Noise Impact Assessment

Noise Impact Assessment Report to support the reserved matters application for the residential development of Quobleigh Breach, Parcel 6 of the wider One Horton Heath scheme.

Stantec

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1 Introduction

1.1 Overview & Background

Stantec have been appointed by Eastleigh Borough Council to undertake a Noise Impact Assessment in support of the reserved matters application for a residential parcel of the One Horton Heath (OHH) development (O/20/89498) known as Quobleigh Breach ("Proposed Development"). The development proposals comprise 269 residential units including houses and three apartment blocks.

The outline planning permission for the OHH outline application has been granted, with conditions attached. The following condition relating to noise has been provided and taken into consideration for this Noise Impact Assessment:

Condition 45:

'Prior to commencement of development of each residential and/or commercial phase a detailed Noise Risk Assessment and Management Scheme shall be submitted to, and approved in writing by, the Local Planning Authority in order to address noise from the scheme and nearby uses. This shall include where and how mitigation will be needed and to what degree, including traffic and construction noise impacts, and timescales for implementation of the noise mitigation and good acoustic integrated design for sound quality. It shall include an assessment of growth in road traffic to future year 15, assessment of plant and machinery, acoustic details of façade design, boundary treatments, landscaped noise bunds, and vegetated walls, absorptive walls and screening features road surfaces, sound insulating windows and passive or mechanical ventilation, including means to prevent overheating other than opening windows. and taking account of self-noise and exterior noise penetration through these systems. The scheme for each phase shall be fully implemented as approved and retained and maintained to the satisfaction of the local planning authority.

Reason: In the interest in public amenity, to protect business interests, and in accordance with policies DM1 and DM8 of the Eastleigh Borough Local Plan.'

This noise assessment has been prepared to support a reserved matters application for the Proposed Development to discharge Condition 45 as stated above. The assessment considers the potential for noise impact with reference to the latest layout plans and elevations, in accordance with current policy and guidance. The assessment findings and subsequent requirements for acoustic mitigation are set out herein. A glossary of acoustic terminology is provided in **Appendix A**.

1.2 Site Location

The site is located in the north-western part of the wider One Horton Heath scheme and currently comprises open land. To the north and south of the site is arable land. To the north-east the site is bordered by Fir Tree Farmhouse (existing sensitive receptor). To the west the site is bordered by commercial premises and Oak Cottage (existing sensitive receptor), with Allington Lane located approximately 60m beyond.

Fir Tree Lane dissects the site from east/west. It is understood that the section of Fir Tree Lane that dissects the site will be converted to a bridleway that will not carry any vehicular traffic. The consented link road, known as 'The Avenue', also dissects the centre of the site from north/south and has been open since September 2025.

The location of the parcel and development layout on which this assessment is based is shown in **Figure 1**.

2 Methodology

A summary of the key noise and vibration considerations for the assessment are as follows:

- Potential noise and vibration impacts associated with the demolition and consultation phase at Existing Sensitive Receptors (ESRs);
- Potential noise impacts from vehicles movements on the existing and proposed road network at Proposed Sensitive Receptors (PSRs);
- Potential noise impacts from proposed ancillary equipment/building services associated with the proposed Development at ESRs and PSRs.

2.1 Consultation with Local Authority

The proposed noise assessment methodology was sent to Eastleigh Borough Council's (EBC) planning and environment team.

Mr. Andre Pires, Pollution Control Manager at EBC responded on 24th July 2025 and agreed with the proposed methodology in principle. However, Mr. Pires recommended that a 1 week noise survey should be undertaken at the site to supersede the 24hour survey undertaken by Stantec previously, in order to capture a more reliable typical background sound levels.

Therefore, as per the recommendations of EBC, Stantec undertook an additional noise survey between 1st – 8th September 2025, covering 5 weekdays and a full weekend period. This survey forms the basis of this assessment.

2.2 Policy and Guidance

Relevant policy and guidance documents considered within this assessment are listed below:

- National Planning Policy Framework, 2025 (NPPF);
- Noise Policy Statement for England, 2010 (NPSE);
- Planning Practice Guidance - Noise, 2019 (PPG);
- World Health Organisation (WHO) 1999: Guidelines for Community Noise;
- British Standards 5228-1 & 2: 2009 + A1:2014 Code of practice for noise and vibration control
- on construction and open sites (BS5228);
- Design Manual for Road and Bridges - LA111 Noise and Vibration, 2019 (DMRB);
- British Standard 8233:2014 – 'Guidance on sound insulation and noise reduction for buildings' (BS8233);
- British Standard 4142:2014+A1:2019 – 'Methods for rating and assessing industrial and commercial sound' (BS4142);
- ProPG: Planning and Noise: - Professional Practice Guidance on Planning and Noise, 2017
- Department for Transport - Calculation of Road Traffic Noise, 1998 (CRTN);

- Building Regulations Approved Document O: Overheating, 2021 (ADO);
- The Association of Noise Consultants Approved Document O Noise Guide V1.1, 2024 (ADO Noise Guide); and,
- Eastleigh Borough Local Plan 2016-2036.

A review of the relevant planning policy, standards and guidance is found in **Appendix B**.

2.3 Existing Sensitive Receptors

Based on a review of aerial imagery and observations whilst attending the site, the nearest ESRs have been identified as the most likely to be affected by noise emissions from the Proposed Development and is presented in **Figure 2** and described in **Table 2-1**. Noise impacts at any other ESRs in the vicinity of the site are likely to be lower than any impact identified for this assessment.

Table 2-1: Existing Sensitive Receptors

Reference	Description / Address	Approximate Co-ordinates		Approx. Distance and Bearing from Site
		X (Easting)	Y (Northing)	
ESR1	Fir Tree Farmhouse	448579	117491	Approx 10m from site to the north-east.
ESR2	Oak Cottage	448361	117607	Approx 16m from site to the west.

Noise impacts at have been considered at PSRs by prediction of noise levels at the sensitive areas of the proposed buildings i.e. at outdoor living areas and façades adjacent to habitable rooms.

2.4 Environmental Sound Survey

An environmental sound survey has been carried out to characterise the baseline conditions around the site. In accordance with British Standard 7445, the A-weighted, time-equivalent, one-third octave band sound pressure levels have been measured, together with the L_{min}, L_{Fmax}, L_{10} and L_{90} indices.

All sound measurements were carried out using Class 1, integrating sound level meters. The microphone at all monitoring locations was positioned 1.5m above the ground and at least 3.5m from any other reflecting surfaces.

Sound level meters were calibrated to a reference level of 94 dB at 1kHz both prior to, and on completion of, the noise survey. No significant drift in calibration was noted during the survey (≤ 0.5 dB).

2.5 Acoustic Modelling

Acoustic modelling of environmental sound has been carried out using SoundPLAN V9.1. The software uses OS mapping and terrain data to create a 3D study area of the site. Calculations are carried out in accordance with ISO9613-2:2024 and CRTN. Details of the assumptions used for the noise model are summarised in **Appendix C.**

3 Environmental Sound Survey

3.1 Survey Overview

Noise monitoring was undertaken at the site for a full week (including weekend) between the 1st – 8th September 2025.

3.2 Monitoring Locations

The Monitoring Location (ML) is illustrated on **Figure 2** and described in **Table 3-1**.

Table 3-1: Sound Monitoring Locations

Monitoring Location	Description	Time Period	
		Start	End
ML1	Unattended 7-day consecutive noise monitoring in proximity of Fir Tree Farmhouse to establish typical ambient and background sound levels in the vicinity of ESRs	4:15PM 01/09/2025	12:40PM 08/09/2025

3.3 Weather Conditions

Observations made during the setup and decommissioning of the noise monitoring equipment, along with Met Office forecasts for Horton Heath for the duration of the survey, are summarised as follows:

Between 1st and 8th September 2025:

- Temperatures ranging between 9˚C and 23˚C;
- Varied cloud cover;
- Light rain showers on Tues 2nd and Weds 3rd September; no precipitation on the other days;
- Average wind speeds between 0 and 5 m/s, and;
- Ground conditions generally dry at the beginning and end of the survey period.

Monitoring was conducted under mostly suitable conditions; however, where the weather forecast indicated the potential for periods with precipitation, a review of audio recording was carried out to identify and exclude periods with significant precipitation from the assessment.

3.4 Baseline Acoustic Environment

The following sound sources have been identified to contribute to the acoustic environment at the site based on observations undertaken during the survey and review of audio recordings:

Transportation sources: Distant road traffic noise from Burnetts Lane to the east, and Allington Lane to the west was dominant at the monitoring location, particularly during rush hour periods, during the daytime and night-time period, in the absence of construction noise.

Construction Noise: Construction noise was present and dominant during both surveys between typical site operational hours (0830-1730hrs) on weekdays.

Other Sources: Birdsong and distant aircraft noise were occasionally audible across the site.

3.5 Summary of Measured Sound Levels

Measured sound levels at the ML have been separated into daytime (0700 to 2300 hours) and night-time (2300 to 0700 hours) categories, in accordance with current guidance, where appropriate.

Due to the presence of construction noise during typical site operational hours (0830-1730hrs) on the weekdays of the survey, these periods have been excluded from the Noise Impact Assessment but are shown in the noise survey results graphs in **Appendix D** for information.

Therefore, the average daytime noise levels measured during the weekend period have been used for the purposes of this assessment. A single average daytime level has been obtained via arithmetic average of the Saturday and Sunday measured $L_{Aeq,16hour}$ values.

The average night-time level used for the purposes of this assessment is the arithmetic average of the measured $L_{Aeq,8h}$ noise levels over each night-time period of the survey, including weekdays and weekends.

A summary of measured sound levels is provided in **Table 3-2** and is set out in full in **Appendix D**.

Table 3-2: Summary of Average Sound Levels

Monitoring Location	Time Period	Sound Level, dB $L_{Aeq,T}$
ML1	0700 - 2300 2300 - 0700	50 43

Typical night-time maxima have been established based on guidance in WHO, BS8233 and ProPG. The guidance advises that up to the 10th highest maximum noise level should be considered for the assessment, providing that maximum levels above this are not regularly occurring. The 10th highest maximum noise level during each night-time period during the survey period has been determined and the average of these values over the 7 day survey period has been derived as presented in **Table 3-3.**

Table 3-3: Summary of Maximum Night-time Sound Levels

Monitoring Location	Typical dB $L_{AFmax,\ 1minute}$
ML1	61

4 Construction Phase Impact Assessment

Activities associated with the demolition and construction phase of the Proposed Development have the potential to generate noise and vibration that may propagate beyond the site boundary.

