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Noise Impact Assessment Report to Address Public Protection Consultation Response Comments

Units 4-6, Wynnstay Industrial Estate, Ruabon, LL14 6EN

Report Reference 22056.NIA-RPT.01

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EXECUTIVE SUMMARY

An environmental noise survey and noise impact assessment have been undertaken to assess the noise impact from various activities associated with the proposed B8 use and Screwfix operations at Units 4-6, Wynnstay Industrial Estate, Ruabon, LL14 6EN.

Representative background sound levels and residual sound levels have been measured over the key operating periods in accordance with BS 4142:2014+A1:2019.

The measured background sound levels alongside a scenario relating to customer vehicle noise and 2 no. scenarios relating to delivery noise have allowed BS 4142:2014+A1:2019 assessments to be undertaken to establish the likelihood of adverse impact of the proposed operations.

The assessment scenarios are as follows:

1. Customer noise assessment: Worst-case scenario of 5 customers per hour (1 hour assessment period as per BS 4142 for daytime hours) vs the background level of 44 dB(A) during branch opening hours
2. Deliveries to the branch in the proposed evening delivery window between 20:00-21:00 (1 hour assessment period as per BS 4142 for daytime hours) vs a background level of 39 dB(A)
3. Deliveries to the branch in the proposed morning delivery window between 06:00-07:00 (15 minutes assessment period as per BS 4142 for night-time hours) vs a background level of 44 dB(A)

Note that assessment Scenarios 2 and 3 are the same in terms of the Specific Sound Level from the activity, with the difference being a different background sound level due to the time in question, and different reference periods (1-hour daytime and 15-minute night-time).

The Rating Noise Level of each assessment scenario is predicted as shown in the table below, compared with the residual noise level and representative background noise level:

Scenario	**Representative Background Noise Level** **dB L_{A90}**	**Worst-case Specific Level at 1m from Receptor** **dB $L_{Aeq, Tr}$**	**Acoustic Feature Corrections** **dB**	**Calculated Rating Level at 1m from Receptor Façade** **dB $L_{Ar, Tr}$**	**+/- compared against the background** **dB**
1:- Customer Vehicles	44	35	+3 impulsivity +3 intermittency	41	-3
2:- Delivery at Branch Front After 2000	39	36	+3 impulsivity +3 intermittency	42	+3
3:- Delivery at Branch Front Before 0700	44	42	+3 impulsivity +3 intermittency	48	+4

With regard to customer-related site activities, it has been concluded that noise emissions would be sufficiently below the background sound level to be considered as a low likelihood of adverse impact in accordance with BS 4142:2014+A1:2019. Further calculations have demonstrated that internal noise levels within the receptor properties would be well below the recognised British Standard requirements.

With regard to delivery-related site activities, it has been concluded that the noise emissions would be considered to have a low likelihood of adverse impact in accordance with BS 4142:2014+A1:2019, based on the context of the assessment and limited activity 'on-time'. This outcome assumes that the Delivery Noise Management Plan outlined in Section 5.7 and Appendix E will be followed to ensure that noise is minimised as much as is practically possible.

It is concluded that the proposed B8 use, suggested opening hours and proposed delivery schedules would be acceptable at the site.

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1 INTRODUCTION

ES Acoustics Ltd have been instructed by Screwfix Direct Limited to prepare a noise impact assessment in support of a change of use from B1 to B8 use at Units 4-6, Wynnstay Industrial Estate, Ruabon, LL14 6EN, and to address public protection consultation response comments with regards to noise generated from the proposed use (Reference P/2025/0176). The comments provided were as follows:

> *RPT 2 – REPORT REQUIRED*
>
> *Due to the presence of approved residential estate to the north of this application this section recommends a noise report be requested as a pre-determination requirement:*
>
> *A noise survey shall be carried out, and a detailed report of the survey findings submitted to and approved in writing by the Local Planning Authority. The noise survey shall determine noise levels for both Day (07:00 – 23:00 hours) and Night (23:00 – 07:00 hours), having regard to Planning Policy Wales (PPW) Guidance, Technical Advice Note (TAN)11–Noise. The report of the noise survey findings shall include:*
>
> *a) Noise levels arising from day / night time activities in the vicinity of the proposed development site and the impact upon the approved accommodation, and*
>
> *b) A detailed scheme of noise insulation and / or attenuation measures so designed to safeguard the amenity of the approved residential accommodation.*

The structure of this report is:

- Site context and background information, including details of the expected activities on site;
- A review of appropriate national and local planning policy and assessment guidance relevant to the proposal, including the Planning Policy Wales (PPW) Guidance, Technical Advice Note (TAN)11–Noise;
- Details of the environmental noise survey on site to determine background noise levels representative of the approved residential accommodation to the north;
- The noise impact assessment, including:
    - Calculations of the expected noise levels generated from the site during daytime and night-time hours;
    - A noise impact assessment in accordance with BS 4142:2014+A1:2019;
    - Assessments of the likelihood of adverse impact of the proposal whilst taking into account the context in which the sound occurs; and
    - Where appropriate, provide outline mitigation advice to ensure no adverse impact upon the approved residential accommodation to the north.

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2 SITE CONTEXT AND BACKGROUND INFORMATION

2.1 Site Description

The application site is located to the north-west of the existing Wynnstay Industrial Estate, and is bounded by Wynnstay Road to the west, an access road serving the industrial estate to the south, a car parking area and neighbouring commercial unit to the east, and an approved residential scheme to the north, which is currently under construction.

The closest noise-sensitive receptor buildings to the site are the approved residential dwellings to the north that are currently under construction.

A block plan is shown in Figure 1 below, which shows the application site boundary (red) and closest noise-sensitive receptors (green):

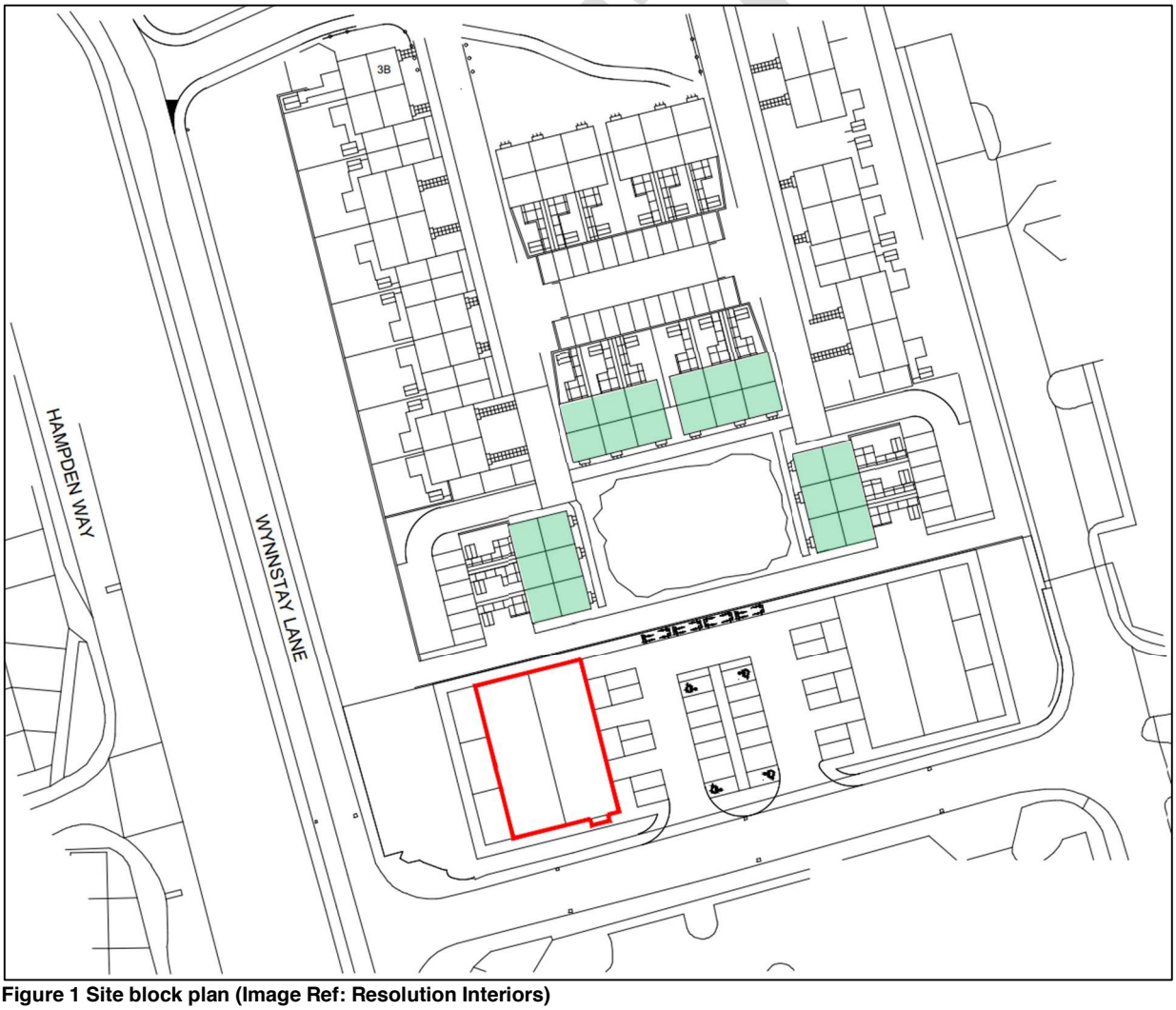


Figure 1 Site block plan (Image Ref: Resolution Interiors)

2.2 Proposal

The Client (Screwfix Direct Limited) comprises a B8 trade counter operation aimed at local building companies. Their products are also sold over the internet, via a catalogue, over the telephone, as well as over the trade counter, which typically occupies about 10% of the floorspace of a unit, with any individual

unit servicing its local area for each of these methods of purchase. Screwfix brands and products are formulated for the trade professional in terms of quantity and type of goods. Whilst the units are advertised, this is predominantly in the trade press and is directed at tradesmen.

