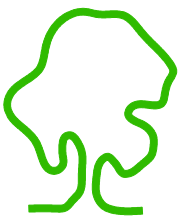


STEVE LAMB

LAND AT NEW BARN FARM, CAPEL ROAD, HORSHAM

Noise Impact Assessment

May 2026



eas ltd

Environmental Assessment Services Ltd

REPORT DATA SHEET

Requirement	Data
Report Ref	891/LDVArchitecture /NewBarnFarm/NIA
Date	May 2026
Client	Steve Lamb
Report type	Noise Impact Assessment
Purpose	To satisfy environmental health concerns for planning.
Revisions	
Prepared by	Daniel Milford BSc (Hons)  Signed
Approved by	Eur Ing Malcolm McKemey BSc (Hons), CEng, CEnv, MICE, MCIWEM, MIEEnvSc  Signed

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Noise Impact Assessment

May 2026

CONTENTS

1. THE SITE AND BACKGROUND
2. DEFINITIONS
3. THE ASSESSMENT
4. RESULTS OF THE MONITORING
5. INTERPRETATION OF THE RESULTS
6. NOISE IMPACT ASSESSMENT
7. CONCLUSIONS

APPENDIX A: Figure 1: Site Location
 Figure 2: Existing Site
 Figure 3: Proposed Development
 Figure 4: Monitoring Locations
 Figure 5: Pro Planning Risk of Adverse Side Effects Scale

APPENDIX B: Noise Monitor Calibration Certificates

APPENDIX C: SLM Traces

APPENDIX D: Photographs

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Noise Impact Assessment

May 2026

1. THE SITE AND BACKGROUND

- 1.1. The site is currently used as a farm to train and house horses, comprising a central stable block with parking to the north and south of the building. Additionally, the site boundary includes four residential dwellings, with a detached residence and main farmhouse and gardens to the west of the site boundary and main entrance from Capel Road. To the east of the site lies a secondary entrance from Capel Road with an office building to the immediate west and paddocks to the east. There is a track leading from this entrance southwards to connect to the wider site, with a storage unit and caravan to the east of the track and barn to the west (to be retained). To the south of the redline boundary are two sand schools.
- 1.2. The Ordnance Survey map reference for the centre of the site is TQ 18456 37489 and site elevation is approximately +82 m OD. The site area (redline boundary) is approximately 2.5 ha. See Figure 1 in appendix A for the site location.
- 1.3. It is proposed to redevelop the site, after the demolition of the existing stables, office, and sand schools, for residential accommodation comprising ten dwellings – 3No. five-bedroom houses to the south, 3No. two-bedroom chalets in the centre of the site, 2No. two-bedroom semi-detached house towards the northern section of the site and 2No. four bedroom detached houses (one near the centre of the site and one adjacent to the northern redline boundary); with associated gardens and parking, as well as a new sand school and stable to the east of the site. Under a separate application a three-bedroom house is to be developed where the caravan currently exists, and a new office building is to replace the existing one in the same footprint. See Figure 2 in Appendix A for the proposed development.
- 1.4. The surrounding land use in the vicinity of the sites is predominantly agricultural field or woodland, with exceptions being two caravan parks Northeast of Capel Road (Pinewood Park and River Dale Paddocks) and K9-IQ indoor dog park.
- 1.5. The principal existing noise sources at the site would be passing aircraft taking off or landing at Gatwick airport to the east of site, the passing traffic of Capel Road, and current site activity.

- 1.6. A noise impact assessment has been carried out in accordance with Professional Practice Guidance (ProPg): Planning & Noise (May 2017) and with reference to the recommendations given in the *National Planning Policy Framework* (NPPF) March 2012 and *Noise Policy Statement for England* (NPSE) 2010. Reference has been made to the British Standard Guidance on Sound Insulation and Noise Reduction for Buildings (BS 8233:2014) and the World Health Organisation publications Night Noise Guidelines for Europe 2009 and Community Noise Guidelines 1999. The site was visited on Thursday 5 March 2026 and Thursday 12 March 2026.

2. DEFINITIONS

- 2.1. Noise assessment terms used in the report are defined and described below:

dB_(A) – the unit of noise measurement that expresses the loudness in terms of decibels (dB) weighted by frequency for human sensitivity to sound (A).

L_{(A)90} – A-weighted sound pressure level exceeded for 90 % of the measured time; defined as ‘background noise level’.

L_{(A)eq} – equivalent continuous A-weighted sound pressure level over a given period of time; defined as ‘average noise level’.

L_{(A)max} – equivalent maximum A-weighted sound pressure level over a given period of time; defined as ‘maximum sound level’.

L_{(A)10} – A-weighted sound pressure level exceeded for 10 % of the measured time; a measure frequently referred to relating to traffic noise.

3. THE ASSESSMENT

- 3.1. The assessment comprised:

- The selection of suitable noise monitoring stations, reasonably representative of the exposure of the proposed receptors.
- The installation of the noise monitoring apparatus for suitable monitoring periods.
- Additional short-term noise monitoring around the site.
- General observations of factors affecting noise around the site.
- A review of the results of the monitoring.
- Recommendations regarding noise attenuation options, where indicated.

