Clerk: Lisa Antrobus
Telephone: 01803 207013
E-mail address: governance.support@torbay.gov.uk
Date: Tuesday, 26 March 2019

Governance Support
Town Hall
Castle Circus
Torquay
TQ1 3DR

Dear Member

LICENSING SUB-COMMITTEE - THURSDAY, 28 MARCH 2019

I am now able to enclose, for consideration at the Thursday, 28 March 2019 meeting of the Licensing Sub-Committee, the following reports that were unavailable when the agenda was printed.

Agenda No	Item	Page
6.	**Churston Court Hotel, Churston Ferrers, Brixham TQ5 0JE** The enclosed documents include: • Email correspondence submitted by the Applicant; • A schedule of proposed conditions and restrictions submitted by the Applicant; • Acoustic Report submitted by the Applicant; and • A map detailing some properties that are opposed to the application submitted by an Objector.	(Pages 118 - 153)

Yours sincerely

Lisa Antrobus
Clerk

Re: UNCLASSIFIED: RE: Temporary Event Notice – Churston Court Hotel Church Road Churston Ferrers Brixham TQ5 0JE

Jonathan Smith
Fri 10/08/2018 18:05
To: Martin, Karl <Karl.Martin@torbay.gcsx.gov.uk>

1 attachments (1,012 KB)
Torbay film licensing 100818.pdf;

Hi Karl

Thank you for this, and I am sorry that we have missed each others' calls.

Regarding the cinema events, I have today (for the first time) had the opportunity to look at the relevant legislation and the guidance, as a result of which I am quite certain that our events fall within the community premises exemption. I attach a PDF of a letter that sets out our reasoning: the original is in the post to you and I hope that you will be able to agree with our conclusions.

Regarding the noise complaints, this is the first time I have heard that residents have concerns about the live music. Nobody has said anything to us, in contrast to the cinema evening where we did have a visit from one neighbour, as a result of which I have instructed our team to moderate the volume for future cinema evenings.

We should be happy to offer mediation in respect of the live music (and indeed the cinema nights), but it is quite difficult to get things right if people go straight to the Council and don't say anything to us first.

You will know from our last 5 years at the Manor Inn that we do always try to be good neighbours. Churston Court is much newer for us, and we are still finding our way to some extent.
I think I am right in saying that we are now the biggest private sector employer in Churtson and Galmpton. Many of our staff are the children of our immediate neighbours. I do hope that local residents will bear this in mind, just as we will try to bear their interests in mind: events such as the music and cinema have transformed the performance of the business in recent weeks, and we will certainly go under if we can't do them.

With thanks

Kind regards

Jonathan Smith

From: Martin, Karl <Karl.Martin@torbay.gcsx.gov.uk>
Sent: 10 August 2018 15:32
To: [redacted]

UNCLASSIFIED: RE: Letter of Complaint

Martin, Karl <Karl.Martin@torbay.gcsx.gov.uk>
Wed 05/09/2018 11:42
To: Jonathan Smith [redacted]
Cc: O'Shea, Gary <Gary.OShea@torbay.gov.uk>; Noble, Craig <Craig.Noble@torbay.gov.uk>

Hi Jonathan

Craig will write a statement when he is back from leave stating his observations of the night and I will present that to the committee as part of my evidence which you may wish to refer to. You may wish to email Julie Smart who is the Police Licensing Officer who may be able to confirm no complaints about crime and disorder, which is unlikely as if there was she would have been in touch with you already. Julie is on leave for a couple of weeks though.

Thank you for the letter. I'm on leave from today until the 25th but please keep me up to date with any developments.

Thank you also for the letter you sent on Friday which was noted as being returned within 7 days. I'm confident that if the contents of the letter are action upon successfully I do not foresee the need to serve an abatement notice immediately. We did receive complaints from Sundays event, which was expected. As there are no further events of this nature for the remainder of the year I do not foresee any further problems and therefore allowing the time to work through the actions outlined in your letter.

If you need to please email Gary O'Shea or Craig in my absence and I will catch up with you when I return.

Kind regards
Karl.

From: Jonathan Smith [mailto:[redacted]]
Sent: 03 September 2018 22:20
To: Martin, Karl <Karl.Martin@torbay.gcsx.gov.uk>
Subject: Fw: Letter of Complaint

Dear Karl

Please find attached for your information a copy of the letter that we hand-delivered to around 30 neighbours (including the Church) last week.

Churston Manor Hotel

Premises Licence Variation Application

March 2019

Conditions and Restrictions Proposed by Management

1 Noise Management Plan

1(a) Frequency of Events

2 large outdoor events in each calendar year (being events of 1 or 2 days' duration, and / or events where it is anticipated that 500 or more members of the public shall be in attendance at any one time)

8 small (2 x 45 minutes with an interval) outdoor live music events each calendar year

2 playings of recorded music each calendar year

4 outdoor cinema events each calendar year

Note: the above restrictions apply to Weddings which include outdoor music (live or recorded) to the extent that more than 4 Weddings are held outside in each calendar year.

1 (b) Advance Notice of Events

Neighbours to be advised of forthcoming events at least 10 days in advance, and at least 28 days in advance in the case of large events, using a means to be agreed with representatives of neighbours from time to time.

Regular update meetings to be held between Hotel management and representatives of local residents.

1 (c) Timings

The outdoor musical elements of all events to finish by 11.00pm (10.30pm in cases where the musical element has started before 5.00pm).

2 Event Management

2 (a) Prevention of Crime and Disorder

All large events to be planned by reference to the HSE event safety guide.

Event management plans for large events to be submitted to Torbay Licensing and the Police at least 2 weeks in advance.

DPS, or a nominated safety officer, to be available when all large events take place.

SIA stewards to be employed on-site for all large events, with a minimum ratio of stewards to members of the public to be 1 per 200.

Appropriate off-road car parking space to be provided.

At large events, temporary parking restrictions to be agreed with Highways, and compliance therewith to be monitored by SIA stewards, to ensure that there is no unauthorised parking.

All SIA stewards at large events to wear high visibility reflective jackets for the entirety of their duties.

Only plastic glasses, polycarbonate glasses or cans to be used outdoors.

Regular collection of glasses and cans when finished.

2 (b) Public Safety

A log book shall be kept of all incidents.

All entrances and exits shall be kept clear of obstructions.

Cleaning products shall be stored away from public areas.

There shall be wet surface signs for spillages, and when cleaning takes place.

There shall be access for emergency vehicles onto the premises.

Fire safety precautions shall be in place (designated incident controllers and floor marshalls) and fire extinguishers maintained in place.

Fire exits shall be marked, and fire alarms shall be in working order.

Additional conditions for all large events:

Risk assessments shall be completed and submitted to the relevant Responsible Authorities including the police at least 2 months prior to any planned large event;

Management shall ensure that there are suitable numbers of staff on duty, to control persons entering and leaving the event, and to ensure that any queues are dispersed as quickly as possible;

Portable toilets, well-lit, to be provided where appropriate;

Car parks must be monitored, including at night time.