The proposed hours of the unit would be as follows:

- *Monday to Friday 07:00 to 20:00*
- *Saturday 07:00 to 18:00*
- *Sunday 09:00 to 16:00*
- *Bank and Public Holidays 07:00 to 20:00*

The noise associated with the use would include:

- Customers' vehicles (predominantly cars and transit-style vans) as they enter and exit the site from the service and park within the designated parking spaces.
- Vehicle doors and boot opening and closing.
- Loading of goods from the branch to the vehicle.
- Deliveries would occur up to 3 times per week via before or after branch operating hours, due to site access restrictions. It is understood that deliveries would typically take around 30-40 minutes to complete. To ensure worst-case scenarios are assessed, it would be assumed that deliveries could take up to 1 hour between 06:00-07:00 or 20:00-21:00. In the interest of assessing all possible scenarios, 2 no. deliveries options would be assessed – 1. Deliveries before branch opening hours (06:00-07:00), and 2. Deliveries after branch opening hours (20:00-21:00)

Further to discussions with the Applicant, it is understood that the likely number of customers per hour throughout the week would be as shown in the table below:

	Mon	**Tues**	**Wed**	**Thurs**	**Fri**	**Sat**	**Sun**
07:00 – 08:00	2	2	2	2	2	1	
08:00 – 09:00	3	3	3	3	3	2	
09:00 – 10:00	3	3	3	3	3	3	2
10:00 – 11:00	4	3	4	4	4	4	4
11:00 – 12:00	4	4	4	4	4	5	4
12:00 – 13:00	4	4	4	4	4	4	4
13:00 – 14:00	4	4	4	3	4	4	4
14:00 – 15:00	3	3	3	3	3	4	4
15:00 – 16:00	3	3	3	3	3	3	3
16:00 – 17:00	3	3	3	3	3	3	
17:00 – 18:00	3	3	2	2	2	2	
18:00 – 19:00	2	2	2	2	1		
19:00 – 20:00	1	1	1	1	1		
Total Per Day	**38**	**38**	**38**	**37**	**37**	**35**	**25**

Table 1 Expected number of customers per hour

Given that the immediate surrounding area is primarily characterised by a mix of uses, including industrial, commercial, and residential, this assessment would be conducted based on this context as well as that of the consented use.

For all customer vehicle-related sources (vehicle movements, engine starting, and doors/boot opening/closing), these noise sources would not be considered unusual or out of place given the nature of the consented units, i.e. regardless of the specific use of the unit, the parking spaces approved would be used by vehicles. The noise sources under assessment are therefore not entirely new in terms of their acoustic character.

The above context would be taken into account in terms of the application of acoustic feature corrections and the assessment of impacts.

With regard to deliveries, several delivery options have been initially assessed, including deliveries direct to the front of the unit and deliveries from the roadside. The least noise-generating delivery option was for the delivery vehicle to unload at the front of the unit. This would result in lower noise emissions to the neighbouring residents, and is therefore the preferred delivery option.

The delivery vehicle tracking plan is shown in Figure 2.

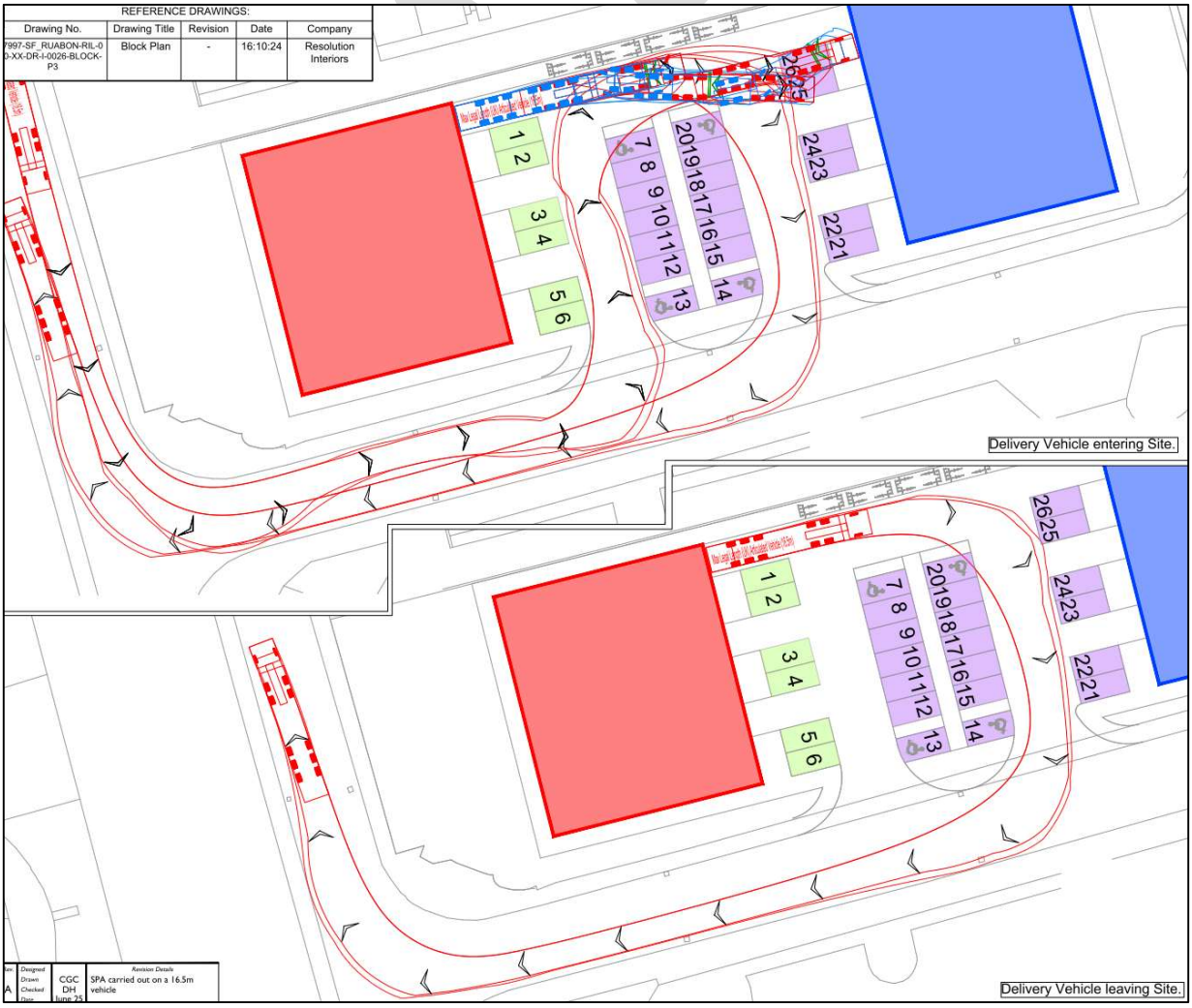


Figure 2 Delivery vehicle tracking plan (Image Ref: Coie Easdon)

3 POLICY, LEGISLATION AND GUIDANCE

This section of the report presents the key guidance and legislation relevant to the assessment of noise from the proposed site use.

3.1 National Policy

3.1.1 Planning Guidance (Wales), Technical Advise Note (Wales) 11, Noise

Development Control for Noise Generating Development

8. Local planning authorities must ensure that noise generating development does not cause an unacceptable degree of disturbance. They should also bear in mind that if subsequent intensification or change of use results in greater intrusion, consideration should be given to the use of appropriate conditions.

9. Noise characteristics and levels can vary substantially according to their source and the type of activity involved. In the case of industrial development, for example, the character of the noise should be taken into account as well as its level. Sudden impulses, irregular noise or noise which contains a distinguishable continuous tone will require special consideration. In addition to noise from aircraft landing and taking off, noise from aerodromes is likely to result from engine testing as well as ground movements. The impact of noise from sport, recreation and entertainment will depend to a large extent on frequency of use and the design of facilities. Advice on assessing noise and on factors to consider in relation to the major noise sources including roads, railways, airports, industrial and recreational noise and their measurement is given in Annex B.

Measures to Mitigate the Impact of Noise

11. Measures introduced to control the source of, or limit exposure to, noise should be proportionate and reasonable, and may include:

i. engineering: reduction of noise at point of generation (e.g. using quiet machines and/or quiet methods of working); containment of noise generated (e.g. insulating buildings which house machinery and/or providing purpose-built barriers around sites); protection of surrounding noise-sensitive buildings (e.g. improving sound insulation in these buildings and/or screening them by purpose-built barriers);

ii. lay-out: adequate distance between noise source and noise-sensitive building or area; screening by natural barriers, other buildings, or non-critical rooms in a building;

iii. administrative: limiting operating time of noise source; restricting activities allowed on the site; specifying an acceptable noise limit.

12. Early consultation with the applicant about the possible use of such measures is desirable and may enable them to be incorporated into the design before a proposal is formally submitted for determination. Alternatively, a local planning authority may impose conditions. Conditions which set noise limits raise particular issues on which guidance is given in Annex D. 13. There may be circumstances when it is

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acceptable, or even desirable in order to meet other planning objectives, to allow noise generating activities on land near or adjoining a noise-sensitive development. In such cases, local planning authorities should consider the use of conditions or planning obligations to safeguard local amenity. Care should be taken to keep the noisiest activities away from the boundary or to take measures to reduce the impact of noise. Authorities should also take into account the fact that the background noise level in some suburban and rural areas is very low, and the introduction of noise generating activities into such areas may be especially disruptive.

14. Where an authority's planning objectives cannot be achieved by imposing a planning condition, because for example, they require the developer to make a financial contribution, or they relate to development, roads or buildings other than those covered by the planning application, it may be appropriate to enter into a planning obligation.

Annex B – The Assessment of Noise From Different Sources

Noise from industrial and commercial developments

B17. The likelihood of complaints about noise from industrial development can be assessed, where the Standard is appropriate, using guidance in BS 4142: 1990. Tonal or impulsive characteristics of the noise are likely to increase the scope for complaints and this is taken into account by the "rating level" defined in BS 4142. This "rating level" should be used when stipulating the level of noise that can be permitted. The likelihood of complaints is indicated by the difference between the noise from the new development (expressed in terms of the rating level) and the existing background noise. The Standard states that, 'A difference of around 10 dB or higher indicates that complaints are likely. A difference of around 5 dB is of marginal significance'. Since background noise levels vary throughout a 24 hour period it will usually be necessary to assess the acceptability of noise levels for separate periods (e.g. day and night) chosen to suit the hours of operation of the proposed development. Similar considerations apply to developments that will emit significant noise at the weekend as well as during the week. In addition, general guidance on acceptable noise levels within buildings can be found in BS 8233: 1987.

B18. Commercial developments such as fast food restaurants, discos, night clubs and public houses pose particular difficulties, not least because associated activities are often at their peak in the evening and late at night. Local planning authorities will wish to bear in mind not only the noise that is generated within the premises but also the attendant problems of noise that may be made by customers in the vicinity. Disturbance that can be caused by traffic and associated car parking should not be underestimated.

Since the issue of the above guidance, the standards referenced have been updated. This report would therefore make reference to the latest editions of the British Standards as good practice.

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3.2 Best Practice and Guidance

3.2.1 BS 4142:2014+A1:2019 'Methods for rating and assessing industrial and commercial sound'

BS 4142:2014+A1:2019 provides a methodology for rating and assessing the impacts of industrial and commercial sound at noise sensitive receptors. The scope of the standard covers the following:

- *sound from industrial and manufacturing processes;*
- *sound from fixed installations which comprise mechanical and electrical plant and equipment;*
- *sound from the loading and unloading of goods and materials at industrial and/or commercial premises;*
- *sound from mobile plant and vehicles that is an intrinsic part of the overall sound emanating from premises or processes, such as that from forklift trucks, or that from train or ship movements on or around an industrial and/or commercial site*

Whilst the noise emissions associated with the temporary generators and powered hand tools would fall within the scope of BS 4142:2014+A1:2019, noise associated with the games and human speech would not. However, in the absence of more suitable guidance, all activities would be assessed in accordance with BS 4142:2014+A1:2019 to ensure that a robust assessment scenario is considered.