- 3.2. The continuous monitoring was carried out at the sites between Thursday 5 March 2026 and Thursday 12 March 2026. Noise levels at the site during the monitoring were considered to be reasonably representative of the ambient noise climate currently at the site, mostly comprising occasional aeroplanes passing along the Gatwick flight path and horses being stabled on site.

- 3.3. Monitoring was carried out using a CEL (Casella) Type 490C Precision Sound Level Meter (SLM) and CEL-110/1 field calibrator (calibrated to national standards on 14 March 2025 and 17 March 2025 – see certificates in Appendix B). The SLM was field calibrated before and after each monitoring session and no measurable drift was observed. Calibration readings before and after the monitoring sessions were all 113.9 dB.
- 3.4. Continuous noise monitoring was carried out atop the bund at the northern boundary of the site, with an SLM monitor on a tripod 1.5 m above the ground. Additional short-term noise monitoring was carried out at the southeast corner of the site and western site boundary, adjacent to the smaller sand school. See Figure 4 in Appendix A for the monitoring locations.

4. RESULTS OF THE MONITORING

- 4.1. The site was not impacted by adverse weather conditions during the continuous or short-term monitoring and the results are considered representative of the ambient noise levels at the site as existing. The SLM traces from the continuous noise monitoring are shown in Appendix C. The results of the continuous noise monitoring are summarised in Tables 4.1 and 4.2:

TABLE 4.1
AMBIENT DAYTIME NOISE LEVELS

Date	$L_{(A)eq} \text{ dB}_{(A)}$	$L_{(A)90} \text{ dB}_{(A)}$	$L_{(A)10} \text{ dB}_{(A)}$	$L_{(A)max} \text{ dB}_{(A)}$
Thu 05/03/2026	57.93	40.20	61.22	79.98
Fri 06/03/2026	59.18	41.77	62.57	77.69
Sat 07/03/2026	57.48	37.51	59.84	76.56
Sun 08/03/2026	56.76	35.98	59.33	75.59
Mon 09/03/2026	59.26	37.39	63.05	77.23
Tue 10/03/2026	59.53	40.16	63.22	77.74
Wed 11/03/2026	59.42	38.44	63.38	77.08
Thu 12/03/2026	62.08	49.99	65.70	80.15

- 4.2. Professional Practice Guidance (ProPg): Planning & Noise Note 1 gives an initial noise risk assessment *risk of adverse effects* value in the range Negligible to High based on the daytime $L_{(A)eq} 16hr$ and night-time $L_{(A)eq} 8hr$ exposures recorded at a site. See Figure 5 in Appendix A for the risk of adverse side effects scale. From the results in Table 4.1 above and Table 4.2 below, the initial noise risk assessment value for the exposure at the site is ‘Low’ to ‘Medium’. Good acoustic design process should be followed for the construction of the proposed dwellings, in order to maintain the WHO and BS acceptable levels.

TABLE 4.2
AMBIENT NIGHT-TIME NOISE LEVELS

Date	L _{(A)eq} dB _(A)	L _{(A)90} dB _(A)	L _{(A)10} dB _(A)	L _{(A)max} dB _(A)
Thu 05/03 – Fri 06/03	47.91	28.90	48.96	69.06
Fri 06/03 – Sat 07/03	48.52	27.64	47.72	70.61
Sat 07/03 – Sun 08/03	45.93	26.91	44.48	67.26
Sun 08/03 – Mon 09/03	47.25	26.78	47.94	67.18
Mon 09/03 – Tue 10/03	46.95	28.68	45.09	69.28
Tue 10/03 – Wed 11/03	51.40	41.24	53.38	72.02
Wed 11/03 – Thu 12/03	47.93	33.66	47.81	68.34

- 4.3. The traces from the continuous monitoring are given in Appendix C and the monitoring locations are given in Figure 4 in Appendix A. See Tables 4.3 and 4.4 below for the short-term monitoring results.

TABLE 4.3
ADDITIONAL SHORT-TERM NOISE MONITORING POSITION 1

PERIOD	5 March 2026 (15 Minutes)			
NOISE LEVELS dB _(A)	L _{(A)eq}	L _{(A)90}	L _{(A)10}	L _{(A)max}
	66.45	54.69	69.40	76.49
WEATHER	Overcast			
PRINCIPAL NOISE SOURCES	Air traffic from Gatwick airport and noise from current site activity.			

TABLE 4.4
ADDITIONAL SHORT-TERM NOISE MONITORING POSITION 2

PERIOD	5 March 2026 (15 Minutes)			
NOISE LEVELS dB _(A)	L _{(A)eq}	L _{(A)90}	L _{(A)10}	L _{(A)max}
	54.37	48.60	57.70	65.58
WEATHER	Overcast			
PRINCIPAL NOISE SOURCES	Air traffic from Gatwick airport and noise from current site activity.			