2 (c) Prevention of Public Nuisance

A pre-set electronic noise limiter service to be applied and agreed with the Torbay Council Public Protection Officer;

A boundary noise limit of 50dB over a 5 minute period (50 dB $L_{Aeq,5\text{-}min}$) to be applied, to be reviewed annually;

Reassurance monitoring to be carried out periodically by a suitably qualified acoustic engineer;

The volume of amplified sound must be under the control of a designated member of staff and measured regularly from the area of the Barn Conversions and from Green Lane. The DPS or a senior member of staff shall assess the impact of any noisy activities on neighbouring residential premises at the start of the activity / entertainment and periodically throughout the activity / entertainment, to ensure the level of noise has not increased;

Refuse bins, including a dog waste bin, will provided for use by the public;

Collected refuse shall be kept in skips in a designated and secure area at the rear of the building. A contract for the collection of waste and recycling material will be maintained;

Additional conditions for all Large Events:

Noise from members of the public leaving the premises after 11pm shall not be distinguishable inside any dwelling, with windows open for normal ventilation, above background levels of noise;

Clear and unobstructed signs must be displayed at all points of exit, to encourage patrons to leave quietly and respect local residents;

Signs shall be displayed to instruct all patrons to turn right when leaving the gates of the premises (and not to turn left towards the Barn Conversions and Green Lane);

Announcements shall be broadcast to patrons over the loudspeaker system, at least 30 minutes prior to closing, requesting patrons' co-operation in leaving the premises and the vicinity as quickly and quietly and considerately as possible.

2 (d) The Protection of Children from Harm

Staff shall be trained to prevent the sale of alcohol to anyone under the age of 18, and to ask for proof of age for any customer seeking to purchase alcohol who appears to be under the age of 25;

Music and film performances that are unsuitable for children shall be promoted as such in advance

Additional conditions for all Large Events:

All children under the age of 16 must be accompanied by a parent or a responsible adult.

Jonathan Smith

Designated Premises Supervisor

25 March 2019

DOCUMENT REFERENCE: HA/AA334/V1

NOISE IMPACT ASSESSMENT:

STRAWBERRY FAYRE MUSIC AND BEER FESTIVAL, CHURSTON MANOR, CHURSTON FERRERS, BRIXHAM, TORBAY, DEVON TQ5 0JE

HA ACOUSTICS

Our Ref	HA/AA334/V1
Site Address	Churston Manor, Churston Ferrers, Brixham, Torbay, Devon TQ5 0JE
For	Gooseberry Inns (2016) Limited
Client Address	Churston Manor, Churston Ferrers, Brixham, Torbay, Devon TQ5 0JE
Date of Report	22 March 2019
Author	Mr Matthew Meredith BA (Hons) TechIOA
Checked by	Mr Stuart J G Nixon MSc BSc (Hons) MIOA MCIEH

Healthy Abode Ltd
Company No. 07429355 (England & Wales)
Office Address: Healthy Abode, Office F9, Allen House Business Centre, The Maltings, Station Road, Sawbridgeworth, Essex CM21 9JX
Registered Business Address: Abacus House. 68a North Street, Romford, London, RM1 1DA
E-mail: info@HA-acoustics.co.uk
Website: www.HA-acoustics.co.uk
Telephone: (Chelmsford) 01245 206 250

EXECUTIVE SUMMARY

- Gooseberry Inns (2016) Limited instructed Healthy Abode Ltd t/a as HA Acoustics to undertake a noise impact assessment for the Strawberry Fayre Music and Beer Festival event at Churston Manor, Churston Ferrers, Brixham, Torbay TQ5 0JE.

- HA Acoustics has undertaken an environmental noise survey at the site to determine the prevailing background noise levels that are representative of the nearest noise sensitive receptors (NSR's). The nearest noise sensitive receptor (NSR), is a residential property located to the northeast on Green Lane. The nearest façade of this property is 60 meters distance from the 2018 PA Speaker System position. The proposed relocation of PA Speaker System to the walled carpark increases the distance to 80m.

- An attended noise survey was conducted on Wednesday 27th February 2019 at seven attended noise measurement positions, deemed representative of the local noise-sensitive receptors.

- An unattended noise survey was conducted on Wednesday 27th February 2019 until Wednesday 6th March 2019, at one fixed monitoring position, located to the northwest of the site.

- The operation of the Strawberry Fayre Music and Beer Festival is proposed to be between 15:00 – 22:30 hours on Friday 16th August 2019 and between 13:00 – 22:30 hours on Saturday 17th August 2019. It is anticipated that it shall occur as a two-day annual event, around this period in August.

- Unattended noise monitoring of the site and subsequent calculations confirm that the local noise climates, typical background level (with no music event in operation) is 51dB $L_{A90,Operation\ Hours}$.

- For 2019, the PA speaker system is proposed to be relocated. Therefore, attended noise monitoring with PA speaker system in operation at original and proposed new location was undertaken, together with acoustic calculations. Calculations confirm that , as per BS8233:2014 and WHO (1999) guidance levels, complaints from Strawberry Fayre Music and Beer Festival event noise being intrusive are considered unlikely. This mirrors our subjective findings.

- In accordance with the World Health Organisation, BS 8233: 2014 and National Planning Policy Framework guidance, the noise impact from the operation of the Strawberry Fayre Music and Beer Festival *is an indication of the specific sound source having a low* impact at the NSR's.

TABLE OF CONTENTS

Appendices

1. INTRODUCTION

1.1. Gooseberry Inns (2016) Limited instructed Healthy Abode Ltd t/a HA Acoustics to undertake a noise impact assessment of noise emanating from the Strawberry Fayre Music and Beer Festival event at Churston Manor, Churston Ferrers, Brixham, Torbay TQ5 0JE for submission as part of documentation to be provided to the Local Authority, Torbay Council for a licencing application.

1.2. The proposed operating hours of the festival in 2019, are:

- 15:00 – 22:30 hours on Friday 16th August 2019
- 13:00 – 22:30 hours on Saturday 17th August 2019

1.3. The purposes of this report are:

- To determine and assess prevailing ambient, background and maximum noise levels affecting local residential noise sensitive receivers due to Strawberry Fayre Music and Beer Festival event noise
- To determine prevailing environmental noise levels affecting surrounding properties due to nearby noise sources (e.g. road traffic, etc.)
- Based on the above, to present noise emission limits in accordance with the requirements of BS 4142:2014
- To undertake an assessment to demonstrate compliance with the Local Authority noise requirements

2. SITE DESCRIPTION AND OBSERVATIONS

2.1 Strawberry Fayre Music and Beer festival is held within the external grounds of Churston Manor within the village of Churston Ferrers. At the 2018 event the PA Speaker System was positioned facing north-east within the garden area of Churston Manor. This position was closer to noise sensitive receptor (NSR)1, At the 2019 event it is proposed to relocate the PA Speaker System to the walled car park of Churston Manor, facing in a south-easterly direction. This position is further away from neighbouring residential dwellings.