Fir Tree Farmhouse (ESR1) and Oak Cottage (ESR2) are adjacent to the eastern and western site boundaries, respectively. These receptors have the potential to be impacted by noise and vibration from activities associated with the demolition and construction phase of the Proposed Development. Other receptors may be affected by noise and vibration, to an equivalent or lesser extent than the ESRs identified.

The magnitude of any impact will depend upon the distance of any activities to receptors and the proximity to the site-boundary, which will vary throughout the demolition and construction phase. Therefore, this assessment considers activities taking place adjacent to the site boundary to provide a robust representation of potential impacts.

At this stage, detailed information pertaining to site specific demolition and construction activities are not known. Activities at the site, which could give rise to potential noise impacts typically include (but are not limited to):

- Demolition e.g. pushing arms, crane operations, wire rope, levelling of ground, loading, drilling.
- Construction of the Proposed Development including piling, construction of access roads, fabrication processes e.g., planning, sanding, routing, cutting, drilling and laying foundations.

The contractor undertaking the demolition and construction works has not yet been appointed. However, it is considered that the enabling and construction works are likely to be restricted to standard daytime working hours, i.e., between 08:00 and 17:00 Monday to Friday, 09:00 to 12:00 on a Saturday, with no work on Sundays or Bank Holidays.

4.1 Noise from Demolition and Construction Activities

BS5228-1 provides guidance on significance criteria for assessing the potential noise impacts associated with the construction phase of projects. For the purposes of this noise assessment, the noise likely to be generated by demolition and construction phase are assessed based on the significance criteria using the established using the BS5228-1 ABC method.

The ABC method for determining significance criteria requires the ambient noise levels in the vicinity of existing receptors to be determined. The ambient noise levels are rounded to the nearest 5dB(A) to determine the corresponding impact threshold category values shown in **Table 4-1.**

Table 4-1: Threshold of Significant Impacts at Residential Receptors in Accordance with the 'ABC' Method of BS5228-1

Assessment Category Threshold Value	Threshold Value, dB(A)		
	Category A[1]	Category B [2]	Category C [3]
Weekday Daytime (07:00 to 19:00) and Saturdays (07:00 to 10:00)	65	70	75

[1] Category A: Threshold values to use when ambient noise levels (when rounded to the nearest 5dB) are less than this value.
[2] Category B: Threshold values to use when ambient noise levels (when rounded to the nearest 5dB) are the same as category A values.
[3] Category C: Threshold values to use when ambient noise levels (when rounded to the nearest 5dB) are more than this value.

The appropriate noise impact threshold category and corresponding significant noise impact threshold value has been determined for ESRs based on measured daytime ambient noise levels measured at ML3, in accordance with the ABC method of BS5228-1 as detailed in **Table 4-2**.

Table 4-2: Appropriate Category Value for Existing Sensitive Receptors

Description of Receptor	Average Measured Daytime Level, dB $L_{Aeq,T}$	Rounded Daytime Level to the Nearest 5dB(A)	Appropriate Category Value	Significant Noise Impact Threshold, dB $L_{Aeq,T}$
ESR1 & ESR2	50	50	A	65

Mitigation measures, in the form of methods of best practice, for the control of construction noise are provided in the mitigation section of this report and should be implemented via a suitably worded construction environmental management plan (CEMP).

4.2 Vibration from Demolition and Construction Activities

BS5228-2 indicates vibration can have a disturbing impact on nearby sensitive receptors, especially where particularly sensitive existing operations may be taking place. The significance of vibration levels at receptors is dependent upon the nature of the source e.g. where ground borne vibration is continuous in nature, there is greater likelihood of structural damage occurring compared to transient vibration of equivalent magnitude.

Human perception of vibration is extremely sensitive. People can detect and be annoyed by vibration before there is any risk of structural damage. Cases where damage to building has been attributed to the effects of vibration alone are extremely rare; even when vibration has been considered to be intolerable by the occupants.

As stated in BS5228-2 and as generally accepted, the threshold of vibration perception for humans is typically in the Peak Particle Velocity (PPV) range of 0.14 mms^{-1} to 0.3mms^{-1}, and the level above which vibration may cause complaint is 1 mms^{-1} PPV within occupied residential dwellings.

Table 4-3 provides a summary of impact thresholds recommended by BS5228-2 for building occupants and building damage.

Table 4-3: Magnitude of Impact from Construction Vibration

Magnitude of Impact	Free-field Vibration PPV mms^{-1}	BS5228-2 Reference	
		Building Occupants	Building Damage
Negligible	<1.0	BS5228-2 states that vibration might just be perceptible in residential environments at $0.31mms^{-1}$.	
Small	1.0-4.9	BS5228-2 states that a level of $1mms^{-1}$ in residential environments may cause complaint but can be tolerated if prior warning and explanation has been given to residents.	
Medium	5.0-9.9		BS5228-2 suggests $7.5mms^{-1}$ for continuous vibration at very low frequency as the onset of cosmetic damage. Cautious threshold of 5mm/s applied for threshold of significant effect.
Large	≥10.0	BS5228-2 states that vibration is likely to be intolerable (for humans) for any more than a brief exposure to this level.	

Table 4-4 sets out the typical distances, based on historical field measurements presented in Annex D of BS5228-2 and 'D M Hiller and G I Crabb: Groundborne vibration caused by mechanised construction works', at which vibration levels from common activities are likely to be just perceptible, depending on ground conditions.

It should be acknowledged that the magnitude of vibration arising from demolition activities depends upon many factors and is highly variable. For example, the presence of coupling between structural elements and soil can increase the magnitude, as well as dampen vibration. Therefore, the data presented should be used as a guide only.

Table 4-4: Distance at which Vibration Activities may be Just Perceptible

Construction Activity	Distance, Meters
Vibratory Ground Compaction (Hiller & Crabb)	10-15m
Rotary Bored Piling (Table D.6)	5-10m

The plans show demolition and construction works may take place at approximately 10m from the nearest residential buildings, therefore there is potential for vibration to be perceptible to the residents, depending on the specific construction activity.

Methods of best practice should be implemented with regards to minimising potential vibration levels generated during the demolition and construction period, with particular attention to any requirement for piling, and where this is required at distance equal to or less than those at which the activity may be perceptible.

Mitigation measures, in the form of methods of best practice, for the control of construction vibration are provided in the mitigation section of this report and should be implemented via a suitably worded Construction Environmental Management Plan (CEMP).

5 Operational Phase Impact Assessment

5.1 Definition of Noise Sources

Traffic flows and HGV percentages associated with the Proposed Development have been provided by Paul Basham Associates as outlined in **Section 2.5,** full details of which can found in **Appendix E**. The scenario selected for this assessment is the 'Future Opening Year 2036 + Development + Committed Developments', which is representative of noise levels when the Proposed Development is fully occupied.

The following roads have been included as noise sources within the model:

- Fir Tree Lane;
- Allington Lane;
- Burnetts Lane; and,
- The Avenue (new link road dissecting the site from north to south).

Maximum noise levels from road sources have been defined in the model as moving point sources and have been calibrated using the typical L_{AFmax} levels measured during the noise survey carried out in November 2018 in support of OHH outline application. See Chapter 12 of the Environmental Statement (planning reference: O/20/89498).

In the case of Fir Tree Lane, an example maximum noise level spectrum measured at another site has been adopted. The measurement data used was for a quiet access road with a 30mph speed limit, which is considered representative.

5.2 Development Generated Road Traffic Noise

An assessment of development generated road traffic noise was carried as part of an Environmental Impact Assessment (EIA) in support of the outline planning application for the wider One Horton Heath strategic site in 2020. The assessment encapsulates predicted development generated road traffic associated with Quobleigh Breach as part of the fully occupied Development.

In the EIA noise impacts were assessed at 54 ESRs across the areas surrounding the site which have the potential to be impacted by development generated road traffic. The assessment concluded that the resultant effects are predicted to be minor to neutral and no specific mitigation is required.

Full details of this development generated road traffic noise assessment can be found in Chapter 12: Noise and Vibration, of the Environmental Statement for One Horton Heath (planning reference: O/20/89498).

The predicted traffic associated with the fully occupied Development remains unchanged since the EIA therefore no further assessment of development generated road traffic is required.

5.3 Daytime Noise Levels in Outdoor Living Areas

Predicted daytime free field noise levels across the Proposed Development, including outdoor living areas are presented in **Figure 3.** Outdoor living areas comprise private garden areas and balconies at Apartment Blocks A. B and C. Private gardens have include standard 1.8m high close boarded fencing.

Figure 3 indicates that the daytime external ambient noise levels in outdoor living areas are below the BS8233 lower limit of 50 dB $L_{Aeq,16h}$ in most cases.

In the gardens of plots 242, 243, 244, and 245 ambient external noise levels from road traffic are predicted to exceed 50dB $L_{Aeq,16h}$ but are below the upper guideline level of 55 dB $L_{Aeq,16h.}$ recommended by BS8233 and WHO guidance. Therefore, no additional mitigation is required for private gardens.

With regard to noise levels within apartment balcony areas, BS8233 provides the following guidance:

'Other locations, such as balconies, roof gardens and terraces, are also important in residential buildings where normal external amenity space might be limited or not available, i.e. in flats, apartment blocks, etc. In these locations, specification of noise limits is not necessarily appropriate. Small balconies may be included for uses such as drying washing or growing pot plants, and noise limits should not be necessary for these uses. However, the general guidance on noise in amenity space is still appropriate for larger balconies, roof gardens and terraces, which might be intended to be used for relaxation. In high-noise areas, consideration should be given to protecting these areas by screening or building design to achieve the lowest practicable levels. Achieving levels of 55 dB $L_{Aeq,T}$ or less might not be possible at the outer edge of these areas, but should be achievable in some areas of the space.'

Figure 4 shows that daytime noise levels at proposed apartment block façades closest to and with direct line of sight to The Avenue will be up to 65 dB $L_{Aeq,16h}$. However, the majority of balconies on facades facing west will be within the recommended range of 50 – 55 dB $L_{Aeq,16h}$.

No specific mitigation measures are required for proposed balconies, in accordance with BS8233.