5. INTERPRETATION OF THE RESULTS

- 5.1. The meteorological conditions at the site throughout the continuous monitoring period were for the main part cold and dry with light winds at the start of the monitoring period. Throughout the short-term monitoring the meteorological conditions were generally cold and dry.
- 5.2. The results confirm that the site is currently exposed to ‘Low’ to ‘Medium’ levels of noise, however some noise attenuation measures will be required in order to maintain the existing desirable internal noise levels for residential use. See Appendix C for the SLM traces.

6. NOISE IMPACT ASSESSMENT

6.1. Internal Noise Level Guidelines (Stage 2, Element 2)

- 6.1.1. The World Health Organisation (WHO) recommends no more than 30 dB_(A) L_{(A)eq} to permit restful sleep. The same night-time guideline is given in BS 8233:2014. Night-time is classed as 23:00 - 07:00 hours. The permitted maximum daytime internal L_{(A)eq} is given as 35 dB_(A) in the British Standard.
- 6.1.2. The average night-time L_{(A)eq} was recorded as 47.98 dB_(A). With the current noise levels, in order to meet these guidelines, the windows in the residences in the proposed dwellings will have to provide at least 18 dB_(A) of attenuation in their design. The average L_{(A)eq} daytime reading was 58.96 dB_(A). The attenuation incorporated into the design of the buildings should allow for up to 24 dB_(A) L_{(A)eq}.
- 6.1.3. Standard external rendered brick walls would provide at least 50 - 55 dB of noise attenuation BS 8233. The attenuation provided by a typical insulated roof structure is likely to be >35 dB_(A). Standard thermal double-glazed windows should provide 35dB of attenuation. This will be enough to provide adequate attenuation from noise in the area within the WHO acceptable levels for internal spaces.
- 6.1.4. Opening windows to permit cooling on hot nights will result in internal noise levels exceeding the WHO and BS standards as an open window will only provide 12 - 15 dB_(A) of attenuation. Noise levels are not expected to increase significantly post-development.
- 6.1.5. The WHO guidance states that the number of individual night-time noise events (L_{(A)max}) exceeding 45 dB_(A) within a bedroom should be limited. This is generally taken as not more than eight exceedances during a single night.
- 6.1.6. With attenuation provided by open windows the number of exceedances of 45 dB_(A) L_{(A)max} night-time noise events was more than eight on all monitored nights. This suggests that additional attenuation is required in order to limit the number of internal exceedances of 45 dB_(A) night-time noise events to within WHO guidance.
- ### 6.2. External Noise Level Guidelines and Amenity Area Assessment (Stage 2 Element 3).
- 6.2.1. For external areas, the World Health Organisation (WHO) community noise guidelines suggest 55 dB_(A) L_{(A)eq} as the threshold for annoyance, with the BS 8233:2014 stating that noise which does not exceed 50 dB_(A) L_{(A)eq} to be "desirable". Levels greater than 55 dB_(A) L_{(A)eq} were recorded regularly during daytime continuous monitoring.

- 6.2.2. On the short-term monitoring, the highest peak ($L_{(A)max}$) noise level recorded was 81.8 dB_(A) at location 1 (southeast corner of the site). During the continuous monitoring the highest daytime peak was 96.4 dB_(A). The highest night-time peak was 85.7 dB_(A). This suggests that at a worse-case scenario some occasional daytime and night-time noise disruption may be heard through the standard double-glazed attenuation (35dB_(A)) that exceeded the WHO and BS standards of 30-35 dB_(A).
- 6.2.3. The proposed dwellings are expected to produce some additional peaks when the outdoor areas are in use in fine weather. However, the existing houses and businesses using the outdoor area will be producing comparable peaks with the current arrangement. The levels of noise from the proposed dwellings are not expected to increase the ambient noise levels in the area when compared with the noise from the existing houses and site usage; the noise levels at the site are likely to remain at similar levels pre and post construction.
- 6.3. The construction phase of the proposed redevelopment of the site will have some noise impacts. However, if construction work is restricted to normal business hours and good working practice employed, this should not be a significant concern with relation to noise impact on the existing residents and nearby commercial receptors. The Health and Safety Executive states *Use absorptive materials within the building to reduce reflected sound, e.g. open cell foam or mineral wool. Keep noisy machinery and processes away from quieter areas. Design the workflow to keep noisy machinery out of areas where people spend most of their time.*

