1 & 2 Longwalk Road

Noise and Vibration Impact Assessment Report

Prepared for:

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EXECUTIVE SUMMARY

Trium Environmental Consulting LLP (Trium) has been appointed to undertake a Noise and Vibration Impact Assessment for the Proposed Development at 1 & 2 Longwalk Road, Hayes, Uxbridge UB11 1DB, in the London Borough of Hillingdon (LBH).

Proposals for the site comprise full planning permission for the demolition of the existing buildings and redevelopment of the site to provide two units for flexible industrial, storage and distribution uses (Use Classes B2/B8/E(g)(iii)), with ancillary office space, yard areas, servicing and vehicular and cycle parking along with other associated works.

The noise emissions associated with the Proposed Development, for the purposes of this Noise Impact Assessment, are limited to the installation of new building services plant, noise emissions from proposed industrial operations internally, and external logistics operations including vehicle movements.

Noise emission limits for building services plant, to be secured with an appropriately worded planning condition, have been provided.

An assessment has been undertaken of predicted noise levels from internal industrial and external logistics uses associated with the Proposed Development, which is intended for 24-hour use, affecting the nearest noise sensitive receptors.

The assessment concludes that logistics and industrial operations associated with the Proposed Development are unlikely to give rise to significant adverse noise effects at nearby noise sensitive receptors.

On the basis of the relevant acoustic standards, the site is considered appropriate for an industrial and logistics development.

INTRODUCTION

1 Trium have been appointed to undertake a Noise Impact Assessment for the Proposed Development at 1 & 2 Longwalk Road, Hayes, Uxbridge, UB11 1DB and UB11 1BA in the London Borough of Hillingdon (LBH).

2 An unattended environmental noise survey was conducted at two locations on site between 29 July and 05 August 2026. This survey has been used to evaluate the potential impacts at sensitive receptors that surround the site including adjacent office buildings and a nearby hotel. The nearest residential receptors to the site are at Emden Close located over 350m to the southwest of the site, at which distance impacts from noise would not be anticipated.

3 This report presents the survey method, results and the evaluation of the noise impacts at the surrounding existing receptors.

STATEMENT OF COMPETENCY

4 The measurements and assessment were completed by Iyiola Bamgbose, an acoustic consultant at Trium Environmental Consulting LLP.

5 The measurements and assessment have been reviewed by Stuart Heather, a Corporate Member of the Institute of Acoustics and associate acoustic consultant at Trium. Stuart has over 13 years' worth of experience in undertaking Noise Impact Assessments.

DEVELOPMENT PROPOSALS

6 The Proposed Development comprises 11,006 m² Gross Internal Area (GIA) of flexible industrial and logistics floorspace (Use Classes E(g)(iii), B2 and B8, with ancillary offices) at 1 & 2 Longwalk Road, Hayes, Uxbridge, UB11 1DB and UB11 1BA. The scheme includes ancillary office accommodation, servicing areas, parking and landscaping and is proposed to operate on a 24-hour basis.

7 During the daytime period, the Proposed Development is forecast to generate approximately 1,038 two-way vehicle movements between 07:00 and 21:00, with the busiest hour (12:00 – 13:00) generating approximately 108 two-way vehicle movements, including 22 Heavy Goods Vehicles (HGVs).

8 During the period outside 07:00 – 21:00, detailed hourly traffic movements are not available. For the purposes of the assessment of night time noise from the Proposed Development, to present a worst-case scenario, the same hourly average traffic figures have been assumed as for the daytime detailed above.

SITE DESCRIPTION

9 The site is approximately 2.53 hectares of land at 1 & 2 Longwalk Road located within Stockley Park, Hayes, London Borough of Hillingdon. There are two vacant buildings on the existing site.

10 The site location in relation to its surroundings is shown in Figure 1. The figure displays the nearest noise sensitive receptors, which are:

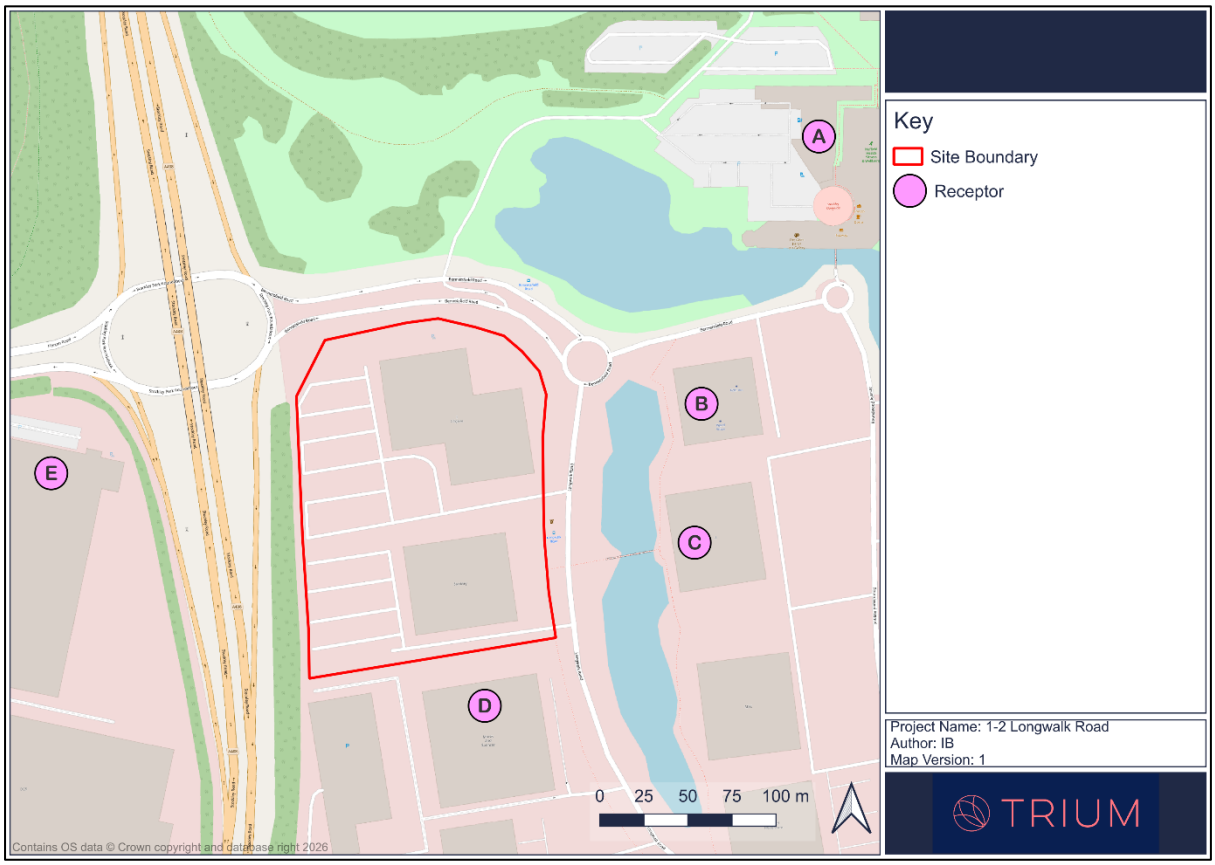
- A – Travelodge London Stockley Park Hayes (hotel) located approximately 200m to the northeast of the site;
- B – 1 Roundwood Avenue (commercial office) located approximately 85m to the east of the site;
- C – 3 Roundwood Avenue (commercial office) located approximately 85m to the east of the site;

- D – 3 Longwalk Road (commercial office) located approximately 20m to the south of the site; and
- E – 10 Iron Bridge Road North (industrial/warehouse) located approximately 120m to the west of the site.

11 The nearest residential receptors to the site are located at Emden Close. These dwellings are located over 350m to the southwest of the site, at which distance impacts from noise would not be anticipated. These dwellings have not been included as assessment receptors on this basis.

12 The dominant noise sources on-site, as identified as part of the baseline noise survey, were observed to be road traffic associated with Stockley Road (A408) (west) and Bennetsfield Road (north), with occasional contribution from aircraft noise associated with London Heathrow Airport.