The methodology involves comparing the Rating Noise Level due to the sound source/s under assessment with the existing background noise level (L_{A90}) when the noise source is not operating to estimate the initial impact, as follows:

Typically, the greater this difference, the greater the magnitude of the impact

a) *A difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context*
b) *A difference of around +5 dB could be an indication of an adverse impact, depending on the context*
c) *The lower the rating level is relative to the measured background sound level, the less likely it is that there will be an adverse impact or significant adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound having a low impact, depending on the context*

Note that the assessment reference periods that should be considered are:

- *One hour period for a sound source operating during daytime hours (07:00-23:00 hours)*
- *Fifteen minute period for a sound source operating during the night-time (23:00-07:00 hours)*

The standard notes that a noise source under assessment will have a 'low impact' when the 'rating level' of a noise source is less than the existing background noise. It is also important to note that any quantitative assessment results are assessed in light of the context in which the sound occurs.

The definitions noted above are described below:

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- ***Specific sound*** *– sound source being assessed ($L_s = L_{Aeq,\ T}$)*
- ***Residual sound*** *– Ambient sound remaining at the assessment location when the specific sound source is suppressed to such a degree that it does not contribute to the ambient sound ($L_r = L_{Aeq,\ T}$)*
- ***Ambient sound*** *– totally encompassing sound in a given situation at a given time, usually composed of sound from many sources near and far ($L_a = L_{Aeq,\ T}$)*
- ***Background level*** *– sound pressure level that is exceeded by the residual sound at the assessment location for 90% of a given time interval ($L_{A90,\ T}$)*
- ***Rating level*** *– specific sound level plus any adjustment for the characteristic features of the sound*

With regards to background noise levels, BS 4142:2014+A1:2019 notes:

"In using the background sound level in the method for rating and assessing industrial and commercial sound it is important to ensure that values are reliable and suitably represent both the particular circumstances and periods of interest. For this purpose, the objective is not simply to ascertain a lowest measured background sound level, but rather to quantify what is typical during particular time periods."

With regards to the 'rating level', the adjustments for the characteristic features of the sound are outlined below:

- *Tonality – +2 dB for a tone which is 'just perceptible' at the noise receptor, +4 dB where it is 'clearly perceptible', and +6 dB where it is 'highly perceptible'*
- *Impulsivity – +3 dB for a tone which is 'just perceptible' at the noise receptor, +6 dB where it is 'clearly perceptible', and +9 dB where it is 'highly perceptible'*
- *Intermittency – +3 dB if the intermittency is readily distinctive against the residual acoustic environment*
- *Other sound characteristics – where the specific sound features characteristics that are neither tonal nor impulsive, nor intermittent, though otherwise are readily distinctive against the residual acoustic environment, a penalty of +3 dB can be applied.*

It must be noted that as the rating level is determined at the closest noise sensitive receptor, the acoustic feature corrections should be applied based on the level at receptor location, not at source. This is particularly relevant when noise propagation characteristics cause differences in sound reduction at various frequency bands.

The assessment reference periods that should be considered for daytime and night-time, as defined within the standard, are:

- *One hour period for a sound source operating during daytime hours (07:00-23:00 hours)*
- *Fifteen-minute period for a sound source operating during the night-time (23:00-07:00 hours)*

ES Acoustics Notes regarding Context:

The notes presented below are informed by the BS 4142:2014+A1:2019 Technical Note prepared by the Association of Noise Consultant Good Practice Working Group.

Assessment context is often misunderstood or applied incorrectly, and the notes are therefore presented to provide a clear picture on what aspects of context should be considered when assessing the overall impact of a particular scenario:

Subclause 11(1)

Absolute levels may be as, or more, important than relative outcomes where background and rating levels are low. It is important to note that both background and rating levels would need to be low for this particular caveat to apply.

BS 4142 does not indicate how the initial estimate of impact should be adjusted when background and rating levels are low, only that the absolute levels may be more important than the difference between the two values. It is likely that where the background and rating levels are low, the absolute levels might suggest a more acceptable outcome than would otherwise be suggested by the difference between the values. For example, a situation might be considered acceptable where a rating level of 30dB is 10dB above a background sound level of 20dB, i.e. an initial estimate of a significant adverse impact is modified by the low rating and background sound levels. However, there may be situations where the opposite is true, and it is for the assessor to justify any modifications to the initial estimate of impact.

BS 4142 does not define 'low' in the context of background sound levels nor rating levels. The note to the Scope of the 1997 version of BS 4142 defined very low background sound levels as being less than about 30 dB L_{A90}, and low rating levels as being less than about 35 dB $L_{Ar,Tr}$. We would consider that similar values would not be unreasonable in the context of the current edition of BS 4142.

The third paragraph states that "where residual sound levels are very high, the residual sound might itself result in adverse impacts or significant adverse impacts".

In the ordinary application of BS 4142 the residual sound level is not compared with the background sound level to determine the level of impact. The third paragraph is therefore taken to mean that the level of impact caused by the residual level has been determined by professional judgement or with reference to another document, such as the Noise Insulation Regulations 1975 (as amended 1988). Where professional judgement is used, it should be appropriately justified.

Where the residual sound levels are very high, a significant adverse impact might be declared in a situation where the rating level exceeds the background sound level by, say, 4dB, i.e. since the residual sound levels are already considered to cause a significant impact, any worsening of the situation would be considered a significant adverse impact, even if the difference between the rating level and background sound level would not suggest this to be the case.

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Subclause 11(2)

The second aspect of context described in BS 4142 relates to the character and level of the specific sound. In essence, whether or not the character of the sound is distinguishable from the character of the ambient or residual acoustic environment or is incongruous.

BS 4142 does not provide instruction as to how to treat the assessment outcomes in these circumstances, nor does it explain how to distinguish between this contextual consideration and the process for applying rating penalties. The latter is itself informed by the distinctive characteristics of the specific sound in the context of the residual sound environment.

Where character-based contextual matters are taken into account, the assessor should make it clear how these matters are distinct from those that informed the rating level corrections, and what the implications of these further character assessments should be. For example; new deliveries on an estate entailing rating penalties for reversing alarms and impulsive noise but these types of noise are already present at other existing premises, so contextually the impact is reduced. Conversely, where the residual level is largely comprised of natural sounds, such as the sea or birdsong, so the impact from the specific source might be increased.

Subclause 11(3)

The third contextual matter described in Clause 11 relates to the receptor itself. It is important to note that the reference at the start of this section of BS 4142 to 'the sensitivity of the receptor' refers to a generic receptor type, i.e. a dwelling, and not to the particular attitudes or responses of a particular person (although if the residential receptor type is specific it may have a bearing e.g. student accommodation).

The ANC working group notes that this part of BS 4142 allows the internal noise environment to be considered, despite BS 4142 excluding such matters from its Scope (Subclauses 1.1, 1.2 and 1.3). The working group considers that the consideration of the internal noise environment is only valid in a BS 4142 assessment where it relates to the contextual elements of the assessment.

3.2.2 BS 8233:2014 'Guidance on sound insulation and noise reduction for buildings'

Table 4 of BS 8233:2014 (reproduced below) provides guidance on recommended internal ambient noise levels in residential spaces based on World Health Organisation (WHO) research.

Room	Daytime (07:00-23:00)	Night-time (23:00-07:00)
Living Room	≤ 35 dB $L_{Aeq,16hr}$	N/A
Dining Room	≤ 40 dB $L_{Aeq,16hr}$	N/A
Bedroom	≤ 35 dB $L_{Aeq,16hr}$	≤ 30 dB $L_{Aeq,8hr}$

Table 2 BS 8233:2014 indoor ambient noise levels for dwellings

Whilst it is accepted that the levels presented above are for steady external noise sources without a specific character, the guidance provides useful context as to what acceptable internal noise levels are in an ideal situation.

4 ENVIRONMENTAL NOISE SURVEY

4.1 Measurement Location and Procedure

A noise survey was undertaken on site as shown in Figure 4. The monitoring position was chosen to provide a secure location with background noise levels representative of those at the approved residential accommodation to the north.

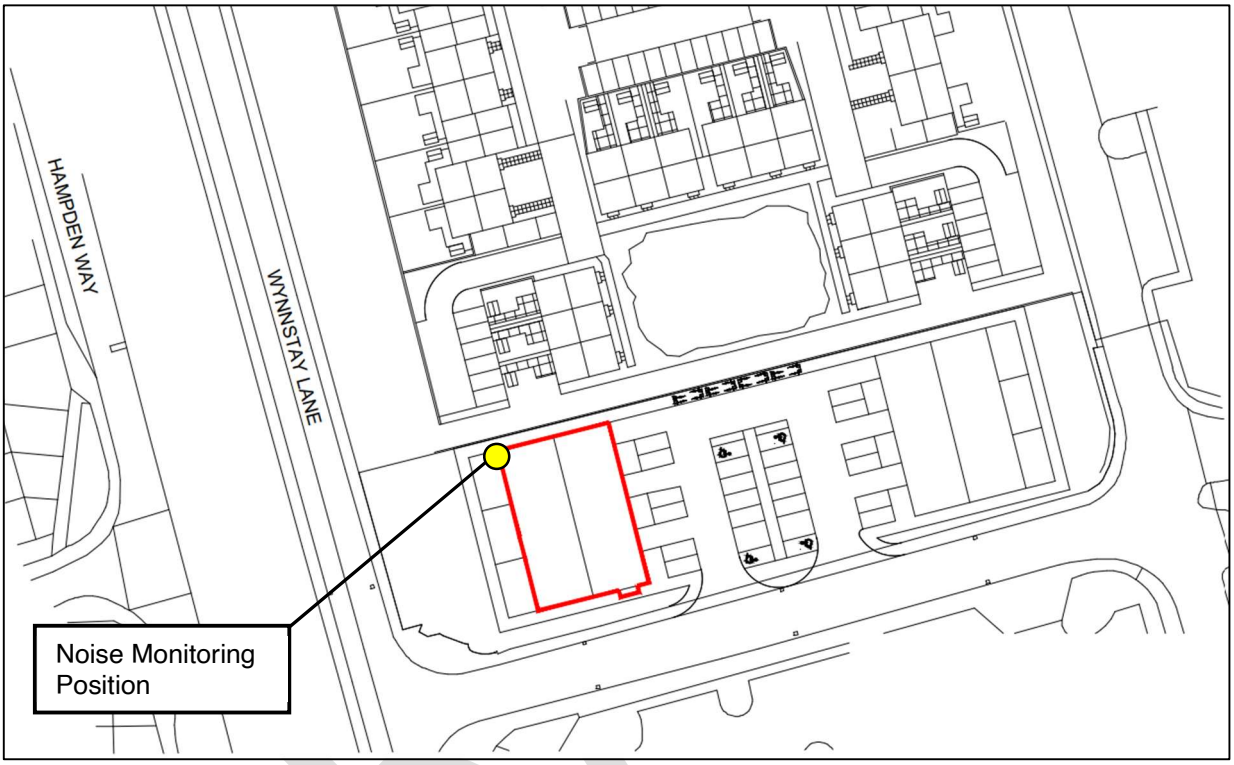


Figure 4 Indicative image showing monitoring location (Ref: Google Earth)

An appraisal of the site during the site visit determined that the noise profile of the area was dominated by road traffic noise from the surrounding roads.

