of the agenda papers for the Licensing Sub-Committee Hearing on Thursday 28 September 2017 at 10:30am.

We thought that it might help if we wrote to you, the members of the Licensing Sub-Committee, at the same time as serving the Applicant's evidence to put the application in context, to give clarity to the proposals, to (hopefully) narrow the issues before you on Thursday and above all, to explain how the Applicant intends to promote the licensing objectives. We hope this letter is helpful to you.

The application

This is a modest application for a new premises licence for the Site, which is former granary barn on the larger Chafford Park estate. The application is to permit:

- The supply of alcohol (on-sales) from 12:00 to 23:00 daily; and
- To permit regulated entertainment in the form of live music and recorded music (indoors only) from 12:00 to 23:00 daily.

In that regard, we submit that this application ticks all of those boxes. By granting this application for a new premises licence you will be, in effect, reinforcing the aims of your policy.

At paragraph 3.1 of your policy you state that *"The Licensing Authority encourages the development of premises which are not alcohol-led and which are aimed at different sectors of the population… Premises that promote the arts, a food offer, or other cultural activities are particularly encouraged."* We would submit that this is exactly the kind of site that should be granted a premises licence. The predominant purpose of this application is to host events and the licensable activities sought are very much ancillary to that and whilst we will deal with conditions more thoroughly below, you will see that we are suggesting a condition that:

> *"The licensable activities authorised by this licence and provided at the premises shall be ancillary to the main function of the premises as an events space."*

Conditions

We have included in your bundle a list of 18 suggested conditions, all of which the Applicant is able to agree and that could be attached to a premises licence in the event you are minded to grant one.

They remedy, we suggest, any mischief that could occur from events at the Site now and in the future.

First, alcohol will only be sold or supplied to persons attending a pre-booked event. All of our events, whether that is a wedding, a birthday, a corporate strategy meeting, or what have you, will be pre-booked. Customers will not be attending Chafford Park on the off-chance that they might be able to buy a drink, they will be going there for a clearly defined purpose.

Second, the Applicant has understood the concerns of the Principal Environmental Health Officer and local residents in relation to noise. As explained above, regulated entertainment was previously provided under the auspices of TENs and that will change. We have proposed a number of conditions to deal with the prevention of public nuisance objective including undertakings not to have any live or recorded music on the terrace, to display notices asking attendees to respect the needs of local residents, to keep windows and doors to the Site closed when regulated entertainment is taking place and to control regulated entertainment as a premises licence holder should.

What the various public nuisance conditions do not deal with is that the Applicant has appointed extremely experienced acoustic consultants who have prepared for the Applicant a noise management plan. They have also advised on various acoustic measures at the Site and have monitored events in the run up to the hearing.

Finally, we have sought to give effect to the statements made within the operating schedule by converting them into enforceable conditions. We hope that is of some assistance.

Representations from Ms Julie Short, Ms Sally Jolly, and Mr Andrew Backway

Ms Short

It is perhaps sensible if we address the representation from your Principal Environmental Health Officer first, before dealing, we hope, with the concerns of local residents.

The Applicant has not sought any other licensable activities as part of this application. It is, in that sense, a very discrete application for very limited hours. The Applicant has also given the opening hours of the Site as 12:00 to 23:30 daily.

Chafford Park is a working farm however, in an attempt to diversify its offering the Applicant is seeking to provide events on the Chafford Park estate. To that end, the Applicant has spent considerable time and money developing and converting two farm buildings in order to be able to host variety of private and corporate events including meetings, staff training, birthdays and weddings. This list is non-exhaustive, but it should give a flavour of the types of events envisioned at the Site.

Previous events and planning

You will see from the agenda papers and we acknowledge that there have been issues of public nuisance prior to this application. We do not shy away from those issues and it is absolutely right that local residents have a legitimate expectation that their peaceful enjoyment will not be disturbed. It is that expectation however, that necessitates this application for a premises licence for the following reasons.

Previously, events have been held when temporary event notices (TENs) have been given by site users. Those TENs were not given by the Applicant, but rather by the person hiring the site meaning that he or she would be responsible for the provision of licensable activities thereon. It is that lack of control that makes the previous model unworkable and hence why we come before you to seek an authorisation so that the Applicant can control licensable activities at the site. To that end, the Applicant has worked very hard in sourcing responsible suppliers that it can trust to deliver events and to promote the licensable objectives.

You will no doubt have picked up on the issue concerning whether or not planning permission has been granted for the Site for the use as envisaged. We do not need to tell you that planning and licensing are separate regimes and that whilst your Statement of Licensing Policy (rightly) expects at paragraph 3.20 that applicants will be expected to be in possession of the necessary planning authorisation, a failure to have that authorisation in place is not a legitimate reason to refuse an application for a new premises licence. We are delighted to confirm that planning permission to use the Site was granted on 14 September 2017 (with retrospective effect from 3 July 2017). We refer you to the letter and decision notice from Chief Planning Officer Richard Morris, a copy of which we have included within our evidence. We will return to some of the terms of the planning permission, if we may, when addressing the concerns of Ms Short, Ms Jolly and Mr Backway.

Sevenoaks District Council Statement of Licensing Policy

Before we turn to the representations and the steps that the Applicant has and is taking to deal with the concerns raised, may we address you in relation to your Statement of Licensing Policy and a couple of points therein.

One of the very aims, expressed at page 3 of your policy is to *"encourage an early evening and night time economy which is viable, sustainable and socially responsible."* You also seek to *"encourage employment", "encourage the self-sufficiency of local communities" and "encourage and promote live music, dancing and theatre for the wider cultural benefit of communities generally." [our emphasis]*

Ms Short has suggested a number of appropriate and proportionate conditions that could be attached to the premises licence and where we are able we have sought to incorporate those into the eighteen conditions referred to above.

There is however, some distance between us on other matters we hope to explain why. We refer to pages 21 – 23 of your agenda papers.

Condition 1 at page 22 cannot, we're afraid, be a condition of a premises licence as it requires matters that are outside the scope of the Licensing Act 2003 such as changing location of the entrance. We hope that the Sub-Committee understands that stance. We are quite happy to work with Ms Short to turn Condition 1 into something workable.

Condition 2 cannot and should not be applied to the premises licence. The Hop Barn is not part of this application, which concerns the Granary Barn.

Condition 3 we accept entirely. We did not actually apply for live or recorded music outdoors, but if one takes the red line on the plan to mean the area for licensable activities then it is arguable that we could have done. We don't intend to and we are happy with that condition. It is included with our suggested conditions.

In a similar vein to Condition 2, Condition 4 seeks to restrict something that is not properly the subject of this application.

Condition 5 is, in our view, unnecessary but if the Sub-Committee were minded to impose it on us then we would suggest that a sensible witching hour (20:00) be chosen as a cut-off point. Whatever time chosen should bear in mind the changing of sunset and so it may be that different times are required for different periods of the year. It is a matter for the Sub-Committee as to how they approach that and we do not have strong views on it.

Condition 6 seeks to restrict something that is not part of this application.

Conditions 7 and 8 we agree with in principle and we have suggested a form of words at Condition 7 of our suggested conditions. If the Sub-Committee is minded that a noise limiter is an appropriate and proportionate step then we would ask that our wording be preferred.

Condition 9 is otiose. The Applicant has submitted a noise management plan (NMP) and a copy is included with our evidence. If the intention is that the NMP be reviewed year-on-year and re-submitted to the Licensing Authority then we would be happy to make that happen.

Condition 10 we agreed with entirely and have included it in our list of suggested conditions.

Condition 11 is a planning point and rightly dealt with by Condition 13 of the planning permission. Duplication of conditions across permissions is to be deprecated.

Condition 12 we are in agreement with.

We hope that our explanations and concessions are useful to members.

Ms Jolly and Mr Backway

We are sorry that Ms Jolly and Mr Backway have been disturbed by previous events. We hope that the conditions that we have suggested deal with their concerns. It is worth noting that access to and egress from the Site has been dealt with by the planning process. We hope that

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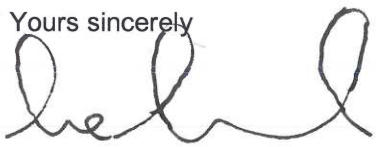
it goes without saying that the Applicant will adhere to the planning permission, but if it would assist then we would be happy to add a condition to that effect.

Summary

Chafford Park has the potential to be a stunning venue able to accommodate a range of events that might include the provision of licensable activities. That there have been issues previously is a source of regret for the Applicant, but the Sub-Committee may be assured that the Applicant has identified what the issues were and has sought to remedy them. A perfect example of this is the hiring of suitably qualified acousticians to prepare and submit a noise management plan and to undertake noise monitoring. The application for a premises licence is modest in terms of the hours sought, the hours for regulated entertainment equally so, particularly when one considers the extensive deregulation of that area in recent times. With the benefit of an appropriately and proportionately conditioned premises licence, Chafford Park can and will be a premises that Sevenoaks Council can consider a jewel in the fiefdom.

We hope this letter has been of some assistance to you and we thank you for taking the trouble to read it.

Yours sincerely



Luke Elford
Solicitor
For TLT LLP

cc. Ms Julie Short – Principal Environmental Health Officer Dartford & Sevenoaks
Ms Jessica Foley – Licensing Officer
Ms Sally Jolly – c/o Sevenoaks Licensing
Mr Andrew Backway – c/o Sevenoaks Licensing

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TAB TWO

Chafford Park

Suggested conditions for licensing sub-committee hearing 28/09/17

(1) The licensable activities authorised by this licence and provided at the premises shall be ancillary to the main function of the premises as an events space

(2) Alcohol shall only be supplied for consumption by persons attending a pre-booked event

(3) The premises licence holder shall ensure that event organisers are supplied with a copy of the premises licence and an agreement for hire of the premises. That agreement shall include the conditions attached to the premises licence

(4) The premises licence holder shall not permit the performance of live music or the playing of recorded music on the terrace adjacent to the Reception Barn

(5) The premises licence holder shall ensure that any patrons using the terrace adjacent to the Reception Barn do so in an orderly manner and are supervised by staff so as to ensure that they do not cause a public nuisance

(6) Loudspeakers shall not be located outside the Reception Barn or on the terrace adjacent to it

(7) A noise limiter (which may include a cloud-based limiter) must be fitted to the musical amplification system and set at a level determined by and to the satisfaction of an Authorised Officer of the Council's Environmental Health Service, so as to ensure that no noise nuisance is caused to local residents. The operational panel of the noise limited shall be secured by key or password to the satisfaction of an Authorised Officer of the Council's Environmental Health Service. The noise limiter shall not be altered without the prior agreement of the Council's Environmental Health Service, not to be unreasonably withheld. No alteration of the musical amplification system(s) should be effected without the prior knowledge of an Authorised Officer of the Council's Environmental Health Service. No additional sound generating equipment shall be used on the premises without being routed through the noise limiting device

(8) Any live bands must use a silent stage arrangement, which may include:

   a. A digital drum kit;

   b. Directional bass injection; and

   c. In ear monitoring

(9) No noise generated on the premises shall emanate from the premises which gives rise to a nuisance

(10) The premises licence holder will take all reasonable steps to ensure that Regulated Entertainment will not cause a nuisance

(11) All windows and doors to the Reception Barn shall be kept closed after 22:00 hours, or at any time when Regulated Entertainment is taking place, except for the immediate access and egress of persons

(12) Notices shall be displayed at all exits from the Reception Barn requesting that patrons respect the needs of local residents and keep leave the area quietly

(13) Notices shall be displayed at any area used for smoking requesting that patrons respect the needs of local residents and use the area quietly

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(14)A direct telephone number for the manager on duty at the premises shall be available at all times the premises are providing licensable activities. The telephone number is to be made available to residents and businesses in the vicinity.

(15)A Challenge 25 proof of age scheme shall be operated at the premises where the only acceptable forms of identification are recognised photographic identification cards, such as driving licences or passports, or recognised proof of ages cards bearing the PASS hologram, or similar

(16)A record shall be kept detailing all refused sales of alcohol. The record should include the date and time of the refusal and the name of the member of staff making it. The record shall be available for inspection by the Police or Authorised Officers at all times whilst the premises are providing licensable activities

(17) An incident log shall be kept at the premises and be available for inspection by the Police or Authorised Officers at all times whilst the premises are providing licensable activities

(18)The premises licence holder shall employ SIA registered door supervisors on a risk assessment basis

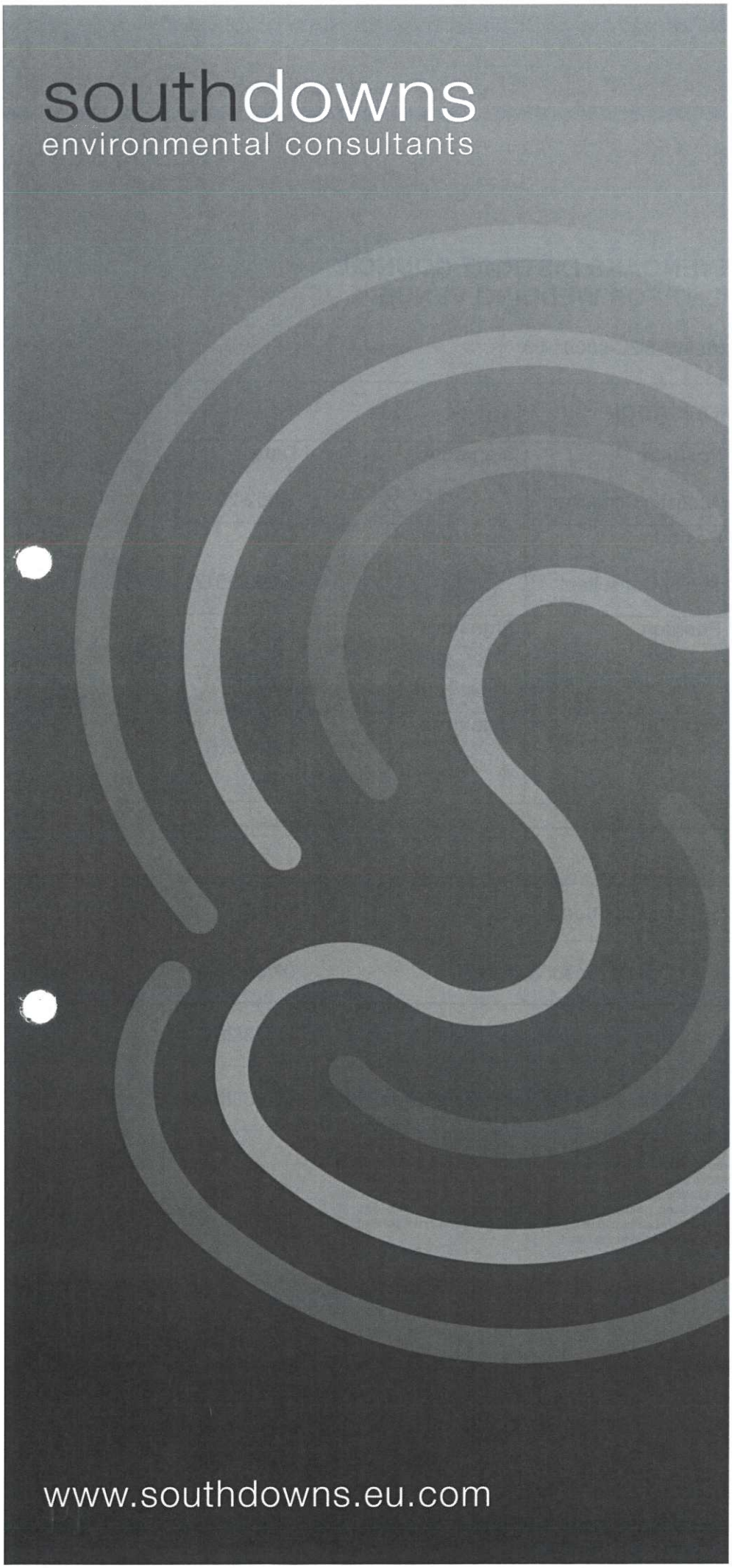
TAB THREE


YAY PARTY

TAB FOUR


wedding barns
40 cars
Chafford Park
access from
Ashurst Road
Chafford Park
12

TAB FIVE



SARAH THOMPSON

CHAFFORD PARK, SEVENOAKS DISTRICT COUNCIL

ACOUSTIC ASSESSMENT FOR WEDDING VENUE

MARCH 2017

FINAL REPORT

2099W-SEC-00001-03

13

SARAH THOMPSON
CHAFFORD PARK, SEVENOAKS DISTRICT COUNCIL
ACOUSTIC ASSESSMENT FOR WEDDING VENUE

DOCUMENT REFERENCE: 2099W-SEC-00001-03

REVIEW AND AUTHORISATION			
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Reviewed By	**Position**	**Signature**	**Date**
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Checked By	**Position**	**Signature**	**Date**
Stuart Berry	Acoustic Consultant		27/02/2017
Approved By Patrick Williams	**Position** Director	**Signature**	**Date** 07/03/2017

AMENDMENT HISTORY			
Issue	**Status**	**Description**	**Date**
01	Draft Report	Draft issue for comment	07/03/2017
02	Final Report	Final issue following client comment	08/03/2017
03	Final Report	Final issue following client comment	09/03/2017

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REG. IN ENGLAND NO: 3150111

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1. INTRODUCTION

1.1.1 Southdowns Environmental Consultants Ltd was commissioned by Sarah Thompson to provide an acoustic assessment to accompany a planning application to Sevenoaks District Council (SDC) for the use of two barns within the grounds of Chafford Park, Fordecombe, Kent to be used for wedding functions.

1.1.2 This noise assessment was required to cover the noise impact of functions occurring during evening hours at the barns. This includes the assessment of noise levels from the playing of music within the Granary Barn (reception barn) at nearby residential locations.

1.1.3 The results of the noise surveys presented in this report have been used to model and assess the potential impacts associated with the use of the barns for wedding functions occurring during evening hours, including amplified music within the barn, patron noise, car park noise and noise from vehicle movements on the access road.

1.1.4 The noise assessment follows the principles of guidelines and standards including British Standards (BS) 8233:2014 [1] and World Health Organisation (WHO) guidelines on noise [2]. The sound character is also assessed using the principles of BS 4142:2014 [3], following consultation with SDC and communication of their preferences for the assessment.

1.1.5 The noise levels and criteria normally used for the assessment of environmental noise are presented in the following section of this report. The site and details of the barns are described in Section 3. Details of the noise surveys are presented in Section 4, whilst the noise survey results are presented in Section 5. Details of the noise impact assessment are addressed in Section 6, together with mitigation options. The conclusions of this assessment are summarised in Section 7.

2. NOISE LEVELS AND CRITERIA

2.1 Noise Levels

2.1.1 Noise is measured on a logarithmic scale in decibels (dB) because of the ears' sensitivity to a wide range of pressure changes. The sound pressure level (SPL) of a signal is denoted by the symbol L_p and defined by the equation $L_p = 10 \log (p/p_o)^2$ where p is the root mean square pressure of the signal and p_o is the reference sound pressure (2×10^{-5} Pa).

2.1.2 The human auditory system is capable of detecting sounds over a frequency range of 20 Hz to 20 kHz. Because the ear is most sensitive to sounds with frequencies between 1 and 5 kHz, an A-weighting network is used to reflect the differential sensitivity of human hearing to sounds of different frequency. The A-weighting sound pressure level, L_{pA}, is measured on a scale defined by the dB(A).