Figure 1 The Site and Surrounding Receptors (A-E)



NOISE IMPACT ASSESSMENT GUIDANCE

National Planning Policy Framework (NPPF)[1]

13 The National Planning Policy Framework (NPPF) sets out the Government's national planning policies for England and provides the overarching framework within which local planning policies are prepared and decisions on planning applications are made. The August 2026 NPPF includes policies which apply directly to the determination of planning applications. The relevant policies to noise and vibration include Policy P3, Living conditions and pollution, and Policy P4, Impact of development on existing activities.

[1] *National Planning Policy Framework: Plan-making and national decision-making policies, Ministry of Housing, Communities & Local Government, August 2026.*

14 Accordingly, planning decisions need to consider noise from existing businesses and community facilities. New noise-sensitive development should incorporate sufficient mitigation to ensure that their continued operation is not unreasonably restricted.

15 Policy P3 of the National Planning Policy Framework (NPPF), Living conditions and pollution, states that:

> *"Development proposals should be appropriate for their location, taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, whether these effects are on or off-site; and whether this is as a result of the development itself or the product of preexisting conditions in its vicinity."*

16 In assessing these effects, consideration should be given to the sensitivity of the site and its intended occupiers and users.

17 In relation to noise, Policy P3 requires development proposals to provide healthy living conditions by avoiding exposure to noise which could have an unacceptable adverse effect on health and quality of life, with suitable mitigation incorporated where necessary. It also requires development proposals to:

> *"Mitigate and reduce to a minimum potential adverse impacts resulting from noise, not result in levels of noise exposure which would have a significant observed adverse effect, and maintain the character of tranquil areas."*

18 Planning decisions therefore need to consider both noise generated by a proposed development and existing noise affecting future occupants. Where necessary, suitable mitigation should be incorporated to provide acceptable living conditions, with adverse noise impacts reduced to a minimum and significant observed adverse effects avoided.

19 Policy P4 of the NPPF, Impact of development on existing activities, states that existing businesses, community facilities and public services should not have unreasonable restrictions placed on their current or permitted operation as a result of development being approved after they were established. Development proposals should therefore be capable of being integrated effectively with existing activities in their vicinity, including uses such as pubs, music venues, places of worship and sports clubs.

20 Where an existing activity could have a significant adverse effect on a proposed new development, Policy P4 requires the nature of the potential impacts to be identified, with the applicant acting as the 'agent of change', and requires suitable mitigation to be demonstrated before first occupation where necessary.

21 Accordingly, noise from existing businesses and community facilities should be considered when introducing new noise-sensitive residential development. Sufficient mitigation should be incorporated where necessary to provide acceptable conditions for future residents while ensuring that the lawful current or permitted operation of existing activities is not unreasonably restricted.

Noise Policy Statement England (NPSE)[2]

22 The Noise Policy Statement for England (NPSE) sets out the long-term vision of Government noise policy. The NPSE states that its aims are as follows:

> *"Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:*
>
> - *Avoid significant adverse impacts on health and quality of life;*

[2] *Noise Policy Statement for England, Department for Environment Food and Rural Affairs, March 2010*

- *Mitigate and minimise adverse impacts on health and quality of life; and*
- *Where possible, contribute to the improvement of health and quality of life."*

23 The NPSE adopts established concepts from toxicology that can be applied to noise impacts. The concept details noise levels, at which the effects of an exposure may be classified into a specific category. The classification categories as detailed within the NPSE are as follows:

- No Observed Effect Level (NOEL) - the level below which no effect can be detected. Below this level no detectable effect on health and quality of life due to noise can be established;
- Lowest Observable Adverse Effect Level (LOAEL) - the level above which adverse effects on health and quality of life can be detected; and
- Significant Observed Adverse Effect Level (SOAEL) - the level above which significant adverse effects on health and quality of life occur.

24 The SOAEL does not have a single objective noise level that is applicable to all sources of noise in all situations and therefore, the SOAEL is likely to be different for different sources, different receptors and at different times of the day.

25 The first aim of the NPSE is to avoid significant adverse effects on health and quality of life, taking into account the guiding principles of sustainable development. The second aim considers situations where impacts are established between the LOAEL and SOAEL. In such circumstances, all reasonable steps should be taken to mitigate and minimise the effects. However, this does not mean that such adverse effects cannot occur. The third aim seeks to improve health and quality of life, where possible, through the pro-active management of noise, whilst also taking account of the guiding principles of sustainable development.

26 The NPSE effect-level terminology has been used as policy context rather than as a standalone numerical scale for this assessment. The NPSE does not define fixed noise levels for NOEL, LOAEL or SOAEL, and these thresholds depend on the source, receptor sensitivity, time period and surrounding acoustic context. The potential for adverse and significant adverse effects has therefore been assessed using the relevant technical standards and guidance set out below. The findings of those assessments are then used to determine whether the Proposed Development would give rise to significant adverse noise effects.

The London Plan 2021[3]

27 The London Plan was adopted in March 2021 and sets out policies for development in London. Two policies, namely D13 'Agent of Change' and D14 'Noise', are the most applicable with respect to noise.

28 Policy D13 'Agent of Change' requires that new developments take responsibility for mitigating noise impacts. This includes controlling noise emissions affecting existing sensitive receptors and incorporating measures to ensure existing noise-generating uses can continue operating without unreasonable restrictions. The Agent of Change principle places the onus on the new development to manage the effects of noise and other nuisances.

29 Policy D14 "Noise" promotes the effective management of noise, both internally and externally, to support good health and quality of life. The policy refers to broader acoustic standards including BS 8233:2014 and BS 4142 as relevant for assessing and controlling noise.

[3] *The London Plan: The Spatial Development Strategy for Greater London, Greater London Authority, March 2021*

The London Borough of Hillingdon Local Plan[4] and Specific Requirements

30 With respect to noise and vibration, the London Borough of Hillingdon (LBH) Local Plan includes policies relevant to the assessment of operational noise effects associated with the Proposed Development. Policy EM8 (Land, Water, Air and Noise) seeks to ensure that noise sensitive and noise generating developments are only permitted if noise impacts can be adequately controlled and mitigated.

31 The EIA Screening Opinion for the Proposed Development also refers to impacts on neighbouring office buildings within Stockley Park, and requires that any assessment of noise impacts includes these buildings as receptors.

BS 4142:2014+A1:2019 Methods for Rating and Assessing Industrial and Commercial Sound[5]

32 BS 4142:2014+A1:2019 Methods for rating and assessing industrial and commercial sound (BS 4142) is used to determine the likely impact of sound generated by industrial and manufacturing operations and fixed building services plant at noise sensitive properties. BS 4142 is limited in scope to industrial and commercial operations and typically not used to evaluate people talking or music (amongst other sources), even when these might arise from commercial properties.

33 BS 4142 suggests that the greater the difference between the rating and background sound level, the greater the impact. The evaluation of the impact, as set out in BS 4142, is described below:

- A difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context;
- A difference of around +5 dB is likely to be an indication of an adverse impact, depending on the context; and
- Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.

34 As noted in Section 11 of BS 4142, the impact of the sound source has to consider context. BS 4142 mentions three types of context that can be considered, which can be summarised as:

- The absolute level of sound;
- The character and level of the residual sound compared to the character and level of the specific sound; and
- The sensitivity of the receptor and whether the receptor incorporates design measures that secure good internal and/or outdoor acoustic conditions e.g. façade sound insulation treatment and ventilation and cooling that does not rely on opening windows.

BS 8233:2014 Guidance on Sound Insulation and Noise Reduction for Buildings[6]

35 BS 8233:2014 Guidance on sound insulation and noise reduction for buildings (BS 8233) includes recommendations on noise control within buildings. The scope of BS 8233 states that it is intended for the design of new or refurbished buildings. However, the internal ambient noise criteria set out within

[4] *London Borough of Hillingdon Local Plan, adopted 8 November 2012*
[5] *British Standards (BS) 4142:2014+A1:2019 Methods for rating and assessing industrial and commercial sound, October 2014*
[6] *British Standards (BS) 8233:2014 Guidance on sound insulation and noise reduction for buildings, February 2014*

the standard provide a benchmark for considering whether changes in external noise exposure may materially affect the acoustic conditions experienced within existing buildings.