5.4 Internal Noise Levels in Habitable Rooms

The predicted façade noise levels across the Proposed Development are presented ion the following figures:

- **Figure 4** – Daytime Average Façade Noise Levels Incident on the Proposed Development
- **Figure 5** – Night-time Average Façade Noise Levels Incident on the Proposed Development
- **Figure 6** – Night-time Maximum Façade Noise Levels Incident on the Proposed Development

A mitigation scheme, in the form of glazing and ventilation, is required to secure suitable internal noise levels, as recommended by BS8233 and WHO. An example mitigation scheme has been determined on a plot-by-plot basis as detailed in **Section 8.3.**

6 Assessment of Noise During Overheating Conditions

Building Regulations Approved Document O (ADO) requires rooms for residential purpose to limit unwanted solar gain and provide an adequate means to remove heat from the building, with the safety of the occupant and their reasonable enjoyment of the residence being taken into account, according to requirement O1(2A) (Noise), which specifies internal night-time noise level requirements for bedrooms.

In determining the potential for exceedance of the ADO internal night-time noise level requirements, external noise levels can be compared to recommended external levels provided in the Association of Noise Consultants ADO Noise Guide, which provides an approximate level difference between external and internal noise levels, based on the required open area of a window to purge heat and geo-graphical context, which, for this development is 10dB. This assumes fully open windows.

A summary of internal night-time noise levels prescribed by ADO is provided in **Table 6-1**, together with the corresponding external façade noise level.

Table 6-1: ADO Internal Noise Level Criteria and Corresponding External level

Description	Required Internal Level, dB	Corresponding External Level, dB
Average Night-time Noise Level, $L_{Aeq,\ T}$	40	50
Night-time Maximum Level, L_{AFmax}	55	65
[1] Based on the ANC and IOA's ADO guidance note, which prescribes façade noise levels for proposed dwellings at 'Moderate Risk Locations' (with respect to high external ambient temperatures).		

Night-time façade noise levels have been calculated and compared to the corresponding external noise level criterion from **Table 6-1**. The facades which exceed the criteria due to either average or maximum night-time noise levels are shown in **Figure 7.**

For houses / apartments where facade noise levels exceed the external noise criteria, open windows should not be used as a form of overheating mitigation and consideration should be given to alternative means to remove any excess heat from the building if required. Overheating measures should be explored by the building services engineer while considering the findings of this assessment.

7 Noise from Proposed Fixed Plant

Apartment blocks may include fixed plant, for example ground or air source heat pumps, and/or condenser units for cooling. At this stage, detailed information relating to any ancillary plant is unavailable. In the absence of this information, plant rating level limits have been determined to avoid the potential for adverse impacts.

It is considered that the average daytime and night-time L_{A90} sound levels measured at ML3 are representative of typical background levels at ESRs and PSRs, which have been used to establish rating level limits.

A summary of the selected background sound level and proposed rating level limits for plant are set out in **Table 5-2**.

Table 7-1. Rating Level Limits for Proposed Fixed Plant

Period	Background Sound Level (dB L_{A90})	Rating Level Limit (dB $L_{Ar,T}$)
Daytime (07:00 to 23:00 hrs)	38	38
Night-time (23:00 to 07:00 hrs)	31	31

Noise from ancillary plant should be controlled to these noise limits at sensitive receptor locations to minimise the potential for adverse impacts when assessed in accordance with BS4142.

The magnitude of impact depends upon the context, and not only upon the comparison of rating and background noise levels, therefore these levels are intended to provide a guideline. Any planning condition requiring the assessment of noise against these levels should take account of BS4142 in full.

Noise from any proposed plant associated with the apartments should be reviewed and assessed during the technical design or construction stage, once final plant selections have been made by a contractor. In advance of this information, consideration should be given to the location of external and/or externally terminating fixed plant, utilising inherent screening of the buildings to minimise the need for specific mitigation. It is also recommended that provisions be made for the selection of low noise equipment, silencers, screens and other attenuation measures where necessary.

8 Mitigation Requirements

8.1 Construction Phase Mitigation

8.1.1 Noise from Construction Activities

To reduce the potential impact of noise generated by the demolition and construction phases of the Proposed Development at sensitive receptor locations in the immediate vicinity of the site, best practicable means should be implemented during each phase of the demolition and construction works at the site.

The construction works should follow the guidelines in BS5228-1 and the guidance in BRE Controlling particles, vapour and noise pollution from construction sites, Parts 1 to 5, 2003.

The following measures should be implemented via a CEMP to minimise noise emissions:

- When works are taking place within close proximity to the sensitive receptors identified, the screening of noise sources via the erection of temporary screens would be employed;
- All machinery should be regularly maintained to control noise emissions, with particular emphasis on lubrication of bearings and the integrity of silencers;
- Site staff would be made aware that they are working adjacent to a sensitive area and avoid all unnecessary noise due to misuse of tools and equipment, unnecessary shouting and radios;
- As far as possible, the avoidance of two noisy operations occurring simultaneously in close proximity to the same sensitive receptor;
- Implementation of speed limits and appropriate maintenance of road surfaces on site traffic routes i.e. avoiding pot holes and rough surfaces where possible;
- Adherence to any time limits imposed on noisy works by the local authority;
- Implement set working hours during the week and at weekends;
- Ensure engines are turned off when possible; and
- Should construction activities need to be carried out outside of typical working hours or during night-time hours, the local authority may include a planning condition that requests advance notice and details to be provided.

8.1.2 Vibration from Construction Activities

Specific mitigation measures associated with vibration from construction activities are unlikely to be required, however, to keep ground borne vibration to a minimum the following measures, as referred to in BS5228-2, should be implemented:

- Substitution: Where reasonably practicable, plant and/or methods of work likely to cause significant levels of vibration at nearby receptors should be replaced by less intrusive plant/methods of working; and,
- Vibration isolation of plant at source: This may prove viable option where the plant is stationary e.g. compressors or generators, located close to a receptor.

If piling is required mitigation should be considered. To minimise the potential for vibration to be generated by any necessary piling it is recommended that careful consideration is given to the type of

piling to be used. For example, rotary bored piles are preferable to driven or vibratory piles with regards to reduced potential for noise and vibration to be generated. However, it is recognised that the piling method to be selected will also depend upon other factors e.g. the strata to be encountered, the loads to be supported and the economics of the system.

As the programme and methodology become more defined, demolition and construction vibration should be reviewed by a suitably qualified acoustician and, where necessary, a strategy for control implemented via the CEMP, where appropriate.

8.1.3 Noise and Vibration associated with Construction Vehicles

Mitigation measures should be implemented to reduce potential noise and vibration generated by construction vehicles at nearby receptors, comprising the management and maintenance of construction vehicles to minimise emissions, as follows:

- Times of vehicle movements;
- Frequency of vehicles movements e.g. maximum HGVs permitted per hour, or during sensitive periods;
- Site speed limits; and,
- Maintenance of road surface e.g. road sweeping and repair of potholes.

8.2 Operational Phase Mitigation

8.2.1 Proposed Private Gardens

The assessment presented in **Section 5** indicates that BS8233 and WHO guidelines for external amenity spaces will be met within all proposed garden areas, with 1.8m high close boarded fencing around each garden. Therefore, no specific noise mitigation is required.

Note, close boarded fencing is required to have a minimum surface density of 10kg/m^2 and with no perforations.

8.2.2 Proposed Balconies

Whilst noise levels in balconies facing The Avenue are likely to exceed the recommended ‘desirable range’ provided in BS8233 guidance, balconies are considered to provide additional valuable and functional amenity space for residents, despite relatively high noise levels.

Therefore, no specific mitigation is required for proposed balconies.

8.3 Façade Insulation Requirements

Façade insulation is required in the form of glazing and alternative ventilation to achieve suitable internal noise conditions in accordance with BS8233 and WHO.

To determine the requirements for façade insulation, noise break-in calculations have been carried out in accordance with the 'more rigorous' method outlined in BS8233 using the predicted noise and spectrum at proposed facades.

When carrying out internal noise level predictions, in the absence of design details, the following assumptions have been made:

- Windows are closed;
- Background ventilation rates will be supplied via trickle ventilators, with one vent assumed per window;
- A reverberation time of 0.5 seconds in habitable rooms;
- The proposed wall system will provide a sound reduction performance (R_w + C_{tr}) at least 10dB greater than the specified glazing;

The preliminary glazing and ventilation sound reduction performances are summarised in **Table 8-1**.

Table 8-1: Preliminary Glazing and Ventilation Specifications

Spec.	Glazing (R_w + C_{tr})	Trickle Ventilator ($D_{n,e,w}$ + C_{tr})	Example Glazing and Ventilation Configuration
1	N/A	N/A	N/A
2	27	32	6/ (6-16)/ 4 Glazing Titon Trimvent Mk11 Trickle Vents
3	33	38	8/12/10 double glazing Greenwood 5000EAW.AC2 Trickle Vents
4	36	41	8.4/12/10.8 acoustic pvb double glazing Greenwood EAR 42W Trickle Vents

A façade mark-up of the illustrative layout has been provided corresponding to the specifications, shown in **Figure 8.** These specifications demonstrate feasibility to achieve the internal ambient noise criteria prescribed in BS8233 and WHO.

Alternative glazing and ventilation products to the configurations provided in **Table 7-1** may be implemented providing the R_w + C_{tr} / $D_{ne,\,w}$ + C_{tr} values are equal to or greater than the performance specified.

The guidance contained herein is subject to development during technical design stage and should not be used for tendering purposes. Final specifications should be reviewed by a suitably qualified acoustic engineer as appropriate.

9 Conclusion

Stantec has been appointed by Eastleigh Borough Council to undertake a Noise Impact Assessment (NIA) in support of a reserved matters application for Parcel 6 of the One Horton Heath development, known as Quobleigh Breach. This NIA has been carried out in support of the reserved matters application for the Proposed Development, which comprises 269 residential units including houses and three apartment blocks.

This NIA considers the potential noise and vibration impacts associated with the Proposed Development at existing and proposed sensitive receptors, in accordance with current policy and guidance.

Environmental sound survey works have been carried out in order to establish the existing acoustic environment in the vicinity of the Site, during the daytime and night-time periods, in accordance with current guidance. Construction noise was present during the weekdays between 0830 and 1730 therefore affected periods have been excluded from the assessment. Road traffic noise from Allington Lane and Burnetts Lane was dominant for the majority of the daytime and night-time periods across the Site, in the absence of construction noise. Occasional distant aircraft noise and birdsong was also noted during the survey.

This assessment demonstrates that significant noise impacts during the demolition and construction phase are unlikely to occur, providing the identified noise impact thresholds are not exceeded. Vibration may be perceptible at the nearest receptor depending on the construction method and ground conditions, but levels are unlikely to exceed the threshold for complaint.