2.1.3 The dB(A) level is commonly used for the measurement and assessment of environmental noise due to the relationship between the subjective impression of the auditory strength of a sound, otherwise known as loudness, and the A-weighted sound pressure level of that sound. A change in 3 dB is the minimum perceptible change in event noise levels under normal everyday listening conditions, whilst a 10 dB increase or decrease in the sound pressure level of a steady sound generally corresponds to a perceived doubling or halving of loudness.

2.1.4 An indication of the range of sound pressure levels commonly found in the environment is given below:

Location	L_{pA} dB(A)
Normal threshold of hearing	-10 to 20
Music halls and theatres	20 to 30
Living rooms and offices	30 to 50
Inside motor vehicles	50 to 70
Industrial premises	70 to 100
Burglar alarms at 1 m	100 to 110
Jet aircraft on take-off	110 to 130
Threshold of pain	130 to 140

2.1.5 The $L_{A90,T}$ background noise level is defined by the A-weighted sound pressure level of the ambient noise exceeded for 90% of a given time interval, T. This provides a measure of the lower levels of a fluctuating noise and is normally defined separately for day and night-time periods. Other percentiles are also sometimes used to describe the levels of ambient noise exceeded for different periods of time. The $L_{A50,T}$ and $L_{A10,T}$ noise levels denote the level of ambient noise exceeded for 50 and 10% of the time T, respectively whilst the $L_{Amax,F}$ noise level denotes the maximum instantaneous noise level in any given period of time obtained using the FAST time weighting.

2.1.6 The equivalent continuous sound pressure level is denoted by the symbol $L_{Aeq,T}$ and is defined as the notional steady sound which, at a given position over a defined period of time, T, has the same A-weighted acoustic energy as the actual fluctuating sound. This average noise level is used in the UK for the measurement of noise from most sources (including industry, construction, railways and aircraft) and is widely used for the measurement of *ambient* noise, which comprises noise from all sources in the environment.

2.1.7 Community response to environmental noise sources is dependent on both acoustic and non-acoustic factors. The acoustic factors include absolute noise level, changes or exceedances of background and ambient levels as well as the characteristics, time, duration and frequency of noise.

2.2 National Noise Policy and Planning Policy Framework

Noise Policy Statement for England (NPSE)

2.2.1 The Noise Policy Statement for England (March 2010) [4], sets out the long term vision of Government noise policy.

2.2.2 The vision of the NPSE is to 'Promote good health and a good quality of life through the effective management and control of noise within the context of Government policy on sustainable development.' This vision is supported by three key aims:

- avoid significant adverse impacts on health and quality of life;
- mitigate and reduce to a minimum other adverse impacts on health and quality of life; and
- where possible, contribute to the improvement of health and quality of life.

2.2.3 The NPSE should apply to all forms of noise including environmental noise, neighbour noise and neighbourhood noise but does not apply to noise in the workplace (occupational noise).

2.2.4 The NPSE had adopted the following concepts, to help consider whether noise is likely to have 'significant adverse' or 'adverse' effects on health and quality of life:

NOEL – No Observed Effect Level

This is the level below which no effect can be detected. In simple terms, below this level, there is no detectable effect on health and quality of life due to noise.

LOAEL – Lowest Observed Adverse Effect Level

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

SOAEL – Significant Observed Adverse Effect Level

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

National Planning Policy Framework

2.2.5 The Department for Communities and Local Government introduced the National Planning Policy Framework (NPPF) in April 2012 [5]. This framework replaced most national

planning policy, circulars and guidance, including Planning Policy Guidance 24: Planning and Noise.

2.2.6 The NPPF defines the Government's planning policy for England and sets out the framework, within which local authorities must prepare their local and neighbourhood plans, reflecting the needs and priorities of their communities. Paragraph 123 of the NPPF requires Local Authorities to develop local policies and make decisions which 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 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 have unreasonable restrictions put on them because of changes in nearby land uses since they were established; and
- identify and protect areas of tranquillity which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.

2.2.7 The framework is not accompanied by any technical guidance (other than for flooding and mineral policy) and there is a strong emphasis on local authorities to develop their own policies on noise, which achieve the principles listed above, while considering the local needs of the area.

2.3 Standards and Guidance

World Health Organisation Noise Guidelines

2.3.1 The guidelines presented in the World Health Organization (WHO) document reflect conclusions drawn up after consideration of international research evidence on the health effects of exposure to noise. The guidelines define the goal of noise management as 'to maintain low noise exposures such that human health and well-being are protected', with 'specific objectives to develop criteria for the maximum safe exposure levels and to promote noise assessment and control as part of environmental health programmes'.

2.3.2 These WHO guideline values are based on precautionary limits for community noise in specific environments and are re-produced below.

Specific Environment	Critical Health Effect(s)	dB $L_{Aeq,T}$	Time Base hours
Outdoor living area	Serious annoyance, daytime and evening	55	16
	Moderate annoyance, daytime and evening	50	16
Dwelling indoors	Speech intelligibility and moderate annoyance, daytime and evening	35	16
Inside bedrooms	Sleep disturbance, night-time	30	8

TABLE 2.1: WHO COMMUNITY NOISE GUIDELINE VALUES

2.3.3 It should be noted that the above values generally apply to 'anonymous' or everyday levels of environmental noise from road traffic, trains and aircraft. Human reaction to tonal and low frequency noise may be underestimated by the dB(A) noise level and hence lower limits may apply.

BS 8223:2014 Guidance on sound insulation and noise reduction for buildings

2.3.4 BS 8223:2014 contains a number of design criteria and guideline levels for the protection of new or planned development against external noise. The guidelines are designed to achieve desirable resting/ sleeping conditions in bedrooms and good listening conditions in other rooms. Those criteria which are most relevant to residential environment are reproduced in Table 2.2 below.

Activity	Location	Desirable Internal Noise Level, dB $L_{Aeq,T}$	
		07:00 to 23:00	23:00 to 07:00
Resting	Living Room	35	-
Dining	Dining Room/Area	40	-
Sleeping (daytime resting)	Bedroom	35	30

TABLE 2.2: BS 8233:2014 AMBIENT INDOOR NOISE LEVELS

2.3.5 Referring to the desirable levels displayed in Table 2.2, BS 8233 goes on to state that:

"...levels are based on annual average data and do not have to be achieved in all circumstances. For example, it is normal to exclude occasional events, such as fireworks night or New Year's Eve."

UK Guidance on Assessment of Entertainment Noise

2.3.6 There are no prescribed standards for the assessment and control of noise from entertainment or leisure related premises. Previously the Institute of Acoustics (IOA) Working Party prepared a working draft document entitled "Good Practice Guide on the Control of Noise from Pubs and Clubs" [6]. The guide was to assist local authority officers and venue management and their staff in the prevention of noise disturbance and in the investigation and resolution of noise complaints. Subsequently The Institute of Acoustics have published the "Good practice on the Control of Noise in Pubs and Clubs" in March 2003 [7]. However, in this document there are no objective design criteria.

2.3.7 The draft IOA noise criteria or similar are sometimes adopted for venues where entertainment takes place more than once per week or continues beyond 23:00 hours. The following criteria were proposed for both internal and external assessment of entertainment noise (including music, singing, speech and Public Address (PA) systems) at noise sensitive properties:

- the L_{Aeq} of the entertainment noise should not exceed the representative background noise level L_{A90} (without entertainment noise); and
- the L_{10} of the entertainment noise should not exceed the representative background noise level L_{90} (without entertainment noise) in any 1/3rd octave band between 40 Hz and 160 Hz.

2.3.8 The draft good practice document stated that if the above criteria are met then the entertainment noise will be virtually inaudible inside noise-sensitive property. Further guidance is provided on the instrumentation requirements and measurement techniques to be adopted for assessments conducted in accordance with the guide.

2.3.9 The above criteria can only provide an indication of audibility, which is naturally dependent on environmental noise levels, the hearing acuity of individual listeners and various other psychoacoustic parameters. In particular the comparison of L_{10} band noise levels with L_{90} band levels, which is intended to control repetitive bass beats, is considered to represent a very stringent standard, especially for existing premises and for music which ceases before 23:00 hrs.

2.3.10 In December 2016 the IOA and the Institute of Licensing released a draft Good Practice Guide on the Control of Noise from Places of Entertainment [8]. This document, which is currently out for consultation, aims to ensure that "... *within the appropriate policy and legislative setting, entertainment noise does not cause a significant adverse impact i.e. nuisance to noise-sensitive receptors living and/or working in the vicinity of the entertainment venue; and aim for adverse impacts to be duly mitigated and minimised.*"

2.3.11 The Good Practice Guide provides an example noise assessment framework, which features proposed criteria levels for assessment of indoor venues which provide regulated entertainment or the like. The criteria levels are reproduced below in Table 2.3.

Location	Time	Criteria
External	7am to 11pm	$L_{Aeq,5min}$ EN minus $L_{Aeq,5min}$ or $L_{A90,5min}$ WEN = 0 to +5 dBA.
		$L_{Ceq,5min}$ EN minus $L_{Ceq,5min}$ or $L_{C90,5min}$ WEN = 0 to +5 dBC.
	11pm to 7am	$L_{Aeq,5min}$ EN minus $L_{Aeq,5min}$ or $L_{A90,5min}$ WEN = -5 to +3 dBA.
		$L_{Ceq,5min}$ EN minus $L_{Ceq,5min}$ or $L_{C90,5min}$ WEN = -10 to +3 dBC.
Internal	7am to 11pm	EN = Noise Rating NR25-35 $L_{eq,5mins}$
		$L_{Ceq,5min}$ EN minus $L_{Ceq,5min}$ or $L_{C90,5min}$ WEN = -10 to +5 dBC.
	11pm to 7am	EN = Noise Rating NR15-25 $L_{eq,5mins}$
		$L_{Ceq,5min}$ EN minus $L_{Ceq,5min}$ or $L_{C90,5min}$ WEN = -10 to 0 dBC.

TABLE 2.3 EXAMPLE ASSESSMENT CRITERIA TO PROVIDE EFFECTIVE CONTROL OF ETERNATAINMENT NOISE

Notes:
EN = Representative, or predicted, entertainment noise level,and
WEN = Representative noise level without the entertainment noise, measured or predicted 1 m from the facade of noise-sensitive premises or within noise-sensitive premises.

2.3.12 The guidance criteria presented in this Good Practice Guide should supersede that presented in prior IOA documents, once the consultation draft has been updated on the basis of feedback received and issued as guidance.

Code of Practice on Environmental Noise Control at Concerts [9]

2.3.13 This Code of Practice has been prepared by a Noise Council Working Party comprising specialists who are experienced in the particular problems that can arise with environmental noise control at music events. This Code of Practice contains the following advice to minimise the disturbance caused by noise:

- for indoor venues used for up to about 30 events per calendar year a Music Noise Level not exceeding the background noise by more than 5 dB(A) over a fifteen minute period is recommended for events finishing no later than 23:00 hours;

- a level up to 70 dB in either the 63 Hz or 125 Hz octave frequency band is satisfactory, whilst a level of 80 dB or more in either of those octave frequency bands causes significant disturbance;

- complaints may occur simply because people some distant from the event can hear it and that, consequently, they feel the music must be loud even though the guidelines are being met.

British Standard BS 4142:2014

2.3.14 Guidance on the rating and assessing of sound of an industrial and/or commercial nature is contained in British Standard BS 4142: 2014 'Methods for rating and assessing industrial and commercial sound'.

2.3.15 The standard states:

"This standard is applicable to the determination of the following levels at outdoor locations:

a) rating levels for sources of sound of an industrial and/or commercial nature; and

b) ambient, background and residual sound levels

for the purposes of:

1) investigating complaints;

2) assessing sound from proposed, new, modified or additional source(s) of sound of an industrial nature and/or commercial nature; and

3) assessing sound at proposed new dwellings or premises used for residential purposes."

2.3.16 This standard, however, is not applicable to music and other entertainment noise. Nevertheless, SDC has requested that principles of BS4142 be used to apply penalties to the music noise levels to account for the character of the sound on account of the fact that it is considered that even though the music noise may be below background it may also be distinguishable from the ambient sounds.

2.3.17 The determination of noise amounting to a nuisance is beyond the scope of this British Standard.

2.3.18 The significance of sound of an industrial and/or commercial nature depends upon both the margin by which the rating level of the specific sound source exceeds the background sound level and the context in which the sound occurs.

2.3.19 Typically, the greater the difference between rating level and background noise level, the greater the magnitude of the impact:

- a difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context;

- a difference of around +5 dB is likely to be an indication of an adverse impact, depending on context; and
- the lower the rating level is relative to the measured background sound level, the less likely it is that the specific source will have an adverse impact or a significant adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.

2.3.20 Certain acoustic features can increase the significance of the impact over that expected from a basic comparison between specific sound level and the background sound level. These features include tonality and impulsivity, as well as additional characteristics and intermittency of the sound.

2.3.21 Where appropriate, a rating penalty for sound based on a subjective assessment of its characteristics should be established. In other circumstances an objective appraisal of tonal and/or impulsive characteristics may be appropriate.

2.4 Local Noise Criteria

2.4.1 SDC Policy EN2 Amenity Protection, from the Allocations and Development Management Plan [10] states the following:

"*Proposals will be permitted where they would provide adequate residential amenities for existing and future occupiers of the development and would safeguard the amenities of existing and future occupants of nearby properties by ensuring that development does not result in, and is not located in areas where occupiers of the development would be subject to, excessive noise, vibration, odour, air pollution, activity or vehicle movements, overlooking or visual intrusion and where the built form would not result in an unacceptable loss of privacy, or light enjoyed by the occupiers of nearby properties*".

2.4.2 Consultation took place with the Senior Environmental Health Officer at SDC who advised that the assessment should not use the Noise Council event noise guidance given the wedding events could potentially take place on both weekend days throughout the summer. The SDC Environmental Health Officer further indicated that the assessment critieria should be based on comparing the event noise levels with character corrections to the sound level with the background noise level.

3. SITE DESCRIPTION

3.1 Chafford Park

3.1.1 Chafford Park is a working farm situated in Fordcombe near Ashurst, in Kent. The two barns proposed for the wedding venue are located around 120 m to the north east of the main farmhouse.

3.1.2 The Hop Barn, which will host mainly ceremonies, is approximately 185 m^2. The Granary Barn measures approx. 372 m^2, with an adjacent store area immediately to the south measuring approx. 87 m^2. This barn is used for functions and will be the primary source of noise due to amplified music within the barn.

3.1.3 Chafford Park is situated in a rural location, close to the small villages of Hedge Barton, Fordcombe, Stone Cross and Ashurst. The centre of Tunbridge Wells is located approximately 6.8 km to the east.

3.1.4 The A264 is 575 m to the south of the barns. The area between the barns and the nearby villages is predominantly farmland. The Uckfield Branch railway line is 1.1 km to the south east. One train per hour, in each direction, travels along this line.

3.1.5 The closest residential properties to the barns (not including Chafford Park and Chafford Park Farmhouse) are located approx. 180 m to the north. Park mobile homes are situated in Hedge Barton, 425 m to the north east. The nearest residential property to the east is Fitchetts Farmhouse, 750 m away. The closest residential property to the south is located within Stone Cross, 640 m from the barns. Further residential properties are located in Ashurst 635 m to the south east.

3.1.6 Observations made during attendance at site indicated that a mixture of distant road traffic on the surrounding road network and occasional local traffic is the dominant source of ambient noise in the vicinity.

3.1.7 An aerial view of the area surrounding the site is presented in Figure A1 of Appendix A to this report.

3.2 Functions

3.2.1 The Granary Barn at Chafford Park has a capacity of approximately 150 people. The wedding venue will operate mostly on Saturdays and Sundays, generally between 14:30 and 23:30 hrs. There may be some morning wedding events though caterers will not arrive until after 09:00 hrs.

3.2.2 The barns generally accommodate afternoon/evening functions, with guests required to be off site by midnight. No amplified music will be permitted beyond 23:30 hrs.

3.2.3 The amplified music noise source will be within the Granary Barn will be from a DJ with a sound system. Additional sources are due to vehicle movements, use of the car park and people noise from within the barns and directly outside.

3.2.4 A car park is situated directly to the south west of the barns. The proposed layout of the barns and the parking arrangements are presented in Figure A2 of Appendix A. The pickup area is directly to the south of the Granary Barn to provide a barrier effect from the building itself and minimise the distance travelled to the pick-up area.

3.3 Noise Limiter

3.3.1 No noise limiter is currently installed within the barn as there is no permanent sound system in place. It is understood that the sound systems to be used will use a noise limiter.

3.4 Event License

3.4.1 It is understood the applicant intends to apply for an event license for the wedding events and in the interim period the caterer's event license will be used. Through the event license additional conditions to control noise and management of patrons of the wedding events can be placed, if required.

4. NOISE MEASUREMENTS

4.1 Noise Monitoring

4.1.1 Attended short term noise measurements were obtained to assess the variation in noise levels within the vicinity of the barns, both with amplified music playing within the Granary Barn and in the absence of this music to provide observations of the sources governing the existing ambient noise environment. Controlled breakout measurements were also undertaken to measure the attenuation achieved by the envelope of the barn.

4.1.2 An unattended noise survey was also carried out close to the barns in order to understand the diurnal variations of ambient noise.

4.2 Unattended Noise Survey

4.2.1 Unattended continuous monitoring of baseline noise levels was undertaken in a free-field location to the north of the largest barn, labelled as location LT1 on Figure A1 of Appendix A.

4.2.2 Continuous noise levels were measured using a Rion NL-32 precision integrating sound level meter fitted with a weatherproof windshield. The sound level meter was powered by dry cell batteries and stored inside a weatherproof security box. The microphone was positioned at a height of 1.5 metres above local ground level.

4.2.3 Measurements were obtained using the 'F' time weighting and A-weighting frequency network. The equipment was calibrated before and after the survey using a Rion NC-74 Class 1 Acoustic Calibrator to generate a calibration level of 94 dB at 1 kHz.

4.2.4 15-minute measurements of $L_{Amax,F}$, $L_{Aeq,15min}$, $L_{A10,15min}$, and $L_{A90,15min}$ noise levels were obtained between 00:00 hrs on Monday 12th December and 11:00 hrs on Monday 19th December 2016.

4.3 Attended Noise Survey – Breakout Measurements

4.3.1 Controlled sound breakout measurements were undertaken on Sunday 11th December 2016 between 19:41 hrs and 20:45 hrs. An NTi Audio Minirator MR2 analogue signal generator reproduced pink noise through a combined amplifier and JBL loudspeaker, placed within the barn. The loudspeaker was positioned 5 m away from the façade being measured, with the speaker pointed towards the subject façade to generate an internal noise level of around 97 dB. On the south façade, the speaker was positioned 5 m from the internal wall, within the main section of the barn, and the measurements were undertaken external to the barn. Due to the storage area, these measurements included a separation distance of 7.6 m. The measurements were taken with the glass doors on the east façade closed. Internal doors on the south of the main room were closed, but there are currently no doors fixed to the south façade of the adjoining storage area. Instead there is a gap in the middle of this façade.

4.3.2 A Class 1 Rion NA-28 Real-time 1/3-Octave integrating sound level analyser fitted with a windshield was used to measure the external sound levels at varying distances from the barn. During these measurements, a Class 1 Rion NL-52 precision integrating sound level meter was positioned inside the barn, 1 m from the subject façade. Both meters were calibrated using a Rion NC-74.

4.4 Attended Noise Survey – Amplified Music Measurements

4.4.1 Attended short-term measurements were obtained with an amplified music source in continuous operation at monitoring locations ST1 – ST3 as shown on Figure A1. These were measured using a Rion NA-28 precision integrating sound level meter fitted with a weatherproof windshield. Measurements were conducted between 21:35 hrs and 22:40 hrs on Sunday 11th December 2016.