36 While BS 8233 is therefore not being applied as a design standard for those buildings, its recommended internal noise levels have been used as a reference point to assist in judging the potential significance of changes to internal acoustic conditions. This is considered appropriate where the assessment is concerned with the suitability of the resulting internal noise environment rather than compliance of the existing building fabric with the standard itself.

37 The recommended indoor ambient noise levels listed in Section 7.7.4 for non-domestic buildings containing study and work requiring concentration are given as $L_{Aeq,T}$ 35 – 40 dB.

World Health Organisation: Environmental Noise Guidelines[7]

38 This World Health Organisation (WHO) document sets out to define "recommended exposure levels for environmental noise in order to protect population health". The guidance document relates specifically to external noise levels, and recommends that all indoor guideline values and any values not covered by the current guidelines (such as industrial noise and shopping areas) should remain valid. Reference has therefore been made to the WHO Community Noise Guidelines for recommendations on internal noise levels at sensitive receptors with the potential to experience effects during the operation of the completed Proposed Development, including for maximum levels at night that may cause sleep disturbance.

39 The WHO document "Guidelines for Community Noise" describes guideline levels that are "essentially values for the onset of health effects from noise exposure". A table of guideline values is included, relating to adverse health effects, referred to as any temporary or long term deterioration in physical, psychological, or social functioning that is associated with noise exposure. Table 1 is an extract from Table 4.1 of the guidelines: Guideline values for community noise in specific environments, as stated in the WHO document. The criteria for sleep disturbance at night has been included, which will be used for assessment for the hotel receptor.

Table 1 WHO Guideline Values

Specific Environment	Critical Health Effect(s)	L_{Aeq} (dB)	Time Base (hours)	L_{AFmax} (dB)
Outside bedrooms	Sleep disturbance, window open (outdoor values)	45	8	60

Road Traffic Noise Guidance

40 The assessment of traffic noise effects is based on the Department for Transport Welsh Office Calculation of Road Traffic Noise 1988 (CRTN) [8] and Volume 11 of the Design Manual for Roads and Bridges (DMRB) [9], using traffic data provided for the Proposed Development from the project transport consultant Mode Transport Planning.

[7] *World Health Organisation (WHO), Guidelines for Community Noise, February 1999.*
[8] *Department for Transport Welsh Office (1988) Calculation of Road Traffic Noise (CRTN)*
[9] *Department for Transport Highways Agency Design Manual for Roads and Bridges: LA 111 – Noise and vibration, May 2020 (DMRB)*

Criteria for Assessing Noise Impacts

41 Further to the Local plan, the LBH has developed the London Boroughs of: Hillingdon, Hounslow, and Richmond Upon Thames - Supplementary Planning Document (SPD): Development Control for Noise Generating and Noise Sensitive Development[10], April 2016. This SPD specifies any particular criteria or guidance for assessing noise impacts associated with proposed developments.

42 Building services plant noise emissions should be 5 dB below the background sound level, when evaluated at 1 m from the façade of residential or hotel buildings, to avoid an adverse impact on nearby residents.

ENVIRONMENTAL NOISE SURVEY

43 An environmental noise survey was undertaken around the site to establish the existing conditions. The noise survey comprised unattended noise monitoring at two positions between 29 July and 05 August 2026.

44 The survey comprised unattended noise monitoring at two positions. The measurement positions relative to the site (outlined in red) are shown in Figure 2.

45 Details of the weather and equipment used are provided in **Appendix A**.

46 The two positions (Position 1 and Position 2) were selected as they are considered to be representative of the noise environment experienced at the site and by the identified nearest receptors.

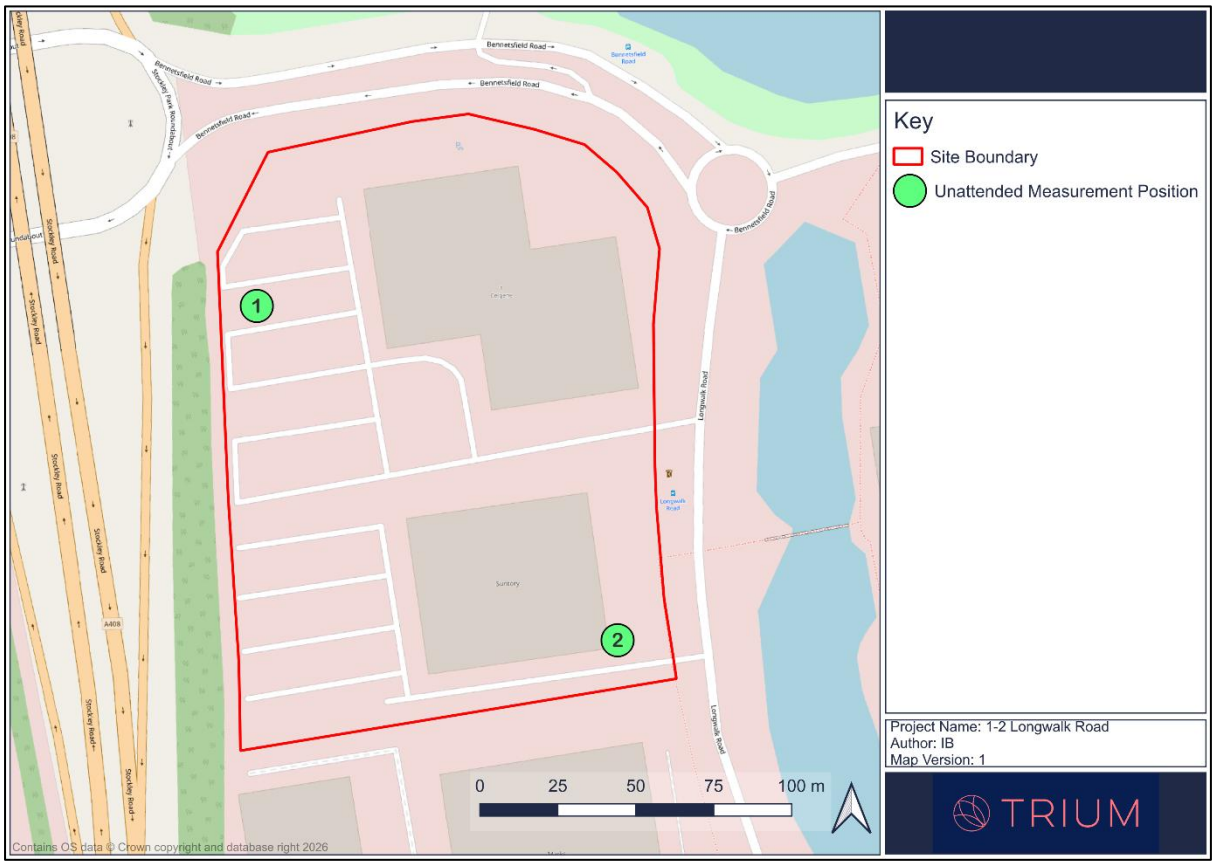
47 The survey was undertaken by Iyiola Bamgbose.

48 The dominant noise source during the surveys was traffic noise from Stockley Road, Bennetsfield Road and Longwalk Road.

49 No tactile vibration was observed at the site during the surveys, and there are no nearby sources that are considered to give rise to significant vibration levels. Vibration monitoring was therefore not included in the site survey.

[10] *London Boroughs of: Hillingdon, Hounslow, and Richmond Upon Thames - Supplementary Planning Document (SPD): Development Control for Noise Generating and Noise Sensitive Development, April 2016 https://www.richmond.gov.uk/media/8394/spd_noise_generating_and_noise_sensitive_development_2016.pdf*

Figure 2 Noise Monitoring Positions



50 Figure 3 provides images of the noise monitoring locations shown in Figure 2 above.

Figure 3 Photos of Noise Monitoring Positions

Position 1	Position 2
	

Position 1

51 The unattended measurements at Position 1 were taken over 15 minute periods between 11:10 on 29 July 2026 and 11:10 on 5 August 2026.

52 The dominant source of noise during installation and pick up was traffic noise from Stockley Road (A408) approximately 30m to the west.

53 The microphone was positioned 1.2m above ground level and at least 3.5m away from other vertical surfaces, i.e. free-field conditions.

