Hayes Cottages
London
UB4 8AG

Noise Impact Assessment

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Document Control

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Document Approvals

Role	Name	Signature	Date
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For Information

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1.0 INTRODUCTION

1.1 Quantum Acoustics Ltd has been instructed by Marson Property to prepare this Noise Assessment to support a prior approval application for the proposed development at Hayes Cottages, Hayes Park.

1.2 The proposal is for the change of use of the existing commercial building to two detached dwellings (Use Class C3). The existing use of the site were offices (Use Class E).

1.3 Under Class MA of the Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended), prior approval is required from the Local Planning Authority to consider noise impacts on the intended occupiers of the proposed development.

1.4 With regard to development under Class MA, the matters for which prior approval may be required include *"the impacts of noise from commercial premises on the intended occupiers of the development"*.

1.5 This report presents our methodology and findings.

2.0 SITE DESCRIPTION

2.1 Hayes cottages is located within Hayes Park, West London, UB4 8AG. The site is indicated below, outlined in red.

2.2

Site Plan (Google Imagery 2025, The GeoInformation Group)

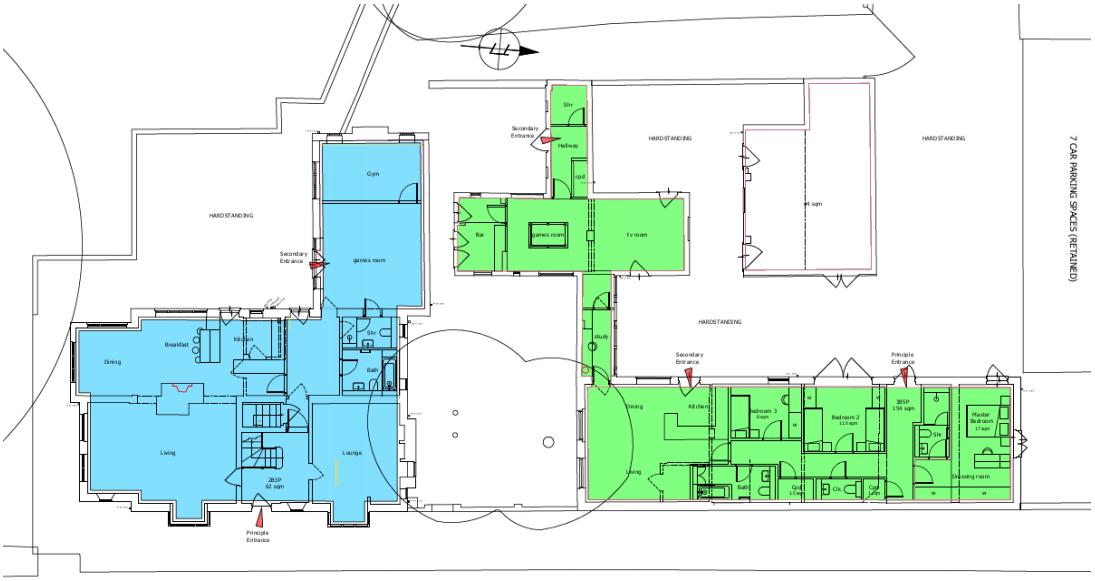
2.3 The surrounding area is predominantly residential, with a farm/industrial site that neighbours the Hayes Cottage site. Hayes Park itself comprises a recently developed unoccupied residential block, unoccupied office blocks and land which is proposed to be used to provide new homes.