4.4.2 The speaker was positioned within the barn, 2 m from the north façade, facing into the barn (south) in a scenario that is a typical speaker location and to generate internal noise levels of around 87 dB.

4.4.3 Broadband measurements were obtained using the 'F' time weighting and A-weighting frequency network. 1/3 octave band levels were measured using the linear (un-weighted) frequency network. The sound level meter was calibrated before and after the survey period using a Rion NC-74 Class 1 Acoustic Calibrator to generate a calibration level of 94.0 dB at 1 kHz. The measurements were obtained with the microphone at a height of 1.5 m above ground level. All measurements were obtained in free-field conditions.

4.4.4 $L_{Amax,F}$, $L_{Aeq,T}$, $L_{A10,T}$, and $L_{A90,T}$, noise levels were measured at monitoring locations ST1 to ST3, over three consecutive 5-minute periods.

4.5 Attended Noise Survey – Existing Background and Ambient Environment

4.5.1 Attended sample noise measurements in the absence of any activity from Chafford Park has been undertaken to establish the prevailing noise environment in the late evening period at monitoring locations ST1 to ST3. These were measured using a Rion NA-28 precision integrating sound level meter fitted with a weatherproof windshield. Measurements were conducted between 22:50 hrs and 23:45 hrs on Sunday 11th December 2016.

4.5.2 Broadband measurements were obtained using the 'F' time weighting and A-weighting frequency network. The sound level meter was calibrated before and after the survey period using a Rion NC-74 Class 1 Acoustic Calibrator to generate a calibration level of 94.0 dB at 1 kHz. The measurements were obtained with the microphone at a height of 1.5 m above ground level. All measurements were obtained in free-field conditions.

4.5.3 $L_{Amax,F}$, $L_{Aeq,T}$, $L_{A10,T}$, and $L_{A90,T}$, noise levels were measured over three consecutive 5-minute periods.

4.6 Weather Conditions

4.6.1 Weather conditions during the attended noise monitoring on Sunday 11th December 2016 were dry with light fog. Temperatures were noted as ranging from 2°C at the start of the survey to 0°C towards the end. Mean relative humidity values remained around 93 %, with 1.5 ms^{-1} average wind speeds.

4.6.2 Weather conditions during the attended noise survey on Tuesday 4th October 2016 were dry. Temperatures were noted as ranging from 12°C at the start of the survey to 9°C towards the end. Mean relative humidity values remained around 76 %, with 0.2 ms^{-1} average wind speeds.

5. NOISE SURVEY RESULTS

5.1 Unattended Noise Survey Results

5.1.1 The results of the continuous noise monitoring survey are presented in graphical form on Figure A3 of Appendix A and tabulated in Table B1 of Appendix B.

5.1.2 The 15-minute noise levels have been used to obtain ambient $L_{Aeq,T}$ noise levels using logarithmic, i.e., energy based, averaging and these are summarised in Table 5.1 for daytime (07:00 – 19:00 hrs), evening (19:00 – 23:00 hrs) and night time (23:00 – 07:00 hrs). Mean background $L_{A90,T}$ daily noise levels have been obtained using arithmetic averaging and these are also presented in Table 5.1.

Day	Date	Measured Noise Levels, dB re. 2 x 10^{-5} Pa.					
		Day Time (07:00 - 19:00 hrs)		Evening (19:00 - 23:00 hrs)		Night-Time (23:00 - 07:00 hrs)	
		$L_{Aeq,15min}$	$L_{A90,15min}$	$L_{Aeq,15min}$	$L_{A90,15min}$	$L_{Aeq,15min}$	$L_{A90,15min}$
Sunday	11-Dec-16	-	-	-	-	39 (24-48)	25 (20-39)
Monday	12-Dec-16	45 (39-55)	37 (34-44)	43 (36-49)	30 (26-33)	38 (25-45)	26 (22-34)
Tuesday	13-Dec-16	45 (38-50)	36 (33-39)	43 (36-47)	30 (26-35)	39 (22-50)	24 (19-38)
Wednesday	14-Dec-16	44 (39-49)	38 (34-42)	42 (34-47)	34 (30-37)	38 (29-46)	30 (21-37)
Thursday	15-Dec-16	43 (38-47)	36 (34-40)	40 (33-44)	32 (29-35)	34 (24-42)	25 (19-33)
Friday	16-Dec-16	47 (36-59)	33 (30-37)	45 (31-49)	30 (27-35)	42 (27-51)	26 (22-30)
Saturday	17-Dec-16	46 (38-54)	33 (30-39)	46 (32-49)	27 (23-30)	42 (23-50)	22 (19-28)
Sunday	18-Dec-16	48 (40-54)	33 (28-36)	45 (39-52)	28 (22-33)	38 (21-47)	22 (19-29)
Monday	19-Dec-16	43 (38-47)	32 (29-33)	-	-	-	-
Mean Average		*45 (43-48)*	*35 (32-38)*	*43 (40-46)*	*30 (27-34)*	*39 (34-42)*	*25 (22-30)*

TABLE 5.1: SUMMARY OF CONTINUOUS BACKGROUND NOISE SURVEY RESULTS LT1

5.2 Attended Noise Survey Results – Controlled Breakout Measurements

5.2.1 The results of the controlled breakout measurements undertaken at varying distances from the barn are summarised in Table 5.2 overleaf. As the source was continuous, the $L_{A90,T}$ provides a representative level for the source at a particular measurement position. However, the greater the distance from the source, the more influence distant road traffic had on the measured $L_{A90,T}$ noise level.

Façade	Distance from Façade (m)	Internal Level (Measured at 4 m)	Start Time	Dur. (secs)	Noise Levels, dB re. 2 x 10^{-5} Pa.			
					$L_{Amax,F}$	$L_{A10,T}$	$L_{Aeq,T}$	$L_{A90,T}$
North	1	Ambient	19:39:10	40	47.8	42.3	40.4	37.2
	1	97.0 dB(A)	19:43:20	30	72.8	70.8	70.0	69.1
	2		19:44:35	30	72.3	70.1	69.2	68.1
	5		19:45:34	30	63.8	62.4	61.6	60.7
	10		19:47:32	30	57.6	56.5	56.0	55.4
	20		19:49:41	30	53.7	52.8	52.3	51.6
East	1	97.2 dB(A)	20:07:46	30	73.5	72.8	72.4	71.9
	2		20:09:02	30	70.9	70.2	69.8	69.5
	5		20:10:40	30	67.6	66.8	66.5	66.2
	10		20:12:11	30	62.8	62.3	61.9	61.5
	20		20:13:44	30	59.0	58.0	57.7	57.3
	40		20:16:04	30	56.1	53.9	53.5	53.0
South	1	96.0 dB(A)	20:26:00	30	80.0	79.3	78.9	78.5
	2		20:27:12	30	78.5	77.6	77.0	76.6
	5		20:28:18	30	72.6	71.9	71.5	71.0
	10		20:29:14	30	69.9	67.8	67.2	66.5
	20		20:30:48	40	61.0	60.6	60.3	59.9
West	1	96.6 dB(A)	20:39:51	40	69.3	68.3	67.9	67.4
	2		20:41:04	40	67.7	66.8	66.4	65.9
	7		20:43:53	40	62.1	61.1	60.7	60.3
	9		20:45:15	40	61.8	60.9	60.5	60.0

TABLE 5.2: SUMMARY OF CONTROLLED SOURCE BREAKOUT MEASUREMENTS – SUNDAY 11TH DECEMBER 2016

Façade Sound Reductions

5.2.2 The sound reduction, R, has been calculated using the equation below, as presented in Woods Practical Guide to Noise Control [11].

$$SPL_2 = SPL_1 - R - 6 \text{ dB}$$

where:

SPL_2 is the sound pressure level outside the partition, dB;

SPL_1 is the sound pressure levels next to the partition on the source side, dB; and

R is the sound reduction index of the partition structure immediately next to the receiving point, dB.

5.2.3 The calculated sound reduction index from each façade is presented below in Table 5.3. The measurements obtained at a 1 m distance from the façade have been used for the sound reduction index derivation.

Façade	Dist.	dB $L_{Aeq,T}$	Octave Band Linear Noise Level, dB by Centre Frequency, Hz									
			31.5	63	125	250	500	1k	2k	4k	8k	16k
North	Internal	96	70	81.1	86.6	87.6	92.1	89.8	89.6	87.4	86.0	79.9
	External	68	54	67.0	79.9	72.7	62.5	50.6	46.6	41.2	35.3	21.3
	Reduction	*22*	*10.0*	*8.0*	*0.8*	*8.9*	*23.6*	*33.2*	*37.0*	*40.3*	*44.7*	*52.5*
East	Internal	91	53	74.4	80.0	80.9	85.0	84.0	85.8	80.2	82.8	72.0
	External	65	44	59.2	68.4	69.2	63.2	56.7	55.8	49.7	47.2	37.7
	Reduction	*19*	*3.2*	*9.2*	*5.6*	*5.7*	*15.8*	*21.3*	*24.0*	*24.5*	*29.6*	*28.3*
South	Internal	90	55	76.3	81.9	85.0	84.2	84.0	83.1	80.4	83.8	72.6
	External	71	47	70.6	71.6	74.0	70.1	62.9	61.0	56.6	57.0	46.5
	Reduction	*13*	*2.5*	*-0.3*	*4.3*	*5.0*	*8.1*	*15.1*	*16.1*	*17.8*	*20.8*	*20.1*
West	Internal	90	52	73.6	80.9	82.0	84.7	83.1	84.6	79.9	82.5	72.6
	External	61	47	60.9	66.5	63.4	60.9	50.7	51.5	40.2	40.6	27.5
	Reduction	*23*	*-1.0*	*6.7*	*8.4*	*12.6*	*17.8*	*26.4*	*27.1*	*33.7*	*35.9*	*39.1*

TABLE 5.3: OCTAVE BAND CONTROLLED SOURCE BREAKOUT MEASUREMENTS – SUNDAY 11TH DECEMBER 2016

5.3 Attended Noise Survey Results – Amplified Music Measurements

5.3.1 The results of the attended short term noise survey are presented, along with observations made during the survey, in Table B2 of Appendix B and summarised below in Table 5.4. A sound level meter was set up to measure the internal noise levels at a mid-point of the barn, 10 m from the loudspeaker source. During the measurements, the continuous noise level measured inside the barn was 87.0 dB $L_{Aeq,T}$. As these measured noise levels are close to the ambient noise levels the noise levels at receptors will be calculated from the near field measurements.

Monitoring Location	Internal Level (Measured at 10 m)	Start Time	Duration (mins)	Noise Levels, dB re. 2 x 10^{-5} Pa.			
				$L_{Amax,F}$	$L_{A10,T}$	$L_{Aeq,T}$	$L_{A90,T}$
ST1	86.8	21:35	15	74.5	46.7	44.3	34.8
ST2	87.1	22:05	15	78.7	44.9	49.6	26.9
ST3	87.0	22:25	15	74.8	57.9	54.3	35.7

TABLE 5.4: SUMMARY OF SHORT-TERM AMPLIFIED MUSIC MEASUREMENTS – SUNDAY 11TH DECEMBER 2016

5.3.2 The dominant noise source at location ST1 was a mixture of aircraft noise and music noise from the barn. At ST2 and ST3, a combination of aircraft noise and distant road traffic noise governed the local noise environment.

5.3.3 Octave band noise levels measured at ST1 – ST3 with and without the music source in operation are presented in Table B3 of Appendix B.

5.4 Attended Noise Survey Results – Existing Background and Ambient Environment

5.4.1 The measured sample ambient $L_{Aeq,T}$ and background $L_{A90,T}$ noise levels for the representative periods are presented in Table B4 of Appendix B and summarised below in Table 5.5.

Monitoring Location	Start Time	Duration (mins)	Noise Levels, dB re. 2 x 10^{-5} Pa.			
			$L_{Amax,F}$	$L_{A10,T}$	$L_{Aeq,T}$	$L_{A90,T}$
ST1	22:50	15	57.9	41.7	39.3	27.7
ST2	23:10	15	62.6	48.0	46.7	25.9
ST3	23:30	15	71.0	54.0	51.6	27.0

TABLE 5.5: SUMMARY OF AMBIENT AND BACKGROUND NOISE LEVELS - SUNDAY 11TH DECEMBER 2016

5.4.2 For the purpose of assessing the noise from amplified music, the most sensitive period with respect to noise sensitive receptors is considered to be between 22:30 and 23:30 hrs as it is likely to be the period when ambient $L_{Aeq,T}$ and background $L_{A90,T}$ levels are at their lowest.

5.4.3 The noise environment during these measurements was governed by distant road traffic along with occasional air traffic and local car movements on the A264 at ST3.

6. NOISE IMPACT ASSESSMENT

6.1 Overview

6.1.1 Noise from amplified music within the Granary Barn and noise associated with patrons attending the wedding events have been considered as part of the impact assessment presented below. The separate elements are assessed at the closest residential receptor locations identified, using the noise criteria presented in Section 2.

6.2 Receptor Locations

6.2.1 Four receptor locations for the assessment and consideration of noise impacts have been selected for this assessment as shown on Figure A1 of Appendix A and as described below. These receptors were chosen to represent the closest and potentially worst affected properties in terms of noise arising as a result of the proposed change of use. It therefore follows that consideration and mitigation, if necessary, of noise levels at these properties should ensure that generated noise is minimised to all surrounding sensitive residential receptors.

Receptor Reference	Address
R1	Residential property located to the north, 180 m from the barn.
R2	Fitchetts Farmhouse, located 800 m to the north east.
R3	Property located to the north of the A264, Ashurst Road, 650 m south east from the barn.
R4	Park Homes at Hedge Barton, 440 m from the barn.

TABLE 6.1: RECEPTOR LOCATIONS

6.3 Derivation of Representative Ambient and Background Noise Levels

6.3.1 The results from the continuous unattended noise survey at LT1 provide an indication of the typical diurnal variation in noise levels. Comparison has been made between each 15 minute measurement at LT1 with those measured at the attended monitoring positions during the same periods.

6.3.2 From analysis of the noise level differences, a correction factor for each ST location has been derived, for the $L_{Aeq,T}$ and $L_{A90,T}$ noise indices. This correction factor has been applied to the mean daytime $L_{Aeq,12hr}$ / $L_{A90,Tr}$, evening $L_{Aeq,4hr}$ / $L_{A90,T}$ and night-time $L_{Aeq,8hr}$ / $L_{A90,T}$ noise levels obtained at measurement location LT1 to derive free-field ambient noise levels for locations ST1 to ST3.

6.3.3 The derived ambient and background noise levels at each measurement position are presented in Table 6.2 below. Measurement locations ST1 to ST3 are representative of the levels expected at receptors R1 to R3. Measurements have not been undertaken at R4. Instead, ambient and background noise levels measured at ST2 have been deemed to be representative of this receptor location.

Location	Derived Ambient Noise Level, dB					
	Day Time (07:00 - 19:00 hrs)		Evening (19:00 - 23:00 hrs)		Night-Time (23:00 - 07:00 hrs)	
	$L_{Aeq,12hr}$	$L_{A90,T}$	$L_{Aeq,4hr}$	$L_{A90,T}$	$L_{Aeq,8hr}$	$L_{A90,T}$
LT1	45 (43-48)	35 (32-38)	43 (40-46)	30 (27-34)	39 (34-42)	25 (22-30)
ST1	46 (44-49)	34 (31-37)	44 (41-47)	29 (26-33)	40 (35-43)	24 (21-29)
ST2	46 (44-49)	33 (30-36)	44 (41-47)	28 (25-32)	40 (35-43)	23 (20-28)
ST3	56 (54-59)	36 (33-39)	54 (51-57)	31 (28-35)	50 (45-53)	26 (23-31)

TABLE 6.2: DERIVED AMBIENT NOISE LEVELS FOR MEASUREMENT LOCATIONS LT1 AND ST1 – ST3

Note: The main values in each cell indicate the overall derived level; values in the parenthesis refer to the derived range (minimum and maximum) – the noise level ranges are derived from the diurnal measurements undertaken at LT1.

6.4 Amplified Music Noise

6.4.1 Where specific sound levels are not readily distinguishable against the residual sound environment, it is necessary to undertake calculations in order to compare the specific sound level to the background level. The breakout measurements presented in Table 5.2 have been used to predict external noise levels assuming a worse case internal source level of 87 dB(A) at an internal position, 4 m south from the speaker, with the speaker facing south. These levels have then been corrected for distance using the following equation.

$$Lp_2 = Lp_1 - 20log\left(\frac{r_2}{r_1}\right)$$

where:

Lp_2 = sound pressure level dB(A) at noise sensitive receptors;

Lp_1 = sound pressure level dB(A) measured at the façade closest to the receptor;

r_1 = the distance between monitoring location and the noise source; and

r_2 = the distance between the noise source and the receptor location.

6.4.2 The calculated free-field receptor noise levels generated from amplified music are presented in Table 6.3 below and use the SRI of the façade between the speaker source and the receptor.

Rec. ID	Derived Free-Field Music Noise Level, dB $L_{Aeq,1hr}$
R1	23
R2	16
R3	20
R4	15

TABLE 6.3: RECEPTOR NOISE LEVELS DUE TO MUSIC NOISE ALONE (87 DB(A)) INTERNAL LEVEL

Note: Music noise levels have been calculated by applying a distance correction to measurements undertaken in the near-field.

6.5 Patron Noise

6.5.1 While amplified music noise is considered to be the potentially most significant noise impact from the events, it is important to consider other sources of noise, which may have the potential to cause disturbance at neighbouring properties.

6.5.2 People noise did not form a component of the attended measurements undertaken on Sunday 11th December 2016. As such, a calculation of patron noise has been carried out to provide an indicative level for people congregating outside the barn.

6.5.3 Noise levels of patrons gathering in a wedding environment have been obtained at a separate venue in which approximately 250 people were attending. A source term level of 58.1 dB $L_{Aeq,T}$ was measured at a distance of 5 m. In order to provide a more realistic estimate of the worst case number of people congregating outside the barn during the most sensitive period, this level has been corrected to 100 people. The corrected noise level has been used to calculate potential receptor noise levels with guests congregating outside the barns, following the equation presented under paragraph 6.4.2.

6.5.4 The calculated free-field receptor noise levels generated from patrons attending events are presented in Table 6.4 below.

Rec. ID	Predicted Patron Free-Field Noise Level, dB $L_{Aeq,1hr}$
R1	23
R2	10
R3	12
R4	15

TABLE 6.4: RECEPTOR NOISE LEVELS DUE TO PATRON NOISE ALONE

6.6 Cumulative Patron and Music Noise

6.6.1 Patron noise may coincide with music noise levels. As such, it is important to consider the cumulative effect. Worse case hourly levels due to combined music and people noise are presented in Table 6.5 below. It should be noted that it is unlikely there will be 100 people congregating outside when music is playing inside, as such, the combined levels presented below represent a worse-case scenario.

Rec. ID	Predicted Patron Noise Level, dB $L_{Aeq,1hr}$	Predicted Music Noise Level, dB $L_{Aeq,1hr}$	Combined Patron and Music Free-Field Noise Levels, dB $L_{Aeq,1hr}$
R1	23	23	26
R2	10	16	17
R3	12	20	21
R4	15	15	18

TABLE 6.5: PREDICTED EVENT NOISE LEVELS

Assessment of Entertainment Noise

6.6.2 The combined patron and music $L_{Aeq,1hr}$ noise levels presented in Table 6.5 can be used to assess compliance with objective criteria provided in the IOA's draft Good Practice Guide on the Control of Noise from Pubs and Clubs. These criteria require that the entertainment specific L_{Aeq} noise levels are no greater than the background L_{A90} noise level without entertainment noise. The results of this entertainment noise assessment are presented in Table 6.6 below.

