



Architectural & Environmental Consultants
Acoustics | Vibration | Air Quality

Noise Assessment

Blackmore Farm, Melksham – Phase 2

Noise Assessment

Project: BLACKMORE FARM, MELKSHAM – PHASE 2

Report reference: RP01-25232-R1

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1	21 April 2026	Adam Bamford, BSc MIOA DipIOA, Principal Acoustics Consultant	Tim Ives, PhD BEng CEng FIOA, Director	Updated assessment of road traffic impacts and a qualitative construction noise & vibration assessment added

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1. EXECUTIVE SUMMARY

- 1.1 Cass Allen has been instructed by Gleeson Land Ltd to assess noise and vibration affecting Phase 2 of a proposed new development at Blackmore Farm, Melksham.
- 1.2 The assessment was carried out in accordance with relevant local and national planning guidance.
- 1.3 A noise and vibration survey was carried out at the site. Noise levels at the site are dictated by road traffic noise emissions from the A1302.
- 1.4 A qualitative assessment of ground-borne vibration levels was carried out at the site and no perceptible vibration levels were identified. Consequently, vibration levels are considered to be acceptable for the development.
- 1.5 Transportation noise affecting the development has been assessed in accordance with ProPG guidance. The design of the development is considered to be acceptable subject to the adoption of standard thermal double glazing and standard hit & miss trickle ventilators. This can be investigated further at the detailed design stage and may be secured by the imposition of a noise related planning condition by the Local Planning Authority.
- 1.6 Compliance with noise criteria in Building Regulations Part O has also been assessed. Some bedrooms at the north of the site will need to be designed so that windows can remain closed at night without the rooms overheating. This can be assessed further in due course.
- 1.7 Road traffic noise increases because of the development as well as cumulative schemes has been assessed and is shown to result in either no change or minor adverse impacts. These are considered acceptable without the need for any specific acoustics mitigation.
- 1.8 It is anticipated that construction impacts in the absence of a CEMP would be localised short-term, direct, temporary moderate adverse impacts. With the implementation of an appropriate CEMP, any construction impacts are anticipated to be short-term, direct, temporary minor adverse impacts
- 1.9 In summary, it is our view that the site is suitable for the development in terms of noise and vibration levels and that planning permission may be granted subject to the imposition of suitable planning conditions, if necessary.