2.2 The site is located within a rural area, predominantly surrounded by agricultural land and residential premises. Located to the northeast, north and northwest are residential premises. To the east is the Church of St Mary the Virgin, beyond which are further residential premises. Located to the south and west is tennis courts and agricultural land.

2.3 The nearest noise sensitive receptor (NSR1) to the 2018 PA Speaker position is noted to be the rear façade of a residential dwelling situated on Green Lane at 60 metres to the north, with partial line of sight. The relocation of PA Speaker location to the walled carpark will increase the distance to 80m, with no line of sight.

2.4 NSR2 is noted to be Churston Court Cottage, located to the northeast at , with no direct line of sight from either 2018 PA Speaker position or proposed 2019 location. NSR3, is noted to be Churston Court Farm which is located to the north-east, with partial line of sight. It can be confidently assumed that if the noise impact assessment indicates that the specific sound source has a low impact at these premises then it can be safely assumed it will be met at other properties of equal distance and/or those further away.

2.5 A site plan is provided in Appendix A illustrating the locations of all NSR's.

2.6 During the attended noise assessment and at the time of installation and collection of the noise monitoring equipment for the unattended survey, it was noted that there was no one dominant noise source, a variety of noise emanated from local residential premises, road traffic, distant train line and overhead airplane movements, the associated business premises. These noise sources are considered normal to the site location. No significant abnormal noise sources were identifiable. It is considered that the measured noise levels are reasonable given the location of the measurement position.

3 ENVIRONMENTAL NOISE SURVEY METHODOLOGY

3.1 An attended environmental noise survey was undertaken at seven monitoring locations (MMP) around the site. The survey was undertaken with the noise source (stage) on between 14:30 to 16:30 hours on Wednesday 27th February 2019. These monitoring locations (MMP) are deemed representative of the NSR's.

3.2 An unattended environmental noise survey was undertaken at one measurement location to the north the site, representative of the local background noise climate. The survey was undertaken from 17:00 hours on Wednesday 27th February 2019 to 15:00 hours on Wednesday 6th March 2019.

3.3 The sound level meter's (SLM) were positioned approximately 3.5metres from any property facades and other walls/fences and mounted onto a tripod approximately 1.5 metres above ground level. The positions are considered to be 'free-field' therefore acoustic corrections of -3dB have not been applied to the measurements. All monitoring positions are identified in Appendix A.

3.4 The equipment used for the unattended noise survey is summarised in Table 3.1.

Equipment	Description	Quantity	Serial Number
Larson Davis LxT SE	Class 1 automated logging sound level meter	1	0004960
377BO2 microphone	Class 1 ½" microphone	1	168839
Svantek 977	Class 1 automated logging sound level meter	1	69297
ACO Pacific 7052E	Class 1 ½" microphone	1	69364
Svantek SV33A	Class 1 Calibrator	1	73297

Table 3.1 Description of Equipment used for Noise Survey

3.5 Ambient, background and maximum noise levels (L_{Aeq}, L_{A90} and L_{AmaxF} respectively) were measured throughout the manned noise survey in consecutive 1-minute periods.

3.6 Ambient, background and maximum noise levels (L_{Aeq}, L_{A90} and L_{AmaxF} respectively) were measured throughout the unmanned noise survey in consecutive 5-minute periods.

3.6 The noise survey and measurements were conducted, wherever possible, in accordance with BS7445-1:2003 *'Description and measurement of environmental noise. Guide to quantities and procedures'*. Measurements were made generally in accordance with ISO 1996-2:2007 *'Acoustics – Description, measurement and assessment of environmental noise – Part 2: Determination of environmental noise levels'*.

3.7 Weather conditions throughout the entire noise survey period were noted to be cold to mild (approximately 6°-15° Celsius), generally dry, with clear to cloudy skies (approximately 40-100% cloud cover) and a light wind (<5m/s). These weather conditions were checked against and confirmed by the use of the Met Office mobile application available on smart phone technology. These conditions were maintained throughout the whole survey period and are considered reasonable for undertaking environmental noise measurements.

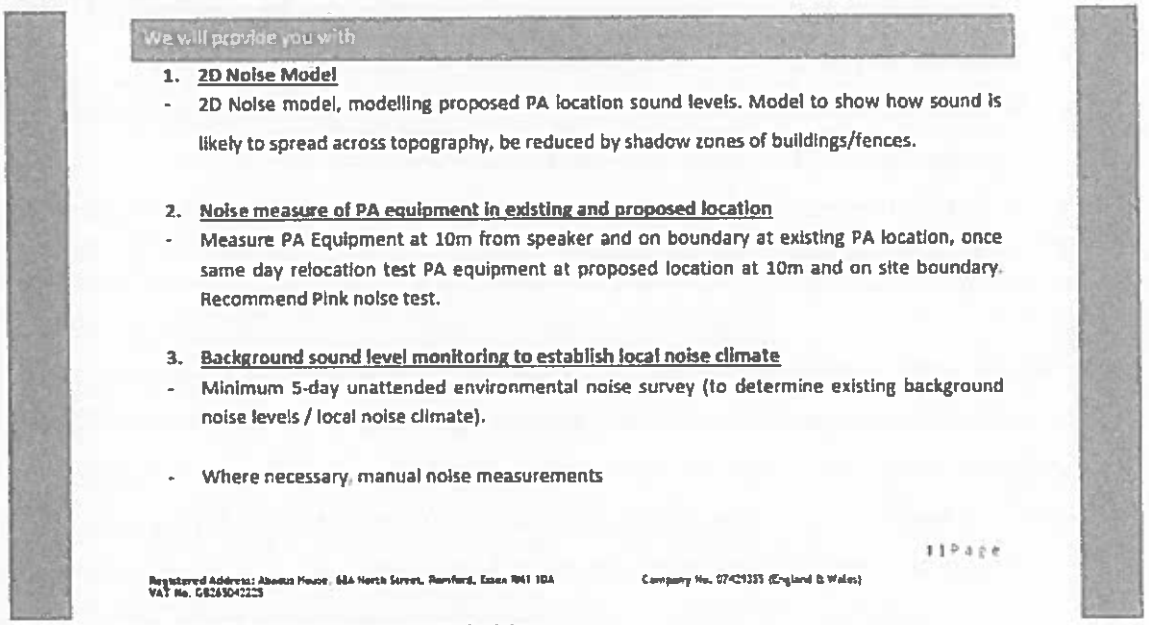
3.8 The noise monitoring equipment was calibrated before and after the noise survey period. No significant drift was recorded. Equipment calibration certificates can be provided upon request.

4. NOISE EMISSION CRITERIA

4.1. Torbay Council requirements

4.2. The proposed site lies within the jurisdiction of the Local Authority, Torbay Council. An acoustic report is required to support a licencing application.