The measurement procedure complied with ISO 1996-2:2017 Acoustics '*Description, measurement and assessment of environmental noise - Part 2: Determination of environmental noise levels'*, with automated monitoring undertaken between 14:00 on the 8th and 14:00 on the 9th of April 2025.

The key acoustic descriptors measured for this assessment are as follows:

- $L_{Aeq,T}$ *(the continuous equivalent A-weighted noise level over a given time period, T); and*
- $L_{A90,T}$ *(the noise level exceeded for 90% of the measurement period T, referred to as the 'background' noise level).*

4.2 Measurement Equipment

The table below presents the equipment used for the baseline noise survey. The equipment calibration was verified before and after use, and no abnormalities were observed.

Equipment	Make and Model	Serial Number
Type 1 Sound Level Meter with Integrated Microphone	Convergence Instruments NSRT MK4	ANB0hv2Y2V2XCpNQbyD5tD
Calibrator	Hangzhou Aihua Instruments Co. Limited AWA 6021A	1008779

Table 3 Site survey equipment

4.3 Weather Conditions

Weather conditions during the automated monitoring were generally dry and therefore suitable for the measurement of environmental noise.

Data on temperature, wind speed and precipitation have been sourced from the closest weather station[1] with accessible data.

Analysis of the time history and measurement results shows that the levels of wind speed and precipitation have had no impact on the measured results.

A summary of the weather data is reported in Table 4.

Description	Installation Date 08/04/2025	Collection Date 09/04/2025
Average Wind Speed (m/s)	4	4
Average Temperature (^{o}C)	13	12
Precipitation (mm)	0	0

Table 4 Weather conditions

4.4 Survey Results

A time history of the environmental noise survey is shown in Appendix B.

A summary of the measurement results is presented in the table below for daytime and night-time. For reference, the representative background sound level is defined by the most frequently occurring $L_{A90:5min}$ throughout the survey. Due to the presence of additional reflections at the monitoring location, 3dB has been subtracted from the presented results in Table 5. The values plotted in Appendix B are the raw data as captured.

Period	Residual Sound Level $L_{Aeq,\,T}$ (dB)	Representative Background Sound Level L_{A90} (dB)
Daytime 07:00-23:00	54	44
Night-time 23:00-07:00	46	30

Table 5 Measured noise levels

With regards to the background sound level, BS 4142:2014+A1:2019 notes that *"…it is important to ensure that values are reliable and suitably represent both the particular circumstances and periods of interest. For this purpose, the objective is not simply to ascertain a lowest measured background sound level, but rather to quantify what is typical during particular time periods."*

[1] Weather Station: EGNR. ID: EGNR, located 21 km from the site at Latitude 53.17, Longitude -2.98

As a key aspect of the assessment is noise associated with the delivery activity, it is also important to establish representative background noise levels during the proposed delivery windows, as summarised in Table 6.

Time Period	**Residual Sound Level** $L_{Aeq,\ T}$ **(dB)**	**Representative Background Sound Level** L_{A90} **(dB)**
Early Morning Delivery Window 06:00 – 07:00	51	44
Evening Delivery Window 20:00 – 21:00	50	39

Table 6 Measured noise levels during key operating periods

Based on the analysis above, ESA would therefore consider the representative background noise levels of L_{A90} 44 dB for the customer vehicular activity, L_{A90} 44 dB for the early morning delivery window, and L_{A90} 39 dB for the evening delivery window.

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5 NOISE IMPACT ASSESSMENT

The following sections present noise emissions from all proposed operations and assessment scenarios in accordance with BS 4142:2014+A1:2019.

5.1 Specific Sound Levels

The key activities associated with the proposed use of the site are defined below:

- Customers' vehicles as they enter and exit the site from the access road and park within the designated parking spaces.
- Vehicle doors and boot opening and closing.
- Loading of goods from the branch to the vehicle.
- Deliveries to the branch, which would occur up to 3 times per week and would take up to 1-hour to complete (typically 30-40 minutes).

Sound power levels for the activities above have been sourced from sound propagation prediction and mapping software, SoundPlan 9.1, and are shown in the table below:

Activity	Description	Sound Power Level dB(A)
Customer Vehicle	Car driving on asphalt at 30km/h L_w/m, m^2	47*
	Car engine starting L_w/m	98
	Car door slamming L_w/m	98
Delivery	Truck: accelerated passing L_w/m, m^2	62*
	Truck: backout alerter L_w/m, m^2	61
	Truck: loading general cargo L_w/m	80
	Truck: start engine Lw/m	90

Table 7 Sound power levels of specific sources
***Level relating to one event per hour**

5.2 Assessment Scenarios

Noise modelling of the assessment scenarios presented above would be undertaken using SoundPlan 9.1 to present a clear representation of the expected noise levels at the closest noise-sensitive receptor properties. Specific details of each scenario are described below.

5.2.1 Customer Vehicles Arriving and Leaving

Noise associated with customer vehicle movements will be assessed within the boundary of the application site. BS 4142:2014+A1:2019 notes that "*sound of an industrial and/or commercial nature does not include sound from the passage of vehicles on public roads and railway systems*", and therefore, noise from customer vehicles would not be considered while passing on Wynnstay Lane or the access road to the south of the application site.

For each customer attending the unit, 2 no. events would be considered; 1 no. event as the vehicle arrives on site and 1 no. event as the vehicle leaves the site. Based on the data presented within Table 1, a worst-case scenario of 5 no. customers would be considered in any given one-hour period.

5.2.2 Vehicle doors and boots opening and closing / loading

Vehicle doors/boots opening and closing would be considered as a point source in the parking spaces closest to the noise-sensitive receptors to ensure a worst-case scenario. For each customer attending the unit, 3 no. events would be considered (1 no. event as the customer leaves the vehicle upon arrival, 1 no. event as the customer loads goods into the boot, 1 no. event as the customer enters the vehicle before leaving).

It must be noted that the loading and unloading activity is always undertaken by hand, and no trollies/cages are used in this process. The largest items on sale would include doors and radiators, which are all manageable by hand. Whilst there would inherently be some noise associated with the loading (e.g. placing a radiator into the back of a transit van), the key noise source associated with this activity would be the vehicle boot slamming after the goods are loaded. The noise associated with the actual loading activity would be non-significant due to the activity being undertaken partially inside the vehicle and the goods being placed with a degree of care to avoid damage.

5.2.3 Deliveries to the Unit

The tracking plan of the delivery vehicle has been considered and input as a line source following the tracking plan shown in Figure 2, with the vehicle reversing up to the goods in entrance. The unloading activity would be considered as an area source in front of the 'goods in' door to the unit. It is understood that stock cages are used for the delivery of items to the branch, and the key noise occurring would be these cages being rolled onto the tail lift, and from the tail lift into the branch.

5.2.4 Assessment Scenario Summary

The assessment scenarios under consideration are as follows:

1. Customer noise assessment: Worst-case scenario of 5 customers per hour (1 hour assessment period as per BS 4142 for daytime hours) vs the background level of 44 dB(A) during branch opening hours
2. Deliveries to the branch in the proposed evening delivery window between 20:00-21:00 (1 hour assessment period as per BS 4142 for daytime hours) vs a background level of 39 dB(A)
3. Deliveries to the branch in the proposed morning delivery window between 06:00-07:00 (15 minutes assessment period as per BS 4142 for night-time hours) vs a background level of 44 dB(A)

Note that assessment Scenarios 2 and 3 are the same in terms of the Specific Sound Level from the activity, with the difference being a different background sound level due to the time in question, and different reference periods (1-hour daytime and 15-minutes night-time).

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5.3 Noise Mapping Results

Proprietary modelling software, SoundPlan 9.1, has been used to provide a visual representation of Specific Sound Levels for the scenarios outlined above.

The calculation algorithms set out in ISO 9613-2:1996 "*Acoustics – Attenuation of sound during propagation outdoors – Part 2 General method of calculation*" have been used, and the model assumes:

- A ground absorption factor of 0.5
- Façade receptor heights of 1.5m and 4m to reflect two-storey dwellings, with grid maps presented at a height of 1.5m above ground (note that the highest façade level is always presented)
- Attenuation predicted for 500Hz in accordance with ISO9613-2 when only A-weighted sound power levels known

The resultant noise maps for each assessment scenario are presented below. Full-sized maps are presented in Appendix D.