Rec. ID	Background Noise Level, dB $L_{A90,T}$	Combined Patron and Music Free-Field Noise Levels, dB $L_{Aeq,T}$	Excess of Entertainment Noise over Background Noise Level, dB (also EN -WEN)
R1	29	26	-3
R2	28	17	-11
R3	31	21	-10
R4	28	18	-10

TABLE 6.6: ENTERTAINMENT NOISE ASSESSMENT

6.6.3 The combined entertainment noise levels achieve the IOA draft Good Practice Guide on the Control of Noise from Pubs and Clubs criteria at all receptors, as the entertainment noise level is less than 5 dB greater than the background noise levels. The Noise Council's criteria requiring the background noise level to not be exceeded by more than 5 dB(A) over a fifteen minute period is also achieved at all receptors. This assessment is based upon music up until 23:00 hours only. After 23:00 hrs the draft IOA criteria is for the music to be inaudible inside noise-sensitive properties.

6.6.4 The predicted noise levels have also considered with the example noise assessment framework presented in the IOA consultation draft good practice guidance on the control of noise from places of entertainment and A-weighted noise levels that have been used in typical situations to control entertainment noise. Following this guidance the external location criteria for 07:00 to 23:00 hrs are met and for the period 23:00 – 23:30 hrs the criteria are also met.

Noise Assessment with Character Corrections

6.6.5 Penalties to be applied to measured sound sources when the sound is tonal, intermittent and/or impulsive in character are described in BS 4142. Music sources are generally tonal and intermittent in nature. As such, a rating penalty based on this has been applied to the music noise levels in order to provide an assessment of the noise levels in line with the requests of SDC.

6.6.6 The assessment requested by SDC with the penalties is presented in Table 6.7. A total rating penalty of +2 dB for tonality has been applied to the specific sound level.

Rec. ID	Background Noise Level, dB $L_{A90,T}$	Combined Patron and Music Rating Levels, dB $L_{Ar,1hr}$	Excess of Entertainment Noise over Background Noise Level, dB
R1	29	28	-1
R2	28	19	-9
R3	31	23	-8
R4	28	20	-8

TABLE 6.7: ASSESSMENT OF ENTERTAINMENT NOISE LEVELS PENALTIES FOR SOUND CHARACTER APPLIED

6.7 Departure Noise Levels

6.7.1 Car door slams and vehicle movements on the access road down from the A264 will also create noise.

6.7.2 Assuming a sound power level of 89 dB L_{WA} from a hard slam single car door slam (obtained from a previous acoustic report [11]), a sound power level of 94 dB L_{wA} has been assumed for a total of 3 car doors closed simultaneously.

6.7.3 The sound propagation equation presented in paragraph has been used to predict the worse-case $L_{Amax,F}$ noise level at each of the receptors. The predicted free-field receptor noise levels generated from car door slams are presented in Table 6.8 below.

Rec. ID	Maximum Predicted Car Door Slam Noise Level, dB $L_{Amax,F}$
R1	41
R2	28
R3	30
R4	33

TABLE 6.8: PREDICTED CAR DOOR NOISE

6.8 Vehicular Noise

6.8.1 The potential noise generated by vehicle movements has been calculated at representative locations outside each receptor. R1 is considered to be the closest to traffic leaving the venue and therefore the most likely to be affected.

6.8.2 Noise levels have been calculated using estimated vehicle movements, standard acoustic algorithms and field source noise data.

6.8.3 There are eighty car parking spaces within the proposed development and, for the purpose of this assessment it is assumed that each parking space generates one vehicle movement in a worse case hour, and that the vehicle movements take place between 23:00 and 24:00 hrs. It has also been assumed that a worst case scenario of 10 taxis will

also attend during the departure hour, each producing 2 one-way movements. As such, a total of 100 single direction movements has been assumed as a worst case assessment.

6.8.4 The following equation has been used for the prediction of vehicle pass-by noise levels:

$$Lp, Receptor = Lp, Source - 10log\left(\frac{d}{5}\right) + 10logN$$

where:

$L_{P, Receptor}$ = predicted noise level at the receptor location, d m from source;

$L_{P, Source}$ = reference source noise level of vehicle movements at 5 m; and

N = number of vehicular movements during time period of interest.

6.8.5 Daytime $L_{Aeq,1h}$ noise levels have been calculated using a sound exposure level for a single vehicular pass-by of 65.3 dB(A) SEL obtained from controlled measurements obtained elsewhere.

Receptor	Receptor Noise Level dB $L_{Aeq,1hr}$	Internal Noise Level (Windows Open) dB $L_{Aeq,1hr}$
R1	33	18
R2	28	13
R3	30	15
R4	32	17

TABLE 6.9: CALCULATED FREE-FIELD NOISE LEVELS DUE TO VEHICLE MOVEMENTS ON THE ACCESS LANE ASSOCIATED WITH THE PROPOSED DEVELOPMENT

6.8.6 The worst case predicted external free-field noise levels in Table 6.9 above due to traffic noise from the proposed facility alone are 33 dB $L_{Aeq,1hour}$ when considering 100 vehicle movements in the departure hour at R1, which would result in an internal noise level, through a partially open window of 18 dB $L_{Aeq,1hour}$, which achieves the 30 dB $L_{Aeq,T}$ night-time criteria set out in BS 8233.

6.9 Internal Noise Levels

6.9.1 Calculated internal noise levels, displayed in Table 6.10, have been estimated using the operational noise levels displayed in Table 6.5. The internal levels assume a typical reduction from free-field levels of 33 dB R_w with closed insulating glass windows and 15 dB with the windows open for natural ventilation. The receptor properties at R4 are static park homes, as such the R_w values with windows closed will be lower than at a standard residential building. For the purposes of this assessment, the R_w value for a park home with closed windows has been assumed to be 25 dB.

Rec. ID	Cumulative Patron and Music External Free-Field Noise Levels, $L_{Aeq,1hr}$ dB	Predicted Internal Noise Levels, dB $L_{Aeq,1h}$	
		Windows Open	Windows Closed
R1	26	11	<10
R2	17	<10	<10
R3	21	<10	<10
R4	18	<10	<10

TABLE 6.10: PREDICTED INTERNAL NOISE LEVELS

6.9.2 The internal noise levels displayed in Table 6.10 indicate that the cumulative noise levels associated with functions at the Chafford Park barns are unlikely to be audible above ambient internal noise levels at all receptors, when windows are open.

6.9.3 Assuming a 15 dB reduction (from free-field) of predicted noise levels through a partially open window, the combined event noise and pre-existing ambient internal noise levels at all receptors, apart from R3, are predicted to achieve internal guideline noise levels of 35 dB $L_{Aeq,T}$ to avoid moderate annoyance, with the windows open or closed. The predicted noise level at R3 exceeds this criterion by 4 dB. However, it should be noted that the external level of 54 dB $L_{Aeq,T}$ at this receiver, is dominated by pre-existing ambient noise levels and not operations at Chafford Park.

Rec. ID	Ambient Free-Field Noise Levels Without Entertainment (WEN), $L_{Aeq,T}$ dB	Predicted Operational + Ambient Free-Field Noise Levels (EN), $L_{Aeq,T}$ dB	Predicted Internal Noise Levels, dB $L_{Aeq,1h}$	
			Windows Open	Windows Closed
R1	44	44	29	11
R2	44	44	29	11
R3	54	54	39	21
R4	44	44	29	19

TABLE 6.11: PREDICTED INTERNAL NOISE LEVELS

6.9.4 It should be noted that BS 8233 criteria referred to here apply to "*sources without a specific character*". Noise sources such as shouting and loud music do have a character and as such, controls should be implemented to contain the risk of noise with character being audible at sensitive receptors.

6.9.5 Additionally, all predictions of internal noise levels presented here are based upon dB(A) values. Comments made during measurements, which were undertaken with an amplified music source within the Granary Barn, stated that at ST2 and ST3, music noise levels were only audible in particular frequency ranges.

6.10 Mitigation

6.10.1 It is recommended that an electronic automatic music volume limiting device is installed in the Granary Barn. For information purposes there are two types of entertainment noise limiter:

- **Microphone Controlled** – These units continually monitor the music noise levels (MNLs) via a microphone and either trigger a warning light of cut the power supply to the sound system. They have the advantages of working on any sound system brought into the premises (provided it is connected to the electrical circuit under the control of the limiter);

- **Electronic in Circuit Devices** – These are incorporated into the sound system and operate by monitoring the electrical power output of the amplifiers. If the MNLs become too high, the device automatically attenuates the amplifier power output so that MNLs are reduced to below the operating threshold limit.

6.10.2 The installation of a noise limiter will provide control of music levels to ensure that there are no unacceptable noise impacts from amplified music at nearby residential locations. The threshold of the noise limiter should be set in agreement with the Environmental Health Department of SDC.

6.10.3 The storage area in the south part of the Granary Barn will be used as a sound lobby. For this to be the sound lobby a door will be put over the opening. The door on the east façade will not be opened whilst music is playing within the barn and must be closed before music recommences. Alternatively a 'sound lobby' may also be built around the door.

6.10.4 To reduce the sound transmission through the fabric of the building, in particularly the corrugated roof, acoustic panels could be installed. A suspended acoustic ceiling may also be considered.

6.10.5 In order to reduce the spread of sound away from the Granary Barn a distributed loudspeaker system could be installed in the music area within the Granary Barn. This system can be suspended from the ceiling. A directional system would enable a high level of sound directly below the systems, whilst offering a 10 dB reduction 1-2 m from the designated dance floor area. This would also reduce the noise levels external to the barn.

6.10.6 Acoustic absorber panels will be used within the Granary Barn to minimise the reverberant sound field.

6.10.7 An alternative means of ventilation will be installed for the Granary Barn so that windows and doors do not need to be opened for ventilation.

6.10.8 In addition to the installation of a music volume limiting device, the provision of a noise management plan, which can be submitted to and approved by the local authority, should be considered. Full details of what the management plan should include are outlined below:

- times of operation – including time limits for amplified music (23:30 cut-off);
- noise limiter details – 85 dB(A) or calibrated to ensure that music noise is not intrusive at sensitive receptors;
- instructions to guests when congregating outside during late events;
- music to be turned down if the doors are kept open in summer;
- provision of an alternative means of ventilation so that the doors and windows can stay closed;

- details of signs to be placed near exits asking guests to leave promptly and quietly;
- location of drop-off area/pick-up area to provide maximum shielding from the barns;
- door to be put on storage area of the Granary Barn to provide a 'sound lobby';
- under no circumstances should taxis be allowed to sound their horns for non-emergencies;
- the method by which management plan will be passed on to people using wedding venue;
- commitment to regularly check boundaries to monitor noise levels during events, if complaints have been received;
- a log book which will record any issues raised either by the operators of Chafford Park/the barns or by the neighbours. The book should be made accessible to SDC; and
- staff procedures for reporting noise issues.

6.10.9 The noise assessment with penalties detailed in Table 6.7 indicated that, at the closest receptor, rating levels are not calculated to exceed the background noise level. BS 4142 states that a difference of +5 dB or more is likely to be an indication of adverse impact and +10 dB an indication of a significant adverse impact. As such, significant adverse impacts are considered to be unlikely.

6.10.10 It should be noted that BS 4142 is not intended to be applied to the rating and assessment of sound from music and entertainment sources. The IOA Good Practice Guide on the Control of Noise from Pubs and Clubs criteria for pubs and clubs up to 23:00 hrs is achieved as presented in Table 6.6.

6.10.11 Differences in the A-weighted noise levels, with and without entertainment noise, which are presented in the consultation draft Good Practice Guide for The Control of Noise from Places of Entertainment example noise assessment framework levels, are also calculated to be achieved for the period 07:00 -23:00 hrs and also within the limits for the period 23:00 – 23:30 hrs.

6.10.12 The applicant will also be applying for an Events License which allows further conditions to be set on the noise levels and other aspects of the wedding events.

7. CONCLUSIONS

7.1.1 A noise impact assessment of the proposed use of the Granary Barn and Hop Barn as a wedding event venue within Chafford Park, Fordecombe, Kent has been undertaken and is presented in this report to inform the planning application.

7.1.2 Unattended and attended surveys of the residual ambient and background noise environment have been undertaken as well as attended measurements at sensitive receptors with a representative music source within the Granary Barn. Additionally, measurements of the sound breakout from within the Granary Barn have been undertaken.

7.1.3 Calculations have also been undertaken to predict the likely impact of noise from people congregating outside the barn and noise from their departure.

7.1.4 Internal cumulative noise levels from amplified music and people noise at the nearest sensitive receptors are predicted to be below ambient internal noise levels. Assuming a 15 dB reduction of predicted noise levels through a partially open window, the internal guideline noise level to avoid moderate annoyance set out in BS 8233 is predicted to be achieved by a significant margin at the nearest noise sensitive receptors.

7.1.5 Nevertheless the potential loss of amenity in the external areas of nearby properties needs to be considered. With penalties applied to the predicted noise levels for tonality applied event noise levels are close to but below the background noise levels. With the context of low background noise levels mitigation has been proposed which may include noise limiters, acoustic insulation to the roof and a sound lobby to minimise the potential noise emissions.

7.1.6 The IOA draft guideline noise levels for the control of noise from places of entertainment and the draft guidelines for the are predicted to be achieved at all receptors until 23:00 hrs. For the period 23:00-23:30 hrs the predicted noise levels are at the limit in the example noise assessment framework.

7.1.7 To further improve the control of noise from functions and associated activities from events held at Chafford Park, suggestions have been made which include the production of a noise management plan, use of an electronic automatic music volume limiting device (noise limiter) and the development of a noise management plan.

7.1.8 It is advised that planning conditions are used to secure detailed design stage calculations of the mitigation measures and to confirm the noise limits to be implemented.

8. REFERENCES

1. British Standard BS 8233:2014: Guidance on Sound Insulation and Noise Reduction for Buildings.

2. World Health Organization. Guideline for Community Noise. 1999.

3. British Standards Institution (BSi). BS 4142: 2014 'Methods for rating and assessing industrial and commercial sound'.

4. Department for Environment, Food and Rural Affairs (DEFRA). Noise Policy Statement for England (NPSE), 2010.

5. Department of Communities and Local Government. National Planning Policy Framework, 2012.

6. Institute of Acoustics Working Party - Draft Good Practice Guide on the Control of Noise from Pubs and Clubs. Working Draft – NOT IN PUBLIC DOMAIN. September 2002.

7. Institute of Acoustics Working Party - Good Practice Guide on the Control of Noise from Pubs and Clubs. March 2003.

8. Institute of Acoustics & Institute of Licensing - Good Practice Guide on the Control of Noise from Places of Entertainment. Consultation Draft. December 2016.

9. The Noise Council (The Chartered Institute of Environmental Health) - Code of Practice on Environmental Noise Control at Concerts. 1995.

10. Sevenoaks District Council - Policy EN2: Amenity Protection of the Allocations and Development Management Plan. February 2015.

11. Ian Sharland (1988). Woods Practical Guide to Noise Control. Woods Acoustics, a division of Woods of Colchester Ltd.

12. Gabriels Environmental Design. Emmanuel Christian Community School - New Junior School: Development Approval Stage - Acoustic Report. August 2015.