4.3. Torbay Council's Mr Karl Martin has confirmed via email with our client that he accepts our noise impact assessment method (email clarification received 26/02/2019), HA Acoustics assessment method is outlined below:



We will provide you with

1. **2D Noise Model**
   - 2D Noise model, modelling proposed PA location sound levels. Model to show how sound is likely to spread across topography, be reduced by shadow zones of buildings/fences.

2. **Noise measure of PA equipment in existing and proposed location**
   - Measure PA Equipment at 10m from speaker and on boundary at existing PA location, once same day relocation test PA equipment at proposed location at 10m and on site boundary. Recommend Pink noise test.

3. **Background sound level monitoring to establish local noise climate**
   - Minimum 5-day unattended environmental noise survey (to determine existing background noise levels / local noise climate).
   - Where necessary, manual noise measurements

1 | Page

Registered Address: Abacus House, 68A North Street, Romford, Essex RM1 1BA
VAT No. GB263042225
Company No. 07421335 (England & Wales)

Figure 4.1 – HA Acoustics Noise Impact Assessment Methodology

4.4. National Planning Policy Framework (NPPF) requirements

4.5. In March 2012, the National Planning Policy Framework (NPPF) came into force and was revised in 2018. This document replaces a great many planning guidance documents, which previously informed the planning system in England.

4.6. The NPPF sets out the Government's economic, environmental and social planning policies for England and these policies articulate the Government's vision of sustainable development. It states: *'...Planning policies and decisions should aim to avoid noise from giving rise to significant adverse impacts on health and quality of life as a result of new development...'*

4.7. The Noise Policy Statement for England (NPSE) published 2010 applies to *'all forms of noise, including environmental noise, neighbour noise and neighbourhood noise'*.

4.8. **Paragraph 180 of the NPPF (2018) considers noise, stating:**

"Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment as well as the potential sensitivity of the site or the wider are to impacts that could arise from the development. In doing so they should:

- *A) mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;*
- *B) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for the recreational and amenity value for this reason; and*
- *C) limit the impact of light pollution from artificial light n local amenity, intrinsically dark landscapes and nature conservation."*

4.9. Planning Policy is guided by the NPPF. With regard to noise, the terms 'significant adverse impact' and 'other adverse impacts' are defined in the explanatory notes of the 'Noise Policy Statement for England' (NPSE). These state that there are two established concepts from toxicology that are currently being applied to noise impacts, for example, by the World Health Organisation. They are:

4.9.1.'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 the noise, and

4.9.2.LOAEL – Lowest Observed Adverse Effect Level. This is the level above which adverse effects on health and quality of life can be detected.'

4.10. Extending these concepts for the purpose of this NPSE leads to the concept of SOAEL - significant observed adverse effect level. This is the level above which significant adverse effects on health and quality of life occur'. However, no specific noise limits for LOAEL and SOAEL have been defined. Therefore, guidance from other acoustic standards must be employed to determine suitable levels within the overall principal of the National Planning Policy Framework; such as BS 8233:2014.

4.11. Reference 3 of NPSE states the noise impact is set according to an increasing effect level. Reference 4 of National Policy Planning Framework (NPPF) clarifies human perception at receptors and the follow up actions to be taken for noise.

Perception	Examples of Outcomes	Increasing Effect Level	Action
Not noticeable	No Effect	No Observed Effect (NOEL)	No specific measures required
Noticeable and not intrusive	Noise can be heard but does not cause any change in behaviour or attitude. Can slightly affect the acoustic character of the area but not such that there is a perceived change in the quality of life.	No Observed Adverse Effect (NOAEL)	
	Lowest Observed Adverse Effect Level (LOAEL)		
Noticeable and intrusive	Noise can be heard and causes small changes in behaviour and/or attitude, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a perceived change in the quality of life.	Lowest Observed Adverse Effect (LOAEL)	Mitigate and reduce noise to a minimum
	Significant Observed Adverse Effect Level (SOAEL)		
Noticeable and disruptive	The noise causes a material change in behaviour and/or attitude, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area.	Significant Observed Adverse Effect (SOAEL)	Avoid
Perception	**Examples of Outcomes**	**Increasing Effect Level**	**Action**
Noticeable and very disruptive	Extensive and regular changes in behaviour and/or an inability to mitigate effect of noise leading to psychological stress or physiological effects, e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non-auditory.	Unacceptable Adverse Effect	Prevent

Table 4.1 – Increasing Effect level and actions based on human perception to noise.

4.12. **BS8233:2014**

4.13. Local Authorities usually stipulate internal noise criteria for new build residential uses based on British Standard 8233:2014 'Guidance on Sound Insulation and Noise Reduction for Buildings'.

4.14. BS 8233:2014 provides references and guideline values for desirable indoor ambient noise levels for dwellings as shown in Table 4.2 below.

Activity	Location	07:00 to 23:00	23:00 to 07:00
Resting	Living room	35 dB $L_{Aeq,16hour}$	—
Dining	Dining room/area	40 dB $L_{Aeq,16hour}$	—
Sleeping (daytime resting)	Bedroom	35 dB $L_{Aeq,16hour}$	30 dB $L_{Aeq,8hour}$

Table 4.2 BS 8233:2014 Desirable Internal Ambient Noise Levels for Dwellings

4.15. The table is noted to apply to external noise as it affects the internal acoustic environment from sources without a specific character. The above internal ambient noise levels are therefore considered appropriate within this assessment.

4.16. BS 8233:2014 states that 'for traditional external areas that are used for amenity space, such as gardens and patios, it is desirable that the external noise level does not exceed an upper guideline value of 55dB L_{Aeq}, which would be acceptable in noisier environments. However, it is also recognized that these guideline values are not achievable in all circumstances...in higher noise areas, such as city centers or urban areas adjoining the strategic transport network, a compromise between elevated noise levels and other factors, such as the convenience of living in these locations or making efficient use of land resources to ensure development needs can be met, might be warranted. In such a situation, development should be designed to achieve the lowest practicable levels in these external amenity spaces but should not be prohibited'.

6. NOISE IMPACT CALCULATIONS

6.1. Noise Modelling Methodology

6.2. Calculations can be seen in Appendices C.1 – C.4 of the indicative noise impact from the event (simulated music stage in use) has on the proposed residential receiver based on directivity of a typical music stage with speakers.

6.3. The predicted noise levels across the site were determined by noise contour modelling based on the measured noise data (Section 5) and inputted into the SoundPLAN noise modelling software. SoundPLAN Essential 4.1 noise modelling software package has been used to predict the indicative noise levels from the Strawberry Fayre Music and Beer festival stage noise.

6.4. SoundPLAN calculated $L_{Aeq,T}$ levels at defined receptors in accordance with the appropriate standards. The calculation is based on several input parameters (as outlined above), including source noise level data, barriers, receptor positions, topography intervening ground conditions. Modelling of the environmental noise emissions from a festival PA speaker system has been calculated in SoundPLAN in accordance to ISO 9613-2.