The methods of best practice outlined in this report should be observed to facilitate achieving the demolition and construction thresholds. As the construction programme and methodology are refined, noise and vibration impacts should be reviewed by a suitably qualified acoustician, and any necessary mitigation measures incorporated into a Construction Environmental Management Plan (CEMP).

This assessment demonstrates that, with the implementation of 1.8m high close boarded fencing around the perimeter of private gardens, noise levels will achieve the levels recommended by BS8233 and WHO guidance. Furthermore, this assessment indicates that there are no mitigation requirements for any proposed apartment balconies.

With the inclusion of a suitable glazing and ventilation scheme, which accords with the example configurations and sound insulation values provided in this assessment, appropriate internal ambient noise levels will be achieved, which achieves BS8233 and WHO guidance.

The daytime and night-time plant noise rating limits provided in this assessment will ensure a low impact, in accordance with BS4142, depending on context. These limits should be adopted during plant selections for the building, which should also by a suitably qualified acoustician during the selection process.

The assessment indicates that, during overheating conditions, windows on facades closest to off-site noise sources, cannot be relied upon for a primary for of overheating mitigation so that the internal ADO criteria are not exceeded.

Providing a suitable noise mitigation scheme is implemented as detailed in this report, it is considered that the Proposed Development is acceptable on acoustics grounds and Condition 45 of the Decision Notice (O/20/89498) can be discharged.

Figures & Appendices

Eastleigh Borough Council

0 10 20 30 40 50 100m

Scale 1:1000

One Horton Heath, Quobleigh Breach

NOTES:

Report all discrepancies, errors and omissions.

Verify all dimensions on site before commencing any work on site or preparing shop drawings.

All materials, components and workmanship are to comply with the relevant British Standards, Codes of Practice, and appropriate manufacturers recommendations that from time to time shall apply.

For all specialist work, see relevant drawings.

This drawing and design are copyright of Clague LLP
Registration number OC335948.

Rev	Date	Description

Key:

Pedestrian Footpath

Shared Pedestrian & Cycle Path

Project Title

Eastleigh Borough Council

Proposed Residential Development
One Horton Heath
Quobleigh Breach

Drawing Description

Proposed Site Layout Plan

Scale	Drawn by
1:1000 at A1	HP
Date	**Checked by**
June 2025	SW

CLAGUE ARCHITECTS

62 Burgate, Canterbury
Kent CT1 2BH 01227 762060

2 Kinsbourne Court, Luton Road,
Harpenden, Hertfordshire AI5 3BL 01582 765102

8, Disney Street
London SE1 1JF 0203 597 6112

CANTERBURY LONDON HARPENDEN

Project - Originator - Function - Spatial - Form - Discipline - Number. Revision

30071D - CLA - PRSL - 00 - PD - A - 0001 - P3

Legend

- Approx. Red Line Boundary
- Noise Monitoring Location
- Existing Sensitive Receptor

Client

ONE HORTON HEATH - QUOBLEIGH BREACH

Project

QUOBLEIGH BREACH, ONE HORTON HEATH

Title

NOISE MONITORING LOCATIONS
AND EXISTING SENSITIVE RECEPTORS

Figure	Date
FIGURE 2	31/10/2025

Revision	Scale	Drawn	Approved
P01	1:2000	BG	MP

[redacted]

Legend

- Red Line Boundary
- 1.8m High Garden Fences
- Road
- Main building

Daytime $L_{Aeq, 16h}$, dB

	<= 40.0
40.0 <	<= 45.0
45.0 <	<= 50.0
50.0 <	<= 55.0
55.0 <	<= 60.0
60.0 <	<= 65.0
65.0 <	<= 70.0
70.0 <	

Client

Eastleigh Borough Council

Project

One Horton Heath - P6 Quobleigh Breach

Title

Daytime External Noise Levels

Figure	Date		
FIGURE 3	31/10/2025		
Revision	**Scale**	**Drawn**	**Approved**
REV 1	1:1850	BG	EG

Stantec

Legend

- Red Line Boundary
- Garden Fence 1.8m High
- Road
- Main building

Daytime $L_{Aeq, 16h}$ dB

	<= 50.0
50.0 <	<= 55.0
55.0 <	<= 60.0
60.0 <	

Client

Eastleigh Borough Council

Project

One Horton Heath - P6 Quobleigh Breach

Title

Daytime Average Facade Noise Levels

Figure	Date
FIGURE 4	31/10/2025

Revision	Scale	Drawn	Approved
REV 1	1:1500	BG	EG

Stantec

Legend

- Pure residential
- Garden Fence 1.8m High
- Road
- Main building

Night-time $L_{Aeq, 8h}$ dB

	<= 45.0
45.0 <	<= 50.0
50.0 <	<= 55.0
55.0 <	

Client

Eastleigh Borough Council

Project

One Horton Heath - P6 Quobleigh Breach

Title

Night-time Average Facade Noise Levels

Figure	Date		
FIGURE 5	31/10/2025		
Revision	**Scale**	**Drawn**	**Approved**
REV 1	1:1500	BG	EG

Stantec

Legend

- Red Line Boundary
- Garden Fence 1.8m High
- Road
- Main building

L_{AFmax}, dB

	<= 60.0
60.0 <	<= 65.0
65.0 <	<= 70.0
70.0 <	

Client

Eastleigh Borough Council

Project

One Horton Heath - P6 Quobleigh Breach

Title

Night-time Maximum Facade Noise Levels

Figure	Date		
FIGURE 6	31/10/2025		
Revision	**Scale**	**Drawn**	**Approved**
REV 1	1:1500	BG	EG

Stantec

Legend

- Red Line Boundary
- Garden Fence 1.8m High
- Road
- Main building

Overheating and Noise Assessment

- Open Windows
- Closed Windows

NOTES:
Windows of marked facades with habitable bedrooms will need to remain closed to achieve the internal ambient noise criteria in
The Building Regulations Approved Document O during the night-time period.

Where there are no bedrooms on the façade then this requirement does not apply.

Windows should remain openable for purge ventilation when required.

These requirements should form the parameters of the TM59 assessment, if required.

Client

Eastleigh Borough Council

Project

One Horton Heath - P6 Quobleigh Breach

Title

ADO Requirement to Keep Windows Closed

Figure	Date
FIGURE 7	31/10/2025

Revision	Scale	Drawn	Approved
REV 1	1:1500	BG	EG

Stantec

Legend

- Red Line Boundary
- Garden Fence 1.8m High
- Road
- Main building

Minimum Acoustic Requirements for Facade Mitigation

Glazing $R_w + C_{tr}$ / Trickle Vent $D_{ne,w} + C_{tr}$

- N/A
- 27 dB $R_w + C_{tr}$ / 32 $D_{ne,w} + C_{tr}$
- 33 dB $R_w + C_{tr}$ / 38 $D_{ne,w} + C_{tr}$
- 36 dB $R_w + C_{tr}$ / 41 $D_{ne,w} + C_{tr}$

Client

Eastleigh Borough Council

Project

One Horton Heath - P6 Quobleigh Breach

Title

Facade Noise Mitigation Scheme

Figure	Date
FIGURE 8	31/10/2025

Revision	Scale	Drawn	Approved
REV 1	1:1500	BG	EG

Stantec

Appendix A Glossary

Term	Description
dB (decibel)	The scale on which sound pressure level is expressed. Sound pressure level is defined as 20 times the logarithm of the ratio between the root-mean-square pressure of the sound field and a reference pressure ($2x10^{-5}$Pa).
dB(A)	A-weighted decibel. This is a measure of the overall level of sound across the audible spectrum with a frequency weighting (i.e. 'A' - weighting) to compensate for the varying sensitivity of the human ear to sound at different frequencies.
$L_{Aeq, T}$	L_{Aeq} is defined as the notional steady sound level which, over a stated period of time (T), would contain the same amount of acoustical energy as the A - weighted fluctuating sound measured over that period.
L_{Amax}	L_{AFmax} is the maximum A - weighted sound pressure level recorded over the period stated. L_{AFmax} is sometimes used in assessing environmental noise where occasional loud noises occur, which may have little effect on the overall L_{eq} noise level but will still affect the noise environment. Unless described otherwise, it is measured using the 'fast' sound level meter response.
L_{10} and L_{90}	If a non-steady noise is to be described it is necessary to know both its level and the degree of fluctuation. The Ln indices are used for this purpose, and the term refers to the level exceeded for n% of the time. Hence L10 is the level exceeded for 10% of the time, and the L90 is the level exceeded for 90% of the time.
R_w	R_w is the single-number quantity which characterizes the sound insulating properties of a given material over a range of frequencies. This is typically measured in a laboratory in accordance with BS EN ISO 717-1.
$D_{ne, w}$	$D_{ne, w}$ is the single number quantity which characterizes the airborne sound insulation performance across a given 'element' and is typically used to describe the acoustic performance of trickle ventilators etc.
C_{tr}	C_{tr} is a correction term applied to single-number sound insulation values (R_w, $D_{n,e,w}$ etc.) to afford additional weighting against low frequency performance.
Free-field Level	A sound field determined at a point away from reflective surfaces other than the ground with no significant contributions due to sound from other reflective surfaces. Generally, as measured outside and at least 3m from buildings.

Appendix B Policy and Guidance

B.1.1 National Planning Policy Framework (NPPF)

Published in December 2024, this document sets out the Government's planning policies for England and supersedes the previous version of the NPPF published in 2023. It makes the following reference to noise in the section entitled Conserving and enhancing the natural environment:

> *"187. Planning policies and decisions should contribute to and enhance the natural and local environment by:*
>
> *[…]*
>
> *e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans."*

It also makes the following references to noise in the Section entitled Ground conditions and pollution:

> *"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 life69;*
>
> *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.*
>
> *69 See Explanatory Note to the Noise Policy Statement for England (Department for Environment, Food & Rural Affairs, 2010)."*

And

> *"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 facilities should not have unreasonable restrictions placed on them as a result of 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."*

B.1.2 Noise Policy Statement for England (NPSE)

Published in March 2010, the Noise Policy Statement for England (NPSE) sets out the long-term vision of Government noise policy as follows:

> *"Promote good health and good quality of life through the effective management of noise within the context of Government policy on sustainable development."*

The NPSE identifies three observed effect levels, names "No Observed Effect Level" (NOEL), "Lowest Observed Adverse Effect Level" (LOAEL) and "Significant Observed Adverse Effect Level" (SOAEL).