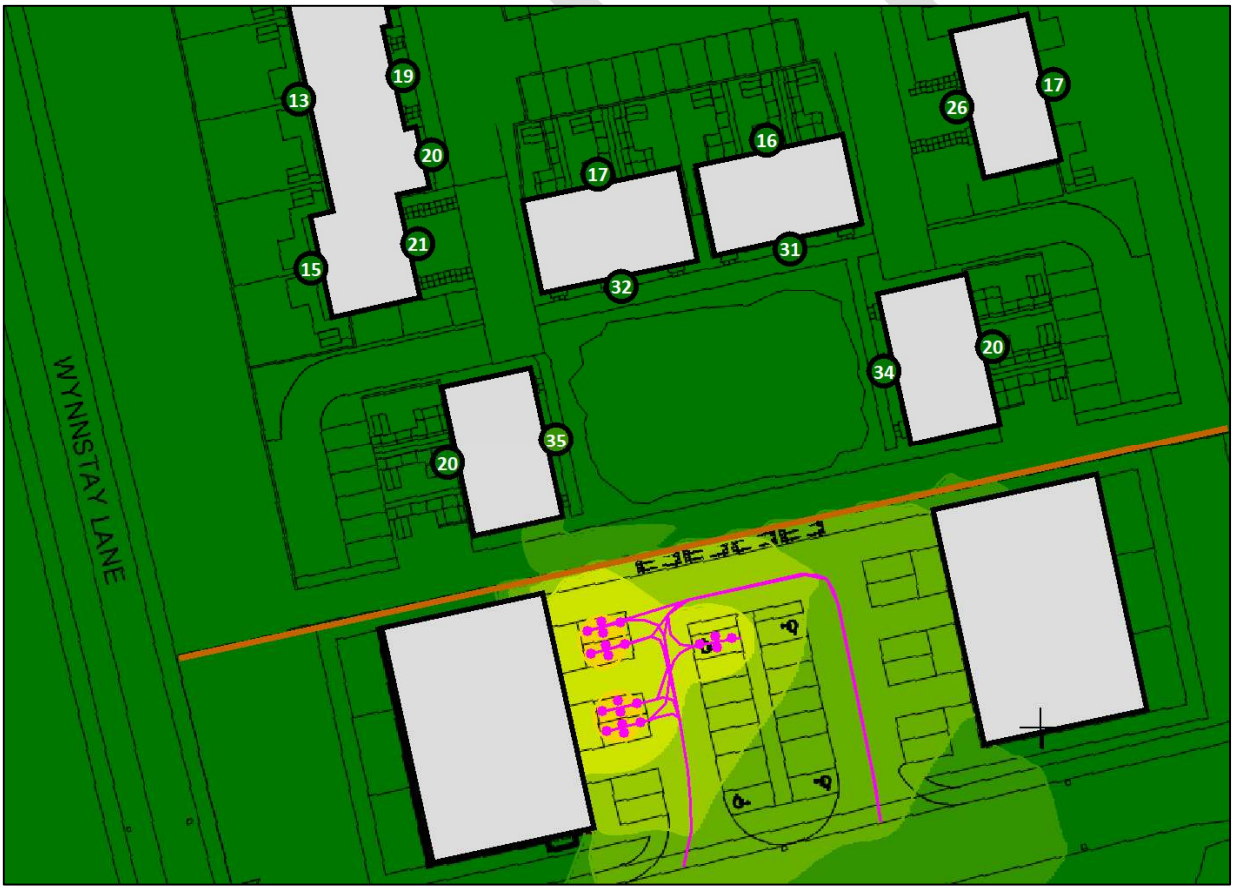


Figure 3 Scenario 1 – Customer vehicles

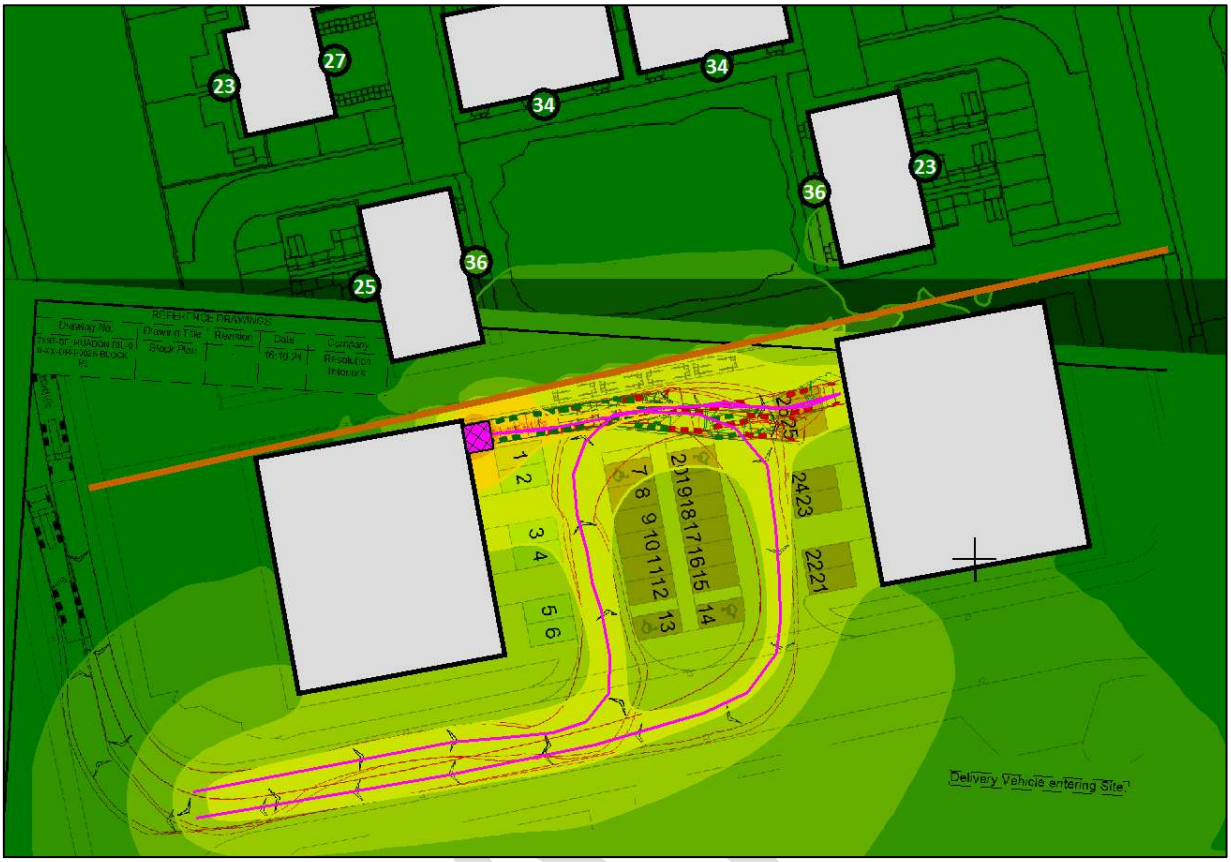


Figure 4 Scenario 2 – Deliveries to the unit after branch opening hours (20:00-21:00)

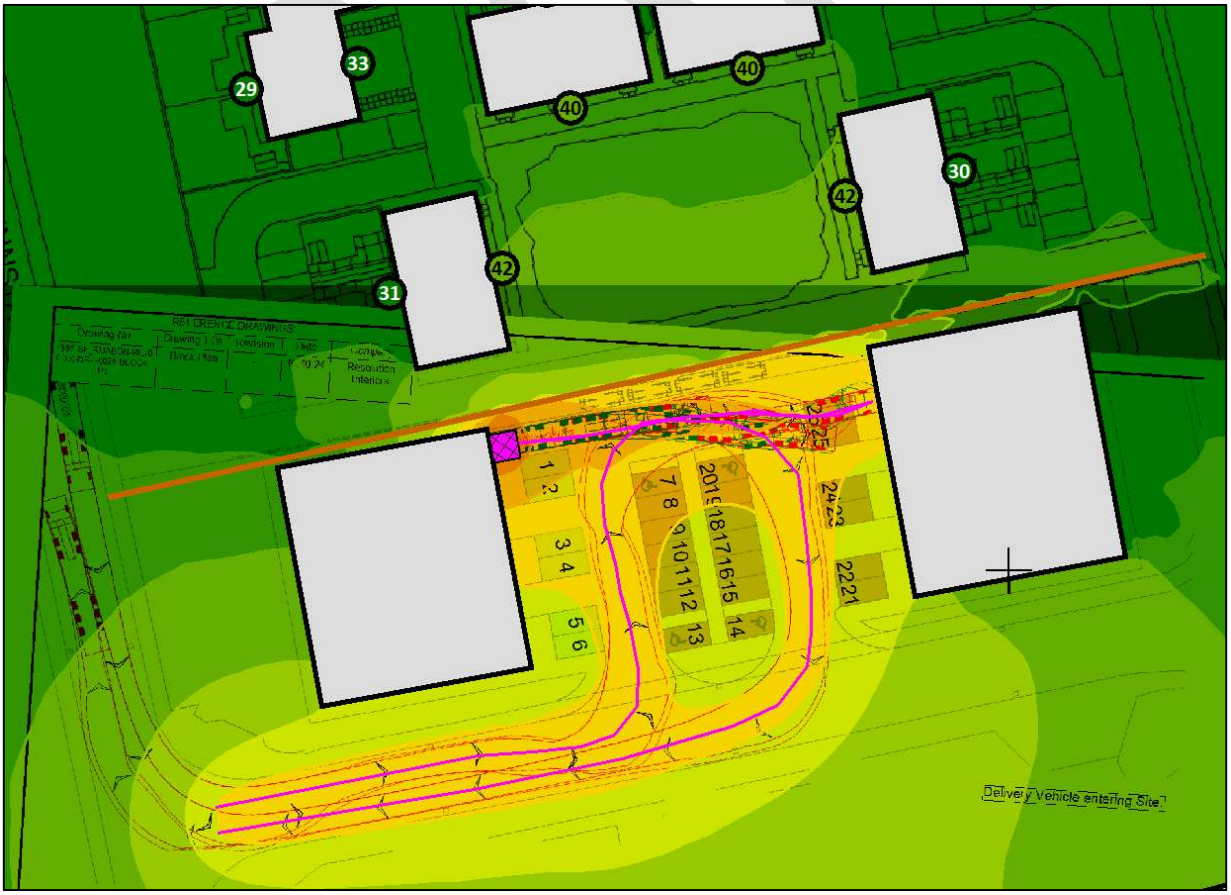


Figure 5 Scenario 3 – Deliveries to the unit before branch opening hours (06:00-07:00)

5.4 Rating Noise Levels

The table below compares the highest Rating Noise Levels calculated for each scenario against the background noise level that would be considered most representative of the receptor location:

Scenario	Representative Background Noise Level dB L_{A90}	Worst-case Specific Level at 1m from Receptor dB $L_{Aeq, Tr}$	Acoustic Feature Corrections dB	Calculated Rating Level at 1m from Receptor Façade dB $L_{Ar, Tr}$	+/- compared against background dB
1 Customer Vehicles	44	35	+3 impulsivity +3 intermittency	41	-3
2 Delivery at Branch Front After 2000	39	36	+3 impulsivity +3 intermittency	42	+3
3 Delivery at Branch Front Before 0700	44	42	+3 impulsivity +3 intermittency	48	+4

Table 8 Comparison of the Rating Level and Background Level for each assessment scenario

It is important to note that the Rating Noise Levels presented above are complete worst-case scenarios throughout the week, considering the lowest background levels and highest customer numbers/worst-case site activity.

5.5 Assessment of Impacts

As noted within the BS 4142:2014+A1:2019 guidance, a crucial and important step in assessing the noise impact is the consideration of the context in which the sound under assessment occurs. The key points of note concerning the context are as follows:

- The previous site use would include similar noise sources as those assessed in terms of customer vehicle/activity noise, and these assessments should not be viewed as a completely new source with a new acoustic character being introduced to the area.
- While deliveries to the unit would be considered as a new noise source introduced to the area, this activity would only occur 3 times per week for a worst-case total of 3 hours per week.
- The immediate surrounding area is primarily characterised by a mix of uses, including commercial and residential, and the existing noise context of the area would be expected to include various noise sources.

With regards to noise associated with customer vehicles (vehicle movements, engines starting, and doors/boot opening/closing), it is clear that such noise sources are not as insidious as many sources that would form a more typical BS 4142:2014+A1:2019 assessment i.e. the sources in question are not '*sound from industrial and manufacturing process'* such as chemical processes (steel smelting, etc), electrolysis (metallizing, plating, spin coating, etc), cutting (shearing, sawing, etc), metalworking (forging, casting,

etc), moulding (casting, sintering, etc), distillation, additive manufacturing, etc; the sources in question are not *'sound from fixed installations which comprise mechanical and electrical plant and equipment'* such as large chiller or air handling plant; while part of the activity could be described as '*sound from the loading and unloading of goods and materials at industrial and/or commercial premises'*, the minor hand loading by customers would not be comparable to a distribution warehouse and the loading which would occur and the loading activity in question is not a key 'noise source'; and while the activity does include '*vehicle movements that is an intrinsic part of the overall sound emanating from the premises or process'*, the noise is minor is comparison to the examples given in the Standard ("*such as that from fork-lift trucks, or that from train or ship movements on or around an industrial and/or commercial site*").