54 Table 2 summarises the day, evening and night-time ambient sound pressure levels measured at Position 1.

55 The time history graphs illustrating the sound pressure levels measured across the survey period are provided in **Appendix B**.

56 The statistical analysis of the background sound levels is provided in **Appendix C**.

Table 2 Summary of Ambient Sound Pressure Levels Measured at Position 1

Date	Day (07:00-19:00) $L_{Aeq,12h}$ (dB)	Evening (19:00-23:00) $L_{Aeq,4h}$ (dB)	Night (23:00-07:00) $L_{Aeq,8h}$ (dB)
29/07/2026	60*	59	54
30/07/2026	59	56	53
31/07/2026	57	57	54
01/08/2026	57	57	53
02/08/2026	54	54	52
03/08/2026	55	54	53
04/08/2026	60	59	56
05/08/2026	62*	-	-

** Measurements not completed over entire time period*

57 The representative background sound levels were measured to be $L_{A90,15min}$ 53 dB during the day and $L_{A90,15min}$ 47 dB during the night.

58 The 10th highest maximum sound level during the night ranged between $L_{AFmax,15min}$ 63-69 dB.

Position 2

59 The unattended measurements at Position 2 were taken over 15 minute periods between 11:30 on 29 July 2026 and 03:00 on 3 August 2026.

60 The dominant source of noise during installation and pick up was noise from Stockley Road (A408) approximately 120m to the west.

61 The microphone was positioned approximately 1.2m above ground level and at least 3.5m from vertically reflective surfaces, i.e. free-field conditions.

62 Table 3 summarises the day, evening and night-time ambient sound pressure levels measured at Position 2. Note that due to a power supply issue the measurement at this location ended earlier than the measurement at Position 1. The quantity of measured data is considered adequate for robust assessment.

63 The time history graphs illustrating the sound pressure levels measured across the survey period at Position 2 are provided in **Appendix B**.

64 The statistical analysis of the background sound levels at Position 2 are provided in **Appendix C**.

Table 3 Summary of Ambient Sound Pressure Levels Measured at Position 2

Date	Day (07:00-19:00) $L_{Aeq,12h}$ (dB)	Evening (19:00-23:00) $L_{Aeq,4h}$ (dB)	Night (23:00-07:00) $L_{Aeq,8h}$(dB)
29/07/2026	52*	51	47
30/07/2026	52	49	45
31/07/2026	50	49	46
01/08/2026	48	47	45
02/08/2026	47	49	43*

** Measurements not completed over entire time period*

65 The representative background sound levels were measured to be $L_{A90,15min}$ 46 dB during the day and $L_{A90,15min}$ 42 dB during the night.

66 The 10th highest maximum sound level during the night ranged between $L_{AFmax,15min}$ 53-64 dB.

NOISE IMPACT ASSESSMENT

Noise Impacts from Proposed Industrial and Logistics Uses

67 A 3D computer noise propagation model of the Proposed Development and the surrounding area has been generated using the CadnaA software package.

68 The software uses three-dimensional calculations to predict noise levels at given locations, factoring in the effects of topography, ground conditions, reflections, screening, and distance loss. Calculations follow the methodology described in ISO 9613-2[11].

69 The software has been used to predict noise levels from proposed industrial and logistics uses. At the time of preparing the noise impact assessment, details of specific operators have not been established. Assessment is therefore based on typical operations associated with logistics developments, and not on specific machinery or operations.

70 The modelled sources have been limited to external operations from vehicles for the logistics operations. It is anticipated that other industrial operations (other than fixed external plant, for which limits have been calculated and provided in Table 9) will be undertaken internally, and as such are assessed as breakout noise from the proposed warehouse buildings.

71 The typical external logistics operations noise sources that have been modelled include vehicle movements, loading and unloading operations, shutter doors, and reversing alarms.

External Logistics Operations Noise Modelling Sources

72 Data for source noise levels from typical logistics activities have been taken from historical noise assessments carried out by Trium for comparable logistics operations, and, where relevant, library data of representative measures noise sources such as BS 5228-1:2009+A1:2014[12].

[11] *International Standard 9613 (1996) – Attenuation of Sound during Propagation Outdoors*
[12] *British Standards (BS) 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction sites – Part 1: Noise, February 2014.*

73 A summary of source noise levels used in the model is included below in Table 4.

Table 4 Modelled Noise Sources

Activity	Sound Power Level (dBA)	Typical Duration (s)*	Comments
HGV travelling at 10 mph	111	120 (per movement)	22 HGV movements during daytime 1 hour assessment period 6 HGV movements during night time 15 minute assessment period Movement numbers based on worst case hour 12:00 – 13:00
Van/car travelling at 10 mph	95	120 (per movement)	86 van/car movements during daytime 1 hour assessment period 22 van/car movements during night time 15 minute assessment period In the absence of night time vehicle movements, movements based on daytime worst case hour 12:00 – 13:00
Van loading/ unloading	78	600	
HGV loading / unloading	87	600	
Forklift handler (Warehouse type)	98	600	
Warehouse roller door	79	30	
HGV reversing with tonal alarm	105	120	Assumed as containing acoustic tonality characteristics at source

**Applies to operational time during day and night periods*

Internal Industrial Operation Noise Breakout Modelling Sources

74 Noise breakout from operations within the proposed units has been assessed using a simplified façade transmission approach. Noise breakout has been calculated with reference to the methods set out in BS EN ISO 12354-4[13], with propagation to nearby receptors assessed using the principles contained within ISO 9613-2. No screening has been assumed in the propagation path between the units and the receptors, reflecting a worst case assessment assumption.

75 In the absence of detailed operational information, an internal reverberant sound level of $L_{Aeq,T}$ 85 dB has been assumed to represent a conservative worst-case operating scenario. This level is consistent with the upper action value defined within the Control of Noise at Work Regulations 2005, above which employers are required to implement measures to reduce worker exposure, and therefore represents the higher end of noise levels likely to be encountered within an occupied industrial workspace[14]. The assessment also assumes that all units will be operating at this level simultaneously and continuously, which is also a conservative assumption.

76 A façade sound reduction performance of R_w 30 dB has been assumed for the warehouse envelope. As the detailed building specification is not yet known, this assumption is considered conservative based on manufacturer data available from Kingspan for typical panelling systems[15]. Building

[13] *International Standard 12354:4 (2017) Building acoustics - Estimation of acoustic performance of buildings from the performance of elements Part 4: Transmission of indoor sound to the outside*
[14] *https://www.hse.gov.uk/noise/regulations.htm*
[15] *Kingspan Sandwich Panel Systems technical guidance: https://damcdn.kingspan.com/assets/product/public/original/ASS_533988.pdf*

dimensions for the warehouses used in the calculations have been based on current drawings for the Proposed Development.

BS 4142 Assessment of Proposed Operations

77 Using the above activities in the model at representative locations, noise levels have been predicted during both day and night periods. The assessments present a comparison of the predicted combined external logistics and internal industrial operations noise levels against the representative background sound levels measured at the noise sensitive Travelodge hotel receptor. While BS 4142 is intended for assessment at residential receptors, it is considered appropriate in this case to apply it to the hotel receptor to ensure robust assessment. Commercial and industrial receptors are outside the scope of BS 4142 and have been assessed separately.

Daytime Assessment – Combined External Logistics and Internal Industrial Operations Breakout Noise

Travelodge Hotel Receptor

78 Table 5 presents the predicted daytime noise levels at the Travelodge hotel receptor using the BS 4142 assessment principles, using the representative measured background sound level.

79 Predictions represent noise levels averaged over a one hour assessment period based on activities during the peak daytime activity hour as described in paragraph 7.