The NPSE contains little detail on assessment methodologies and specific parameters at which the varying observed effect levels would occur in the context of a residential development.

B.1.3 BS 8233:2014 - Guidance on sound insulation and noise reduction for buildings

As discussed above, there is no specific guidance contained within the Planning Condition and the NPSE. In lieu of this, the approach that is generally adopted when assessing environmental noise sources on residential developments is to undertake an assessment in accordance with BS 8233: 2014.

BS 8233 provides guidance for the control of noise in and around buildings. The guidance provided within the document is applicable to the design of new buildings, or refurbished buildings undergoing a change of use, but does not provide guidance on assessing the effects of changes in the external noise levels to occupants of an existing building. The guidance provided includes appropriate internal and external noise level criteria which are applicable to dwellings for steady external noise sources. It is stated that it is desirable that the internal ambient noise level does not exceed the following criteria set out in the table below:

Activity	Location	Period	
		Daytime (07:00 to 23:00 hrs)	Night-time (23:00 to 07:00 hrs)
Resting	Living room	$L_{Aeq,16hrs}$ 35 dB	-
Dining	Dining room/area	$L_{Aeq,16hrs}$ 40 dB	-
Sleeping (Daytime resting)	Bedroom	$L_{Aeq,16hrs}$ 35 dB	$L_{Aeq,8hrs}$ 30 dB

Whilst BS 8233:2014 recognises that a guideline value may be set in terms of SEL or L_{AFmax} for the assessment of regular individual noise events that can cause sleep disturbance during the night-time, a specific criterion is not stipulated. Accordingly, reference has been made in this assessment to the World Health Organisation (WHO) 1999: Guidelines for Community Noise below.

With respect to external amenity space such as gardens and patios it is stated that it is desirable that the noise level does not exceed 50 dB $L_{Aeq,T}$, with an upper guideline value of 55 dB $L_{Aeq,T}$ which would be acceptable in

noisier environments. It is then confirmed that higher external noise criteria may be appropriate under certain circumstances such as within city centres urban areas, and locations adjoining the strategic transportation network, where it may be necessary to compromise between elevated noise levels and other factors such as convenience of living, and efficient use of land resource.

B.1.4 World Health Organisation (WHO) 1999: Guidelines for Community Noise

As with the 'good' and 'reasonable' criteria in BS 8233, the L_{AFmax} criterion in BS8233 is largely concordant with the World Health Organisation (WHO) guidance 1999: Guidelines for community noise. This document draws upon guidance from Vallet and Vernay, which states:

> *"For good sleep, it is believed that indoor sound pressure levels should not exceed approximately 45 dB L_{AFmax} more than 10-15 times per night"*

B.1.5 BS 4142:2014 - Methods for rating and assessing commercial and industrial sound

BS 4142 describes methods for rating and assessing sound from industrial and manufacturing processes, fixed installations which comprise mechanical and electrical plant and equipment, the loading and unloading of goods and materials at industrial and/or commercial premises and mobile plant and vehicles that are an intrinsic part of the overall sound emanating from premises or processes.

The methods use outdoor sound levels to assess the likely effects of sound on people who might be inside or outside a dwelling or premises used for residential purposes upon which sound is incident.

If appropriate, the specific sound level of the source ($L_{Aeq,\,T}$) is corrected, by the application of one or more corrections for acoustic features to give a 'rating' level ($L_{Ar,Tr}$). The Standard effectively compares and rates the difference between the rating level of the sound and the prevailing background sound level ($L_{A90,\,T}$). Comparing the rating level with the background sound level, BS 4142 states:

> *"Typically, the greater this difference, the greater the magnitude of impact. A difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context.*
>
> *A difference of around +5 dB is likely to be an indication of an adverse impact, depending on the context.*
>
> *The lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context."*

B.1.6 Eastleigh Adopted Local Plan April 2022

Policies DM1 and DM8 of the Eastleigh Adopted Local Plan are relevant to noise and are summarised below:

"**Policy DM1, General criteria for new development**

1. All new development should (as relevant):

a. not have an unacceptable impact on, and where possible should enhance:

i. residential amenities of both new and existing residents; the character and appearance of

urban areas, the countryside and the coast;

ii. biodiversity (avoiding significant adverse impacts); and

iii. the significance of heritage assets;

b. make efficient use of the site, maximise opportunities to increase density and have regard to potential development opportunities on adjoining land;

c. take full and proper account of the context of the site including the character, appearance and land uses of the locality or neighbourhood, and be compatible with adjoining uses and be well integrated with these in terms of mass, scale, materials, layout, density, design and siting, both in itself and in relation to adjoining buildings, spaces and views. Where adjoining development is poor in urban design terms, new development should contribute to improving the character of the area;

d. not involve the loss of or damage to trees, woodlands, hedgerows, ponds, priority habitats or other landscape features of value to the character of the area, for appearance or biodiversity unless they can be replaced with features of equivalent or enhanced value, (recognising that some species and habitats may be irreplaceable);

e. include a landscape scheme covering the design and layout of external space;

f. protect and enhance public rights of way and National Trails and provide fully connected green infrastructure that interlaces the development and connects into the wider network;

g. provide satisfactory management arrangements for all landscape, green infrastructure and biodiversity enhancement;

h. incorporate provision for people with disabilities and create accessible communities that cater for all;

i. incorporate design measures to inhibit criminal and anti-social behaviour;

j. incorporate provision for on-site waste management; and

k. include provision for public art associated with new large scale development in accordance with the Council's adopted Public Art Strategy."

"**Policy DM8, Pollution**

1. Development will not be permitted if it is likely to cause loss of amenity or impact on public health or other unacceptable environmental impacts through:

a. air pollution (including odours or particulate emissions);

b. pollution of surface, underground, coastal waters or other watercourses;

c. noise or vibration;

d. light intrusion, both generally and with respect to the South Downs National Park's status as an International Dark Night Skies reserve; or

e. land contamination."

2. Development susceptible to particular forms of pollution will not be permitted:

a. where it will be adversely affected by such pollution, unless measures can be taken that adequately mitigate the polluting effects; or

b. where it would inhibit existing economic or other activities giving rise to acceptable polluting effects.

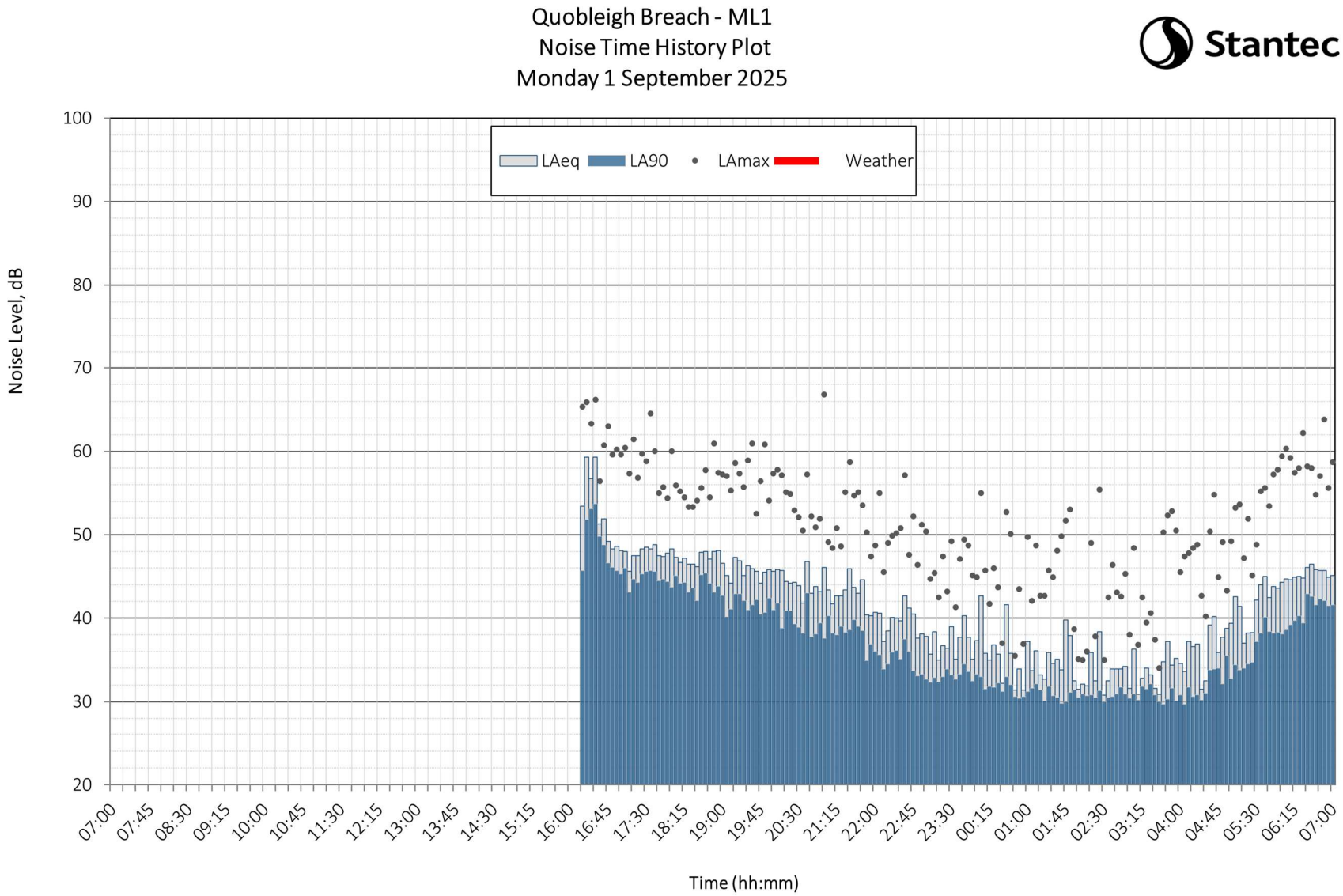
3. Where a development site is known or suspected to be contaminated, before the site is developed the Borough Council will require the contamination to be remediated to a standard where as a minimum it cannot be defined as 'contaminated land' under Part IIA of the Environmental Protection Act 1990.