APPENDIX A: FIGURES

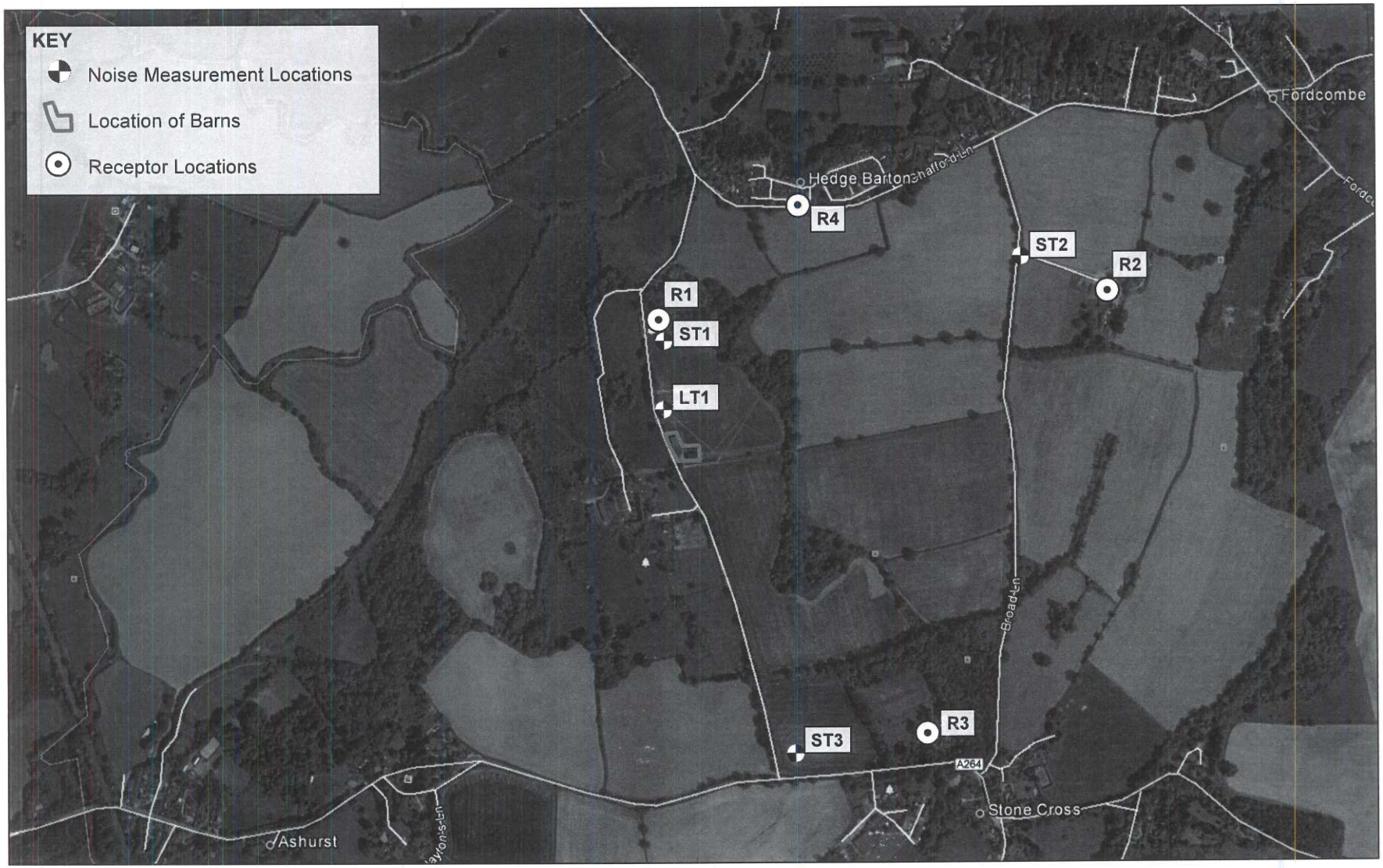

FIGURE A1: SITE AND MEASUREMENT/RECEPTOR LOCATIONS

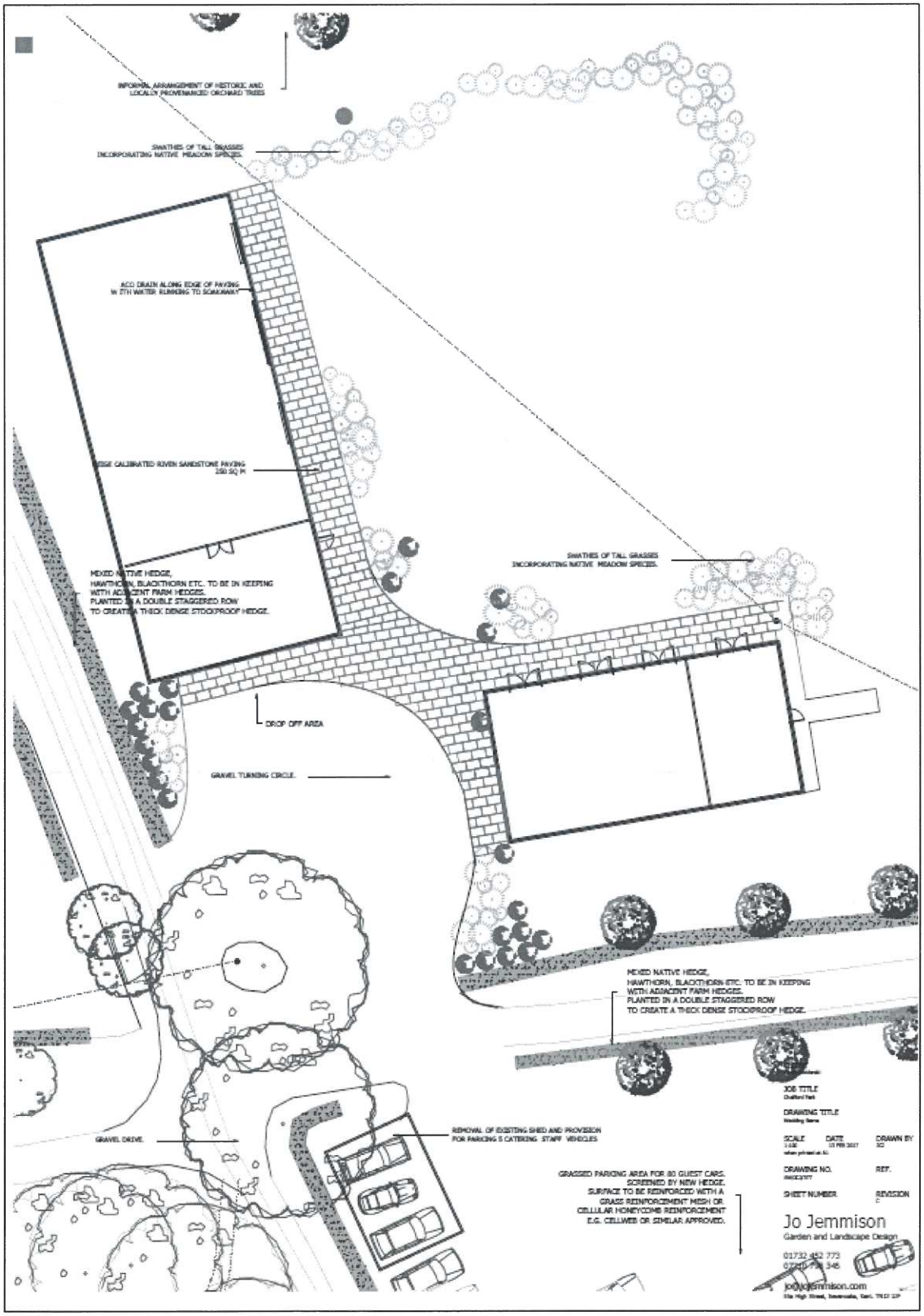

FIGURE A2: BARN LAYOUTS

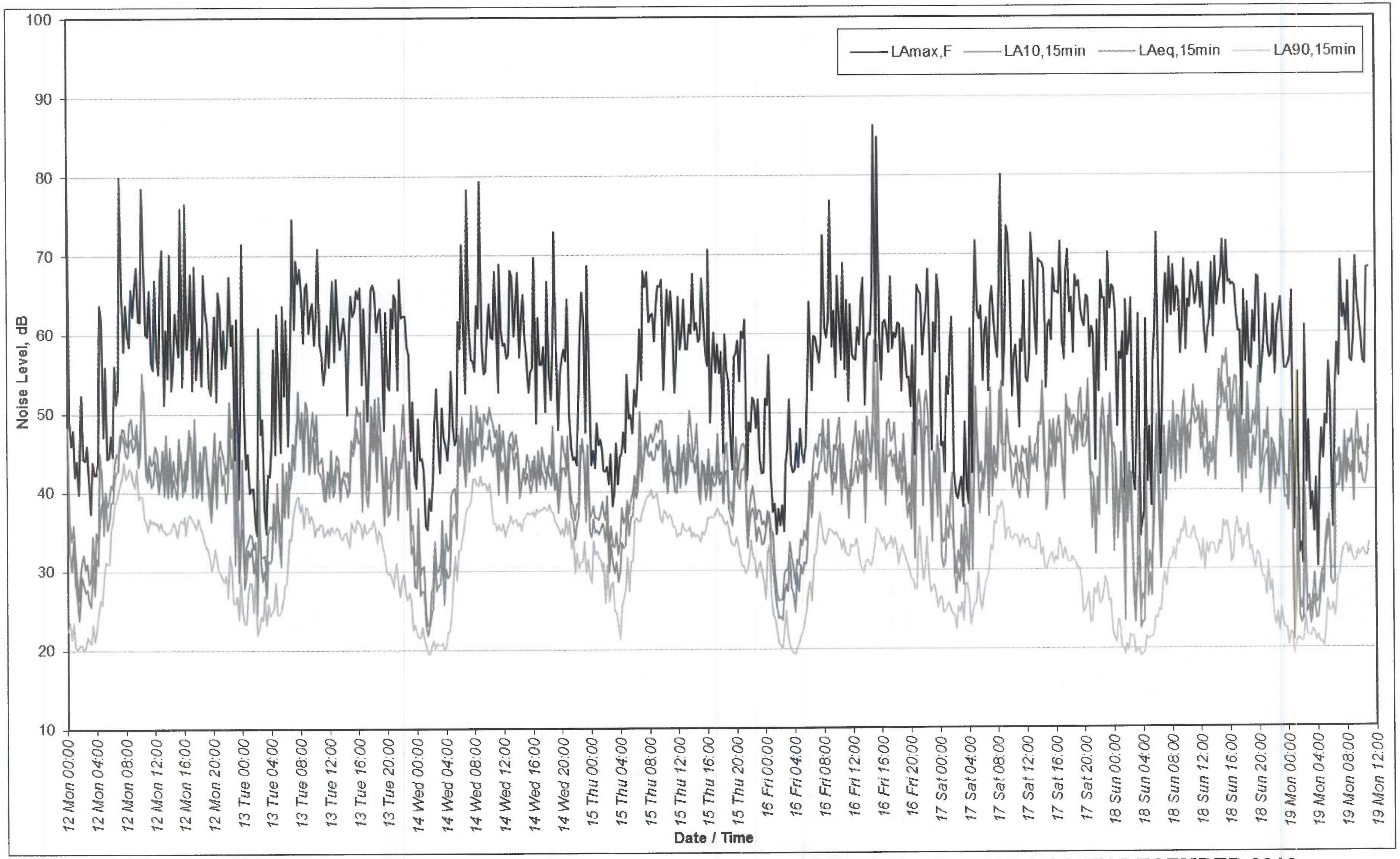

FIGURE A3: CONTINUOUS NOISE MONITORING RESULTS – MONDAY 12TH DECEMBER TO MONDAY 19TH DECEMBER 2016

APPENDIX B: TABLES

TABLE B1: CONTINUOUS BACKGROUND NOISE SURVEY RESULTS, LT1

Date of Meas.	Start Time	Measured Noise Levels, dB re. 2 x 10^{-5} Pa.			
		$L_{Amax,F}$	$L_{A10,15min}$	$L_{Aeq,15min}$	$L_{A90,15min}$
12/12/16	00:00	79.9	44.2	48.3	22.4
12/12/16	00:15	49.1	36.3	32.4	23.5
12/12/16	00:30	46.0	33.9	30.0	21.4
12/12/16	00:45	47.9	35.8	33.9	23.5
12/12/16	01:00	42.0	32.2	28.4	20.5
12/12/16	01:15	44.0	28.5	26.6	20.1
12/12/16	01:30	39.8	26.3	23.7	20.4
12/12/16	01:45	43.6	28.8	25.4	20.7
12/12/16	02:00	52.3	31.1	29.3	20.6
12/12/16	02:15	44.3	32.1	28.4	20.0
12/12/16	02:30	44.1	30.3	27.3	20.4
12/12/16	02:45	45.9	30.9	27.7	21.6
12/12/16	03:00	41.6	28.4	26.0	21.2
12/12/16	03:15	37.3	29.0	25.5	20.8
12/12/16	03:30	43.9	34.4	30.9	23.3
12/12/16	03:45	42.2	30.0	27.0	21.0
12/12/16	04:00	42.2	34.9	31.6	22.5
12/12/16	04:15	43.9	33.6	30.8	24.5
12/12/16	04:30	63.8	36.4	45.0	26.3
12/12/16	04:45	61.7	38.6	42.4	25.7
12/12/16	05:00	47.1	37.8	34.7	29.0
12/12/16	05:15	55.9	40.0	40.0	31.2
12/12/16	05:30	44.3	38.1	35.3	31.0
12/12/16	05:45	44.4	39.1	36.2	31.0
12/12/16	06:00	47.2	40.9	38.7	35.1
12/12/16	06:15	44.5	40.5	38.7	36.4
12/12/16	06:30	56.1	43.5	41.6	38.5
12/12/16	06:45	51.3	45.0	42.6	39.0
	Arith. Average	*48.1*	*35.0*	*33.2*	*25.4*
	Log. Average	*65.7*	*38.0*	*38.5*	*30.4*
	Minimum	*37.3*	*26.3*	*23.7*	*20.0*
	Maximum	*79.9*	*45.0*	*48.3*	*39.0*
12/12/16	07:00	53.3	44.6	42.7	40.0
12/12/16	07:15	79.9	45.7	47.3	41.1
12/12/16	07:30	65.3	48.2	47.3	41.9
12/12/16	07:45	57.9	48.0	46.5	43.8
12/12/16	08:00	63.8	46.5	44.8	41.8
12/12/16	08:15	59.9	45.8	44.4	42.1
12/12/16	08:30	58.5	48.9	46.5	43.1
12/12/16	08:45	65.7	49.5	46.9	42.7
12/12/16	09:00	62.4	47.0	45.2	41.3
12/12/16	09:15	66.0	46.9	45.8	40.6
12/12/16	09:30	68.5	48.8	47.7	43.0
12/12/16	09:45	61.8	44.6	43.3	39.1
12/12/16	10:00	61.7	47.4	44.9	39.6
12/12/16	10:15	78.5	53.2	55.1	39.4
12/12/16	10:30	68.9	52.9	49.9	36.8
12/12/16	10:45	60.1	44.1	42.2	36.2
12/12/16	11:00	59.8	42.2	41.4	35.0
12/12/16	11:15	65.6	44.8	43.2	36.6
12/12/16	11:30	56.5	43.5	40.7	36.1
12/12/16	11:45	55.6	43.9	41.2	36.4
12/12/16	12:00	66.9	46.0	44.1	35.9
12/12/16	12:15	57.3	45.1	42.4	36.2
12/12/16	12:30	55.0	42.3	39.9	35.2
12/12/16	12:45	67.6	41.3	42.5	36.2

Date of Meas.	Start Time	Measured Noise Levels, dB re. 2 x 10^{-5} Pa.			
		$L_{Amax,F}$	$L_{A10,15min}$	$L_{Aeq,15min}$	$L_{A90,15min}$
12/12/16	13:00	70.7	45.4	44.1	35.2
12/12/16	13:15	51.2	42.4	39.6	35.1
12/12/16	13:30	60.6	47.4	43.6	34.7
12/12/16	13:45	54.6	41.0	39.4	34.9
12/12/16	14:00	70.2	45.7	43.5	34.9
12/12/16	14:15	53.0	41.3	39.5	35.5
12/12/16	14:30	56.1	44.1	41.6	36.2
12/12/16	14:45	62.7	41.9	40.3	35.5
12/12/16	15:00	59.3	41.1	39.2	34.3
12/12/16	15:15	57.4	46.9	43.2	36.0
12/12/16	15:30	76.0	43.8	45.3	36.5
12/12/16	15:45	53.5	41.5	39.5	36.1
12/12/16	16:00	61.6	43.1	41.0	36.9
12/12/16	16:15	76.5	40.3	44.1	34.5
12/12/16	16:30	58.3	44.4	41.8	36.3
12/12/16	16:45	60.9	48.1	45.8	37.1
12/12/16	17:00	67.7	46.2	47.1	36.9
12/12/16	17:15	53.1	41.5	39.4	36.3
12/12/16	17:30	68.6	49.5	47.4	35.9
12/12/16	17:45	54.5	41.3	39.4	35.2
12/12/16	18:00	58.3	41.8	40.2	36.6
12/12/16	18:15	59.7	45.2	43.8	35.6
12/12/16	18:30	53.6	40.7	39.1	35.0
12/12/16	18:45	67.6	45.4	45.9	34.0
	Arith. Average	*62.1*	*45.0*	*43.5*	*37.4*
	Log. Average	*68.7*	*46.2*	*45.1*	*38.4*
	Minimum	*51.2*	*40.3*	*39.1*	*34.0*
	Maximum	*79.9*	*53.2*	*55.1*	*43.8*
12/12/16	19:00	63.1	46.0	45.2	33.2
12/12/16	19:15	61.4	42.5	41.7	32.8
12/12/16	19:30	53.5	41.1	38.5	31.9
12/12/16	19:45	52.5	38.2	36.3	30.0
12/12/16	20:00	57.8	43.9	40.2	30.9
12/12/16	20:15	62.3	47.7	43.8	32.8
12/12/16	20:30	51.6	41.1	38.0	31.4
12/12/16	20:45	65.4	44.5	44.7	30.0
12/12/16	21:00	63.3	46.6	44.6	29.7
12/12/16	21:15	55.8	45.1	41.0	29.1
12/12/16	21:30	60.6	44.1	42.3	28.5
12/12/16	21:45	55.9	42.5	38.7	29.4
12/12/16	22:00	58.9	43.8	40.3	26.6
12/12/16	22:15	67.4	51.5	48.6	32.0
12/12/16	22:30	58.8	47.0	43.2	30.6
12/12/16	22:45	61.3	48.3	44.4	26.0
	Arith. Average	*59.4*	*44.6*	*42.0*	*30.3*
	Log. Average	*61.4*	*45.8*	*43.1*	*30.7*
	Minimum	*51.6*	*38.2*	*36.3*	*26.0*
	Maximum	*67.4*	*51.5*	*48.6*	*33.2*
12/12/16	23:00	44.2	33.5	30.8	25.8
12/12/16	23:15	62.0	46.4	45.0	26.8
12/12/16	23:30	39.2	31.6	28.6	23.9
12/12/16	23:45	50.8	34.1	32.8	29.3
13/12/16	00:00	71.4	35.4	44.2	24.8
13/12/16	00:15	51.0	29.7	27.8	23.4
13/12/16	00:30	43.0	33.0	29.2	23.3
13/12/16	00:45	44.9	33.7	32.7	27.1
13/12/16	01:00	39.9	34.7	31.9	28.5

Date of Meas.	Start Time	Measured Noise Levels, dB re. 2 x 10^{-5} Pa.			
		$L_{Amax,F}$	$L_{A10,15min}$	$L_{Aeq,15min}$	$L_{A90,15min}$
13/12/16	01:15	40.5	34.5	32.9	28.4
13/12/16	01:30	40.5	32.8	29.8	24.8
13/12/16	01:45	36.3	33.7	31.5	29.4
13/12/16	02:00	34.6	27.4	24.5	21.9
13/12/16	02:15	60.8	36.5	41.6	22.7
13/12/16	02:30	47.5	31.7	31.1	24.2
13/12/16	02:45	49.3	31.8	28.7	23.7
13/12/16	03:00	38.3	32.0	30.0	26.9
13/12/16	03:15	34.8	29.6	26.6	23.2
13/12/16	03:30	42.2	34.8	31.3	25.8
13/12/16	03:45	42.0	35.7	31.1	24.3
13/12/16	04:00	46.1	35.4	31.6	24.8
13/12/16	04:15	58.2	36.6	38.6	25.2
13/12/16	04:30	44.9	36.1	33.7	28.5
13/12/16	04:45	62.6	39.1	41.2	24.6
13/12/16	05:00	53.2	36.6	33.9	24.4
13/12/16	05:15	45.1	34.3	30.6	25.0
13/12/16	05:30	63.6	38.3	43.7	26.2
13/12/16	05:45	52.3	40.4	36.9	28.2
13/12/16	06:00	61.9	41.4	42.7	28.4
13/12/16	06:15	46.0	39.7	36.9	32.1
13/12/16	06:30	51.5	43.9	40.1	34.1
13/12/16	06:45	59.2	41.4	41.3	33.8
	Arith. Average	*48.7*	*35.5*	*34.2*	*26.4*
	Log. Average	*58.9*	*37.8*	*37.9*	*27.6*
	Minimum	*34.6*	*27.4*	*24.5*	*21.9*
	Maximum	*71.4*	*46.4*	*45.0*	*34.1*
13/12/16	07:00	74.6	46.2	45.2	36.6
13/12/16	07:15	60.7	45.4	42.9	38.0
13/12/16	07:30	69.3	46.3	48.5	39.1
13/12/16	07:45	66.5	52.8	49.7	39.4
13/12/16	08:00	68.3	46.9	48.7	37.5
13/12/16	08:15	65.1	50.3	48.2	38.5
13/12/16	08:30	59.0	44.8	42.7	35.5
13/12/16	08:45	66.0	51.5	49.1	38.1
13/12/16	09:00	66.6	50.7	49.7	37.9
13/12/16	09:15	60.3	44.4	42.3	36.2
13/12/16	09:30	63.0	48.0	44.4	37.0
13/12/16	09:45	64.0	50.3	47.1	36.4
13/12/16	10:00	58.8	46.5	42.5	34.4
13/12/16	10:15	62.7	49.9	46.8	35.5
13/12/16	10:30	70.8	43.6	42.7	35.2
13/12/16	10:45	58.8	43.8	42.2	36.0
13/12/16	11:00	57.6	44.4	41.6	35.8
13/12/16	11:15	53.7	41.5	39.1	34.3
13/12/16	11:30	55.8	39.3	38.8	34.8
13/12/16	11:45	61.2	42.7	42.2	35.4
13/12/16	12:00	55.9	41.5	39.3	34.6
13/12/16	12:15	61.4	45.4	43.6	35.6
13/12/16	12:30	66.8	40.6	39.4	35.0
13/12/16	12:45	56.6	42.6	40.3	34.9
13/12/16	13:00	67.0	44.7	43.5	35.5
13/12/16	13:15	61.7	44.2	43.0	35.2
13/12/16	13:30	58.2	41.0	38.9	34.2
13/12/16	13:45	60.2	41.2	41.8	34.0
13/12/16	14:00	62.1	42.7	41.6	34.7
13/12/16	14:15	59.6	42.0	40.8	34.9
13/12/16	14:30	49.9	42.6	39.4	33.9