6.5. The location and dimensions of the physical elements of the model such as location and dimensions of the buildings have been inputted from OS map data. The noise contours have been plotted at defined intervals and 1.5 metres height above ground level. The resulting noise maps can be found in Appendices C1 – C4.

6.6. The noise model accounts for directivity and includes the provision of east facing speakers, for the existing stage location and south facing speakers, for the proposed stage location. This can be seen on the directivity of the noise contour plans found in Appendices C.2 and C.4.

6.7. Noise Modelling Input Assumptions:

6.8. The noise model considers local topography (topographical data sourced from www.ukmapcentre.com) and screening has been incorporated for existing and/or proposed features such as walls or earth bunding.

6.9. The predicted noise levels have been determined by noise contour modelling based on measured noise data measured at 10 metres from the Stage, as per Table 5.1.

6.10. Noise Modelling

6.11. The noise modelling results predicting the noise levels to the NSR's are provided in Table 6.1 from the PA Speaker System 'On' in Existing Location (Manor Garden). These noise levels are compared to the attended measurements taken of noise levels from the PA speakers.

6.12. It is seen in Table 6.1 that there is good accuracy in the noise model predictions when compared to the noise levels obtained during the attended noise monitoring, at positions MMP1, MMP2, MMP4 and MMP5. The decibel levels are equal to that which the human ear would perceive at the measured monitoring locations. Therefore, the noise model is validated as accurate.

Attended Noise Monitoring Position	Noise Modelling Predicted Noise Levels	Measured Noise Levels, $L_{Aeq,1\text{-minute}}$
Churston Manor Noise Measurements		
MMP1 (10m from source)	82 dB $L_{Aeq,T}$	82 dB $L_{Aeq,T}$
MMP2 (South Boundary)	47 dB $L_{Aeq,T}$	49 dB $L_{Aeq,T}$
MMP3 (North Boundary)	56 dB $L_{Aeq,T}$	51 dB $L_{Aeq,T}$
Nearby Residential Noise Measurements		
MMP4 (Bascombe Road)	56 dB $L_{Aeq,T}$	51 dB $L_{Aeq,T}$
MMP5 (Bascombe Road North)	46 dB $L_{Aeq,T}$	48 dB $L_{Aeq,T}$

Table 6.1 Noise Modelling Result and Measured Noise Levels (dB) from PA Speaker System in Existing Location (Manor Garden)

6.13. Noise modelling has also been undertaken for the proposed 2019 PA speaker locations. Noise modelling predicts the noise levels to the NSR's , the results are are provided in Table 6.2, from the PA Speaker System 'On' in Proposed Location (Manor Car Park).

6.14. It is noted that for positions MM2, MMP3, MMP6 and MMP7, as seen in Table 6.2 that there is good accuracy in the noise model predictions when compared to the noise levels obtained during the attended noise monitoring. The decibel levels are broadly equal to that which the human ear

would perceive at the measured monitoring locations. Therefore, the noise model is validated as accurate.

6.15. It is noted that for positions MMP4 and MMP5 that there is a difference at or greater than 5dB between the model predictions and the attended monoitoring findings. This is considered due to directivity of speaker used within the noise model, compared to the PA Speakers used at time of attended monitoring.

Attended Noise Monitoring Position	Noise Modelling Predicted Noise Levels	Measured Noise Levels, $L_{Aeq,1\text{-minute}}$
Ghurston Manor Noise Measurements		
MMP6 (10m from source)	75 dB $L_{Aeq,T}$	75 dB $L_{Aeq,T}$
MMP2 (South Boundary)	67 dB $L_{Aeq,T}$	64 dB $L_{Aeq,T}$
Attended Noise Monitoring Position	**Noise Modelling Predicted Noise Levels**	**Measured Noise Levels, $L_{Aeq,1\text{-minute}}$**
Nearby Residential Noise Measurements		
MMP7 (Churston Road)	37 dB $L_{Aeq,T}$	41 - 50 dB $L_{Aeq,T}$
MMP4 (Bascombe Road)	40 dB $L_{Aeq,T}$	48 dB $L_{Aeq,T}$
MMP5 (Bascombe Road North)	28 dB $L_{Aeq,T}$	47 dB $L_{Aeq,T}$
MMP3 (North Boundary)	44 dB $L_{Aeq,T}$	40 dB $L_{Aeq,T}$

Table 6.2 Noise Modelling Result and Measure Noise Levels (dB) from PA Speaker System in Proposed Location (Manor Car Park)

7. NOISE IMPACT ASSESSMENT

7.1. The noise impact of the Strawberry Fayre Music and Beer festival on the neighbouring residential receptors have been assessed and measured in accordance NPSE (noise impact) and NPPF (human perception to noise) guidance, effect levels as detailed in Table 4.1.

7.2. **BS8233:2014. External Amenity Noise Levels:**

7.3. BS 8233:2014 states that *'for traditional external areas that are used for amenity space, such as gardens and patios, it is desirable that the external noise level does not exceed 50dB $L_{Aeq,T}$ with an upper guideline value of 55dB $L_{Aeq,T}$ which would be acceptable in noisier environments. However, it is also recognized that these guideline values are not achievable in all circumstances in higher noise areas, such as city centres or urban areas adjoining the strategic transport network, a compromise between elevated noise levels and other factors, such as the convenience of living in these locations or making efficient use of land resources to ensure development needs can be met, might be warranted. In such a situation, development should be designed to achieve the lowest practicable levels in these external amenity spaces but should not be prohibited'.*

7.4. Noise monitoring data shown in Table 6.2 confirms that the external amenity areas achieve BS8233:2014 and WHO (1999) guidance level.

7.5. **BS8233:2014. Internal Noise Level:**

7.6. British Standard 8233:2014 '*Sound insulation and noise reduction for buildings – Code of Practice*' gives recommendations for acceptable internal noise levels in residential properties. Considering worst-case conditions with the Strawberry Fayre Music and Beer Festival event operating, and the closest and worst affected window (house on Green Lane) being for a living room, BS8233:2014 recommends 35dB(A) as being acceptable internal resting/sleeping conditions during the daytime.

7.7. Noise levels at MMP3, which are deemed representative of noise levels at NSR1 were measured at 40dB(A) and predicted, using noise modelling, at 44dB(A). With a noise level reduction for an open window (minus 15dB) this will give a calculated internal noise level, with the source operating, of 29dB(A), which achieves the acceptable internal daytime, $L_{Aeq,16hr}$ noise level as per BS8233: 2014; and is significantly lower than the background. Therefore, complaints of Strawberry Fayre Beer and Music Festival event noise being intrusive internally are considered unlikely.