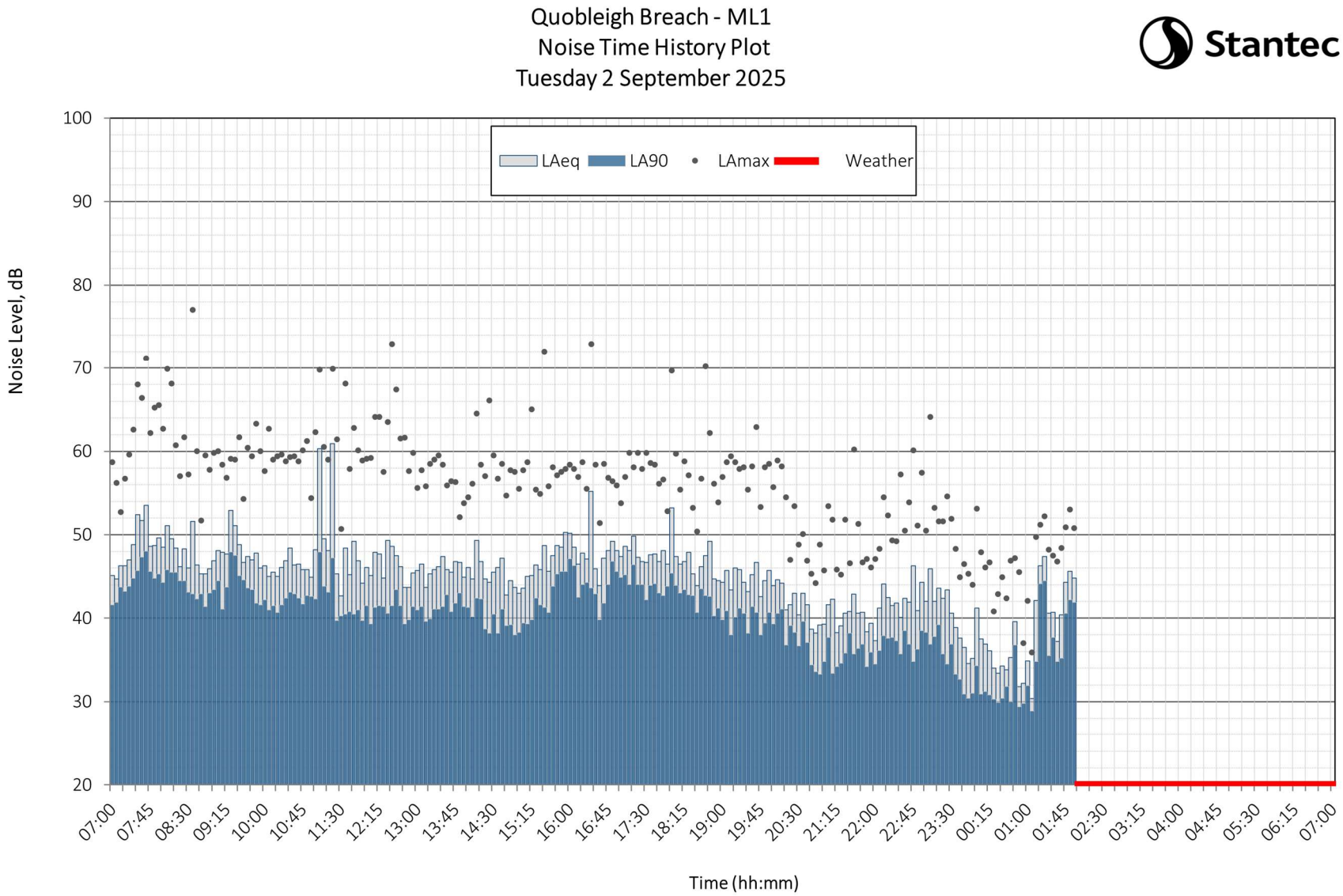
Appendix C Noise Modelling Assumptions

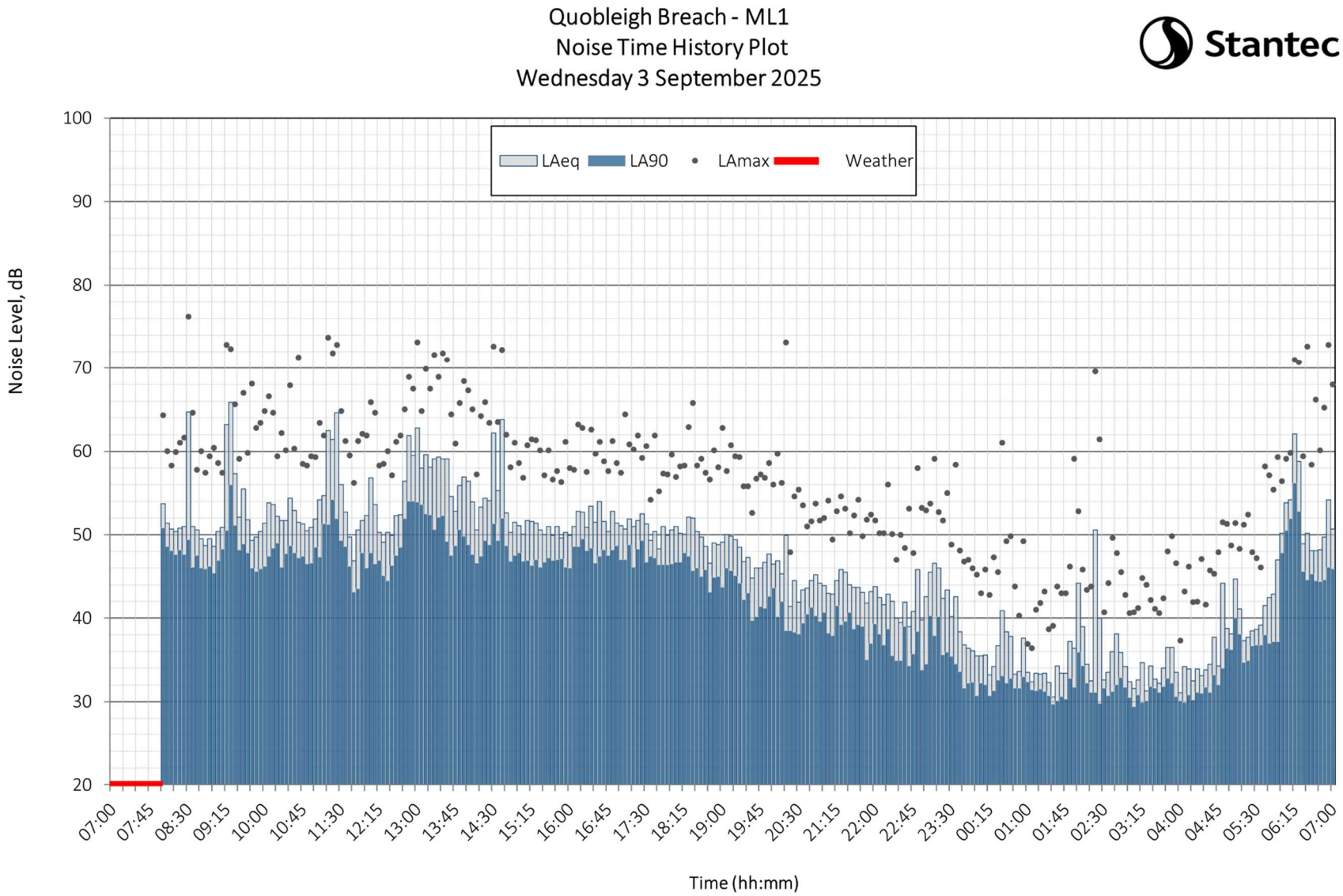
General Noise Model Assumptions:

- Mapping of the Site and the surrounding area was calibrated into the noise model based on known Ordinance Survey grid reference points;
- A digital terrain model was created using OS Terrain data with a resolution of 5m;
- The model allows for second order reflections;
- Ground absorption was set to G = 0.6 for mixed ground (60% acoustically absorptive ground);
- Source emissions of moving point sources are set at 0.5m high;
- Source emissions of fixed plant items are set to 1m high;
- The proposed buildings and garden fence locations have been informed by the site layout plan (reference 30071D /, June 2025)
- Proposed houses are 2 storeys and approx.. 8m high
- Proposed apartment blocks are 4 storeys and approx. 16.5m high.
- Proposed garden fences are 1.8m high

Appendix D Noise Survey Results


Quobleigh Breach - ML1
Noise Time History Plot
Monday 1 September 2025
LAeq
LA90
LAmax
Weather
Noise Level, dB
100
90
80
70
60
50
40
30
20
07:00
07:45
08:30
09:15
10:00
10:45
11:30
12:15
13:00
13:45
14:30
15:15
16:00
16:45
17:30
18:15
19:00
19:45
20:30
21:15
22:00
22:45
23:30
00:15
01:00
01:45
02:30
03:15
04:00
04:45
05:30
06:15
07:00
Time (hh:mm)


Quobleigh Breach - ML1
Noise Time History Plot
Tuesday 2 September 2025
LAeq
LA90
LAmax
Weather
Noise Level, dB
100
90
80
70
60
50
40
30
20
07:00
07:45
08:30
09:15
10:00
10:45
11:30
12:15
13:00
13:45
14:30
15:15
16:00
16:45
17:30
18:15
19:00
19:45
20:30
21:15
22:00
22:45
23:30
00:15
01:00
01:45
02:30
03:15
04:00
04:45
05:30
06:15
07:00
Time (hh:mm)