Date of Meas.	Start Time	Measured Noise Levels, dB re. 2 x 10^{-5} Pa.			
		$L_{Amax,F}$	$L_{A10,15min}$	$L_{Aeq,15min}$	$L_{A90,15min}$
13/12/16	14:45	60.0	39.9	40.8	33.0
13/12/16	15:00	64.9	46.7	45.6	36.2
13/12/16	15:15	62.3	45.6	44.7	35.4
13/12/16	15:30	62.9	47.8	45.8	34.9
13/12/16	15:45	65.6	51.0	48.2	36.5
13/12/16	16:00	64.6	49.8	46.3	36.1
13/12/16	16:15	66.0	50.2	46.6	35.8
13/12/16	16:30	53.8	39.5	37.6	34.1
13/12/16	16:45	63.3	51.8	47.1	36.0
13/12/16	17:00	56.0	41.3	40.1	34.8
13/12/16	17:15	49.1	40.2	38.2	34.9
13/12/16	17:30	57.1	44.3	41.2	35.5
13/12/16	17:45	65.6	51.0	47.7	35.4
13/12/16	18:00	66.3	46.0	45.3	36.4
13/12/16	18:15	65.3	51.9	47.5	35.4
13/12/16	18:30	60.4	42.9	41.4	33.5
13/12/16	18:45	62.6	52.1	47.2	35.1
	Arith. Average	*61.8*	*45.6*	*43.7*	*35.7*
	Log. Average	*64.6*	*47.4*	*45.0*	*35.9*
	Minimum	*49.1*	*39.3*	*37.6*	*33.0*
	Maximum	*74.6*	*52.8*	*49.7*	*39.4*
13/12/16	19:00	63.3	48.1	46.3	34.6
13/12/16	19:15	58.5	43.2	40.7	33.0
13/12/16	19:30	47.9	38.2	35.8	32.1
13/12/16	19:45	62.8	44.6	42.4	30.0
13/12/16	20:00	53.8	40.5	37.0	29.6
13/12/16	20:15	53.1	40.6	37.3	29.8
13/12/16	20:30	63.3	43.6	41.1	29.0
13/12/16	20:45	60.8	44.7	41.7	27.9
13/12/16	21:00	65.0	48.6	46.6	29.7
13/12/16	21:15	64.4	44.4	45.0	30.9
13/12/16	21:30	53.1	40.1	36.5	28.3
13/12/16	21:45	67.0	44.9	44.0	26.7
13/12/16	22:00	62.1	47.5	43.2	28.8
13/12/16	22:15	62.4	51.2	46.6	29.5
13/12/16	22:30	62.4	45.6	44.7	27.1
13/12/16	22:45	58.5	37.8	40.7	26.3
	Arith. Average	*59.9*	*44.0*	*41.9*	*29.6*
	Log. Average	*62.0*	*45.5*	*43.1*	*30.2*
	Minimum	*47.9*	*37.8*	*35.8*	*26.3*
	Maximum	*67.0*	*51.2*	*46.6*	*34.6*
13/12/16	23:00	57.3	44.0	40.9	27.2
13/12/16	23:15	45.4	35.2	32.2	26.2
13/12/16	23:30	51.5	35.8	33.2	22.5
13/12/16	23:45	42.4	30.7	28.0	23.2
14/12/16	00:00	40.5	31.0	27.8	22.1
14/12/16	00:15	49.3	37.9	33.9	21.5
14/12/16	00:30	44.1	29.6	26.9	21.5
14/12/16	00:45	44.3	30.4	27.5	22.8
14/12/16	01:00	42.8	30.6	27.3	21.3
14/12/16	01:15	35.7	24.6	23.1	20.6
14/12/16	01:30	35.2	23.0	21.7	19.5
14/12/16	01:45	39.2	23.0	22.9	19.4
14/12/16	02:00	37.7	27.2	24.3	20.4
14/12/16	02:15	41.5	28.4	25.4	21.2
14/12/16	02:30	48.6	33.7	32.6	20.1
14/12/16	02:45	53.2	29.8	27.5	20.8

Date of Meas.	Start Time	Measured Noise Levels, dB re. 2 x 10^{-5} Pa.			
		$L_{Amax,F}$	$L_{A10,15min}$	$L_{Aeq,15min}$	$L_{A90,15min}$
14/12/16	03:00	45.9	30.0	28.1	20.6
14/12/16	03:15	42.5	31.3	28.4	20.6
14/12/16	03:30	50.7	36.4	32.8	20.8
14/12/16	03:45	46.9	29.3	25.7	20.0
14/12/16	04:00	45.9	34.8	30.3	20.3
14/12/16	04:15	44.1	32.6	29.1	22.2
14/12/16	04:30	47.4	33.3	29.4	22.3
14/12/16	04:45	55.4	39.5	35.0	24.6
14/12/16	05:00	48.5	40.3	37.0	28.6
14/12/16	05:15	46.1	40.5	37.2	31.9
14/12/16	05:30	46.8	37.3	34.1	28.7
14/12/16	05:45	61.7	47.3	45.3	32.6
14/12/16	06:00	58.2	45.6	43.4	32.7
14/12/16	06:15	71.3	48.8	49.6	34.1
14/12/16	06:30	61.3	44.6	43.7	35.5
14/12/16	06:45	52.6	42.1	40.7	37.5
	Arith. Average	*47.9*	*34.6*	*32.0*	*24.5*
	Log. Average	*57.8*	*39.9*	*38.6*	*28.5*
	Minimum	*35.2*	*23.0*	*21.7*	*19.4*
	Maximum	*71.3*	*48.8*	*49.6*	*37.5*
14/12/16	07:00	78.3	48.2	48.1	38.0
14/12/16	07:15	61.1	43.5	42.6	38.2
14/12/16	07:30	56.9	51.1	46.5	39.2
14/12/16	07:45	56.6	46.9	45.3	41.6
14/12/16	08:00	55.4	44.8	43.4	41.6
14/12/16	08:15	63.6	51.0	47.0	41.0
14/12/16	08:30	60.8	48.9	45.9	40.7
14/12/16	08:45	79.4	49.6	49.1	42.0
14/12/16	09:00	59.1	46.2	44.0	40.8
14/12/16	09:15	55.0	50.0	46.0	41.1
14/12/16	09:30	55.4	49.2	45.6	40.9
14/12/16	09:45	60.5	48.6	45.5	40.0
14/12/16	10:00	63.9	50.8	47.9	41.1
14/12/16	10:15	59.7	49.4	45.5	38.6
14/12/16	10:30	59.5	48.6	44.6	36.0
14/12/16	10:45	67.9	47.0	46.2	36.1
14/12/16	11:00	60.9	47.9	44.6	35.1
14/12/16	11:15	52.7	41.9	39.7	35.8
14/12/16	11:30	68.9	48.6	46.9	35.3
14/12/16	11:45	60.5	45.3	42.7	35.1
14/12/16	12:00	58.6	47.8	43.7	35.9
14/12/16	12:15	58.9	44.5	42.1	34.3
14/12/16	12:30	57.0	40.6	38.6	35.4
14/12/16	12:45	57.5	46.4	42.8	35.9
14/12/16	13:00	68.0	47.4	46.2	37.0
14/12/16	13:15	67.4	47.7	45.6	36.0
14/12/16	13:30	59.8	45.4	42.9	36.4
14/12/16	13:45	63.6	47.3	45.0	36.5
14/12/16	14:00	67.8	45.1	44.2	35.6
14/12/16	14:15	57.1	40.9	39.2	36.1
14/12/16	14:30	61.9	41.0	41.0	35.0
14/12/16	14:45	65.0	42.3	43.1	36.5
14/12/16	15:00	59.6	42.3	40.9	36.8
14/12/16	15:15	56.5	44.8	42.3	37.3
14/12/16	15:30	52.7	43.7	41.3	37.2
14/12/16	15:45	55.3	41.4	39.8	37.1
14/12/16	16:00	55.8	44.0	41.2	37.5
14/12/16	16:15	69.7	41.8	44.5	36.8

Date of Meas.	Start Time	Measured Noise Levels, dB re. 2 x 10^{-5} Pa.			
		$L_{Amax,F}$	$L_{A10,15min}$	$L_{Aeq,15min}$	$L_{A90,15min}$
14/12/16	16:30	48.7	41.8	40.0	37.8
14/12/16	16:45	62.1	42.9	45.3	37.3
14/12/16	17:00	56.2	41.0	41.6	37.7
14/12/16	17:15	56.2	45.7	42.7	37.7
14/12/16	17:30	58.4	44.2	41.7	38.0
14/12/16	17:45	50.3	42.5	40.4	37.8
14/12/16	18:00	66.7	42.1	43.3	37.6
14/12/16	18:15	55.2	44.7	42.0	38.4
14/12/16	18:30	51.8	43.0	40.8	37.5
14/12/16	18:45	57.8	48.4	44.1	37.4
	Arith. Average	*60.2*	*45.6*	*43.6*	*37.7*
	Log. Average	*66.9*	*46.6*	*44.3*	*38.2*
	Minimum	*48.7*	*40.6*	*38.6*	*34.3*
	Maximum	*79.4*	*51.1*	*49.1*	*42.0*
14/12/16	19:00	72.9	40.3	40.3	36.3
14/12/16	19:15	57.8	42.4	41.5	35.8
14/12/16	19:30	47.9	38.6	37.4	35.4
14/12/16	19:45	54.8	42.7	40.4	34.6
14/12/16	20:00	56.9	47.1	43.0	35.4
14/12/16	20:15	58.0	45.1	43.0	34.3
14/12/16	20:30	56.7	44.1	42.0	36.6
14/12/16	20:45	64.5	43.2	47.1	34.6
14/12/16	21:00	49.9	42.0	39.5	36.3
14/12/16	21:15	45.7	38.9	36.9	32.8
14/12/16	21:30	44.1	38.1	36.3	34.2
14/12/16	21:45	44.4	36.4	33.8	29.7
14/12/16	22:00	43.4	38.4	35.9	32.2
14/12/16	22:15	50.8	38.7	36.8	30.2
14/12/16	22:30	60.1	46.0	43.5	31.1
14/12/16	22:45	65.3	45.6	46.8	31.1
	Arith. Average	*54.6*	*41.7*	*40.3*	*33.8*
	Log. Average	*62.7*	*42.9*	*41.9*	*34.3*
	Minimum	*43.4*	*36.4*	*33.8*	*29.7*
	Maximum	*72.9*	*47.1*	*47.1*	*36.6*
14/12/16	23:00	61.5	44.8	44.8	33.6
14/12/16	23:15	47.6	39.0	36.2	29.7
14/12/16	23:30	68.6	45.6	46.0	31.4
14/12/16	23:45	54.3	36.6	34.9	29.2
15/12/16	00:00	43.4	37.1	34.2	28.4
15/12/16	00:15	45.2	38.2	36.5	33.7
15/12/16	00:30	43.1	36.7	34.8	32.0
15/12/16	00:45	48.7	36.6	35.1	32.5
15/12/16	01:00	46.0	36.4	34.5	31.5
15/12/16	01:15	46.6	37.5	35.3	31.3
15/12/16	01:30	45.0	38.7	35.9	29.9
15/12/16	01:45	42.7	37.7	35.7	30.9
15/12/16	02:00	42.6	36.4	33.6	25.8
15/12/16	02:15	43.2	39.4	36.6	30.7
15/12/16	02:30	40.9	32.5	29.8	26.0
15/12/16	02:45	44.8	35.6	33.3	28.1
15/12/16	03:00	38.2	33.1	31.0	28.5
15/12/16	03:15	39.9	32.9	29.7	25.0
15/12/16	03:30	46.2	34.8	31.1	24.5
15/12/16	03:45	41.0	32.0	28.5	22.9
15/12/16	04:00	44.4	33.5	29.9	21.3
15/12/16	04:15	44.9	37.9	33.5	25.5
15/12/16	04:30	47.6	35.9	32.8	26.5

Date of Meas.	Start Time	Measured Noise Levels, dB re. 2 x 10^{-5} Pa.			
		$L_{Amax,F}$	$L_{A10,15min}$	$L_{Aeq,15min}$	$L_{A90,15min}$
15/12/16	04:45	45.0	36.7	33.2	27.7
15/12/16	05:00	54.9	38.8	38.2	31.6
15/12/16	05:15	49.3	37.1	34.4	27.3
15/12/16	05:30	49.8	39.0	36.8	31.2
15/12/16	05:45	47.5	39.9	36.9	31.1
15/12/16	06:00	52.9	42.0	40.6	36.3
15/12/16	06:15	50.8	40.4	39.1	36.7
15/12/16	06:30	54.4	43.6	40.7	36.2
15/12/16	06:45	60.6	50.1	45.8	36.2
	Arith. Average	*47.9*	*38.0*	*35.6*	*29.8*
	Log. Average	*55.7*	*40.4*	*38.3*	*31.4*
	Minimum	*38.2*	*32.0*	*28.5*	*21.3*
	Maximum	*68.6*	*50.1*	*46.0*	*36.7*
15/12/16	07:00	54.2	44.1	41.3	37.2
15/12/16	07:15	67.9	43.4	44.0	38.0
15/12/16	07:30	66.0	47.0	46.4	38.9
15/12/16	07:45	67.8	45.1	45.2	39.4
15/12/16	08:00	61.5	46.7	44.4	39.4
15/12/16	08:15	62.4	47.4	45.1	40.2
15/12/16	08:30	62.6	46.3	44.0	39.1
15/12/16	08:45	59.1	47.2	44.1	39.3
15/12/16	09:00	63.5	48.6	46.1	39.8
15/12/16	09:15	66.1	47.6	45.2	38.3
15/12/16	09:30	66.0	49.1	46.5	36.7
15/12/16	09:45	66.9	49.0	46.4	35.9
15/12/16	10:00	52.9	43.9	41.2	37.6
15/12/16	10:15	60.2	46.5	43.6	37.2
15/12/16	10:30	65.6	40.9	39.8	36.5
15/12/16	10:45	61.1	45.3	42.6	37.1
15/12/16	11:00	65.4	43.3	42.7	36.7
15/12/16	11:15	61.3	41.9	43.2	35.5
15/12/16	11:30	52.6	42.5	39.9	35.5
15/12/16	11:45	57.1	42.0	39.8	34.2
15/12/16	12:00	64.7	47.1	44.5	34.7
15/12/16	12:15	58.0	42.1	40.5	34.4
15/12/16	12:30	60.2	44.8	43.4	35.9
15/12/16	12:45	64.3	45.3	45.9	35.2
15/12/16	13:00	58.1	42.3	40.8	34.9
15/12/16	13:15	58.0	45.1	42.2	35.0
15/12/16	13:30	61.2	50.2	46.1	35.5
15/12/16	13:45	60.0	47.9	43.7	34.1
15/12/16	14:00	67.6	44.3	44.1	34.8
15/12/16	14:15	60.5	45.6	42.4	34.2
15/12/16	14:30	61.4	48.6	44.7	34.6
15/12/16	14:45	59.0	42.3	39.9	34.2
15/12/16	15:00	59.5	39.7	38.4	33.5
15/12/16	15:15	67.0	43.1	43.9	34.9
15/12/16	15:30	62.1	43.4	42.1	34.4
15/12/16	15:45	57.7	40.8	38.8	35.3
15/12/16	16:00	56.0	43.5	40.8	36.6
15/12/16	16:15	70.6	44.7	45.4	36.5
15/12/16	16:30	48.8	40.4	38.8	36.8
15/12/16	16:45	56.0	43.2	41.7	36.7
15/12/16	17:00	60.1	41.8	40.6	36.8
15/12/16	17:15	55.1	42.7	40.9	37.5
15/12/16	17:30	58.6	47.3	43.6	37.8
15/12/16	17:45	55.0	42.1	40.8	36.9
15/12/16	18:00	57.7	42.5	41.8	37.0

Date of Meas.	Start Time	Measured Noise Levels, dB re. 2 x 10^{-5} Pa.			
		$L_{Amax,F}$	$L_{A10,15min}$	$L_{Aeq,15min}$	$L_{A90,15min}$
15/12/16	18:15	44.9	40.1	38.4	36.3
15/12/16	18:30	59.9	45.7	42.3	35.7
15/12/16	18:45	55.5	46.2	42.7	36.2
	Arith. Average	*60.4*	*44.6*	*42.7*	*36.4*
	Log. Average	*62.9*	*45.4*	*43.3*	*36.8*
	Minimum	*44.9*	*39.7*	*38.4*	*33.5*
	Maximum	*70.6*	*50.2*	*46.5*	*40.2*
15/12/16	19:00	53.7	38.9	37.8	35.0
15/12/16	19:15	47.4	38.6	36.6	33.6
15/12/16	19:30	42.8	37.4	35.6	33.2
15/12/16	19:45	57.0	42.1	40.2	33.0
15/12/16	20:00	57.5	46.9	43.1	34.2
15/12/16	20:15	59.1	41.8	41.0	33.2
15/12/16	20:30	54.0	44.3	40.3	31.8
15/12/16	20:45	60.3	45.8	42.8	30.6
15/12/16	21:00	59.5	46.1	42.7	30.5
15/12/16	21:15	61.8	45.2	43.9	29.6
15/12/16	21:30	41.4	35.0	32.8	30.0
15/12/16	21:45	48.7	37.3	35.2	31.2
15/12/16	22:00	47.6	39.4	37.3	33.7
15/12/16	22:15	51.9	40.6	37.8	31.8
15/12/16	22:30	51.4	38.7	36.5	31.3
15/12/16	22:45	48.1	36.4	33.6	29.0
	Arith. Average	*52.6*	*40.9*	*38.6*	*32.0*
	Log. Average	*56.0*	*42.4*	*39.8*	*32.3*
	Minimum	*41.4*	*35.0*	*32.8*	*29.0*
	Maximum	*61.8*	*46.9*	*43.9*	*35.0*
15/12/16	23:00	51.6	37.6	35.4	30.2
15/12/16	23:15	44.0	37.5	34.8	31.1
15/12/16	23:30	42.2	35.7	33.1	29.8
15/12/16	23:45	42.3	36.2	33.4	28.4
16/12/16	00:00	51.8	35.4	34.9	26.3
16/12/16	00:15	50.9	37.5	36.3	32.3
16/12/16	00:30	57.2	36.9	37.2	33.1
16/12/16	00:45	41.8	35.0	32.2	26.7
16/12/16	01:00	37.3	34.5	30.1	24.3
16/12/16	01:15	38.4	29.6	27.2	23.9
16/12/16	01:30	34.6	27.1	25.4	22.3
16/12/16	01:45	37.7	26.1	23.8	20.7
16/12/16	02:00	35.6	26.2	24.1	20.5
16/12/16	02:15	38.1	26.2	23.6	20.0
16/12/16	02:30	34.9	29.4	26.7	22.3
16/12/16	02:45	43.3	30.0	28.1	24.8
16/12/16	03:00	45.6	29.9	27.2	21.5
16/12/16	03:15	51.6	33.5	31.7	20.4
16/12/16	03:30	43.4	31.8	27.7	19.8
16/12/16	03:45	42.4	30.3	26.9	19.4
16/12/16	04:00	42.8	28.1	24.7	19.3
16/12/16	04:15	46.1	31.3	29.5	20.1
16/12/16	04:30	43.0	30.6	27.2	20.7
16/12/16	04:45	47.9	33.9	30.6	21.6
16/12/16	05:00	44.8	33.0	29.4	22.1
16/12/16	05:15	43.6	34.9	30.9	23.4
16/12/16	05:30	45.8	33.7	30.7	24.7
16/12/16	05:45	53.1	36.8	33.9	27.2
16/12/16	06:00	64.0	40.6	41.2	28.4
16/12/16	06:15	56.8	39.0	36.6	26.0