7. CONCLUSIONS

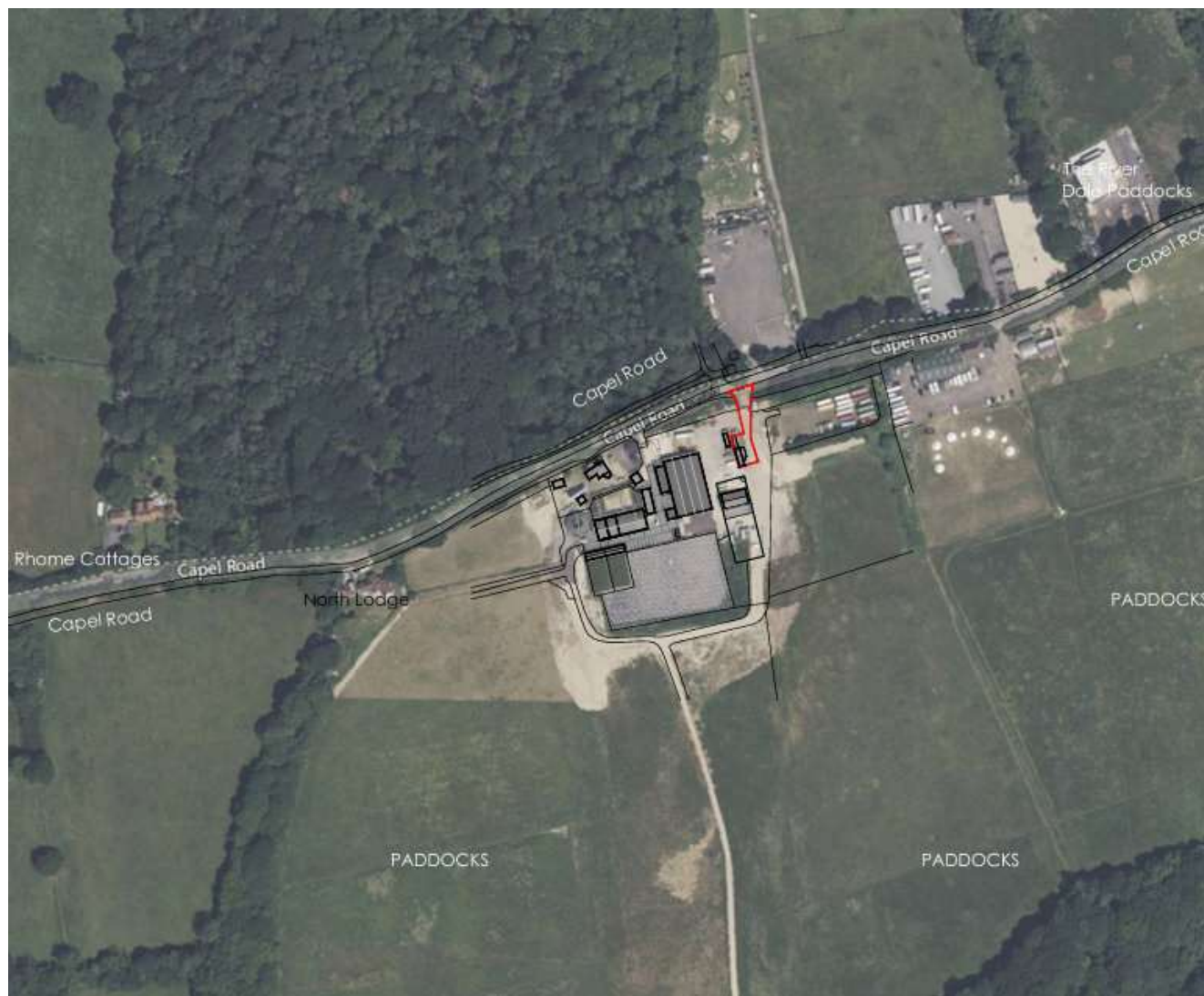
- 7.1. The National Planning Policy Framework (NPPF) states that sustainable development should:
- i. Avoid noise giving rise to significant adverse impacts on health and quality of life.
 - ii. Mitigate and reduce to a minimum, other adverse impacts on health and quality of life arising from noise, including through the use of conditions attached to planning consents.
 - iii. 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.
 - iv. Identify and protect areas of tranquillity which have remained relatively undisturbed by noise and are prized for their recreational and amenity value.

- 7.2. There is already some air traffic noise at the site from the Gatwick flight path and noise from the use of the existing stables; as such the noise at the site is expected to only increase very minimally post development. The number of vehicles using the site is not expected to increase once the buildings are complete.
- 7.3. Professional Practice Guidance (ProPg): Planning & Noise Note 1 *risk of adverse effects* rating for the site is 'Low' to 'Medium'. This indicates a requirement that some acoustic design process should be followed for development of residential dwellings at this site.
- 7.4. In order to achieve the $<30 \text{ dB}_{(A)}$ WHO night-time standard and $<35 \text{ dB}_{(A)}$ BS daytime standard $L_{(A)eq}$ within the proposed residences, standard thermal double-glazing (which provides a minimum attenuation of $35 \text{ dB}_{(A)}$) and standard external rendered brick walls (which would provide at least $50 - 55 \text{ dB}$ of noise attenuation BS 8233) will be recommended in the construction of the dwellings.
- 7.5. During the warmer months, an open window would not provide sufficient attenuation to permit restful sleep according to WHO guidance. Acoustic ventilation providing a minimum of $30 \text{ dB}_{(A)}$ of attenuation and powered extract ventilation for room cooling would be required.
- 7.6. External noise levels less than the $55 \text{ dB}_{(A)}$ $L_{(A)eq}$ recommended as an annoyance threshold by WHO are likely to be exceeded regularly in the external areas of the residences. In the summer months when the outdoor areas at the dwellings will be used by the residents, it is considered that the external noise levels will exceed $55 \text{ dB}_{(A)}$ $L_{(A)eq}$ very frequently at the proposed dwellings.
- 7.7. The construction work relating to the proposed development of the site should not have significant adverse noise impacts on existing on site residential receptors so long as the construction work is restricted to normal business hours and good working practice is employed.
- 7.8. The evidence of this assessment is that, subject to implementing the mitigation and attenuation measures recommended above, the proposed residents should not experience any significant adverse impacts on health and quality of life.