Quobleigh Breach - ML1
Noise Time History Plot
Wednesday 3 September 2025
LAeq
LA90
LAmax
Weather
Noise Level, dB
100
90
80
70
60
50
40
30
20
07:00
07:45
08:30
09:15
10:00
10:45
11:30
12:15
13:00
13:45
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15:15
16:00
16:45
17:30
18:15
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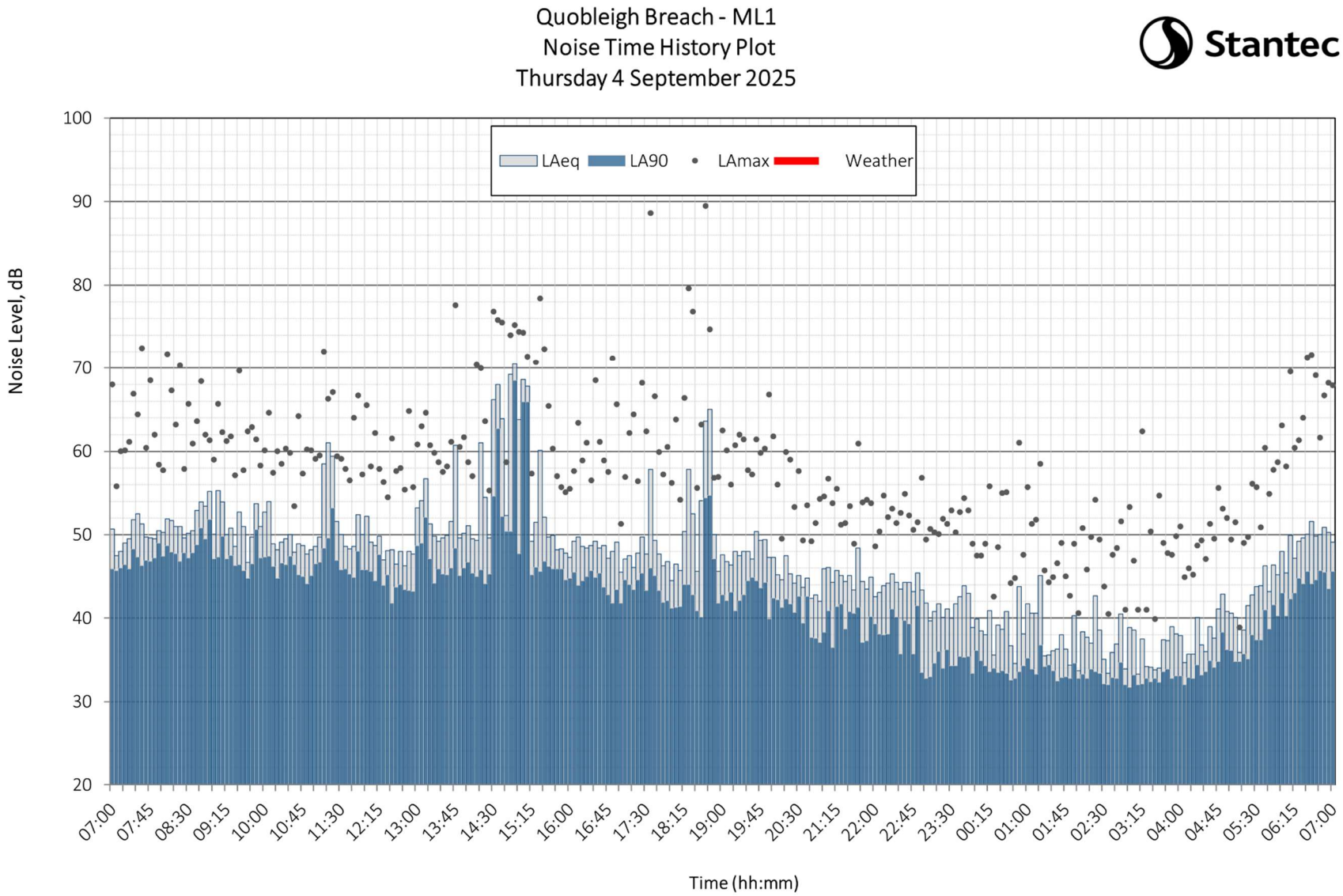
07:00
Time (hh:mm)


Quobleigh Breach - ML1
Noise Time History Plot
Thursday 4 September 2025
LAeq
LA90
LAmax
Weather
Noise Level, dB
100
90
80
70
60
50
40
30
20
07:00
07:45
08:30
09:15
10:00
10:45
11:30
12:15
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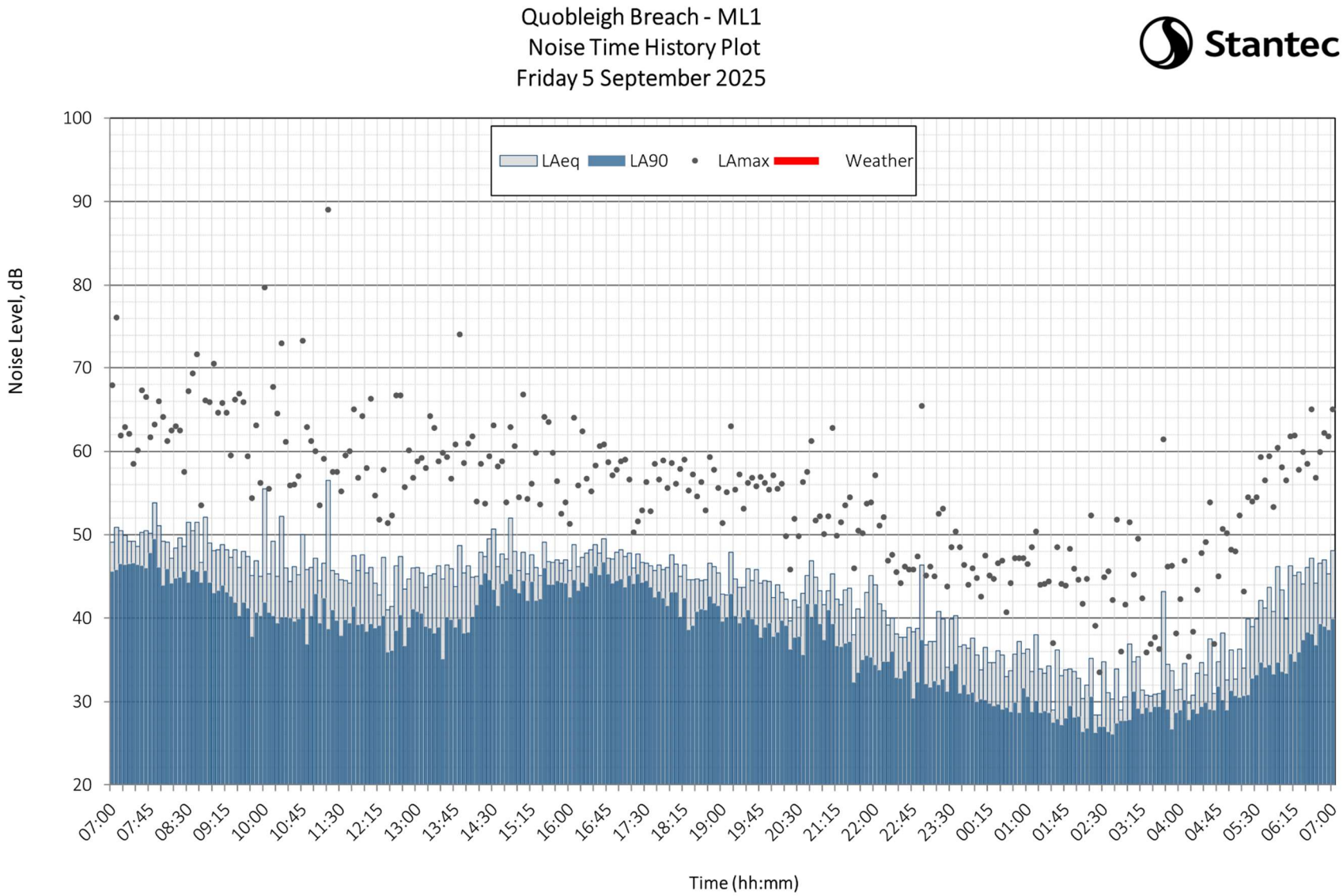
Time (hh:mm)


Quobleigh Breach - ML1
Noise Time History Plot
Friday 5 September 2025
LAeq
LA90
LAmax
Weather
Noise Level, dB
100
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80
70
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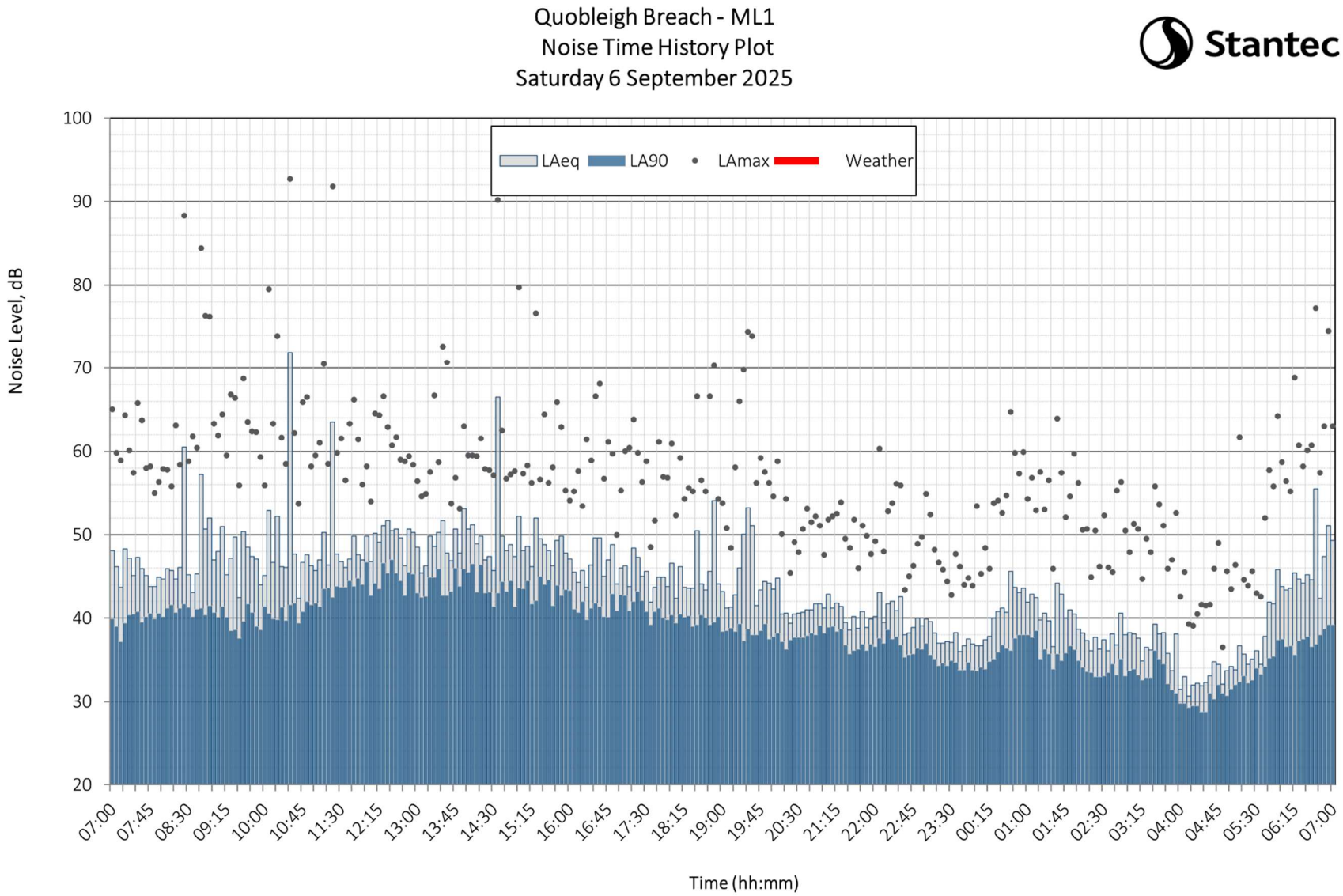
Time (hh:mm)