Date of Meas.	Start Time	Measured Noise Levels, dB re. 2 x 10^{-5} Pa.			
		$L_{Amax,F}$	$L_{A10,15min}$	$L_{Aeq,15min}$	$L_{A90,15min}$
16/12/16	06:30	52.8	41.5	37.5	28.3
16/12/16	06:45	59.7	44.9	41.5	31.7
	Arith. Average	*45.8*	*33.6*	*31.0*	*24.7*
	Log. Average	*52.6*	*36.1*	*33.9*	*26.8*
	Minimum	*34.6*	*26.1*	*23.6*	*19.3*
	Maximum	*64.0*	*44.9*	*41.5*	*33.1*
16/12/16	07:00	59.5	45.9	42.2	32.1
16/12/16	07:15	57.8	44.3	41.4	34.7
16/12/16	07:30	56.3	47.2	43.6	37.2
16/12/16	07:45	58.8	47.0	43.7	35.6
16/12/16	08:00	72.4	48.3	49.1	33.7
16/12/16	08:15	60.7	46.1	42.7	33.2
16/12/16	08:30	59.4	45.4	42.2	34.1
16/12/16	08:45	61.9	49.1	46.4	35.1
16/12/16	09:00	76.8	43.3	44.2	35.0
16/12/16	09:15	58.3	42.1	39.4	34.8
16/12/16	09:30	62.8	45.8	42.4	34.4
16/12/16	09:45	54.4	45.2	41.0	34.8
16/12/16	10:00	67.2	48.1	45.3	34.1
16/12/16	10:15	61.8	49.3	45.8	33.9
16/12/16	10:30	56.7	41.8	38.3	32.6
16/12/16	10:45	68.9	46.0	44.0	33.8
16/12/16	11:00	55.5	42.6	40.2	32.2
16/12/16	11:15	64.2	41.1	40.6	31.9
16/12/16	11:30	51.4	39.3	36.5	31.8
16/12/16	11:45	63.6	40.0	42.7	33.2
16/12/16	12:00	57.4	44.8	40.6	32.9
16/12/16	12:15	56.8	46.7	42.0	33.0
16/12/16	12:30	56.6	48.9	43.7	33.8
16/12/16	12:45	60.7	43.8	40.9	32.5
16/12/16	13:00	58.5	47.6	43.8	30.7
16/12/16	13:15	64.4	44.7	42.1	30.1
16/12/16	13:30	67.0	47.7	44.7	29.5
16/12/16	13:45	51.0	38.3	35.9	30.9
16/12/16	14:00	59.1	49.4	44.1	31.3
16/12/16	14:15	60.0	47.1	43.3	30.8
16/12/16	14:30	59.8	43.2	42.4	30.5
16/12/16	14:45	66.2	48.4	45.9	31.5
16/12/16	15:00	86.3	47.1	59.1	33.1
16/12/16	15:15	56.4	44.2	41.4	35.2
16/12/16	15:30	84.8	46.4	58.5	34.9
16/12/16	15:45	59.9	40.3	40.3	34.3
16/12/16	16:00	54.1	43.2	40.0	33.4
16/12/16	16:15	61.3	46.5	43.9	34.1
16/12/16	16:30	61.7	38.1	38.6	32.3
16/12/16	16:45	60.3	48.6	44.4	33.1
16/12/16	17:00	57.6	49.1	44.3	33.3
16/12/16	17:15	67.1	46.3	45.1	34.2
16/12/16	17:30	58.0	46.7	43.0	32.7
16/12/16	17:45	60.0	48.6	44.6	34.0
16/12/16	18:00	59.4	44.4	41.6	32.8
16/12/16	18:15	61.3	40.9	41.2	30.6
16/12/16	18:30	61.1	44.9	42.8	32.1
16/12/16	18:45	52.7	42.3	39.4	33.0
	Arith. Average	*61.4*	*45.1*	*43.1*	*33.1*
	Log. Average	*72.5*	*46.0*	*47.1*	*33.4*
	Minimum	*51.0*	*38.1*	*35.9*	*29.5*
	Maximum	*86.3*	*49.4*	*59.1*	*37.2*

Date of Meas.	Start Time	Measured Noise Levels, dB re. 2 x 10^{-5} Pa.			
		$L_{Amax,F}$	$L_{A10,15min}$	$L_{Aeq,15min}$	$L_{A90,15min}$
16/12/16	19:00	60.6	47.2	43.1	32.1
16/12/16	19:15	57.9	42.6	40.2	31.3
16/12/16	19:30	54.3	38.6	36.5	30.7
16/12/16	19:45	54.5	40.8	38.4	29.7
16/12/16	20:00	50.7	38.0	35.1	28.8
16/12/16	20:15	58.4	48.6	43.3	28.6
16/12/16	20:30	44.5	33.8	31.4	27.4
16/12/16	20:45	60.8	47.0	44.5	27.6
16/12/16	21:00	66.1	50.7	47.8	32.1
16/12/16	21:15	65.3	52.8	49.0	35.4
16/12/16	21:30	64.9	50.4	48.0	31.8
16/12/16	21:45	57.2	40.7	38.0	28.6
16/12/16	22:00	60.7	51.1	46.8	30.2
16/12/16	22:15	63.2	52.7	48.2	34.1
16/12/16	22:30	68.0	49.3	47.8	29.6
16/12/16	22:45	57.1	41.1	39.8	27.1
	Arith. Average	*59.0*	*45.3*	*42.4*	*30.3*
	Log. Average	*62.0*	*48.2*	*44.9*	*31.0*
	Minimum	*44.5*	*33.8*	*31.4*	*27.1*
	Maximum	*68.0*	*52.8*	*49.0*	*35.4*
16/12/16	23:00	45.1	36.5	33.5	27.7
16/12/16	23:15	61.3	44.9	43.9	28.0
16/12/16	23:30	57.6	43.8	40.9	26.7
16/12/16	23:45	67.4	36.7	47.0	25.1
17/12/16	00:00	64.7	45.1	44.4	26.4
17/12/16	00:15	45.7	34.7	31.6	26.6
17/12/16	00:30	46.2	33.4	30.2	24.6
17/12/16	00:45	42.3	33.8	30.8	24.7
17/12/16	01:00	54.5	38.1	35.3	25.2
17/12/16	01:15	52.2	36.7	33.8	25.8
17/12/16	01:30	58.8	35.4	39.2	24.9
17/12/16	01:45	62.0	34.8	42.2	24.3
17/12/16	02:00	42.4	32.3	29.4	24.2
17/12/16	02:15	39.7	29.4	27.0	22.4
17/12/16	02:30	39.0	32.3	30.0	25.2
17/12/16	02:45	40.5	30.8	28.4	24.6
17/12/16	03:00	41.7	35.6	31.7	25.7
17/12/16	03:15	37.9	30.7	28.0	23.5
17/12/16	03:30	48.7	38.1	34.1	28.2
17/12/16	03:45	40.3	33.7	31.3	28.2
17/12/16	04:00	38.3	31.8	29.8	26.5
17/12/16	04:15	60.5	38.7	43.6	22.9
17/12/16	04:30	42.2	33.2	29.9	24.6
17/12/16	04:45	61.3	40.8	44.9	25.6
17/12/16	05:00	71.7	53.2	50.8	25.7
17/12/16	05:15	62.7	44.2	45.6	29.6
17/12/16	05:30	61.8	37.1	42.1	26.3
17/12/16	05:45	63.4	40.8	43.6	24.8
17/12/16	06:00	54.0	41.8	39.9	26.7
17/12/16	06:15	60.0	43.4	42.0	28.4
17/12/16	06:30	61.9	50.5	48.1	28.9
17/12/16	06:45	52.7	40.0	36.8	30.1
	Arith. Average	*52.5*	*37.9*	*37.2*	*26.0*
	Log. Average	*60.9*	*42.5*	*42.0*	*26.4*
	Minimum	*37.9*	*29.4*	*27.0*	*22.4*
	Maximum	*71.7*	*53.2*	*50.8*	*30.1*

Date of Meas.	Start Time	Measured Noise Levels, dB re. 2 x 10^{-5} Pa.			
		$L_{Amax,F}$	$L_{A10,15min}$	$L_{Aeq,15min}$	$L_{A90,15min}$
17/12/16	07:00	63.4	53.0	48.8	33.0
17/12/16	07:15	65.8	39.2	40.0	32.3
17/12/16	07:30	61.9	45.6	42.8	36.1
17/12/16	07:45	58.7	42.9	41.4	35.7
17/12/16	08:00	56.9	45.7	42.7	37.9
17/12/16	08:15	66.8	52.7	50.9	37.6
17/12/16	08:30	80.0	45.9	53.9	38.6
17/12/16	08:45	53.3	45.7	42.7	37.6
17/12/16	09:00	59.5	45.8	42.4	33.7
17/12/16	09:15	73.5	49.3	50.2	35.0
17/12/16	09:30	72.4	46.3	46.7	35.3
17/12/16	09:45	65.5	45.2	43.6	33.8
17/12/16	10:00	52.0	44.6	40.3	33.7
17/12/16	10:15	57.0	44.2	41.4	34.3
17/12/16	10:30	58.4	45.6	43.4	34.3
17/12/16	10:45	53.8	43.5	40.0	34.0
17/12/16	11:00	48.1	42.2	39.0	32.8
17/12/16	11:15	59.1	43.5	40.7	33.5
17/12/16	11:30	57.6	45.6	43.5	34.3
17/12/16	11:45	66.6	44.7	41.4	33.1
17/12/16	12:00	54.3	45.3	41.3	33.7
17/12/16	12:15	53.7	41.4	39.0	33.8
17/12/16	12:30	56.9	46.8	42.5	32.7
17/12/16	12:45	72.6	43.9	44.3	32.7
17/12/16	13:00	68.6	43.3	43.2	32.6
17/12/16	13:15	61.8	45.7	44.5	32.5
17/12/16	13:30	57.2	46.1	42.4	34.5
17/12/16	13:45	69.3	48.6	48.6	34.2
17/12/16	14:00	69.0	48.3	48.3	31.7
17/12/16	14:15	68.9	53.9	51.5	32.7
17/12/16	14:30	67.9	43.1	48.3	30.2
17/12/16	14:45	53.1	41.2	37.5	29.9
17/12/16	15:00	60.9	42.8	39.8	31.1
17/12/16	15:15	61.6	48.9	45.1	31.6
17/12/16	15:30	59.1	45.8	42.9	32.1
17/12/16	15:45	68.1	49.0	48.1	30.7
17/12/16	16:00	65.1	44.4	42.9	31.5
17/12/16	16:15	65.2	47.8	46.8	31.1
17/12/16	16:30	64.9	49.5	46.1	33.8
17/12/16	16:45	71.5	46.5	47.8	32.8
17/12/16	17:00	58.9	43.0	41.6	31.3
17/12/16	17:15	56.7	41.3	38.9	32.7
17/12/16	17:30	67.7	52.1	49.7	31.6
17/12/16	17:45	70.5	49.0	50.5	31.0
17/12/16	18:00	62.6	50.3	47.0	30.8
17/12/16	18:15	64.5	48.3	46.9	31.5
17/12/16	18:30	57.5	49.6	44.6	31.1
17/12/16	18:45	67.3	49.0	48.2	30.8
	Arith. Average	*62.6*	*46.2*	*44.5*	*33.2*
	Log. Average	*67.8*	*47.5*	*46.3*	*33.7*
	Minimum	*48.1*	*39.2*	*37.5*	*29.9*
	Maximum	*80.0*	*53.9*	*53.9*	*38.6*
17/12/16	19:00	65.8	46.3	45.0	29.9
17/12/16	19:15	66.5	51.7	48.8	30.1
17/12/16	19:30	63.0	52.9	48.1	28.5
17/12/16	19:45	61.6	46.2	45.5	24.4
17/12/16	20:00	60.8	49.6	45.5	24.9
17/12/16	20:15	64.7	48.7	46.3	25.8

Date of Meas.	Start Time	Measured Noise Levels, dB re. 2 x 10^{-5} Pa.			
		$L_{Amax,F}$	$L_{A10,15min}$	$L_{Aeq,15min}$	$L_{A90,15min}$
17/12/16	20:30	64.4	54.1	49.2	27.0
17/12/16	20:45	58.2	44.2	41.9	23.2
17/12/16	21:00	60.7	35.1	42.2	23.5
17/12/16	21:15	59.7	40.8	41.1	27.4
17/12/16	21:30	43.9	35.1	31.9	26.7
17/12/16	21:45	61.5	38.4	41.5	28.2
17/12/16	22:00	52.6	40.8	36.8	25.6
17/12/16	22:15	66.6	48.0	49.0	25.7
17/12/16	22:30	64.3	51.6	47.9	27.0
17/12/16	22:45	64.3	48.0	46.7	29.0
	Arith. Average	*61.2*	*45.7*	*44.2*	*26.7*
	Log. Average	*63.1*	*48.7*	*45.9*	*27.2*
	Minimum	*43.9*	*35.1*	*31.9*	*23.2*
	Maximum	*66.6*	*54.1*	*49.2*	*30.1*
17/12/16	23:00	55.1	40.0	38.1	28.1
17/12/16	23:15	70.2	44.7	49.5	25.9
17/12/16	23:30	63.1	52.2	48.5	26.2
17/12/16	23:45	66.0	46.6	45.7	22.3
18/12/16	00:00	65.6	32.2	45.9	21.3
18/12/16	00:15	62.5	43.7	43.8	20.7
18/12/16	00:30	48.2	37.9	33.9	23.6
18/12/16	00:45	57.5	37.0	39.8	23.2
18/12/16	01:00	56.7	44.8	40.2	20.1
18/12/16	01:15	60.0	35.3	41.3	20.0
18/12/16	01:30	39.7	26.3	23.5	19.2
18/12/16	01:45	64.1	46.7	47.7	20.5
18/12/16	02:00	57.1	35.8	39.4	19.6
18/12/16	02:15	59.1	43.4	41.9	21.6
18/12/16	02:30	64.3	35.8	42.2	21.3
18/12/16	02:45	42.1	29.9	27.3	21.5
18/12/16	03:00	39.9	26.3	23.3	19.3
18/12/16	03:15	48.1	29.1	28.9	19.8
18/12/16	03:30	62.4	31.5	41.6	19.6
18/12/16	03:45	34.2	24.7	22.5	19.0
18/12/16	04:00	36.1	26.7	23.3	19.2
18/12/16	04:15	37.4	26.1	23.4	19.4
18/12/16	04:30	61.7	32.5	42.9	21.4
18/12/16	04:45	41.1	29.7	26.5	21.0
18/12/16	05:00	48.0	32.2	29.4	21.3
18/12/16	05:15	38.0	30.1	26.6	21.3
18/12/16	05:30	56.3	34.0	38.7	21.8
18/12/16	05:45	60.6	41.2	43.7	24.0
18/12/16	06:00	72.6	49.6	49.0	23.7
18/12/16	06:15	54.1	41.4	37.2	24.9
18/12/16	06:30	42.0	33.5	30.0	24.7
18/12/16	06:45	51.2	39.8	35.9	28.2
	Arith. Average	*53.6*	*36.3*	*36.6*	*22.0*
	Log. Average	*62.3*	*42.3*	*42.4*	*22.9*
	Minimum	*34.2*	*24.7*	*22.5*	*19.0*
	Maximum	*72.6*	*52.2*	*49.5*	*28.2*
18/12/16	07:00	63.1	48.0	46.6	29.4
18/12/16	07:15	67.4	38.6	42.4	27.8
18/12/16	07:30	61.2	45.7	43.1	30.3
18/12/16	07:45	69.4	48.6	46.8	31.2
18/12/16	08:00	62.1	42.6	44.5	31.3
18/12/16	08:15	68.5	51.2	49.8	32.6
18/12/16	08:30	62.6	43.8	40.9	31.1

Date of Meas.	Start Time	Measured Noise Levels, dB re. 2 x 10^{-5} Pa.			
		$L_{Amax,F}$	$L_{A10,15min}$	$L_{Aeq,15min}$	$L_{A90,15min}$
18/12/16	08:45	65.7	49.4	46.2	33.6
18/12/16	09:00	65.1	49.3	45.5	33.0
18/12/16	09:15	57.3	44.4	41.3	34.9
18/12/16	09:30	61.2	50.4	46.7	34.5
18/12/16	09:45	69.2	52.6	49.0	36.4
18/12/16	10:00	57.8	46.1	42.0	34.1
18/12/16	10:15	64.1	48.2	47.7	33.8
18/12/16	10:30	63.2	48.4	45.1	33.7
18/12/16	10:45	67.7	49.1	49.1	34.7
18/12/16	11:00	66.8	53.3	50.3	35.3
18/12/16	11:15	63.5	50.7	48.4	33.9
18/12/16	11:30	65.0	50.0	48.9	33.4
18/12/16	11:45	68.8	49.7	50.6	32.5
18/12/16	12:00	63.0	47.0	45.1	30.9
18/12/16	12:15	66.2	51.2	47.1	33.6
18/12/16	12:30	61.0	46.5	42.7	29.8
18/12/16	12:45	57.3	50.1	45.2	33.1
18/12/16	13:00	60.4	43.9	41.6	31.9
18/12/16	13:15	61.9	46.0	44.0	33.1
18/12/16	13:30	68.7	43.5	43.4	33.1
18/12/16	13:45	59.4	46.7	44.2	33.0
18/12/16	14:00	69.5	41.2	44.5	31.7
18/12/16	14:15	63.4	50.1	46.8	32.0
18/12/16	14:30	66.0	55.2	50.5	33.5
18/12/16	14:45	67.2	51.6	50.2	32.9
18/12/16	15:00	71.7	56.9	53.5	36.1
18/12/16	15:15	63.5	56.0	51.0	35.2
18/12/16	15:30	71.6	57.8	52.9	36.0
18/12/16	15:45	66.3	52.9	48.6	34.6
18/12/16	16:00	66.5	54.1	50.1	32.7
18/12/16	16:15	66.0	47.4	44.1	30.7
18/12/16	16:30	66.2	52.0	48.8	31.5
18/12/16	16:45	65.8	54.4	50.7	34.9
18/12/16	17:00	62.4	54.2	48.7	36.4
18/12/16	17:15	60.1	43.7	42.0	34.4
18/12/16	17:30	60.1	52.9	48.0	34.9
18/12/16	17:45	49.5	43.8	39.5	32.5
18/12/16	18:00	65.3	48.8	48.0	34.0
18/12/16	18:15	56.3	45.0	41.3	34.0
18/12/16	18:30	63.8	53.5	49.3	35.6
18/12/16	18:45	56.0	47.1	42.7	32.2
	Arith. Average	*63.9*	*49.0*	*46.4*	*33.2*
	Log. Average	*65.6*	*51.0*	*47.7*	*33.5*
	Minimum	*49.5*	*38.6*	*39.5*	*27.8*
	Maximum	*71.7*	*57.8*	*53.5*	*36.4*
18/12/16	19:00	55.4	47.1	42.6	32.8
18/12/16	19:15	62.6	49.9	46.8	30.9
18/12/16	19:30	58.7	48.2	44.2	30.1
18/12/16	19:45	67.1	51.6	47.7	32.1
18/12/16	20:00	66.9	55.6	51.6	31.8
18/12/16	20:15	53.5	42.8	39.4	30.1
18/12/16	20:30	56.3	43.7	40.6	28.9
18/12/16	20:45	59.3	47.5	43.6	28.9
18/12/16	21:00	64.7	46.4	44.5	26.6
18/12/16	21:15	58.5	50.3	45.2	31.0
18/12/16	21:30	56.8	38.0	39.2	27.1
18/12/16	21:45	57.2	46.4	41.6	28.4
18/12/16	22:00	63.4	45.8	45.3	24.3