2.4 The local planning authority is Hillingdon Borough Council.

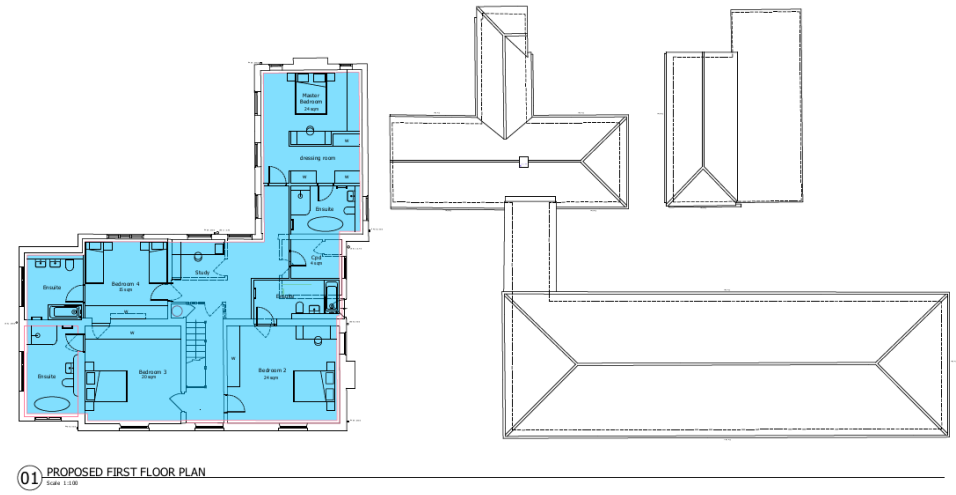
3.0 PROPOSED DEVELOPMENT

3.1 The proposed development will provide two residential properties within the two existing buildings. The first unit, highlighted in blue, will comprise a 4-bedroom house occupying the ground and first floors, while the second unit, highlighted in green, will comprise a 3-bedroom apartment located on the ground floor only.

3.2 The proposed layout and general arrangement of the development is shown in the following drawing:



Proposed Ground Floor Plan. (Osel Architecture).



Proposed First Floor Plan (Osel Architecture).

4.0 ACOUSTIC TERMINOLOGY

4.1 The following sections uses the following acoustic terms:

- **A-weighted** noise levels are frequency-weighted in a way that approximates the frequency response of the human ear and allows sound levels to be expressed as a single figure value. The A-weighted level is therefore a measure of the subjective loudness, rather than physical amplitude.
- **L_{90}** is the noise levels that is exceeded for 90% of the measurement period. It reflects the quiet periods during that time and is often referred to as the "background noise level". It is often used as a basis for setting noise emission criteria. The A-weighted value over time period (T) is written as $L_{A90,T}$.
- **L_{eq}** is the level of a notional continuous sound that would deliver the same sound energy as the actual fluctuating sound over the measurement period. This may be thought of as the "average" level during the measurement period.
- **L_{max}** is the maximum noise level during the measurement period.

5.0 PLANNING POLICY CONTEXT & DESIGN GUIDANCE

General Permitted Development Order

5.1 Class MA of the GPDO (as amended) permits the change of use "*of a building and any land within its curtilage from a use falling within Class E (commercial, business and service) of Schedule 2 to the Use Classes Order to a use falling within Class C3 (dwellinghouses) of Schedule 1 to that Order*", subject to the condition that before beginning the development, the developer must apply to the local planning authority for a determination as to whether the prior approval of the authority will be required.

5.2 The matters for which a requirement for prior approval is to be determined includes the "*impacts of noise from commercial premises on the intended occupiers of the development*".

5.3 "*Commercial premises*" means any premises normally used for the purpose of any commercial or industrial undertaking which existed on the date of application and includes any premises licensed under the Licensing Act 2003(a) or any other place of public entertainment.

5.4 The following Planning Policy Context and design guidance is also considered to be relevant to the development:

National Planning Policy

5.5 The following national planning policy is relevant to the Proposed Development:

- National Planning Policy Framework (2024).
- Planning Practice Guidance (Noise) (2019); and
- Noise Policy Statement for England (2010).

Local Planning Policy

5.6 The following local planning policy is relevant to the Proposed Development:

- Hillingdon's Local Plan: Part 1 (Adopted November 2012).

Guidance

5.7 The following guidance is relevant to the Development:

- ProPG: Professional Practice Guidance on Planning and Noise: New Residential Development. (2017); and
- BS 8233: 2014: "Guidance on sound insulation and noise reduction for buildings"

A brief explanation of this policy and design guidance is given below.