7.8. **NPSE (noise impact) and NPPF (human perception to noise) guidance.** The noise sensitive receptors are categorised as follows in accordance with NPSE and NPPF (Table 7.2):

- **NSR1** – 'Lowest Observed Adverse Effect Level (LOAEL)';
- **NSR2, NSR3** and **NSR4** – 'No Observed Adverse Effect' (NOAEL)'.

Perception	Examples of Outcomes	Increasing Effect Level	Action
Noticeable and not intrusive	Noise can be heard but does not cause any change in behaviour or attitude. Can slightly affect the acoustic character of the area but not such that there is a perceived change in the quality of life.	No Observed Adverse Effect (NOAEL)	No specific measures required
	Lowest Observed Adverse Effect Level (LOAEL)		
Noticeable and intrusive	Noise can be heard and causes small changes in behaviour and/or attitude, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a perceived change in the quality of life.	Lowest Observed Adverse Effect (LOAEL)	Mitigate and reduce noise to a minimum

Table 7.2 – Increasing Effect level and actions based on human perception to noise.

7.9. 'No observed adverse effect' was observed at NSR2, NSR3 and NSR4. The Stage noise could be heard but no perceived change in quality of life was predicted, even with windows open during the summer months.

7.10. The 'lowest observed adverse effect' observed at locations NSR1 is due to the event noise being heard with windows open during the summer months, so whilst there is a potential for some reported disturbance affecting the acoustic character of the area and a perceived quality of life, it is considered unlikely; especially if the event is locally advertised in advance.

8. RECOMMENDATIONS

8.1. Should further noise mitigation be desirable, it is advised that the following recommendations are adopted on site as good practice measures to minimise noise wherever practicable:

i. Noise monitoring of events by appropriately qualified person should be carried out.

ii. Backboard screening behind current open stage.

iii. Short-throw directive speakers mounted at height angled downwards.

iv. Pre-set electronic noise limiter service or sound propagation test agreed with Environmental Health Officer.

v. Market and promote event to neighbouring residents, to make them aware of the event dates.

9 UNCERTAINTY

9.1 The levels of uncertainty in the data and calculations are considered to be low given the robust exercise undertaken in noise monitoring and the confidence in the statistical analysis.

9.2 All measurements taken on-site by instrumentation are subject to a margin of uncertainty. This is relatively small, with a sound level meter manufacturers margin of uncertainty at +/-1.1dB. It is due to the tolerances associated with the Class 1 sound level meter and calibrator equipment used to measure background.

9.2.1 The meter and calibrator used have a traceable laboratory calibration and were field calibrated before and after the measurements.

9.3 Uncertainty in the calculated impact has been reduced by the use of a well-established calculation method.

9.4 Measured noise levels can vary from noise levels predicted within the noise model. This is due to some factors, including measured noise levels on site including noise from environmental factors such as road noise, rail noise, wildlife, birdsong, local residential noise and aircraft overhead. Equally, the noise model works on a 16-hour time-averaged level calculated from traffic flow. Noise levels measured on site are a 1-minute time averaged level. In addition to this, traffic flow can vary depending on time of day measured and other road traffic factors.

10. CONCLUSION

10.1. A noise impact assessment has been undertaken at Churston Manor, Churston Ferrers, Brixham, Devon TQ5 0JE for the Strawberry Fayre Music and Beer Festival. The noise survey was undertaken at monitoring positons, representative of the nearest noise sensitive receptors, with the noise source (Stage) on, in it's existing position and proposed position to replicate the noise created by the festival.

10.2. The noise impact to the neighbouring residential receptors have been assessed and measured in accordance BS8233:2014 (external and internal noise level), and noise monitoring data shows that the external amenity areas achieve BS8233:2014 and WHO (1999) guidance level. Acceptable internal daytime, $L_{Aeq,16hr}$ noise levels are achieved as seen under BS8233: 2014; and is significantly lower than the background. Therefore, complaints from Strawberry Fayre Music and Beer Festival event noise with relocation of PA speakers to walled carpark area, being intrusive internally are considered unlikely.

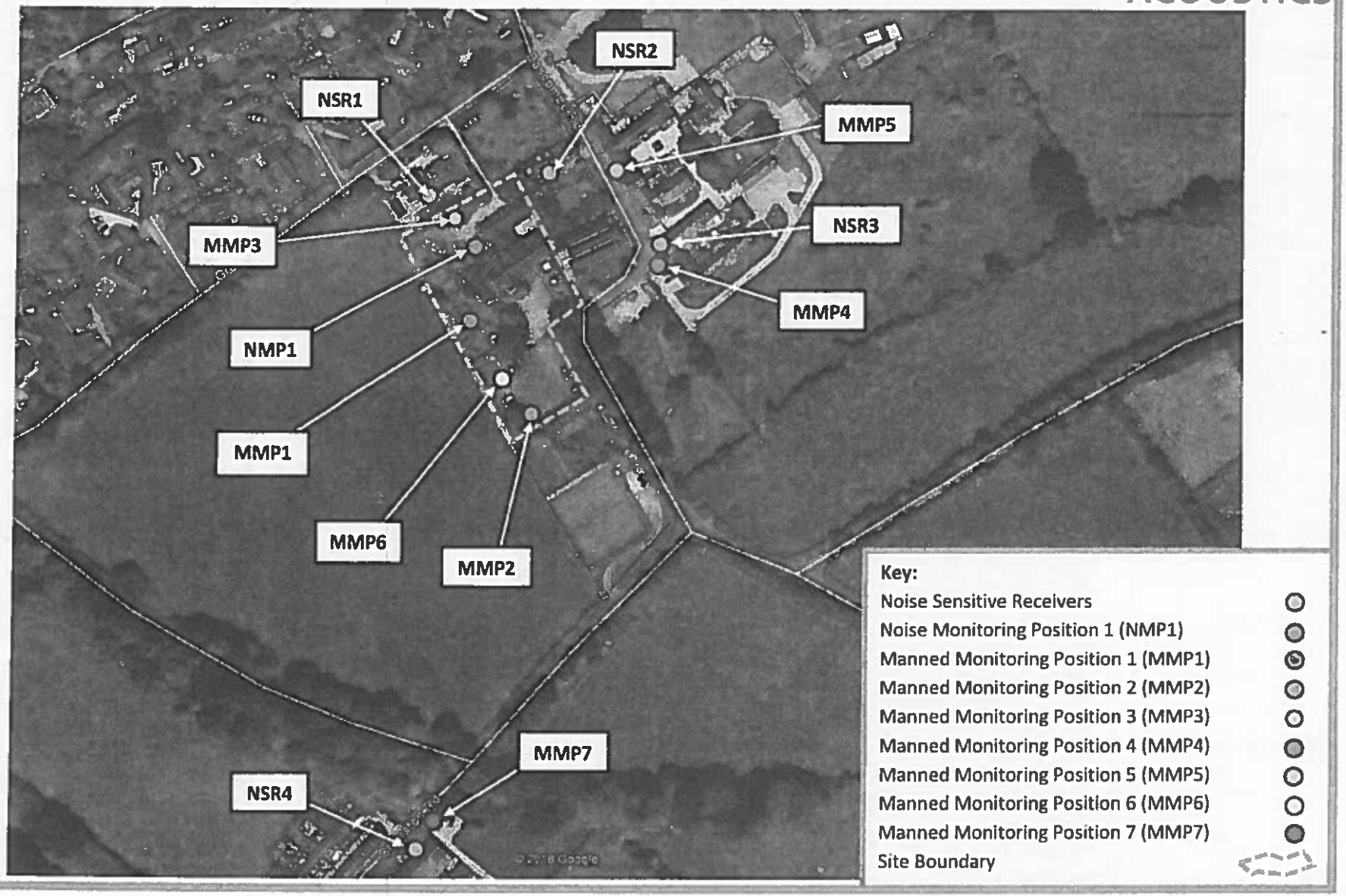
10.3. The proposed change of location for the stage, from the Manor garden to the Manor car park is predicted to provide more protection to NSR1, NSR2 and NSR3. This is due, in part, to speaker directivity and the car park being bordered by a stone wall of approximately 2.5 metre height. This has been incorporated into the noise model of the site.