Table 5 Assessment of Daytime Operations Noise – Travelodge Hotel

Result	Receptor A - Travelodge London Stockley Park Hayes (Hotel)	Relevant BS 4142 Clause	Commentary
Residual sound pressure level	$L_{Aeq,1h}$ 50 dB	7.1	Measured at Position 2 representative of receptor
Background sound level	$L_{A90,1h}$ 46 dB	8.1.2	Measured at Position 2 representative of receptor, i.e. not adjacent to the road
Assessment made during the day, so the reference time interval is 1 hour		7.2	
Specific sound level evaluated using the noise model	$L_{Aeq,1h}$ 45 dB	7.3.7	Combined predicted external logistic and internal industrial breakout noise Façade correction applied
Acoustic feature correction	0	9.2	No acoustic character correction applied to assessment. While the HGV reverse alarms will contain some tonality at source, the noise is assessed as being inaudible at the receptor.
Rating level	45	9.2	
Excess of rating over background sound level	-1	11	Initial evaluation indicates a Low impact, without considering context

Result	Receptor A - Travelodge London Stockley Park Hayes (Hotel)	Relevant BS 4142 Clause	Commentary
Uncertainty	The evaluation is based on known sources of information relating to the proposed operations and incorporates conservative assumptions regarding operational noise levels, activity durations and on-times, representing a reasonable worst-case scenario. Whilst some uncertainty is inherent in any predictive assessment, the approach adopted is considered robust and overall uncertainty is unlikely to alter the category of indicative evaluation.		

80 The results presented in Table 5 indicate that the predicted daytime rated sound pressure level is 1 dB below the representative daytime background sound levels at the Travelodge hotel receptor.

81 In accordance with BS 4142, the difference between the rating level and the background sound level provides an initial estimate of the impact, which should subsequently be considered in the context in which the sound occurs.

82 The residual sound pressure level comprises road traffic, which is characteristically similar to the specific sound source. Accordingly, it is likely that the specific sound source would not be highly distinguishable from the existing sound and that a Low impact would be likely.

83 It is also noted that the assessment represents a conservative worst-case scenario, based on the peak number of HGV movements predicted to occur during any one-hour daytime period, rather than an average level of activity across the operational day. The assessment therefore reflects the period during which the greatest logistics and industrial activity is anticipated. In addition, the predicted activities have been assumed to occur concurrently, further providing a robust representation of the potential operational sound levels.

84 Acoustic corrections may be applicable to the character of certain logistics activities, including tonal reversing alarms. However, BS 4142 requires consideration of the prominence of such characteristics at the receptor and the extent to which they would attract attention, including the potential for characteristics to be masked by the residual sound environment. The modelling indicates that reversing alarms would be significantly (approximately 30 dBA) below the residual measured sound level at the receptor. Character corrections have therefore not been applied.

85 On the basis of the context described above, the assessment indicates a Low impact at the Travelodge hotel receptor.

Commercial Receptors

86 Noise from the combined logistics operations and industrial noise breakout has been predicted at 1m from the façades of neighbouring commercial receptors for the daytime period. To assess potential effects on internal conditions, predicted external levels at the façade have then been converted to indicative internal levels and compared with the BS 8233:2014 range of $L_{Aeq,T}$ 35–40 dB for offices where work requiring concentration is undertaken.

87 Typically, an closed façade would expect to achieve an airborne sound insulation performance of R_w 30 dB without specific acoustic intervention, i.e. the inherent performance of hermitically sealed thermal glazing.

88 Table 6 presents the assessment results.

Table 6 Assessment of Daytime Logistics and Industrial Operations Noise

Receptor	Predicted Operational Level – Combined Logistics and Industrial Noise Breakout (1m from façade) (dB, $L_{Aeq,T}$)	Assumed Outside to Inside level difference (dB)	Predicted Operational Level – Internal (dB, $L_{Aeq,T}$)	Internal noise level criteria for work requiring concentration receptor (dB, $L_{Aeq,T}$)	Difference (dB)
B – 1 Roundwood Avenue (commercial office)	55	30	25	35 - 40	10 – 15
C – 3 Roundwood Avenue (commercial office)	56	30	26	35 - 40	9 – 14
D – 3 Longwalk Road (commercial office)	54	30	24	35 - 40	11 – 16
E – 10 Iron Bridge Road N (industrial/warehouse)	50	30	20	35 - 40*	15 – 20

** Assumed to contain office areas for assessment purposes*

89 As shown in Table 6, predicted internal operational noise levels are below the BS 8233 range at all receptors. The predicted contribution is sufficiently below the guidance values that the proposed operations are not expected to result in unsuitable internal acoustic conditions at the assessed commercial receptors.

Night Time Assessment - Combined External Logistics and Internal Industrial Operations Breakout Noise

90 Table 7 presents the predicted night time noise levels at the Travelodge hotel receptor, against the measured background sound level. Predictions represent noise levels averaged over a 15 minute assessment period based on activities during the peak daytime activity hour as described in paragraph 8.

Table 7 Assessment of Night-time Operations Noise

Result	Receptor A – Travelodge London Stockley Park Hayes (Hotel)	Relevant BS 4142 Clause	Commentary
Residual sound pressure level	$L_{Aeq,15min}$ 46 dB	7.1	Measured at Position 2 representative of receptor
Background sound level	$L_{A90,15min}$ 42 dB	8.1.2	Measured at Position 2 representative of receptor
Assessment made during the night, so the reference time interval is 15 minutes		7.2	
Specific sound level evaluated using the noise model	$L_{Aeq,15min}$ 45 dB	7.3.7	Combined predicted external logistic and internal industrial breakout noise Façade correction applied

Result	Receptor A – Travelodge London Stockley Park Hayes (Hotel)	Relevant BS 4142 Clause	Commentary
Acoustic feature correction	0	9.2	No acoustic character correction applied to assessment. While the HGV reverse alarms will contain some tonality at source, the noise is assessed as being inaudible at the receptor.
Rating level	45	9.2	
Excess of rating over background sound level	+3	11	Initial evaluation indicates impact is below the threshold of an Adverse impact, without considering context
Uncertainty	The evaluation is based on known sources of information relating to the proposed operations and incorporates conservative assumptions regarding operational noise levels, activity durations and on-times, representing a reasonable worst-case scenario. Whilst some uncertainty is inherent in any predictive assessment, the approach adopted is considered robust and overall uncertainty is unlikely to alter the category of indicative evaluation.		

91 The results presented in Table 7 indicate that the predicted night time rated sound level is 3 dB above the representative night time background sound levels at the Travelodge hotel receptor.

92 The evaluation of context in this instance must consider the sensitivity of the receptor to sound. During the night time it is reasonable to assume that guests of the hotel will be within their rooms sleeping. All rooms at the hotel are air conditioned and otherwise mechanically ventilated, so the occupants can keep windows closed without compromising their comfort.

93 The airborne sound insulation across a closed façade is typically in the region of R_w 30 dB, without specific acoustic measures being adopted. The specific sound level in the hotel bedrooms would be expected to be $<L_{Aeq,15,min}$ 20 dB, i.e. at least 10 dB below the indoor ambient sound levels recommended in BS 8233.

94 The assessment represents a conservative worst-case scenario, based on the peak number of HGV movements predicted to occur during any 15 minute night period, rather than an average level of activity across the operational night period. The assessment therefore reflects the night time period during which the greatest volume of activity is anticipated. In addition, the predicted activities have been assumed to occur concurrently, further providing a robust representation of the potential operational sound levels.

95 On the basis of the context described above, the assessment indicates a low impact at the Travelodge hotel receptor.

Assessment of Maximum Night Time Noise Levels

96 The BS 4142 assessment presented above considers the effect of average operational noise levels over the relevant assessment period. However, sleep disturbance can also arise from short-duration noise events during night time operations that may not materially influence the overall assessment period noise level. It is therefore appropriate to consider maximum noise levels separately during the night time period.

97 The WHO Guidelines for Community Noise recommend that maximum noise levels outside bedrooms should not normally exceed L_{AFmax} 60 dB in order to minimise the risk of sleep disturbance. Accordingly, maximum noise levels associated with representative logistics and industrial activities have also been modelled and assessed. The results are presented for the hotel receptor in Table 8 and have been evaluated against the relevant WHO guideline values.

Table 8 Assessment of Maximum Night Time Noise Levels

Receptor	Predicted Logistics Operations Maximum Night Time Noise Levels (dB, L_{AFmax})	Sleep Disturbance Criteria (dB L_{AFmax})	Difference (dB L_{AFmax})
A – Travelodge London Stockley Park Hayes (Hotel)	49	60	-11

98 The assessment presented in Table 8 demonstrates compliance with the relevant WHO guideline value at the sensitive Travelodge hotel receptor. The predicted maximum noise levels therefore indicate a low likelihood of sleep disturbance arising from individual maximum operational noise events associated with the Proposed Development.