National Planning National Planning Policy Framework (December 2024)

5.9 The overarching aim of the planning regime is to promote sustainable development. However, such development must be delivered in a manner that delivers compatibility with the location of the Site of land and existing neighbouring land uses. With regard to noise, the National Planning Policy Framework sets out two primary policies which (a) seek to ensure that new noise sensitive development is adequately protected from noise and impacts from new noise generating land uses are appropriately controlled and (b) existing commercial/industrial uses and community facilities do not have unreasonable restrictions imposed on them by new noise sensitive development:

Paragraph 198:

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 area 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 their recreational and amenity value for this reason; and

c) limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.

Paragraph 200:

"Planning policies and decisions should ensure that new development can be integrated effectively with existing businesses and community facilities (such as places of worship, pubs, music venues and sports clubs). Existing businesses and development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or 'agent of change') should be required to provide suitable mitigation before the development has been completed."

Noise Policy Statement for England

5.10 With regard to 'adverse' impacts and 'significant adverse' impacts, the NPPF directs the reader to the advice contained in DEFRA's "Noise Policy Statement for England" (NPSE). This Policy Statement introduces the concept of a "Significant Observed Adverse Effect Level" (SOAEL), "Lowest Observed Adverse Effect Level" (LOAEL) and "No Observed Effect Level" (NOEL). These are concepts aligned with toxicology outcomes derived from guidance given by the World Health Organisation.

- **NOEL – No Observed Effect Level**
  This is the level below which no effect can be detected and below which there is no detectable effect on health and quality of life due to noise.
- **LOAEL – Lowest Observable 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**

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

Planning Practice Guidance

5.12 The application of national planning policy is amplified in the government's "Planning Practice Guidance" (PPG). This seeks to help clarify understanding the perception of noise effects, outcomes and actions that should be taken to align decision making with the NPPF. In line with the NPPF concept of basing decision making on the identification of "significant" or "other" impacts on health and quality of life, the NPPG aligns its guidance with the NPSE.

5.13 The following table summarises this guidance:

Planning Practice Guidance - Noise Exposure Hierarchy			
Response	Examples of outcomes	Increasing effect level	Action
No Observed Effect Level			
Not present	No effect	No Observed Effect	No specific measures required
Present 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	No specific measures required
Lowest Observed Adverse Effect Level			
Present 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.	Observed Adverse Effect	Mitigate and reduce to a minimum
Significant Observed Adverse Effect Level			
Present 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	Avoid
Present 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 hard, e.g. auditory and non-auditory.	Unacceptable Adverse Effect	Prevent

Local Planning policy

5.14 The site lies in the jurisdiction of Hillingdon Local Authority.

5.15 The Hillingdon Local Plan (adopted 2012) outlines the following policies which are relevant to new residential development:

5.16 Within Core Policies 8: Environmental Improvement, Policy EM8 states:

> *"The council will seek to ensure that noise sensitive development and noise generating development are only permitted if noise impacts can be adequately controlled and mitigated."*

5.17 Additionally in section 8.138:

> *"Guidance has already been set out at the national level by the NPPF. This guidance sets out a clear rationale as to where sensitive development should be located in relation to existing noise/ pollution sources, and also provides guidance on where potentially noise polluting development should be located."*

BS 8233: 2014

5.18 BS 8233: 2014 "Sound Insulation and Noise Reduction for Buildings" offers the following design guidance for indoor ambient noise levels within dwellings:

BS 8233 Indoor Ambient Noise Level Guidance			
Activity	Location	Daytime (07.00 to 23.00 hours)	Night-time (23.00 to 07.00 hours)
Resting	Living Room	35 dB $L_{Aeq,16hour}$	--
Dining	Dining Room/Area	40 dB $L_{Aeq,16hour}$	--
Sleeping	Bedroom	35 dB $L_{Aeq,16hour}$	30 dB $L_{Aeq,8hour}$

5.19 A note accompanying the above Table states:

> *"Regular individual noise events (for example, scheduled aircraft or passing trains) can cause sleep disturbance. A guideline value may be set in terms of SEL or $L_{Amax,F}$ depending on the character and number of events per night. Sporadic noise events could require separate values."*

5.20 Despite identifying that maximum values 'may' be set, guidance values for differing types of noise/frequency of events is not given. It can, however, be noted that the

recommendations of BS8233 are aligned with guidance set out in the World Health Organisation's "Guidelines for Community Noise". This suggests that noise levels in bedrooms at night should not exceed a value of 45dB $L_{Amax,fast}$ more than 10-15 times per night.