With regards to noise from deliveries, it is important to note that deliveries would take around 30-40 minutes (with 1 hour allowed as worst-case) and would only occur 3 times per week, for a worst-case total of 3 hours per week. Therefore, in terms of total "on-time", the activity would occur infrequently, and this must be given significant weight in the overall assessment outcome (i.e. the same level being generated 24/7 would likely have a greater impact than the same activity and level only occurring for 3 hours per day). The implementation of best practicable means for this process is outlined in Section 5.7, which should be taken into account when establishing the likelihood of adverse impact.

Table 9 below presents the likelihood of the adverse impact of each assessment scenario, considering the context in which the sound occurs.

Scenario	+/- compared against background dB	Likelihood of Adverse Impact
1:- Customer Vehicles	-3	Low
2:- Delivery at Branch Front After 2000	+3	Low
3:- Delivery at Branch Front Before 0700	+4	Low

Table 9 Assessment of the likelihood of adverse impacts

5.6 Further Calculations

BS 8233:2014 provides guidance on recommended internal ambient noise levels in residential spaces based on World Health Organisation (WHO) research. The guidance notes that a partially open window would provide up to 15 dB attenuation from outside to inside.

Based on the Rating Noise Levels calculated above, worst-case expected internal noise levels would be as shown in the table below:

Scenario	BS 8233 Internal Noise Level During Scenario Hours dB(A)	Calculated Specific Level at 1m from Receptor Façade dB $L_{Aeq, T}$	Attenuation Provided by Partially Open Window dB	Expected Internal Noise Level Within Receptor Property dB(A)
1	35	35	-10 to 15	20 – 25
2	35	36	-10 to 15	21 – 26
3	30	39	-10 to 15	24 – 29

Table 10 Summary of expected internal sound level within the receptor properties due to the proposed site use

For all assessment scenarios, the expected internal noise levels would be comfortably below the recommended internal ambient noise level guidance of the recognised British Standard, further ensuring the amenity of the closest noise-sensitive receptors.

Best practical means for the delivery activity is presented in Section 5.7, which should be followed by all Screwfix delivery drivers. This Section is also presented in Appendix E for ease of distribution.

5.7 Best Practicable Means for Delivery Activity

This section provides best practical means for on how to minimise noise from deliveries. The key information within this section is repeated as Appendix E 'Delivery Noise Management Plan' for ease of distribution among the delivery drivers and key logistics personnel to ensure the guidance is being followed.

General Guidance

- Using newer and quieter delivery vehicles and equipment, where possible
- Making sure all equipment – both on the vehicle and at the delivery point – is in good working order and maintained or modernised to minimise noise when in operation
- Ensuring all staff involved in delivery activity are briefed and trained appropriately, in accordance with the information presented in this section
- Ensuring all suppliers and carriers receive copies of Appendix E and are aware of its importance

Delivery Point

- Ensure delivery bay doors and shutters are well maintained to minimise noise when opening and closing
- Switch off the radio when delivery point doors are open
- Ensure the delivery point and surrounding areas are clear of obstructions so vehicles can manoeuvre easily
- Keep doors other than the delivery point closed to ensure noise does not escape
- Where possible, prepare all empty handling units, salvage and returns behind closed doors. Check they are in the correct condition and position and at the right height before taking them out. This will minimise outdoor activity and unnecessary noise
- Think about how to minimise contact between hard surfaces, particularly metal on metal, during the unloading/loading processes. For example, use rubber matting and buffering material on doors
- Service any delivery equipment in advance to minimise noise
- Make sure the delivery point is ready for the vehicle before it arrives – gates and doors should be open to avoid the vehicle idling
- Make sure the driver knows the precise location of your delivery point and is aware of any local access issues
- Ensure staff do not shout or whistle to get the attention of the driver

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The Driver

- Plan ahead to ensure you know the location of the delivery point and the appropriate access route
- If early for your delivery slot, do not wait near residential property and encourage the driver to switch off the engine
- As you approach the site and manoeuvre your vehicle into position, remain aware of the effect noise levels can have on local residents
- Do not sound your horn
- Reversing alarms should be switched off or modified for white noise, if not subject to health and safety requirements. Use a qualified banksman instead, if available
- Engines should be switched off immediately when not manoeuvring, however, try to minimise start-ups and avoid over-revving
- If the radio is on, ensure the cab windows are closed and switch the radio off before opening the door
- Minimise the frequency of opening and closing vehicle doors, and do so quietly
- Allow extra time if needed to unload as quietly as possible. Take particular care to minimise rattle from metal-on-metal contact when moving roll cages
- Where practical, notify staff at the delivery point in advance of arrival to ensure they are ready for you
- Be aware of how far your voice can carry when talking outside
- If opening a gate/cellar flap/roller shutter door to gain access, do so gently and as little as possible
- Lower flaps on tail-lifts carefully and quietly
- Do not whistle or shout to get the attention of branch employees
- When safe to do so, use sidelights rather than headlights while off-road and manoeuvring, to minimise light intrusion
- Minimise excessive air brake noise
- When working in the vehicle load space avoid banging cages into the vehicle walls
- When finished unloading/loading, close up the vehicle quietly
- Show the same consideration when leaving the site as when arriving

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6 CONCLUSION

An environmental noise survey has been undertaken at Units 4-6, Wynnstay Industrial Estate, Ruabon, LL14 6EN to establish background sound levels representative of the closest noise-sensitive receptor locations relative to the site.

Based on the proposed use of the site, noise assessment scenarios have been presented using suitably sourced noise data.

Calculations of expected noise levels at the closest noise-sensitive receptors for each assessment scenario have been undertaken in accordance with BS 4142:2014+A1:2019 for comparison with representative background sound levels.

It has been concluded that noise emissions from the customer-related site activities would be sufficiently below the background sound level to be considered as a low likelihood of adverse impact in accordance with BS 4142:2014+A1:2019. Further calculations have demonstrated that internal noise levels within the receptor properties would be well below the recognised British Standard requirements.

It has been concluded that noise emissions from delivery related site activities during the evening delivery window of 20:00-21:00 and the morning delivery window of 06:00-07:00, would be considered to have a low likelihood of adverse impact in accordance with BS 4142:2014+A1:2019, based on the context of the assessment and limited activity ‘on-time’. This outcome assumes that the Delivery Noise Management Plan outlined in Section 5.7 and Appendix E will be followed to ensure that noise is minimised as much as is practically possible.

It is concluded that the proposed B8 use, suggested opening hours and proposed delivery schedules would be acceptable at the site.

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APPENDIX A

GLOSSARY OF ACOUSTIC TERMINOLOGY

Decibel scale - dB

The decibel (dB) is a relative unit of measurement used in acoustics. The dB is a logarithmic ratio between a measured level and a reference level of 0 dB (i.e the threshold of human hearing). Simply put, the decibel compresses the wide range of sounds we hear into more manageable numbers.

Addition of noise from several sources

Sound produced by multiple sound sources are added logarithmically e.g. power ratio of 2 = 3dB, power ratio of 10 = 10dB. Therefore, two equally intense sound sources operating simultaneously produce a sound level which is 3dB higher than a single source e.g. 60dB + 60dB = 63dB.

Subjective impression of noise

Human response to sound is highly individualized and often based on psychological factors such as emotion and expectation. Sensitivity to sound typically depends on the loudness, pitch, duration of the occurrence, and time of occurrence (e.g. a sound source could cause annoyance during the night where it would not during the day). The following table is a guide to explain increases or decreases in sound levels for many scenarios.

Change in sound level	Change in perceived loudness
1 dB	Imperceptible
3 dB	Just barely perceptible
6 dB	Clearly noticeable
10 dB	About twice as loud

'A' Weighted Frequency Filter - dB(A)

The human ear is not equally sensitive in all frequencies. The A-weighting filter was devised to take this into account when undertaking noise measurements and allows a sound level meter to replicate the human ears response to sound.

$L_{Aeq, T}$

Sound can fluctuate widely over a given period. L_{Aeq} is the A-weighted equivalent continuous sound level, with T denoting the time period over which the fluctuating sound levels were averaged e.g. $L_{Aeq,16h}$ is the equivalent continuous noise level over an 16 hour period.

L_{A90}

A-weighted sound level exceeded for 90% of the measurement period, calculated via statistical analysis. The L_{A90} descriptor is typically used to establish background sound levels for noise impact assessments

L_{A10}

A-weighted sound level exceeded for 10% of the measurement period, calculated via statistical analysis.

L_{AFmax}

A-weighted sound level maximum sound pressure level that has been measured over a given time period

APPENDIX A

GLOSSARY OF ACOUSTIC TERMINOLOGY

Octave Bands

The audio or frequency spectrum of the human ear is in the range of 20Hz to 20 kHz. The spectrum tells how the energy of the sound signal is distributed in frequency. Octave bands divides the audio spectrum into 10 equal parts. The International Standards Organisation defines the centre frequency of these bands as 31.5Hz, 63 Hz, 125 Hz, 250 Hz, 500 Hz, 1kHz, 2kHz, 4kHz, 8kHz and 16kHz.

Noise Rating (NR) Curves

A method of rating noise using a set of curves relating octave band sound pressure levels. Typically used for building services systems within offices

Airborne sound

Sound radiated from a source into the surrounding air e.g. musical instruments, tv/radio, machinery/equipment. Airborne sound insulation refers to the reduction or attenuation of airborne sound, usually via a solid partition between a source and receiver.

Impact sound

Sound resulting from the impact between colliding objects, e.g. footfall impact upon a floor. Impact sound insulation refers to the resistance of a floor to the transmission of impact sound, typically via the installation of a ‘resilient layer’

Flanking sound

The transmission of airborne sound between two adjacent rooms by paths other than via the separating partition between the rooms, e.g. the abutment point of a wall and floor.

Structure-borne noise

Noise caused by the vibration of elements of a structure. This can result in reradiated noise, whereby the vibrating element transmits airborne sound into a space e.g. vibration caused by mechanical plant installed within a plant room which is not adequately isolated from the structure, or construction/demolition work in an adjacent building.