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APPENDIX A

- Figure 1:** Site Location
- Figure 2:** Existing Site
- Figure 3:** Proposed Development
- Figure 4:** Monitoring Locations
- Figure 5:** Pro Planning Risk of Adverse Side Effects Scale



STEVE LAMB

Scale as shown

New Barn Farm, Capel Road, Horsham, West Sussex, RH12 4PZ

Figure 1: Site Location

May 2026



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Scale as shown

New Barn Farm, Capel Road, Horsham, West Sussex, RH12 4PZ

Figure 2: Existing Site

August 2026



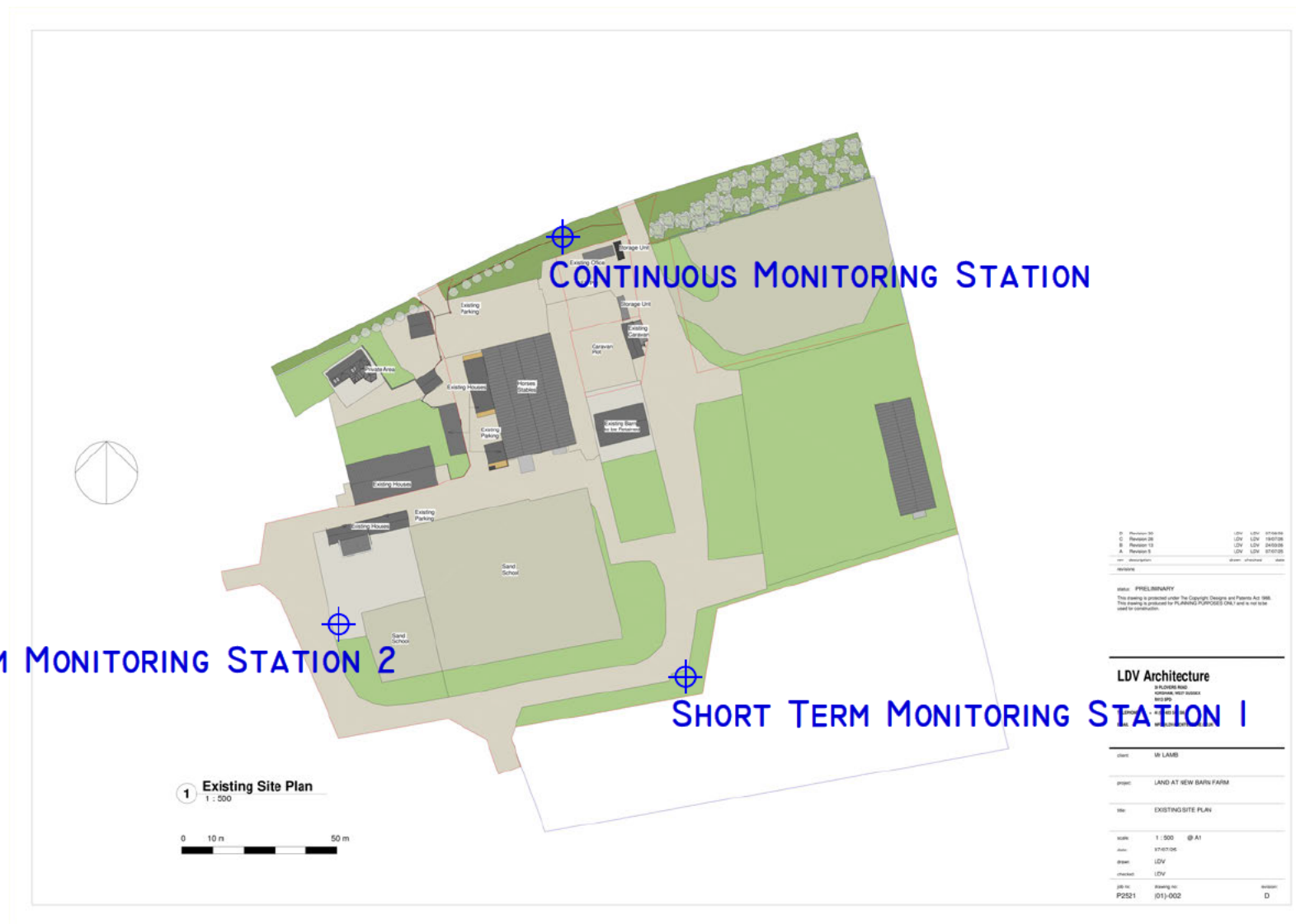
STEVE LAMB

Scale as shown

New Barn Farm, Capel Road, Horsham, West Sussex, RH12 4PZ

Figure 3: Proposed Development

August 2026

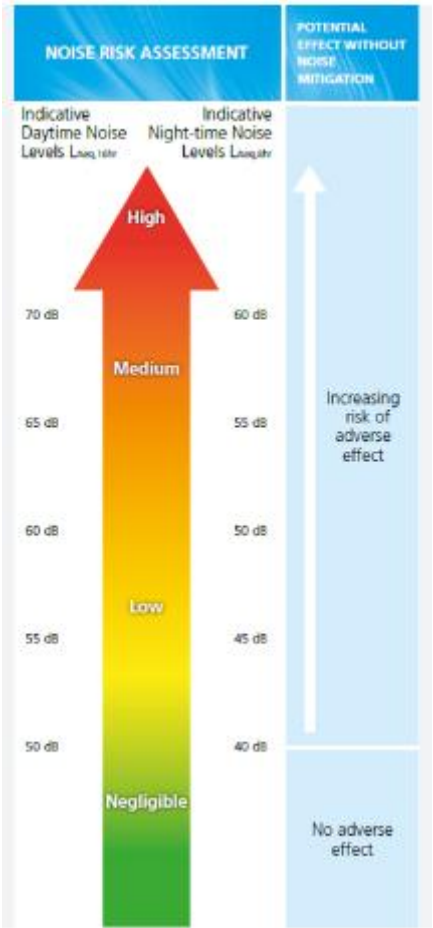


Scale as shown



August 2026

Figure 5: Pro Planning Risk of Adverse Side Effects Scale



APPENDIX B

Noise Monitor Calibration Certificates

Acoustic Calibration Services Limited
Unit 6H Diamond Industrial Centre
Works Road Letchworth Garden City
Hertfordshire SG6 1LW
Tel: 01462 677 197 Mobile: 0771 886 4944
Email: trevjohnlewis@aol.com

or
cal@acousticcalibration.co.uk
web: www.acousticcalibration.co.uk



CERTIFICATE OF CALIBRATION

Model: Casella CEL-490.C1 **Serial Number:** 129580

Organisation: Environmental Assessment Services Ltd., Unit 4 The Courtyard
Holmsted Farm, Cuckfield, West Sussex, RH17 5JT

Job Number: 3000

Customer Order Reference: SLM Calibration

The Sound Level Meter was assessed for conformance with International Standards IEC 60651 and IEC 60804 using test procedures described in BS 7580 Part 1. The manufacturer claims Type 1 accuracy conformance and it was against these requirements that all the results were evaluated.

The sound level meter was fitted with a **GRAS 40AE** measurement microphone Serial No. **100742** and a **CEL-495** preamplifier Serial No. **001597**. The microphone was replaced with a suitable input device in order to apply electrical signals to the preamplifier.

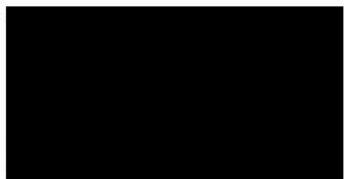