5.21 A further note to the above Table indicates that where *"development is considered necessary or desirable"*, the above guideline values can be relaxed by 5 dB and *"reasonable"* internal conditions still be achieved.

ProPG: Planning and Noise

5.22 The Association of Noise Consultants (ANC), Institute of Acoustics (IOA) and Chartered Institute of Environmental Health (CIEH) publication *"ProPG: Planning and Noise: Professional Practice Guidance on Planning and Noise: New Residential Development"* was published in 2017. Table 4.3 below reproduces the guidance given in relation to the control of internal noise levels within dwellings:

ProPG Indoor Ambient Noise Level Guidance			
Activity	Location	Daytime (07.00 to 23.00 hours)	Night-time (23.00 to 07.00 hours)
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 $L_{Aeq,8hour}$ 45 dB $L_{Amax,F}$

5.23 The above recommendations are accompanied by a number of notes. Of particular relevance are:

- Note 4 – which clarifies that the recommended $L_{Amax,fast}$ value should not normally be exceeded 10 times per night; and
- Note 5 – which states "*Where it is not possible to meet internal target levels with windows open, internal noise levels can be* assessed *with windows closed, however any façade openings used to provide whole dwelling ventilation (e.g. trickle ventilators) should be assessed in the "open" position and, in this scenario, the internal L_{Aeq} target levels should not normally be exceeded….".*

5.24 It should be noted that the above design guidance is primarily intended for sites characterised by noise from transportation sources. Where existing noise levels are

dominated by industrial or commercial noise, ProPG recommends that reference is made to the assessment methodology of BS 4142:2014. For sites where industrial or commercial noise may be present but not "dominant", ProPG suggests that the industrial noise component may be included and combined with the transportation noise component and professional judgement used to determine appropriate mitigation.

6.0 POTENTIAL NOISE IMPACTS

6.1 As noted earlier, a change of use under the GPDO requires specific consideration of the "impacts of noise from commercial premises on the intended occupiers of the development". The following sections of this report therefore give consideration to:

- Whether any neighbouring commercial uses in the general locality of the site would have an adverse impact on future residential occupiers.

6.2 In particular, this assessment will be considering the potential noise impact associated with the farm/industrial site located to the west Hayes Cottages.

6.3 It should be noted that the GPDO does not require the consideration of general environmental noise on future occupants. However, the results of environmental noise survey work are also presented in this report to demonstrate how future residents can be adequately protected against general environmental noise. Any additional mitigation considered appropriate could be controlled through the use of an appropriate planning condition, if this was considered necessary to secure an appropriate form of development.