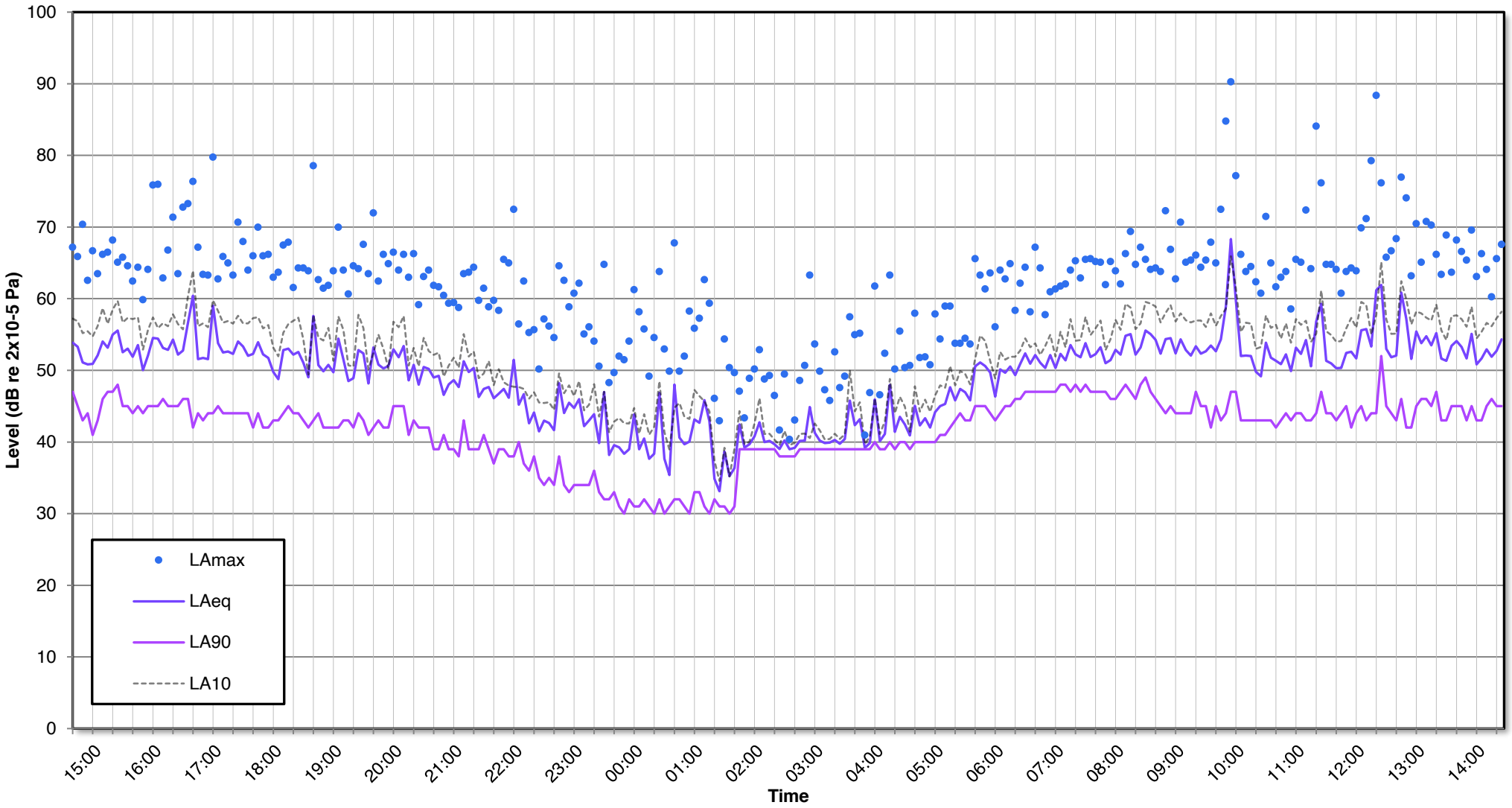
Reverberant sound

Sound in an enclosed space (usually a room), which results from repeated reflections at the boundaries. Reverberation time is the time taken for a steady sound level in an enclosed space to decay by 60dB, measured from the moment the sound source is switched off. A example of a typically reverberant space would be a classic church. Absorptive materials can be used to reduce reflections and reverberation times.

APPENDIX B

ENVIRONMENTAL NOISE TIME HISTORY

22056.NIA-RPT.01
14:00 on 8th Aprilto 14:00 on 9th April 2025



APPENDIX C

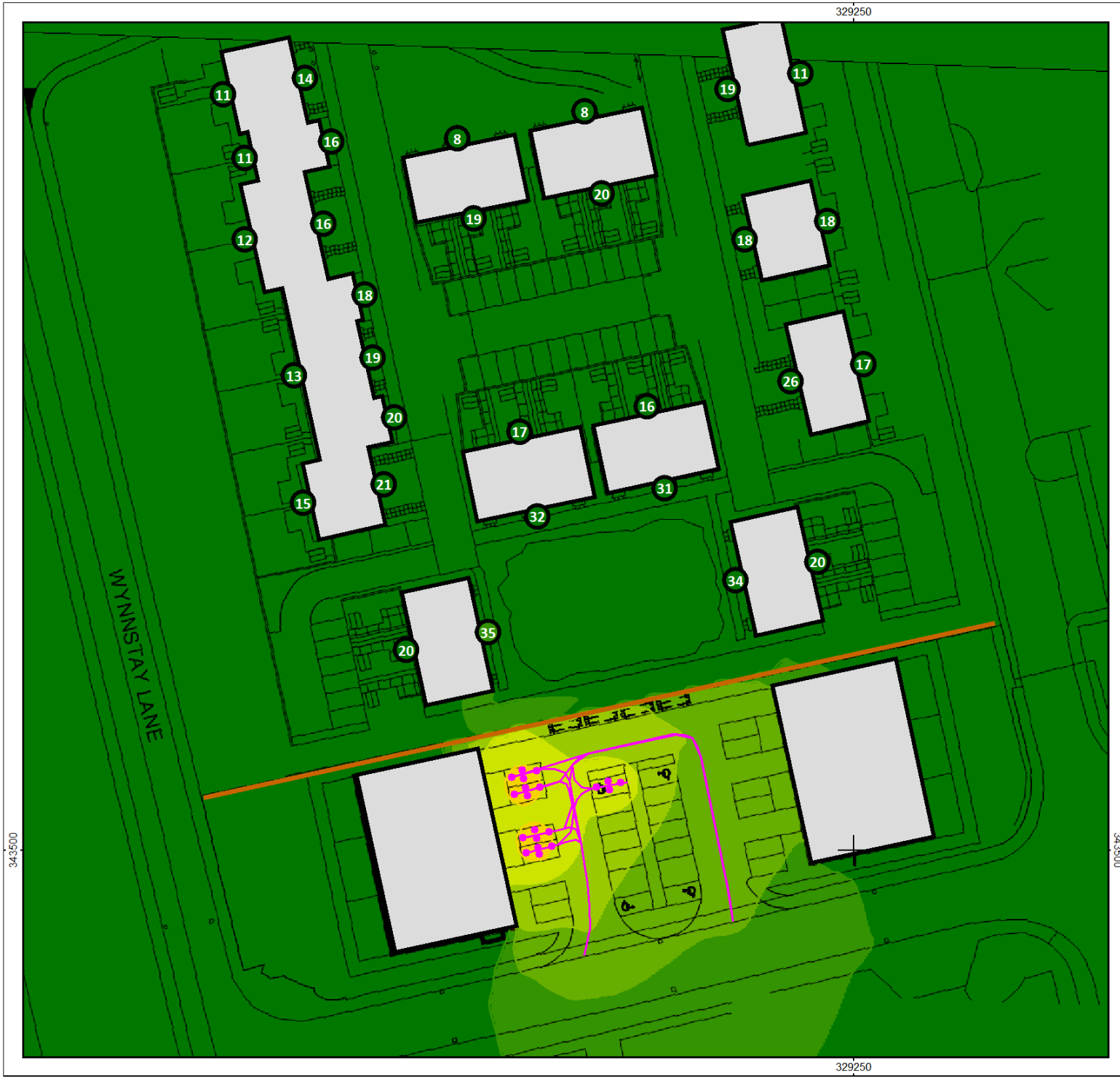
BS 4142 SCENARIO DATA FOR NOISE MAPPING

Scenario	Description	Event 'On-times' During Assessment Reference Period	Acoustic Feature Corrections Applied	Ref Time	Lowest Background Noise Level L_{A90}
1	**5 no. customers per hour**				
	5 no. customer vehicles as they enter and exit the site and park within the designated parking spaces	10 no. events per 1-hour ref period	n/a – traffic source already prevalent in the area	1-hour	44
	5 no. customer vehicle doors/boot opening and closing	15 no. events per 1-hour ref period	3dB impulsivity		
	5 no. customer vehicle engine starting before leaving site	5 no. events per 1-hour ref period	3dB other sound characteristics		
2	**Deliveries to the unit during the evening delivery window of 20:00 – 21:00**				
	Delivery vehicle arriving and departing from site as per tracking plan	1 no. event per 1-hour ref period	n/a – traffic source already prevalent in the area	20:00-21:00 1-hour	39
	Delivery vehicle reversing alarm	30 sec event per 1-hour ref period	n/a – non-intrusive white noise alarm		
	Unloading activity	25-min event per 1-hour ref period	3dB intermittency 3dB impulsivity		
	Delivery vehicle engine start	3 sec event per 1-hour ref period	3dB other sound characteristics		
3	**Deliveries to the unit during the morning delivery window of 06:00 – 07:00**				
	Delivery vehicle arriving and departing from site as per tracking plan	1 no. event per 15-min ref period	n/a – traffic source already prevalent in the area	06:00-07:00 15-min	44
	Delivery vehicle reversing alarm	30 sec event per 15-min ref period	n/a – non-intrusive white noise alarm		
	Unloading activity	25-min event per 15-min ref period	3dB intermittency 3dB impulsivity		
	Delivery vehicle engine start	3 sec event per 15-min ref period	3dB other sound characteristics		

APPENDIX D

NOISE MAPS OF EACH ASSESSMENT SCENARIO

The following pages present the findings of the noise model scenarios.



Customer: Screwfix Direct Limited
Project: Units 4-6, Wynnstay Industrial Estate
Project-No. 22056

SCREWFIX

Map 1

Customer Vehicle Activity
BS 4142 Assessment LAeq, 1 hour (daytime)

Grid map calculation at 1.5 m above ground
Facade calculation points at 1m from facade

Project engineers: Daniel Green MIOA
Created: 18/06/2025
Processed with SoundPLAN 9.1

Levels LAeq, 1 hour
in dB(A)

	< 35
	35 - 40
	40 - 45
	45 - 50
	50 - 55
	55 - 60
	60 - 65
	65 - 70
	70 - 75
	75 - 80
	80 - 85
	>= 85