A **Casella CEL-110/1** Acoustic Calibrator Serial No: **119427** was supplied with the meter and utilised in establishing the initial acoustic calibration setting.

The sound level meter passed all applied tests with no deviations from Type 1 specification, in accordance with IEC 60651 and IEC 60804. Accordingly, the meter meets the requirements of BS 7580 Part 1.

The sound level meter should be set to read **113.9dB** when used with the associated acoustic calibrator, microphone and preamplifier, as detailed above at reference atmospheric pressure.

All ACSL's calibration instrumentation is fully traceable to National Standards. The acoustic references are calibrated by laboratories which are UKAS accredited for the purpose.

Certificate No: 16363
Date of Issue: 17th March 2025

Signature: 
Print Name: Trevor Lewis

Acoustic Calibration Services Limited
Unit 6H Diamond Industrial Centre
Works Road Letchworth Garden City
Hertfordshire SG6 1LW
Tel: 01462 677 197 Mobile: 0771 886 4944
Email: trevjohnlewis@aol.com

or
cal@acousticcalibration.co.uk
web: www.acousticcalibration.co.uk



CERTIFICATE OF CALIBRATION

Model: Casella CEL-110/1 **Serial Number:** 119427

Organisation: Environmental Assessment Services Ltd., Unit 4 The Courtyard
Holmsted Farm, Cuckfield, West Sussex, RH17 5JT

Job Number: 3000

Customer Order Reference: SLM Calibration

The acoustic calibrator was run for a period of time until a stable level was achieved. The output level was compared to the certified level of the laboratory measurement references. The calibrator was applied to the meter, removed, then reapplied to provide five separate readings, with the average value of these measurements recorded and certified.

The ambient temperature during calibration was **22.3 ± 1°C**.

The barometric pressure was **100.6 to 100.7 kPa**.

The relative humidity was **30 to 40 %**

The sound pressure level output from the Acoustic Calibrator was measured in its half inch configuration using a B&K 4134 microphone. The mean level output of the acoustic calibrator was 114.0 dB at the reference setting and 94.1 dB at the -20dB setting.

The output frequency signal of the acoustic calibrator is 1000Hz.