10.4. Mitigation measures could be applied to the site to reduce the noise levels received at the NSR's, including the following:

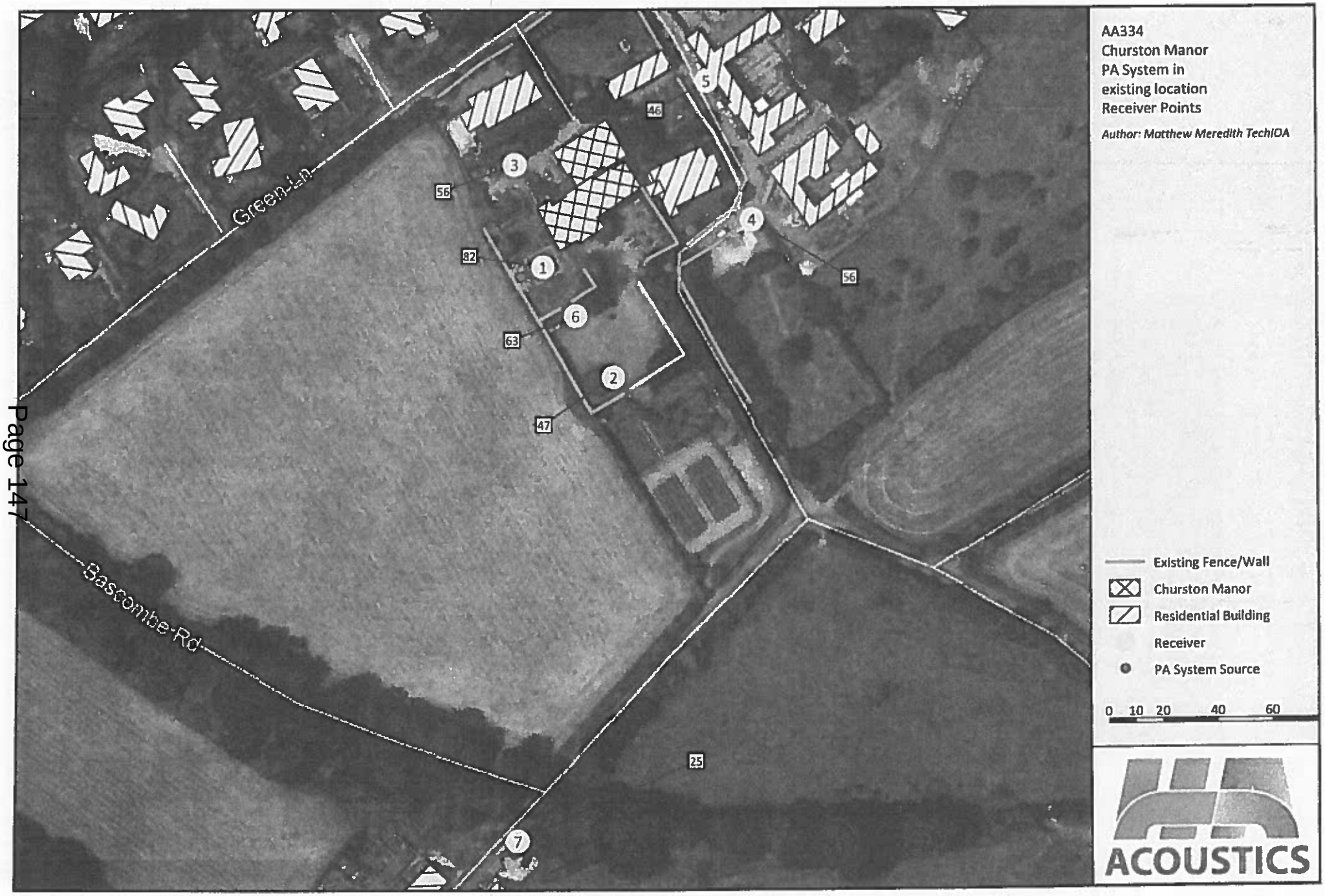
- A boundary noise limit of 50 dB $L_{Aeq,5\,min}$ could be incorporated into site boundary condition, to be reviewed annually.
- Noise monitoring of events by appropriately qualified person could be carried out.
- Backboard screening behind current open stage.
- Short-throw directive speakers mounted at height angled downwards.
- Pre-set electronic noise limiter service or sound propagation test agreed with Environmental Health Officer.
- Market and promote event to neighbouring residents, to make them aware of the event dates.

Appendix A – Site Plan (SP1)