99 Taking account of the predicted maximum noise levels and the established WHO guidance, it is concluded that logistics and industrial operations associated with the Proposed Development are unlikely to give rise to adverse effects on sleep as a result of nighttime maximum noise events. Therefore, no specific noise mitigation measures would be required to achieve the appropriate criteria, though it is recommended that a good practice operational management plan is adopted to minimise noise as far as reasonably practicable.

Building Services Plant

100 Table 9 details proposed cumulative limits for the building services plant at receptors based on LBH's typical requirements (5 dB below the background sound pressure level). The limits in the table are expressed as façade sound levels.

Table 9 Proposed Building Services Plant Noise Limits

Cumulative Building Service Limit ($L_{ART,T}$) dB at 1m from sensitive façades		
Receptor	**Day (07:00-23:00)**	**Night (23:00-07:00)**
A – Travelodge London Stockley Park Hayes (Hotel)	44	40

101 The limits in Table 9 are to be met cumulatively (all plant operating at the same time) at 1m from the facade of the hotel receptor.

102 The limits presented do not account for acoustic features, as described in BS 4142. If the plant noise includes noticeable acoustic characteristics at the receptor, then appropriate rating adjustments will be required.

103 It is recommended that a suitable planning condition be imposed on the Proposed Development to ensure that sufficient details are submitted to LBH when plant designs and selections have been sufficiently progressed.

Noise and Vibration During Demolition and Construction

104 During demolition and construction works, noise and vibration will be controlled through the implementation of Best Practicable Means in accordance with the Control of Pollution Act 1974 and BS 5228. A site-specific draft Demolition and Construction Method Statement is being drafted and will be implemented. The draft Method Statement will set out working methods, hours of work, plant selection and maintenance, site layout, delivery management and communication procedures with nearby receptors. These measures represent established and effective practice for managing temporary construction disturbance.

105 Construction traffic will be managed through a Construction Logistics Plan (CLP), which will control routing, scheduling and logistics to minimise disruption to the surrounding highway network and reduce the potential for off-site environmental effects.

106 It is anticipated that these measures will adequately control noise and vibration during the demolition and construction phase of the Proposed Development and further assessment is not required.

Operational Road Traffic Noise

107 Based on traffic flow data received from the project transport consultant (Mode Transport Planning), changes in traffic noise level have been predicted for the main roads surrounding the site using the guidance in CRTN.

108 To represent a worst case assessment scenario, the total number of vehicles associated with the development have been added to the existing baseline flows (2024). It should be noted that this assessment method represents a conservative approach, as the scheme will actually likely result in a substantial decrease in overall traffic flows.

109 The results of the prediction calculations are presented in Table 10.

Table 10 Predicted Traffic Noise Level Changes

Road Link	18-Hour Traffic Flow, AAWT (HGV%) without Proposed Development	18-Hour Traffic Flow, AAWT (HGV%) including Proposed Development operational traffic	Predicted Change in Traffic Noise Level (dB)
Longwalk Road	3676 (4%)	4265 (6%)	0.7
Bennetsfield Road	8131 (4%)	8720 (4%)	0.3
Stockley Road Northbound	17011 (2%)	17600 (2%)	0.1
Stockley Road Southbound	17062 (2%)	17651 (1%)	0.1

110 The assessed changes in road traffic noise levels for the links closest to the Proposed Development range from 0.1 dB to 0.7 dB. Referring to assessment guidance in DMRB, changes of less than 1 dB are generally considered negligible. Overall, the predicted changes are negligible and are not considered likely to result in any material change to the existing road traffic noise environment. Consequently, operational traffic noise effects are not considered significant and have not been assessed in further detail.

CONCLUSIONS

111 Trium Environmental Consulting LLP has undertaken a Noise and Vibration Impact Assessment for the Proposed Development at 1 & 2 Longwalk Road, Hayes, Uxbridge, UB11 1DB and UB11 1BA.

112 The assessment has considered noise emissions associated with the proposed logistics and industrial operations, including vehicle movements, loading and unloading activities, reversing alarms and industrial noise breakout, together with future building services plant.

113 The nearest residential receptors are over 350m from the site, and have therefore not been included in the assessment.

114 At the Travelodge hotel receptor, predicted noise levels associated with the proposed logistics and industrial operations were assessed against representative background sound levels. During both the daytime and night-time periods, assessment undertaken with reference to BS 4142, indicated that the proposed operations are likely to result in a low impact.

115 As BS 4142 is not applicable to commercial receptors, potential effects at neighbouring commercial premises were assessed by considering predicted internal noise levels against the guidance in BS 8233. Predicted internal operational noise levels were below the BS 8233 range for offices where work requiring concentration is undertaken, indicating that the proposed operations are not expected to result in unsuitable acoustic conditions for the occupants.

116 Maximum night-time noise levels associated with operations at the Travelodge hotel receptor were assessed separately with reference to World Health Organization guidance relating to sleep disturbance. The assessment demonstrated compliance with the relevant guideline values at the Travelodge hotel receptor and indicated a low likelihood of sleep disturbance arising from individual operational noise events. No specific operational noise mitigation measures are therefore required.

117 Appropriate cumulative noise limits for future building services plant have been identified and can be secured by planning condition.

118 During demolition and construction, noise and vibration will be controlled through the implementation of Best Practicable Means and a Demolition and Construction Method Statement. Additional road traffic associated with the Proposed Development is not expected to result in more than a negligible increase in traffic noise levels.

119 On the basis of the relevant acoustic standards and guidance, the Proposed Development is not expected to give rise to significant adverse noise or vibration impacts, and the site is considered suitable from a noise and vibration perspective for the proposed industrial and logistics use.

APPENDIX A – SURVEY DETAILS

Equipment

A.1 The noise measurements were completed using one NL-53 and one NRST_MK4.

A.2 Calibration details for the noise monitoring equipment are provided in Table A.1.

Table A.1 Calibration Information

Position(s)	Equipment	Manufacturer	Calibration Expiry	Calibration Certification
1	NL-53	RION	26/04/28	UCRT24/1652
2	NRST_mk4	Convergence	13/02/27	Cvp2hNU6c3UfoDPy4y5nD

A.3 Calibration checks were completed before and after the noise measurements. No notable deviations were observed.