All ACSL's calibration instrumentation is fully traceable to National Standards. The acoustic references are calibrated by laboratories which are UKAS accredited for the purpose.

Certificate No: 16360

Date of Issue: 14th March 2025

Signature:

Print Name:

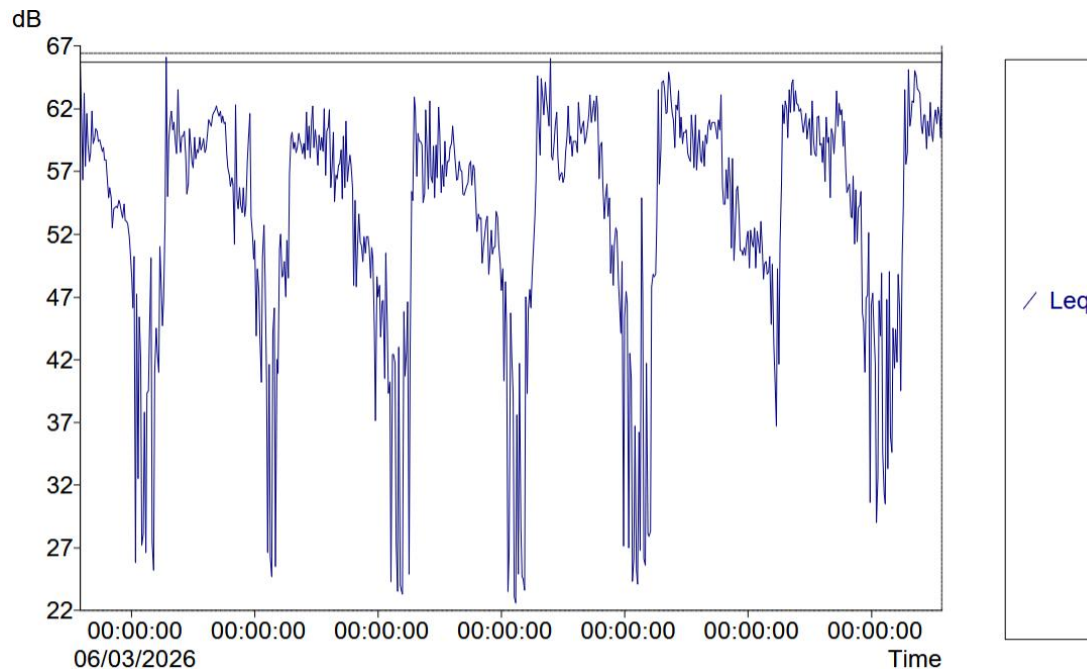
Trevor Lewis

Robert Lewis Accountants, Head Office: 4 Capricorn Centre Cranes Farm Road Basildon SS14 3JJ
Registered No: 4143457 VAT No: GB 770505441 Directors: Trevor J Lewis, G Parry BSc CPhys MInstP AMIOA, O R Clingan MIOA