7.0 EXISTING BASELINE NOISE LEVELS

Survey Period

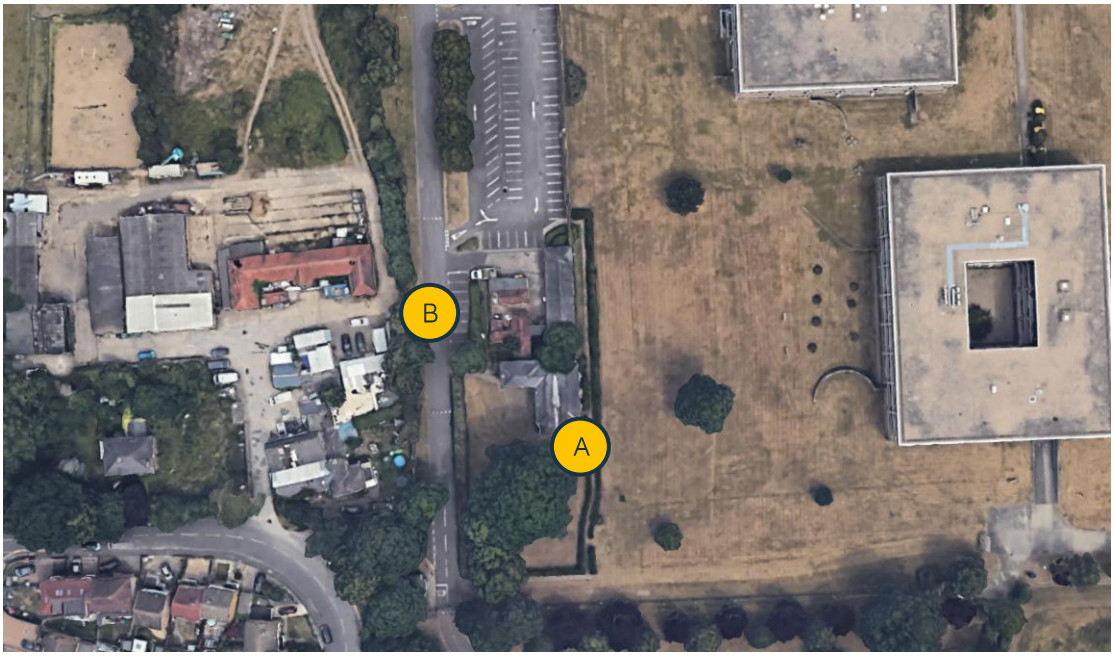
7.1 An automated environmental noise survey was undertaken from approximately 12:00 hours on 19 June to approximately 16:00 hours on 22 June 2026.

Measurement Positions:

7.2 Noise monitoring equipment was located at the following positions:

Noise Monitoring Positions	
Position	Description
Position A	The microphone was positioned on the south-west corner of the building, at a height of approximately 1.5m above ground level.
Position B	The microphone was positioned upon a lamp post on the west side of site, at a height of approximately 3m above ground level.

7.3 The noise monitoring positions are indicated on the following plan.



Plan Showing Measurement Positions (Google Imagery 2025, The GeoInformation Group)

Equipment

7.4 The Svantek sound level meter was set up to continuously measure the 1/3 Octaves and A-weighted (dBA) fast L_{A90}, L_{Aeq} and L_{Amax} sound pressure levels over sampling periods of 15 minutes duration and a log of sound pressure levels measured every 100ms.

7.5 The convergence sound level meter was set up to continuously measure the A-weighted (dBA) L_{A90}, L_{Aeq} and L_{Amax} sound pressure levels over sampling periods of 15 minutes duration and a log of sound pressure levels measured every 100ms.

7.6 Calibration certificates for the equipment, traceable to national standards, used in this survey are available upon request.

7.7 Calibration checks were carried out prior to and on completion of the survey, with no significant calibration drift observed.

7.8 Details of the equipment used for the survey are summarised below:

Survey Equipment				
Location ID	Description	Manufacturer	Type	Serial Number
Position A	Type 1 Sound Level Meter	Svantek	971A	151439
Position B	Type 1 Sound Level Meter	Convergence	Nsrt_mk4	CPL8hd06e1U9ABniSyrRID
-	Acoustic Calibrator	Svantek	SV 33B	163880