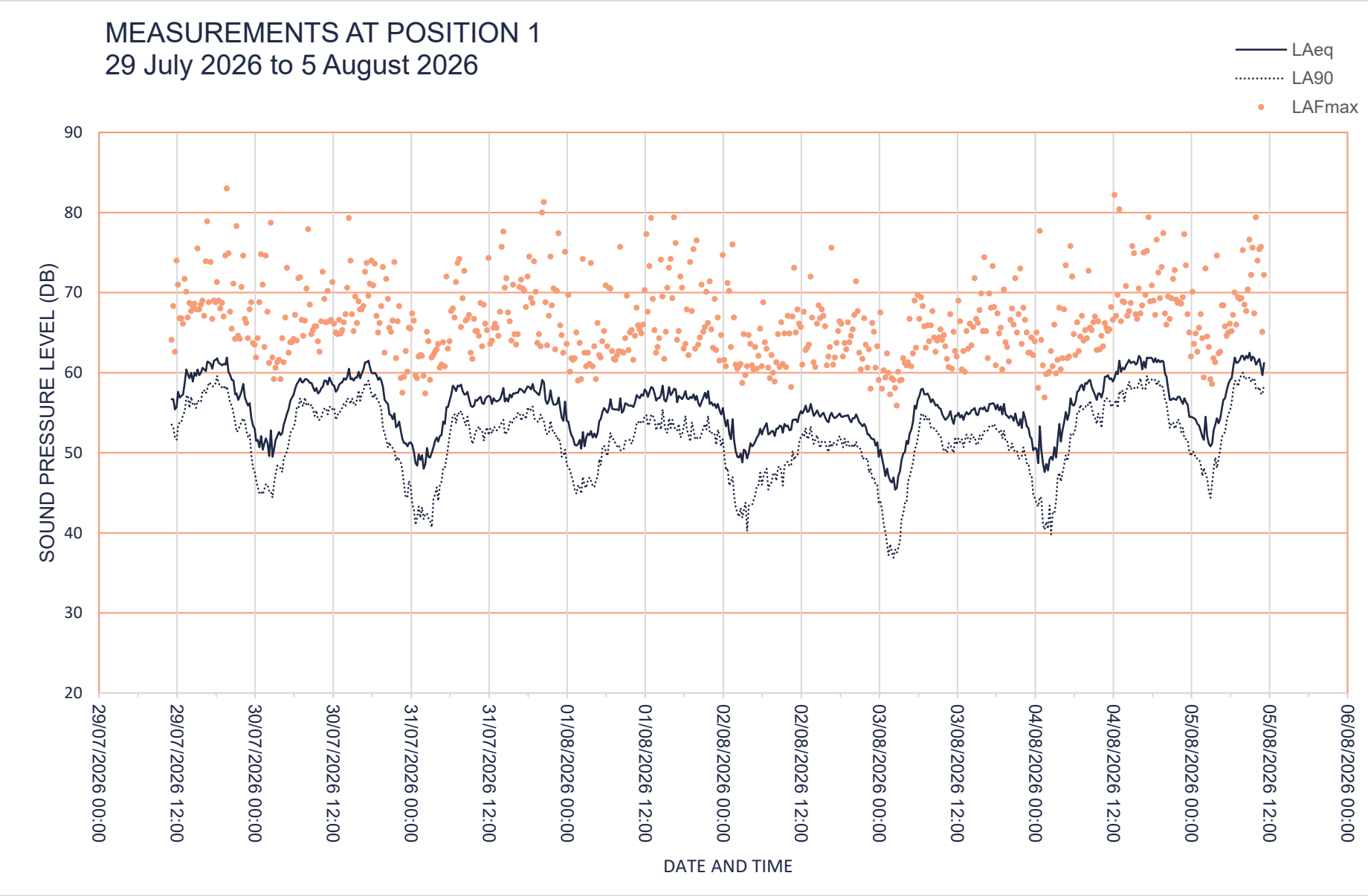
Weather Conditions

A.4 Weather monitoring was not completed on the site during the survey. Data from a weather station located at 51.52N and 0.47W has been referenced and is provided in Table A.2. This is considered appropriate given the length and type of survey.

Table A.2 Summary of Weather Data (29/07/26-05/08/26)

Date	Temperature Range (°C)	Precipitation (mm)	Wind Direction	Average Wind Speed (km/h)
29/07/2026	20-35	0.00	ENE	1.1
30/07/2026	19-28	0.00	NE	0.9
31/07/2026	14-29	0.00	WNW	0.8
01/08/2026	17-28	0.00	NNE	0.5
02/08/2026	12-28	0.00	W	1.9
03/08/2026	15-30	0.00	WSW	1.8
04/08/2026	18-32	0.00	ENE	1.3
05/08/2026	15-24	0.00	NE	2.5

APPENDIX B – TIME HISTORY MEASUREMENT RESULTS


MEASUREMENTS AT POSITION 1
29 July 2026 to 5 August 2026
LAeq
LA90
LAFmax
SOUND PRESSURE LEVEL (DB)
90
80
70
60
50
40
30
20
29/07/2026 00:00
29/07/2026 12:00
30/07/2026 00:00
30/07/2026 12:00
31/07/2026 00:00
31/07/2026 12:00
01/08/2026 00:00
01/08/2026 12:00
02/08/2026 00:00
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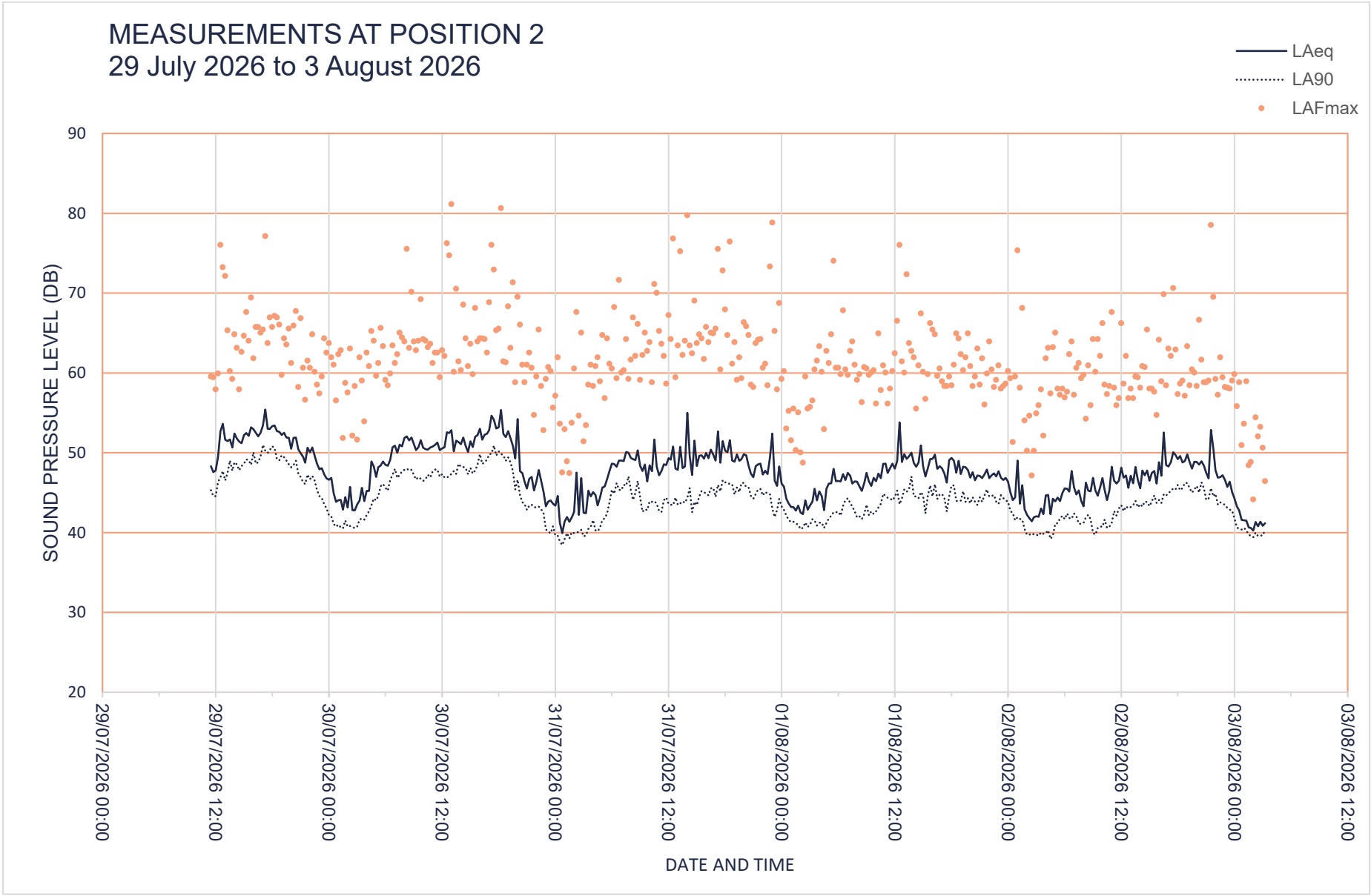
06/08/2026 00:00
DATE AND TIME