Legend

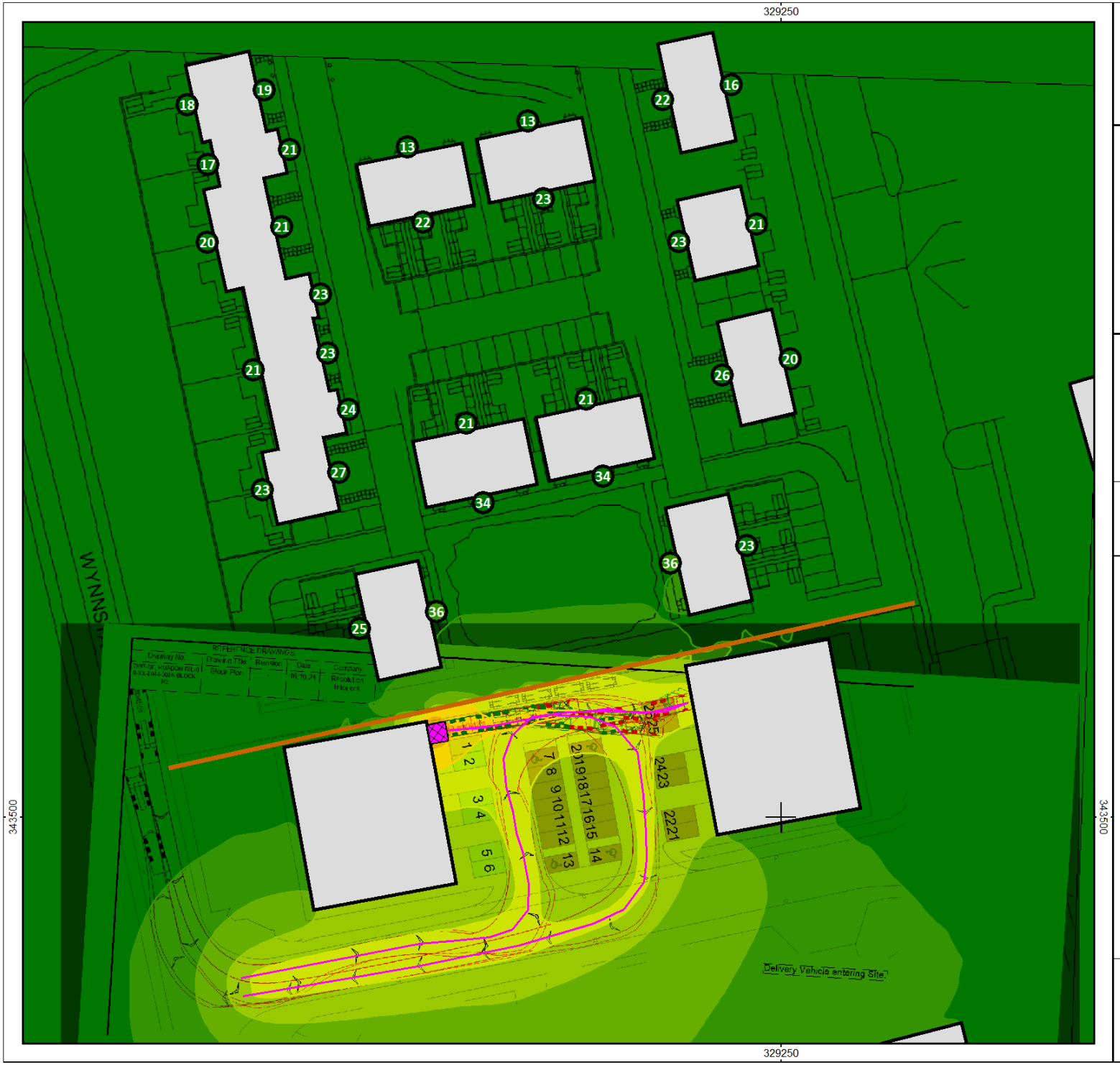
- Building
- Facade Point
- 2m High Timber Fence
- Point Noise Source
- Line Noise Source

N

Length scale 1:513

0 4 8 16 24 32 m

Noise Modelling & Map Prepared By: es acoustics



Customer: Screwfix Direct Limited
Project: Units 4-6, Wynnstay Industrial Estate
Project-No. 22056

SCREWFIX

Map 2

Delivery at site entrance during evening hours
BS 4142 Assessment LAeq, 1 hour (daytime)
Grid map calculation at 1.5 m above ground
Facade calculation points at 1m from facade

Project engineers: Daniel Green MIOA
Created: 18/06/2025
Processed with SoundPLAN 9.1

Levels LAeq, 1 hour
in dB(A)

< 35	
35 - 40	
40 - 45	
45 - 50	
50 - 55	
55 - 60	
60 - 65	
65 - 70	
70 - 75	
75 - 80	
80 - 85	
>= 85	

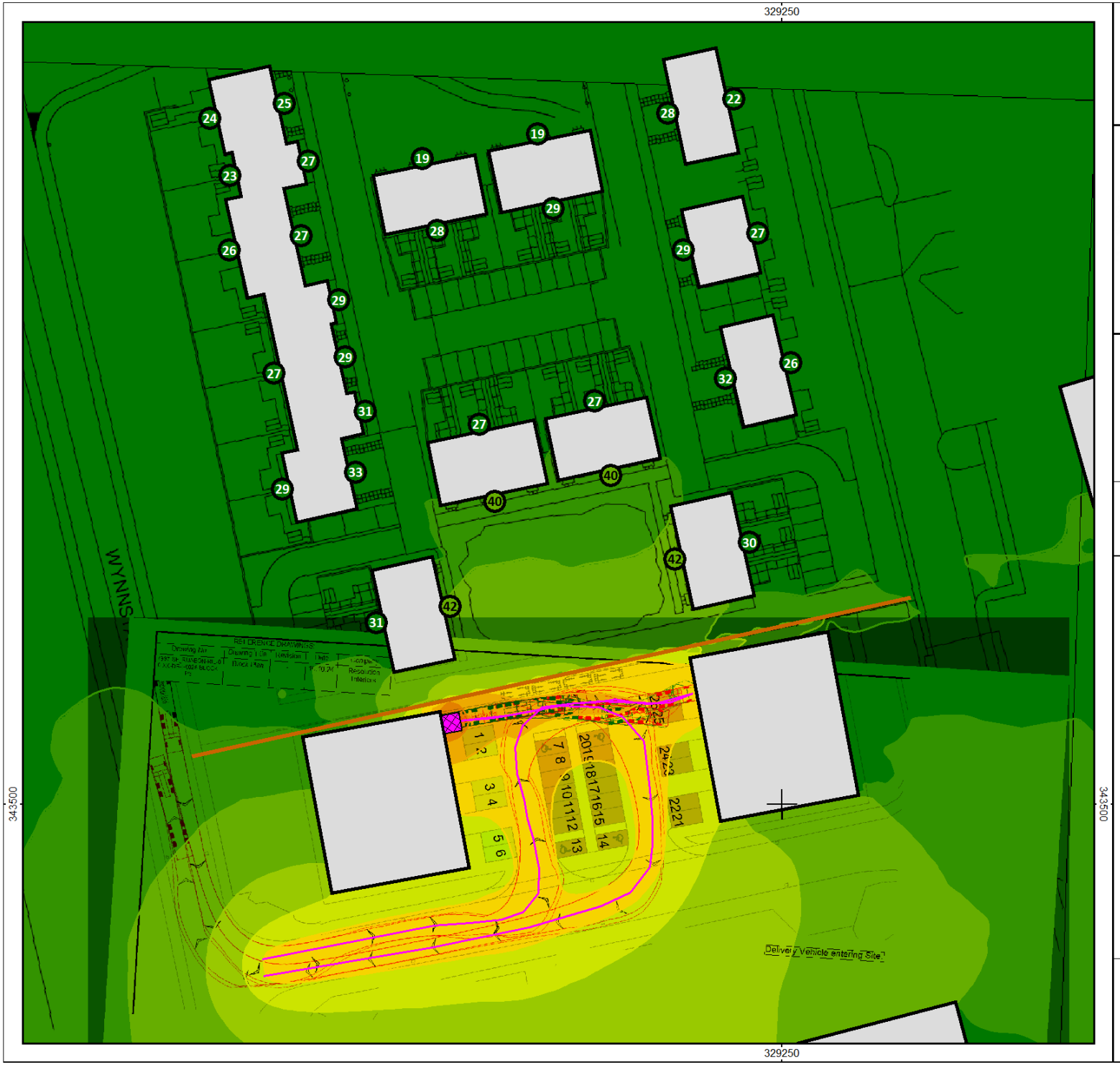
Legend

- Building
- Facade Point
- Area Source
- Line Source
- 2m High Timber Fence

N

Length scale 1:538
0 4 8 16 24 32 m

Noise Modelling & Map Prepared By: es acoustics



Customer: Screwfix Direct Limited
Project: Units 4-6, Wynnstay Industrial Estate
Project-No. 22056

SCREWFIX

Map 3

Delivery at site entrance during early morning hou
BS 4142 Assessment LAeq, 15min (night-time)
Grid map calculation at 1.5 m above ground
Facade calculation points at 1m from facade

Project engineers: Daniel Green MIOA
Created: 23/06/2025
Processed with SoundPLAN 9.1

Levels LAeq, 15 min
in dB(A)

< 35
35 - 40
40 - 45
45 - 50
50 - 55
55 - 60
60 - 65
65 - 70
70 - 75
75 - 80
80 - 85
>= 85

Legend

- Building
- Facade Point
- Area Source
- Line Source
- 2m High Timber Fence

N

Length scale 1:558

0 4.5 9 18 27 36 m

Noise Modelling & Map Prepared By: es acoustics

APPENDIX E

BEST PRACTICABLE MEANS FOR DELIVERY

General Guidance

- Using newer and quieter delivery vehicles and equipment, where possible
- Making sure all equipment – both on the vehicle and at the delivery point – is in good working order and maintained or modernised to minimise noise when in operation
- Ensuring all staff involved in delivery activity are briefed and trained appropriately, in accordance with the information presented in this Appendix
- Ensuring all suppliers and carriers receive copies of this Appendix and are aware of its importance

Delivery Point

- Ensure delivery bay doors and shutters are well maintained to minimise noise when opening and closing
- Switch off the radio when delivery point doors are open
- Ensure the delivery point and surrounding areas are clear of obstructions so vehicles can manoeuvre easily
- Keep doors other than the delivery point closed to ensure noise does not escape
- Where possible, prepare all empty handling units, salvage and returns behind closed doors. Check they are in the correct condition and position and at the right height before taking them out. This will minimise outdoor activity and unnecessary noise
- Think about how to minimise contact between hard surfaces, particularly metal on metal, during the unloading/loading processes. For example, use rubber matting and buffering material on doors
- Service any delivery equipment in advance to minimise noise
- Make sure the delivery point is ready for the vehicle before it arrives – gates and doors should be open to avoid the vehicle idling
- Make sure the driver knows the precise location of your delivery point and is aware of any local access issues
- Ensure staff do not shout or whistle to get the attention of the driver

The Driver

- Plan ahead to ensure you know the location of the delivery point and the appropriate access route
- If early for your delivery slot, do not wait near residential property and encourage the driver to switch off the engine
- As you approach the site and manoeuvre your vehicle into position, remain aware of the effect noise levels can have on local residents
- Do not sound your horn
- Reversing alarms should be switched off or modified for white noise, if not subject to health and safety requirements. Use a qualified banksman instead, if available
- Engines should be switched off immediately when not manoeuvring, however, try to minimise start-ups and avoid over-revving
- If the radio is on, ensure the cab windows are closed and switch the radio off before opening the door
- Minimise the frequency of opening and closing vehicle doors, and do so quietly
- Allow extra time if needed to unload as quietly as possible. Take particular care to minimise rattle from metal-on-metal contact when moving roll cages
- Where practical, notify staff at the delivery point in advance of arrival to ensure they are ready for you
- Be aware of how far your voice can carry when talking outside
- If opening a gate/cellar flap/roller shutter door to gain access, do so gently and as little as possible
- Lower flaps on tail-lifts carefully and quietly
- Do not whistle or shout to get the attention of branch employees
- When safe to do so, use sidelights rather than headlights while off-road and manoeuvring, to minimise light intrusion
- Minimise excessive air brake noise
- When working in the vehicle load space avoid banging cages into the vehicle walls
- When finished unloading/loading, close up the vehicle quietly
- Show the same consideration when leaving the site as when arriving