NOISE SURVEY FINDINGS

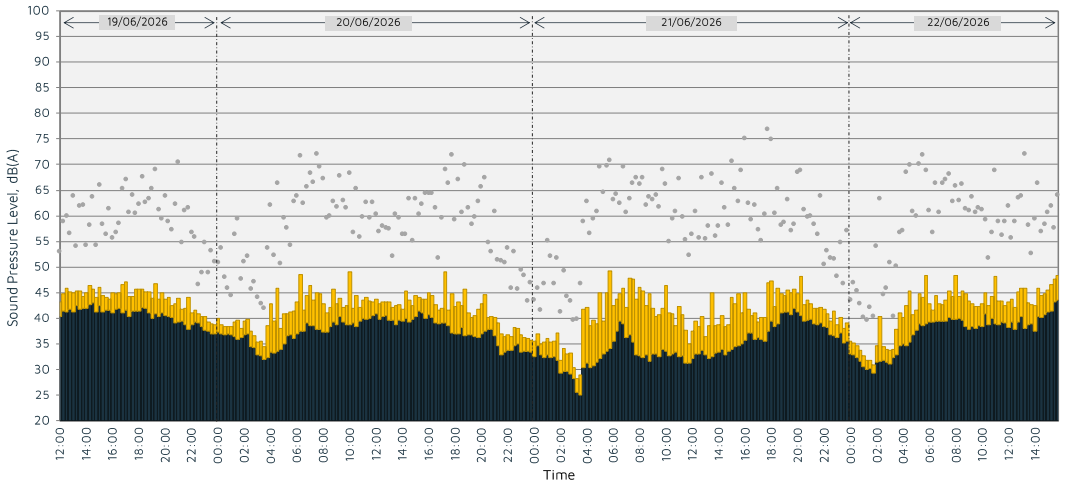
7.9 The noise survey results are presented in the graphs below, showing the A-weighted L_{90}, L_{eq} and L_{max} noise levels measured during each consecutive 15-minute period of the survey.

Noise Monitoring Graph - Position A

Project: Hayes Cottages, Hayes Park.

Position Description: The microphone was positioned near the south-east corner of the existing building.

Survey Date: 19 June - 22 June 2026

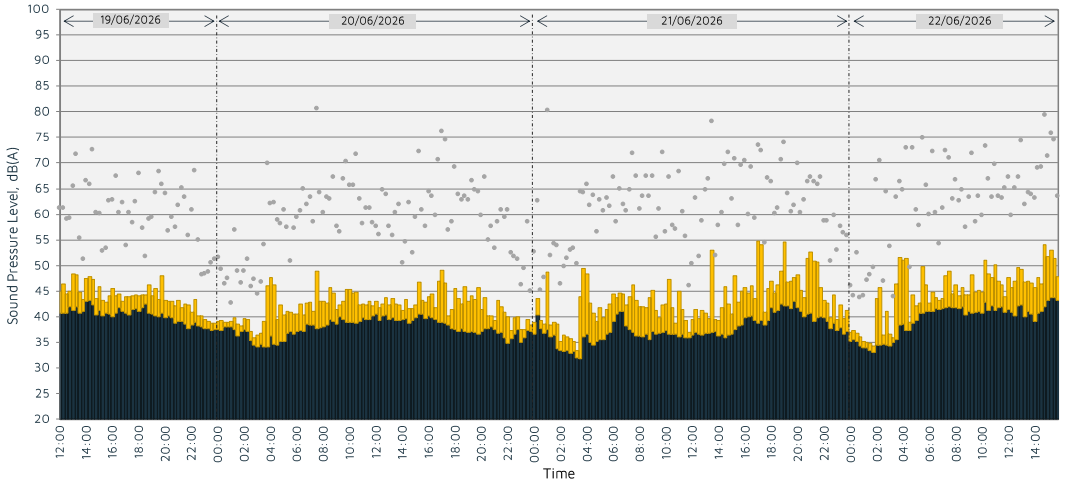


Noise Monitoring Graph - Position B

Project: Hayes Cottages, Hayes Park.

Position Description: The microphone was positioned at the west side of site.

Survey Date: 19 June - 22 June 2026



Discussion of Noise Climate

7.10 During the periods we were present on site, the subjectively dominant noise sources at measurement Position A were distant road traffic activities associated with Mellow Lane E and Hayes End Road. Lower levels of noise from local wildlife were also observed.

7.11 At Position B, similar to Position A, the predominant noise sources were distant road traffic activities from Mellow Lane E and Hayes End Road, with additional noise contributions from the local wildlife.

7.12 During all site visits we were unable to detect any activity noise from the adjacent farm/industrial unit.

Weather

7.13 Whilst weather conditions were not continuously monitored during the survey period, when visiting site for the installation and removal of equipment weather conditions were considered suitable for measuring environmental noise, it being dry and calm. Weather history data also indicated that conditions were dry and calm during the period.