Date of Meas.	Start Time	Measured Noise Levels, dB re. 2 x 10^{-5} Pa.			
		$L_{Amax,F}$	$L_{A10,15min}$	$L_{Aeq,15min}$	$L_{A90,15min}$
18/12/16	22:15	54.7	44.8	39.9	22.8
18/12/16	22:30	60.9	42.7	43.1	24.4
18/12/16	22:45	62.7	41.5	43.1	22.1
	Arith. Average	*59.9*	*46.4*	*43.7*	*28.3*
	Log. Average	*61.9*	*48.5*	*45.0*	*29.3*
	Minimum	*53.5*	*38.0*	*39.2*	*22.1*
	Maximum	*67.1*	*55.6*	*51.6*	*32.8*
18/12/16	23:00	64.3	50.1	46.6	25.0
18/12/16	23:15	59.3	48.6	44.2	23.2
18/12/16	23:30	55.4	41.9	39.0	22.4
18/12/16	23:45	55.4	41.6	39.1	22.4
19/12/16	00:00	55.9	38.7	37.3	20.4
19/12/16	00:15	57.0	48.7	44.1	21.9
19/12/16	00:30	65.2	48.3	45.3	21.9
19/12/16	00:45	34.9	22.4	20.9	19.2
19/12/16	01:00	41.2	25.8	25.3	20.5
19/12/16	01:15	54.9	38.1	38.9	21.2
19/12/16	01:30	32.0	26.2	24.1	21.0
19/12/16	01:45	33.2	24.9	23.0	20.7
19/12/16	02:00	30.6	26.4	23.8	20.8
19/12/16	02:15	60.8	35.9	40.2	24.0
19/12/16	02:30	41.0	26.1	24.4	21.6
19/12/16	02:45	48.8	26.5	25.3	21.5
19/12/16	03:00	37.3	24.3	22.9	21.4
19/12/16	03:15	39.5	26.5	24.7	22.2
19/12/16	03:30	34.7	29.3	26.5	21.9
19/12/16	03:45	41.4	25.6	23.6	20.8
19/12/16	04:00	30.3	25.8	23.7	21.5
19/12/16	04:15	42.7	27.9	26.0	20.6
19/12/16	04:30	47.7	29.5	29.8	20.7
19/12/16	04:45	44.0	29.7	26.7	20.1
19/12/16	05:00	49.5	33.6	32.6	22.2
19/12/16	05:15	48.3	35.9	33.8	26.1
19/12/16	05:30	56.2	36.0	36.8	24.6
19/12/16	05:45	50.9	30.3	28.5	24.7
19/12/16	06:00	35.2	29.9	27.8	25.5
19/12/16	06:15	44.9	30.1	28.3	23.9
19/12/16	06:30	53.3	44.3	39.9	24.8
19/12/16	06:45	58.5	43.4	40.5	28.8
	Arith. Average	*47.0*	*33.5*	*31.7*	*22.4*
	Log. Average	*55.7*	*41.3*	*38.1*	*23.0*
	Minimum	*30.3*	*22.4*	*20.9*	*19.2*
	Maximum	*65.2*	*50.1*	*46.6*	*28.8*
19/12/16	07:00	54.5	45.1	40.4	29.1
19/12/16	07:15	69.0	42.7	44.3	31.2
19/12/16	07:30	61.8	40.6	39.6	32.5
19/12/16	07:45	63.4	47.4	45.2	32.8
19/12/16	08:00	60.0	42.6	40.7	33.0
19/12/16	08:15	66.3	46.3	43.7	31.7
19/12/16	08:30	56.5	45.8	42.0	32.7
19/12/16	08:45	56.2	47.5	43.4	31.5
19/12/16	09:00	59.4	42.0	38.4	30.8
19/12/16	09:15	69.5	46.8	46.2	31.0
19/12/16	09:30	64.2	49.8	46.1	32.2
19/12/16	09:45	61.8	44.9	41.9	31.6
19/12/16	10:00	59.6	46.4	43.2	32.1
19/12/16	10:15	56.3	44.3	41.0	32.5

Date of Meas.	Start Time	Measured Noise Levels, dB re. 2 x 10^{-5} Pa.			
		$L_{Amax,F}$	$L_{A10,15min}$	$L_{Aeq,15min}$	$L_{A90,15min}$
19/12/16	10:30	56.0	44.5	40.6	31.5
19/12/16	10:45	68.1	43.9	42.2	31.6
19/12/16	11:00	68.2	48.0	46.7	33.1
	Arith. Average	*61.8*	*45.2*	*42.7*	*31.8*
	Log. Average	*64.4*	*45.8*	*43.3*	*31.9*
	Minimum	*54.5*	*40.6*	*38.4*	*29.1*
	Maximum	*69.5*	*49.8*	*46.7*	*33.1*

Monitoring Location	Start Time	Dur. (mins)	Measured Noise Levels, dB re. 2 x 10^{-5} Pa.					Comments
			$L_{Amax,F}$	$L_{A10,T}$	$L_{Aeq,T}$	$L_{A50,T}$	$L_{A90,T}$	
ST1	21:35:24	5	74.5	51.1	47.4	41.9	35.4	Individual planes 50; 54; and 51 dB $L_{Aeq,T}$. Music audible (bass, drums & some vocals).
ST1	21:40:24	5	50.5	44.8	40.6	36.9	33.4	Music is dominant source when no aircraft. MNL estimate 32 dB $L_{Aeq,T}$.
ST1	21:45:24	5	53.0	44.3	41.7	39.5	35.6	Occasional car audible 44 dB $L_{Amax,F}$
		Cumul.	*74.5*	*46.7*	*44.3*	*39.4*	*34.8*	
ST2	22:05:00	5	50.9	44.5	38.7	31.4	28.0	Plane overhead 49 dB $L_{Aeq,T}$. Music is just audible (mostly vocals) - only when plane noise is at its lowest.
ST2	22:10:00	5	78.7	46.6	54.1	30.7	25.6	Background level ~30 dB $L_{A90,T}$, dominated by distant road traffic, aircraft and music. Car pass 78 dB $L_{Amax,F}$. Plane 48 dB $L_{Aeq,T}$.
ST2	22:15:00	5	53.8	43.6	39.3	32.9	27.0	Planes 49 dB $L_{Aeq,T}$. Car 35 dB $L_{Amax,F}$. Bass and highs from music are inaudible; vocals (and other mid frequencies) are just audible.
		Cumul.	*78.7*	*44.9*	*49.6*	*31.7*	*26.9*	
ST3	22:25:00	5	69.7	56.2	52.0	43.8	31.2	Planes 52 dB $L_{Aeq,T}$. Car 57 dB $L_{Amax,F}$. Kick drum and snare are only audible features of music - audible during periods of low road and air traffic only.
ST3	22:30:00	5	68.4	57.4	53.3	48.3	36.5	Car 61 dB $L_{Amax,F}$. Plane 50 dB $L_{Aeq,T}$. Music is inaudible for full 5 minute period.
ST3	22:35:00	5	74.8	60.1	56.3	51.4	39.5	Plane 61 dB $L_{Aeq,T}$. Background level 39 dB $L_{A90,T}$ dominated by distant road and air traffic.
		Cumul.	*74.8*	*57.9*	*54.3*	*47.8*	*35.7*	

TABLE B2: ATTENDED AMPLIFIED MUSIC NOISE RESULTS, SUNDAY 11TH DECEMBER 2016

Monitoring Location	Music	Measured Noise Level, dB $L_{eq,T}$											
		dB(A)	16 Hz	31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	16 kHz
ST1	With Music	44.3	49.6	50.6	50.3	46.0	44.1	44.5	36.6	27.8	31.6	33.7	16.5
	Without Music	39.3	48.8	50.3	43.1	40.1	39.2	39.9	32.7	23.1	20.4	19.0	15.0
ST2	With Music	49.6	47.6	47.9	50.8	47.6	45.6	46.0	46.2	41.9	33.8	27.1	23.7
	Without Music	46.7	45.4	47.0	44.6	49.5	48.0	46.8	41.0	29.7	23.3	20.4	15.6
ST3	With Music	54.3	51.6	54.2	56.3	57.1	52.0	49.0	51.5	46.1	33.5	22.7	15.1
	Without Music	51.6	48.4	51.1	57.4	51.6	48.6	45.2	49.2	43.5	32.8	25.5	18.6

TABLE B3: MEASURED OCTAVE BAND NOISE LEVELS WITH AND WITHOUT AMPLIFIED MUSIC WITHIN BARN, SUNDAY 11TH DECEMBER 2016

Monitoring Location	Start Time	Dur. (mins)	Measured Noise Levels, dB re. 2 x 10^{-5} Pa.					Comments
			$L_{Amax,F}$	$L_{A10,T}$	$L_{Aeq,T}$	$L_{A50,T}$	$L_{A90,T}$	
ST1	22:50:04	5	46.6	36.5	34.0	32.1	27.7	Plane 46 dB $L_{Aeq,T}$. Background level 28 dB $L_{A90,T}$ dominated by distant road and air traffic.
ST1	22:55:04	5	51.8	43.2	39.0	36.8	27.8	Plane 45 dB $L_{Aeq,T}$. Train 47 dB $L_{Aeq,T}$. Planes are much less frequent than previous measurement.
ST1	23:00:04	5	57.9	45.3	41.7	34.3	27.5	Owl 34 dB $L_{Aeq,T}$. Plane 54 dB $L_{Amax,F}$.
		Cumul.	*57.9*	*41.7*	*39.3*	*34.4*	*27.7*	
ST2	23:10:50	5	62.6	55.8	50.3	37.2	30.1	Planes 60; and 58 dB $L_{Aeq,T}$. Background level 30 dB $L_{A90,T}$ dominated by distant air traffic.
ST2	23:15:50	5	57.1	37.6	34.6	31.4	25.3	Background level 25 dB $L_{A90,T}$ dominated by distant air and road traffic.
ST2	23:20:50	5	57.4	50.7	44.9	30.4	22.2	Plane 56 dB $L_{Aeq,T}$. Background level 22 dB $L_{A90,T}$ dominated by very distant road traffic.
		Cumul.	*62.6*	*48.0*	*46.7*	*33.0*	*25.9*	
ST3	23:30:00	5	67.5	53.7	50.5	38.7	24.4	Plane 53 dB $L_{Aeq,T}$. Lorry 60 dB $L_{Amax,F}$. Cars 62 & 63 dB $L_{Amax,F}$. Background level 24 dB $L_{A90,T}$ dominated by distant air and road traffic.
ST3	23:35:00	5	68.3	53.0	49.2	31.7	23.6	Owl 34 dB $L_{Amax,F}$. Car 66 dB $L_{Amax,F}$. Background level 23 dB $L_{A90,T}$.
ST3	23:40:00	5	71.0	55.2	53.7	42.8	33.0	Car 69 dB $L_{Amax,F}$. Planes 53 & 56 dB $L_{Aeq,T}$.
		Cumul.	*71.0*	*54.0*	*51.6*	*37.7*	*27.0*	

TABLE B4: ATTENDED BACKGROUND NOISE MEASUREMENT RESULTS, SUNDAY 11TH DECEMBER 2016

TAB SIX

Sevenoaks
DISTRICT COUNCIL

Mrs Sarah Thompson
C/O Planning Development Services Ltd
3 West Street
Mayfield
East Sussex
TN20 6BA

SE/17/02036/FUL
Valid on 3 July 2017

TOWN AND COUNTRY PLANNING ACT 1990

Town and Country Planning (Development Management Procedure) (England) Order 2015 (as amended)

GRANT OF PLANNING PERMISSION

Site : Chafford Park Chafford Lane Fordcombe KENT TN3 9UR
Development : Change of use of 2 agricultural barns to D2 (wedding functions) with associated car parking and external lighting.

Sevenoaks District Council, as the District Planning Authority, pursuant to powers in the above mentioned Act and Order, HEREBY GRANTS PLANNING PERMISSION for the development described above, to be carried out in accordance with the application and plans submitted therewith,

SUBJECT TO THE CONDITIONS set out below :-

1) The development hereby permitted shall be begun before the expiration of three years from the date of this permission.

In pursuance of section 91 of the Town and Country Planning Act 1990.

2) Notwithstanding the provisions of The Town and Country Planning (Use Classes) Order 1987 (as amended) or The Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended), or any Order replacing or superseding this Order, the use of the two barns hereby permitted shall be limited to D2 (wedding functions) only, comprising those activities and services described in the Planning Statement accompanying the planning application.

In order to preserve neighbouring amenity in accordance with Policy EN2 of the Sevenoaks Allocations and Development Management Plan.

3) The use hereby permitted shall not take place after 23:00 hours and all guests shall have left the site by 23:30 hours. All live and recorded entertainment must take

place within The Granary Barn. All amplified and non-amplified music must cease by 23:00 hours.

In order to preserve residential amenity in accordance with Policy EN2 of the Sevenoaks Allocations and Development Management Plan.

4) The development hereby permitted shall be carried out in accordance with the following approved plans:SW/JCJ/377E , SW/JCJ/396E , 1610/100C , 1610/10C, 1610/11C, 1610/18C. 1610 REV C Proposed passing bays, sign details, 1610/15A, 1610/16A, 1610/17A, 1610/6K , 1610/7G, 1610/8 tree survey, 8215D/01 Ashurst Road access.

For the avoidance of doubt and in the interests of proper planning.

5) No development shall take place until full details of sound mitigation measures for the buildings including detailed calculations for the proposed mitigation measures have been submitted to and approved by the local planning authority. The mitigation measures shall be installed as agreed before first use of the buildings as a venue and retained and maintained thereafter.

In order to preserve residential amenity in accordance with Policy EN2 of the Sevenoaks Allocations and Development Management Plan.

6) No development shall take place until a detailed noise management plan has been submitted to and approved by the local planning authority. The approved scheme shall be fully implemented before first use of the buildings as a venue and thereftare retained and maintained.

In order to preserve residential amenity in accordance with Policy EN2 of the Sevenoaks Allocations and Development Management Plan.

7) No musical entertainment shall be undertaken at the site without the prior written approval of the local planning authority, unless undertaken within the granary barn that are the subject of this application

In order to preserve residential amenity in accordance with Policy EN2 of the Sevenoaks Allocations and Development Management Plan.

8) The use of the barns hereby permitted shall not commence until full details of all signage at the entrance to the site from Ashurst Road together with full details of all signage at the northern access from Chafford Lane have been submitted to and approved in writing by the locdal planning authority.

In the interests of pedestrain and highway safety.

9) Prior to any works commencing on the access road a detailed precautionary mitigation strategy must be submitted for written approval by the local planning authority. The precautionary mitigation strategy must cover breeding birds, reptiles, great crested newts and dormice and provide details of the precautionary mitigation works outlined within the ecology documents submitted with the planning application. The works must be implemented as detailed within the approved documents.

To promote biodiversity as supported by Policy EN1 of the Sevenoaks Allocations and Development Management Plan and SP11 of Sevenoaks District Council's Core Strategy. The local planning authority is satisfied that it is fundamental to the development permitted to address this issue before development commences and that without this safeguard planning permission should not be granted.

10) Prior to the use of the site commencing, full details of any external lighting proposed shall be submitted to and approved by the local planning authority. The lighting shall be implemented in accordance with the approved scheme.

To promote biodiversity and minimise any adverse impacts on residential amenity and on wildlife as supported by Policy EN1 and EN6 of the Sevenoaks Allocations and Development Management Plan and SP11 of Sevenoaks District Council's Core Strategy. The local planning authority is satisfied that it is fundamental to the development permitted to address this issue before development commences and that without this safeguard planning permission should not be granted.

11) No development shall take place until details of how the development will enhance biodiversity will be included within the site landscape plan and submitted to and approved in writing by the Local Planning Authority. The approved details will be implemented andthereafter retained.

To promote biodiversity and minimise any adverse impacts on residential amenity and on wildlife as supported by Policy EN1 and EN6 of the Sevenoaks Allocations and Development Management Plan and SP11 of Sevenoaks District Council's Core Strategy. The local planning authority is satisfied that it is fundamental to the development permitted to address this issue before development commences and that without this safeguard planning permission should not be granted.

12) Prior to the use of the site commencing, full details of all access gates, passing places and any improvement works to the Ashurst Road access shall be submitted to and approved in writing by the Council.

In the interests of pedestrain and highway safety.

13) All entering and exiting traffic will be routed onto Ashurst Road - Sat Nav - Post Code TN3 9TB and a traffic marshall or security guard will block all alternative vehicular entrances and exits.

In the interest of highway safety.

14) The maximum number of guests on the site attending an event shall not exceed 100 persons.

In the interest of highway safety.

Richard Morris

Richard Morris
Chief Planning Officer

DATED THIS: 14 September 2017

Notes for the applicant

This proposal may be liable for the Community Infrastructure Levy (CIL). This may be payable to the District Council, as the local collecting authority, before development on application SE/17/02036/FUL is started.

If CIL is liable, we will contact all relevant interested parties once we have issued a decision notice and serve them with a liability notice. This will identify the parties, the scale of liability, how it was calculated, when it will be due for payment and the opportunities to claim relief. Should you wish to claim relief from CIL you must make an application to us before any work starts on site. There is no automatic exemption from the CIL and it is not possible to make a retrospective claim once work has started.

Any party liable to pay CIL must assume liability before any work starts; they must provide us with a valid Commencement Notice. If this is not provided we can impose surcharges and require immediate payment.

Please contact the case officer Mr Mark Mirams on 01732 227000 if you have any questions about CIL, before work commences.

In accordance with paragraphs 186 and 187 of the NPPF Sevenoaks District Council (SDC) takes a positive and proactive approach to development proposals. SDC works with applicants/agents in a positive and proactive manner, by;

- Offering a duty officer service to provide initial planning advice,
- Providing a pre-application advice service,
- When appropriate, updating applicants/agents of any small scale issues that may arise in the processing of their application,
- Where possible and appropriate suggesting solutions to secure a successful outcome,
- Allowing applicants to keep up to date with their application and viewing all consultees comments on line (www.sevenoaks.gov.uk/environment/planning/planning_services_online/654.asp),
- By providing a regular forum for planning agents,
- Working in line with the NPPF to encourage developments that improve the improve the economic, social and environmental conditions of the area,
- Providing easy on line access to planning policies and guidance, and
- Encouraging them to seek professional advice whenever appropriate

In this instance the applicant/agent:

1) Was updated of any issues after the initial site visit.

Informatives

1 It is the responsibility of the applicant to ensure , before the development hereby approved is commenced, that all necessary highway approvals and consents where required are obtained and that the limits of highway boundary are clearly established in order to avoid any enforcement action being taken by the Highway Authority. Across the county there are pieces of land next to private homes and gardens that do not look like roads or pavements but are actually part of the road. This is called 'highway land'. Some of this land is owned by The Kent County Council (KCC) whilst some are owned by third party owners. Irrespective of the ownership, this land may have 'highway rights' over the topsoil. Information about how to clarify the highway boundary can be found at http://www.kent.gov.uk/roads-and-travel/what-we-look-after/highway-land The applicant must also ensure that the details shown on the approved plans agree in every aspect with those approved under such legislation and common law. It is therefore important for the applicant to contact KCC Highways and Transportation to progress this aspect of the works prior to commencement on site.

2 A public right of way may be affected by this proposal and planning permission does not authorise its stopping up or diversion (even temporarily). There is a separate and sometimes lengthy procedure to deal with this and you should contact this Council for further information. It is an offence to obstruct a public right of way.