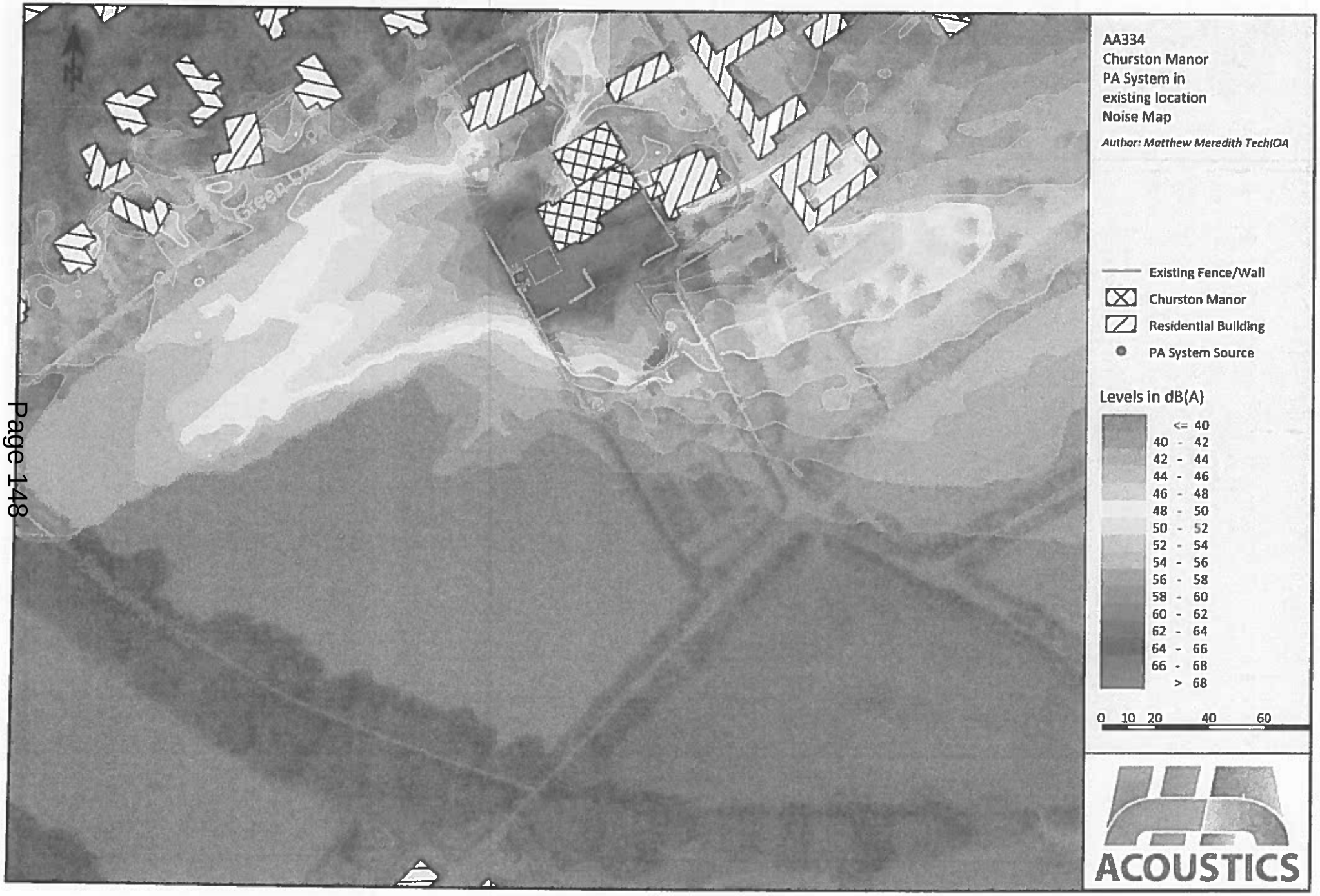
ACOUSTICS



Appendix C.1 – Noise Modelling Results – Predicted noise levels at receivers with stage in existing location

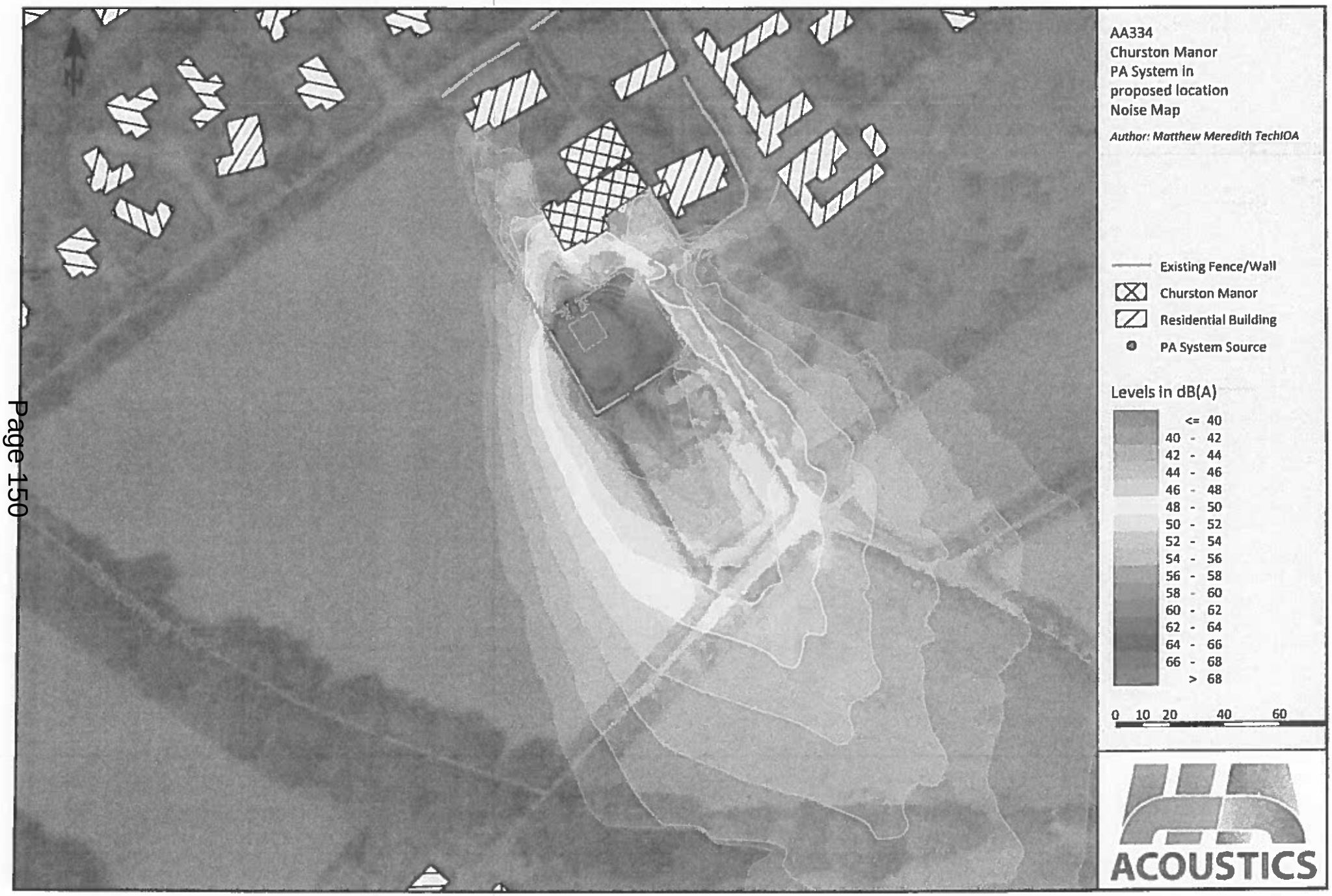


Appendix C.2 – Noise Modelling Results – Noise map with stage in existing position



Appendix C.3 – Noise Modelling Results - Predicted noise levels at receivers with stage in proposed location

Appendix C.4 – Noise Modelling Results - Noise map with stage in proposed location



Roundhouse
Links Cottages
Churston
Church Road
Copythorne Road
Churston Manor
Links Close
Links Close
Green Lane
Bascombe Road
Elberry Lane
Elberry Lane