Data Analysis

7.14 The measurement results from the automated surveys have been averaged to determine typical daytime ($L_{Aeq,16\ hour}$) and night-time ($L_{Aeq,\ 8\ hour}$) sound levels.

7.15 Additional analysis has been carried out to determine the typical 10th highest $L_{AFmax,1min}$ sound levels overnight.

7.16 The results of this analysis are summarised in the following table.

Summary of Measured Noise Levels			
Position	Daytime $L_{Aeq,16hour}$ (dB) (07:00 – 23:00)	Night-time $L_{Aeq,8hour}$ (dB) (23:00 – 07:00)	Night-time $L_{Amax,fast}$ (dB) (23:00 – 07:00)
Position A	44	41	65
Position B	46	43	66

8.0 INTERNAL NOISE LEVELS

Existing Sound Insulation

8.1 In order to determine the potential need for additional mitigation to acceptably control internal noise levels due to the "break-in" of noise from external sources, the following assumptions have been made:

- The existing windows will offer a typical outside to inside sound reduction of at least 23 dB(A). This performance is based under the assumption of the windows being in reasonable condition.

Predicted Internal Noise Levels

8.2 Based on the results of the noise monitoring and above assumptions, the following typical levels of noise break-in to the proposed residential units from external noise has been estimated by subtracting 23 dB(A) of each of the values from table 7.16.

Estimated Internal Noise Levels			
Façade	Daytime $L_{Aeq,16hour}$ (dB)	Night-time $L_{Aeq,8hour}$ (dB)	Night-time $L_{Amax,fast}$ (dB)
Front Elevation	21	18	41
West Elevation	23	20	43

Acceptability of Internal Sound Levels

8.3 As discussed in Section 4 earlier, it is recommended that internal noise levels within the proposed flats are controlled to:

- A daytime value of 35 dB $L_{Aeq,16hour}$ (07.00 to 23.00 hours) in all habitable rooms:
- A night-time value of 30 dB $L_{Aeq,8hour}$ (23.00 to 07.00 hours) in bedrooms; and
- A typical night-time value of 45 dB $L_{Amax,fast}$ (23.00 to 07.00 hours) in bedrooms.

8.4 It is therefore concluded that the existing fabric offers an acceptable level of acoustic performance for controlling noise intrusion from commercial noise into residential units.

9.0 DISCUSSION

9.1 It is concluded that the proposed development can achieve acceptable indoor ambient noise levels for future residents.

9.2 It is important to note that the above assessment is based on the 'total' noise environment characterising the site including general environmental noise.

9.3 It is concluded that the proposed development would experience a *"No Observed Adverse Effect Level (NOAEL)"* from the principal existing commercial noise source, namely the farm/industrial site.

9.4 Furthermore, there is an existing residential dwelling located in closer proximity to the farm/industrial site than the proposed development. Therefore, the proposed dwellings are not expected to experience an effect from the potential noise associated with the site.

9.5 The proposed dwellings are also set back from the surrounding road network and other potential noise-generating activities. Hence, these noise sources are not expected to adversely affect the proposed development.

9.6 It is therefore concluded that the proposed change of use and development proposals follow a good acoustic design process and intrinsically embed mitigation to help minimise noise impacts (including commercial noise), in line with the spirit of the GPDO and national and local planning policy related to noise.

10.0 CONCLUSIONS

10.1 Quantum Acoustics have undertaken a fully automated environmental noise survey to establish the existing noise levels.

10.2 Noise emissions from the farm/industrial site have been assessed and are not expected to result in adverse impacts on the proposed development.

10.3 The requirements of national and local planning policy relevant to the proposed scheme are discussed, including the particular requirements of Class MA of the GPDO. Reference has also been made to industry standard design guidance.

10.4 It follows that future occupiers would be adequately protected from the impacts of noise, including commercial noise, in line with the particular requirements of Class MA of the GPDO.

10.5 It is therefore concluded that the proposed change of use of Hayes Cottage to provide residential accommodation is in accordance with national and local planning policy aims relevant to noise and does not raise any noise impact concerns in relation to the specific noise impact considerations of the GPDO prior approval process.

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