Quobleigh Breach - ML1
Noise Time History Plot
Saturday 6 September 2025
LAeq
LA90
LAmax
Weather
Noise Level, dB
100
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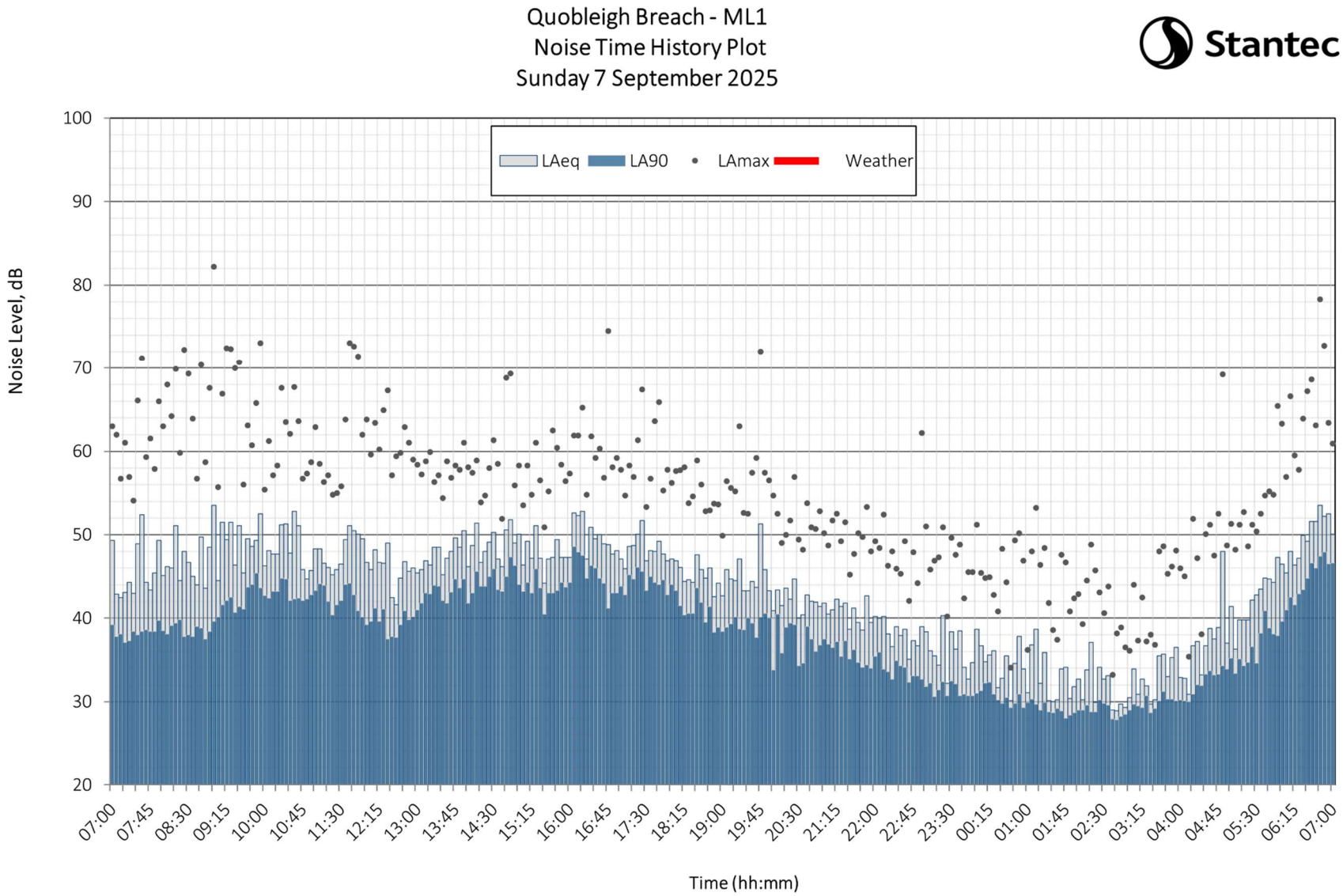
Time (hh:mm)


Quobleigh Breach - ML1
Noise Time History Plot
Sunday 7 September 2025
LAeq
LA90
LAmax
Weather
Noise Level, dB
100
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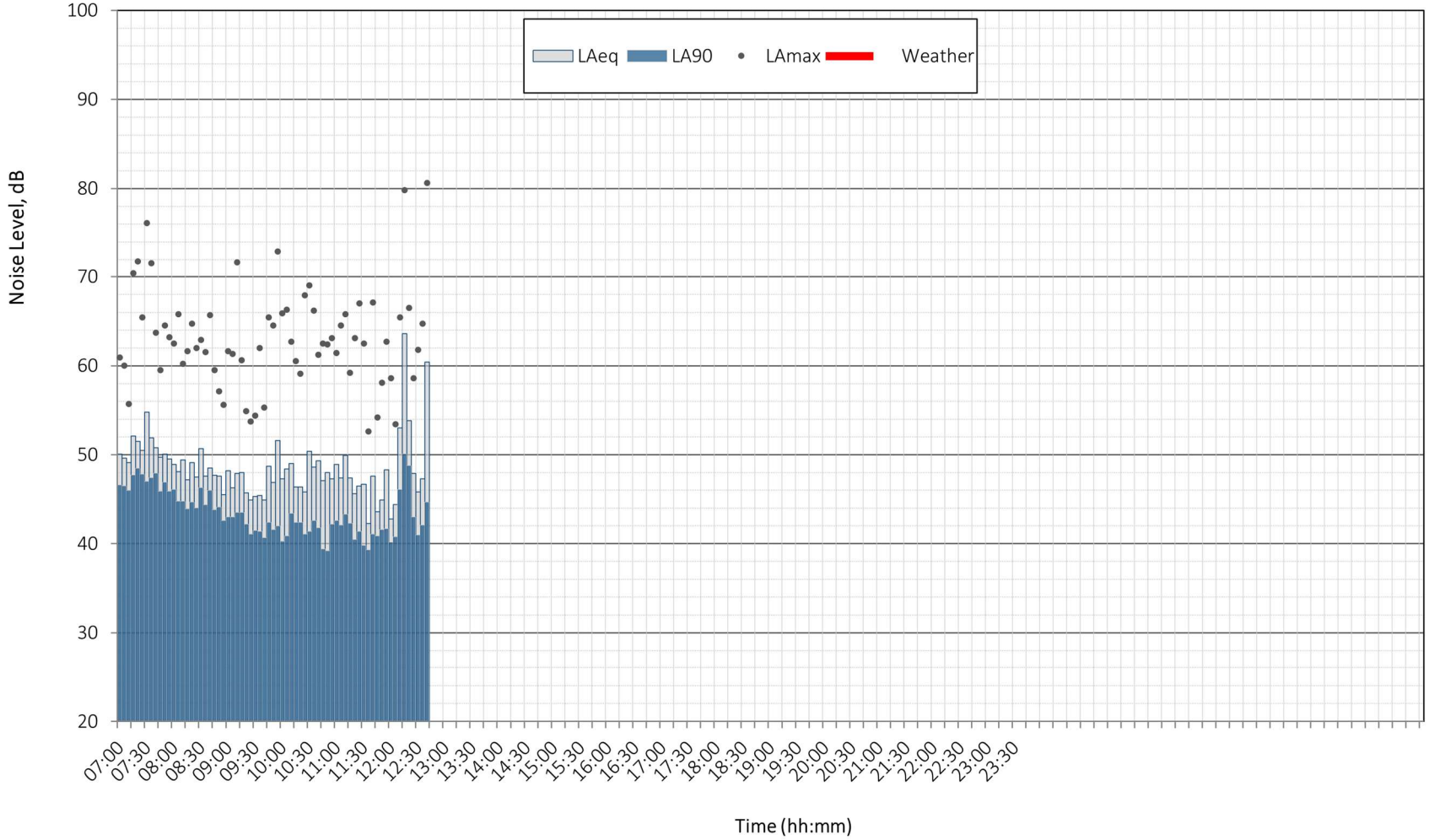
Time (hh:mm)

Quobleigh Breach - ML1
Noise Time History Plot
Monday 8 September 2025



Appendix E Traffic Data

No.	Junction/Link	Speed Limit	Baseline 2030	Baseline 2030 + CD	Baseline 2030 + CD + PD	Baseline 2036	Baseline 2036 + CD	Baseline 2036 + CD + PD
			Two-Way	Two-Way	Two-Way	Two-Way	Two-Way	Two-Way
4	Burnetts Lane (North of Fir Tree Lane)	30mph	3996	3996	5509	4172	4172	5685
5	Burnetts Lane (South of Fir Tree Lane)	30/40mph	3319	3319	3617	3464	3464	3762
6	Fir Tree Lane (West of Burnetts Lane)	30/60mph	2097	2097	3908	2188	2188	3999
7	Fir Tree Lane (East of Allington Lane)	30/60mph	2355	2355	3866	2458	2458	3969
8	Allington Lane (South of Fir Tree Lane)	40mph	11364	11364	13580	11863	11863	14079
9	Allington Lane (North of Fir Tree Lane)	30mph	10979	10979	13772	11460	11460	14253
17	Link Rd (north of Roundabout with Burnetts Lane)	30mph	0	0	5108	0	0	5108
18	Burnetts Lane North (Roundabout approach)	40mph	2683	2683	3004	2801	2801	3122
20	Burnetts Lane South (Roundabout approach)	40mph	3843	3843	3843	4011	4011	4011
22	Burnetts Lane South (Moorgreen approach)	40mph	3939	3939	3939	4112	4112	4112
40	Allington Lane (South of Access Roundabout)	40mph	11379	11379	13595	11878	11878	14094
56	Allington Lane north of access	30mph	10979	10979	13772	11460	11460	14253

With every community, we redefine what's possible.

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