MEASUREMENTS AT POSITION 2
29 July 2026 to 3 August 2026
LAeq
LA90
LAFmax
SOUND PRESSURE LEVEL (DB)
90
80
70
60
50
40
30
20
29/07/2026 00:00
29/07/2026 12:00
30/07/2026 00:00
30/07/2026 12:00
31/07/2026 00:00
31/07/2026 12:00
01/08/2026 00:00
01/08/2026 12:00
02/08/2026 00:00
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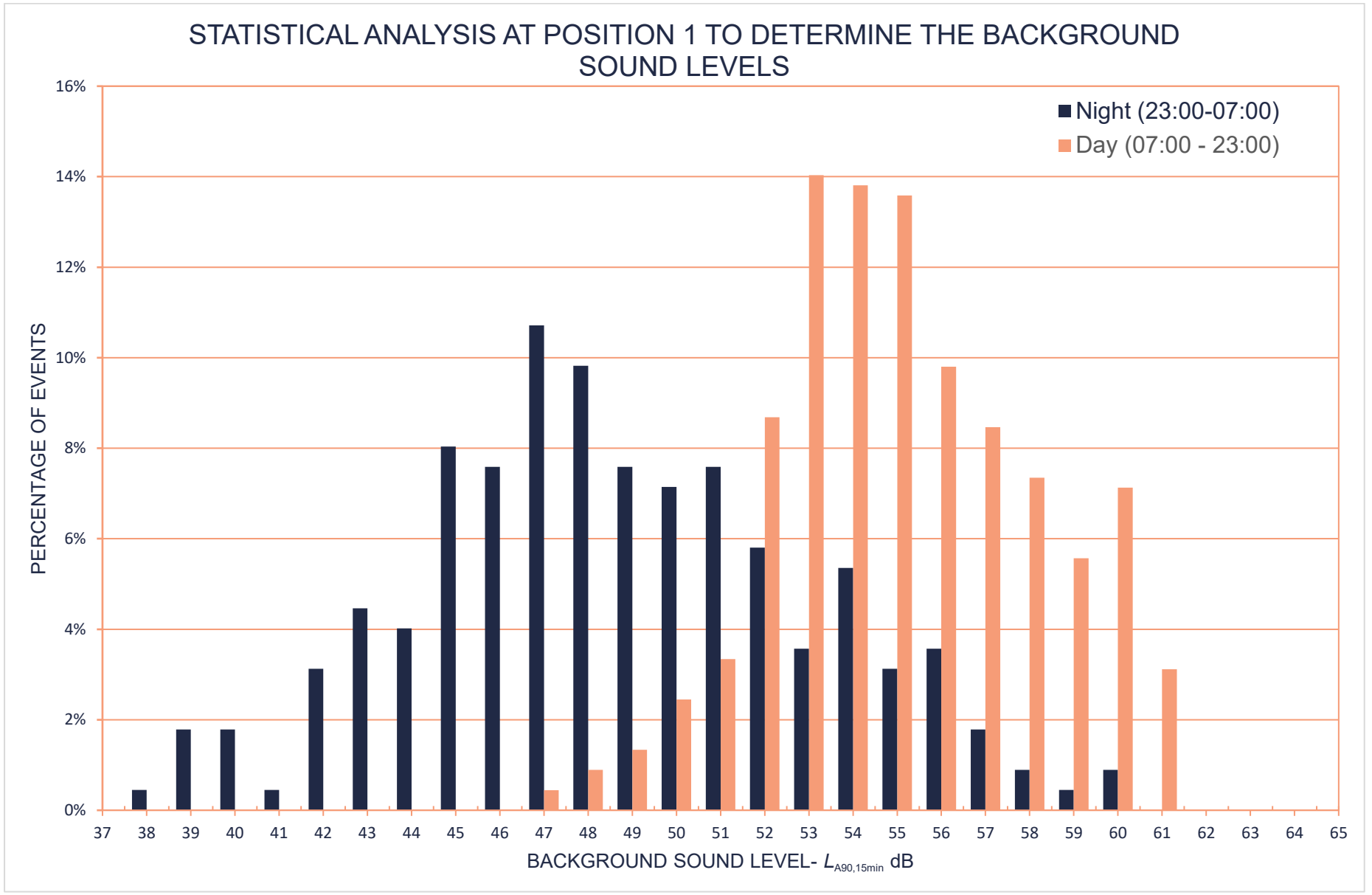
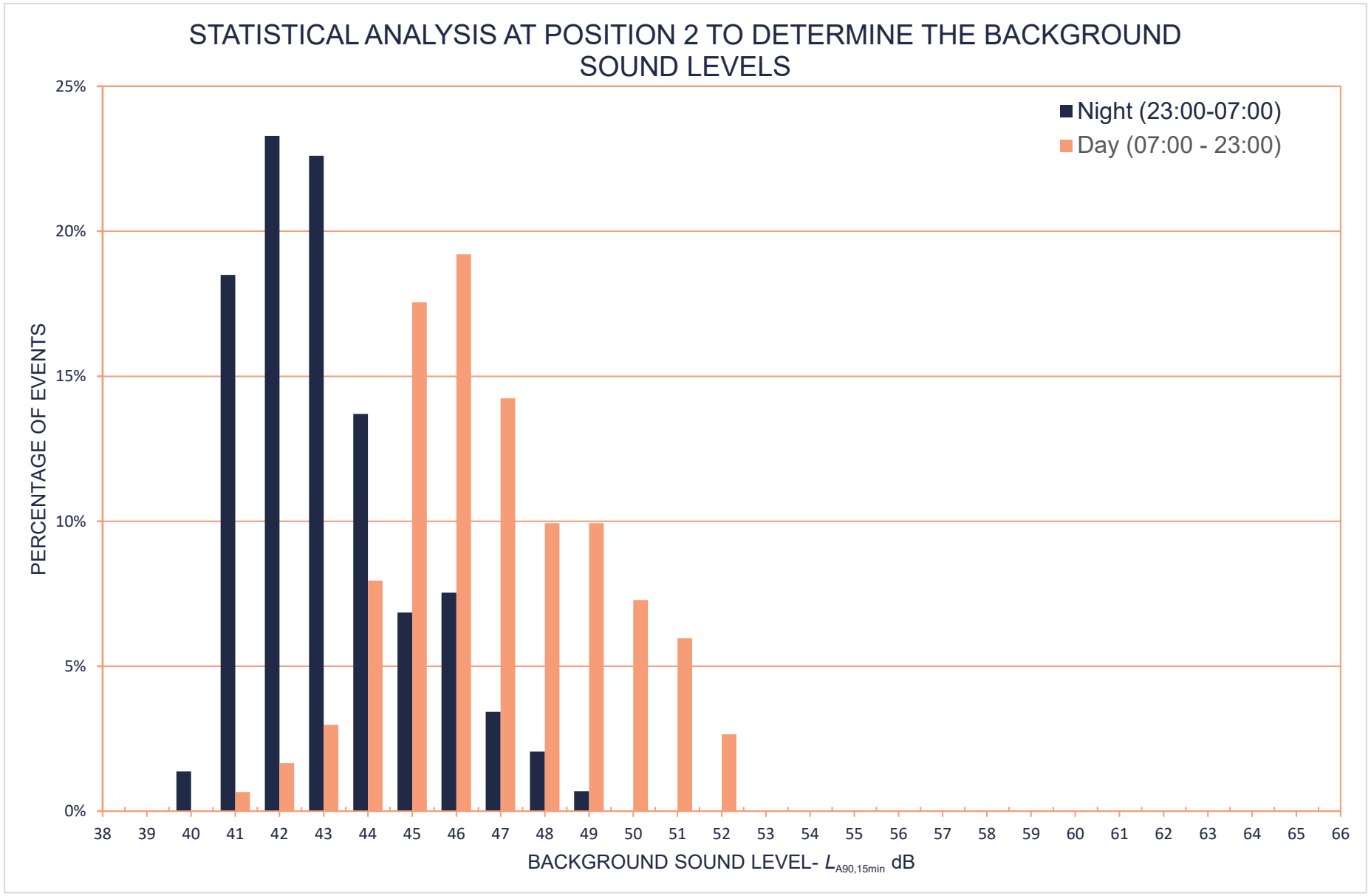
03/08/2026 00:00
03/08/2026 12:00
DATE AND TIME

APPENDIX C – STATISTICAL ANALYSIS


STATISTICAL ANALYSIS AT POSITION 1 TO DETERMINE THE BACKGROUND SOUND LEVELS
Night (23:00-07:00)
Day (07:00 - 23:00)
PERCENTAGE OF EVENTS
16%
14%
12%
10%
8%
6%
4%
2%
0%
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65
BACKGROUND SOUND LEVEL- $L_{A90,15min}$ dB


STATISTICAL ANALYSIS AT POSITION 2 TO DETERMINE THE BACKGROUND SOUND LEVELS
Night (23:00-07:00)
Day (07:00 - 23:00)
PERCENTAGE OF EVENTS
25%
20%
15%
10%
5%
0%
38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66
BACKGROUND SOUND LEVEL- $L_{A90,15min}$ dB

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