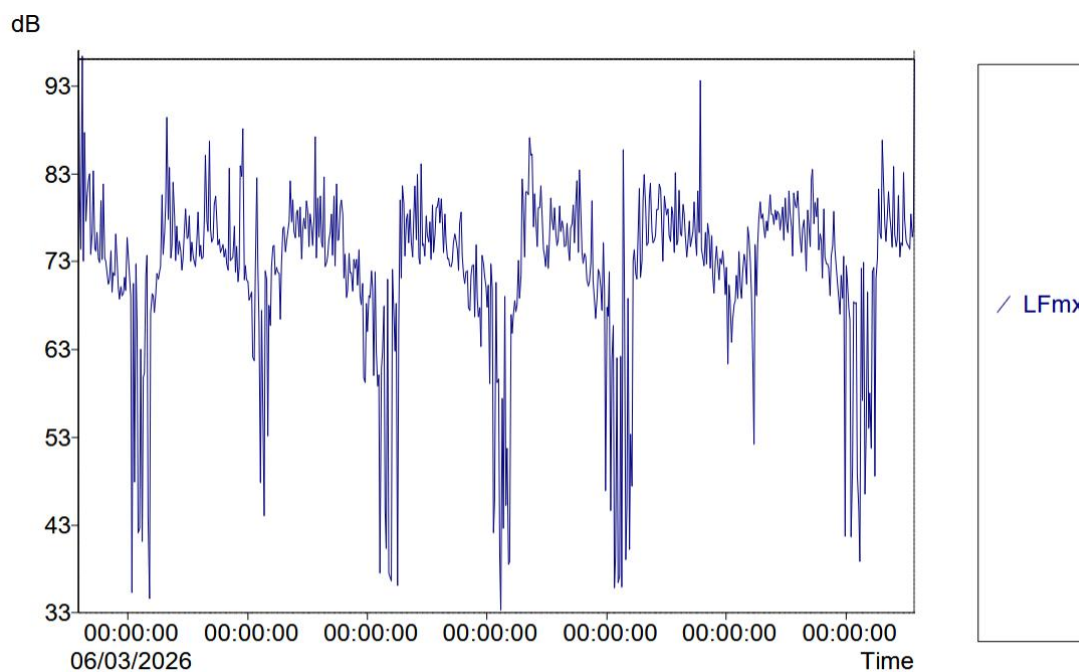
APPENDIX C

SLM Traces

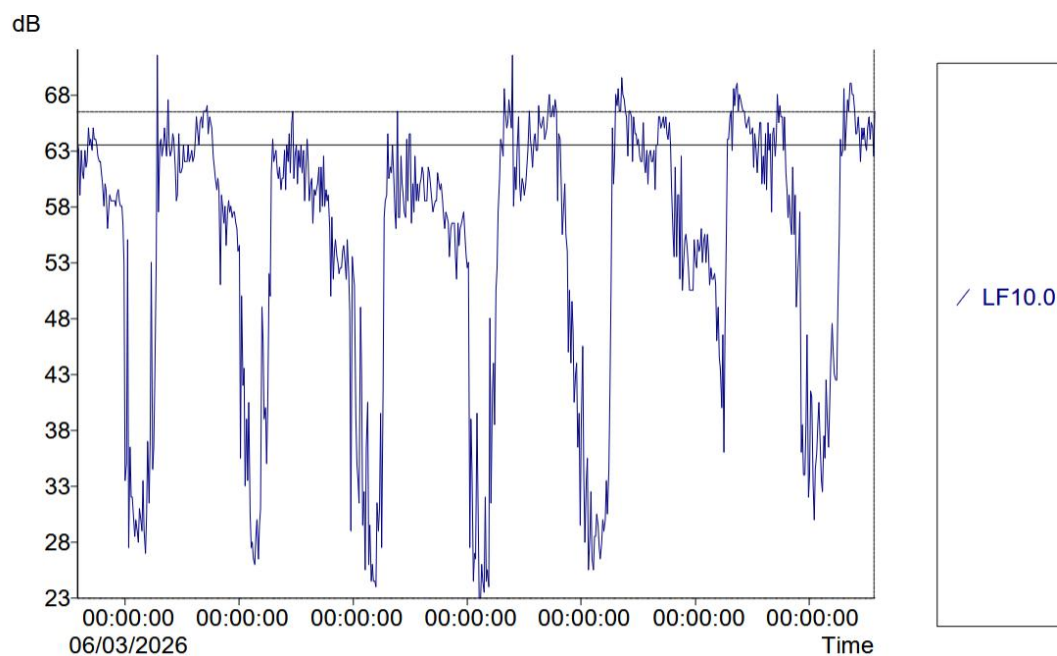
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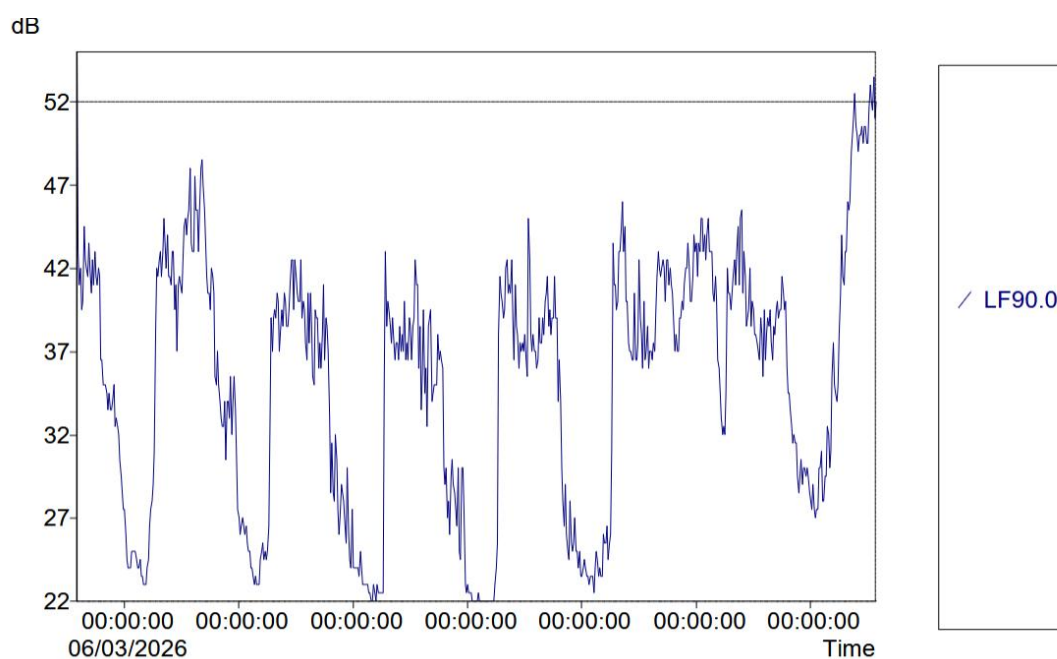
LFMax



LF 10.0



LF 90.0



APPENDIX D

Photographs

Continuous monitoring station

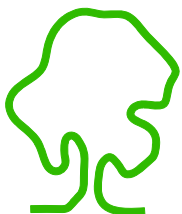


Short term monitoring station 1



Short term monitoring station 2





eas ltd

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