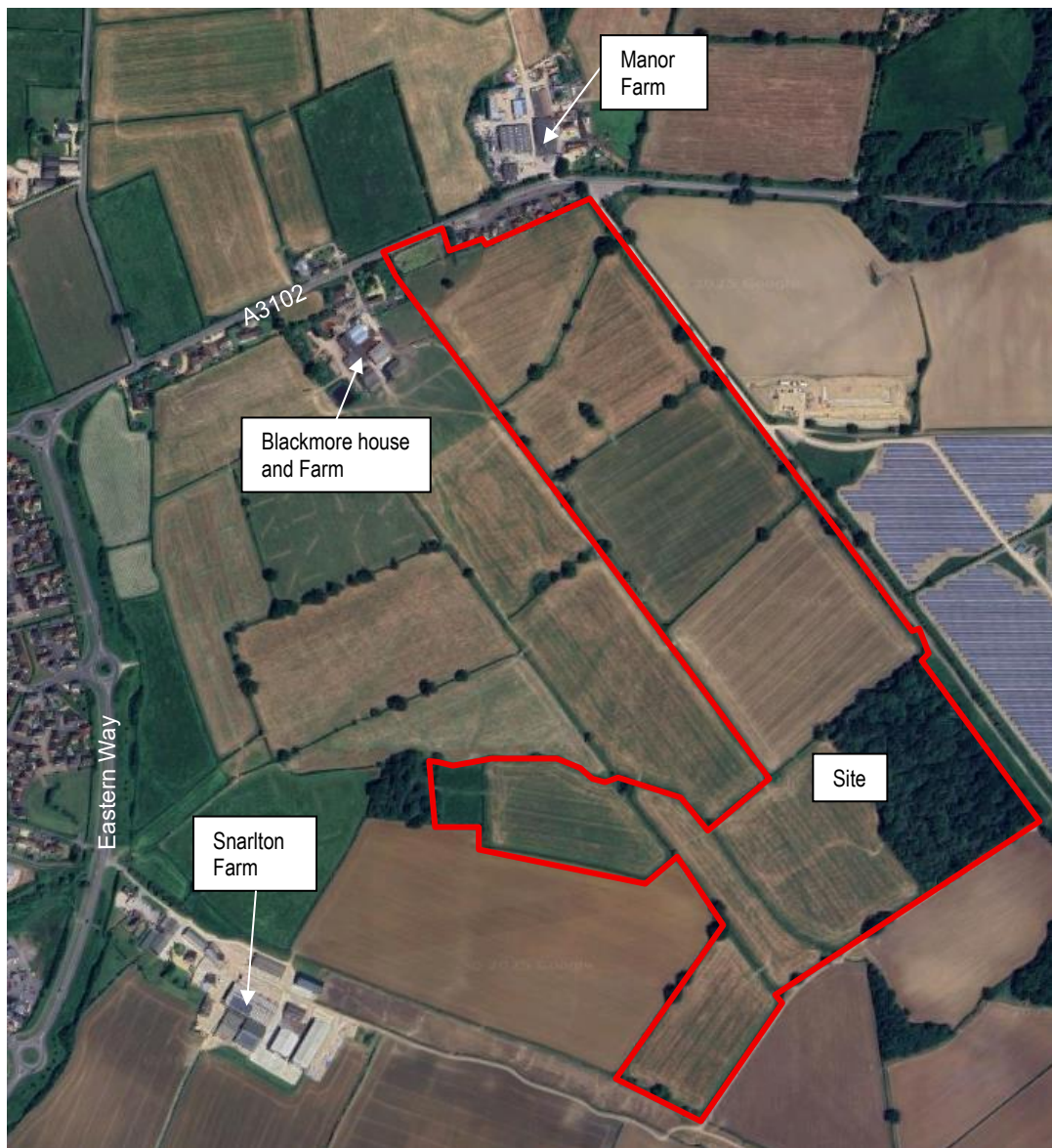
2. INTRODUCTION

- 2.1 Cass Allen has been instructed by Gleeson Land Ltd to assess noise and vibration affecting a proposed new development at Blackmore Farm, Melksham.
- 2.2 A qualitative assessment of ground-borne vibration levels was carried out at the site. No perceptible levels of vibration were identified during the site survey. Consequently, vibration levels are considered to be acceptable for the development and are not considered further in this report.
- 2.3 The assessment has been carried out in accordance with relevant local and national planning guidance.
- 2.4 The aims of the assessment were:
- to establish the suitability of existing noise levels at the site for the proposed development
 - where required, identify appropriate measures to optimise the acoustic design of the development and achieve acceptable noise levels in habitable areas
- 2.5 This report contains technical terminology; a glossary of terms can be found at www.cassallen.co.uk/glossary.

3. PROJECT DESCRIPTION

- 3.1 The site currently contains agricultural land and is bounded to the north by the A3102. Further north of the site is Manor Farm, a small business park containing a vehicle repairs shop, dog groomers, sports club, and lighting company. Southwest of the site is Snarlton Farm, which contains various supply companies, including food machinery, safety equipment, and timber supply.
- 3.2 The site location is shown in Figure 1 below.

Figure 1 Site Location and Surrounding Area (Red Line Approximate)



- 3.3 The proposal is to develop the site into residential properties. An indicative site layout is shown in Appendix 1.

4. PLANNING POLICY

National Policy

- 4.1 Outline guidance for the assessment of noise affecting new developments is given in the National Planning Policy Framework (NPPF) (December 2024). Relevant sections in this case are highlighted below:

187. Planning policies and decisions should contribute to and enhance the natural and local environment by ... preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of ...noise 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 noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;

b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.

Local Policy

- 4.2 The Wiltshire Core Strategy document (2015) serves as the overarching development plan for Wiltshire until 2026. Core Policy 57 is relevant to this development and states:

Ensuring high quality design and place shaping

... Applications for new development must be accompanied by appropriate information to demonstrate how the proposal will make a positive contribution to the character of Wiltshire through:

... vii. having regard to the compatibility of adjoining buildings and uses, the impact on the amenities of existing occupants, and ensuring that appropriate levels of amenity are achievable within the development itself, including the consideration of... vibration and pollution (e.g. noise)...

- 4.3 To address the requirements of the national and local policies, the noise affecting the habitable areas of the proposed development has been assessed.

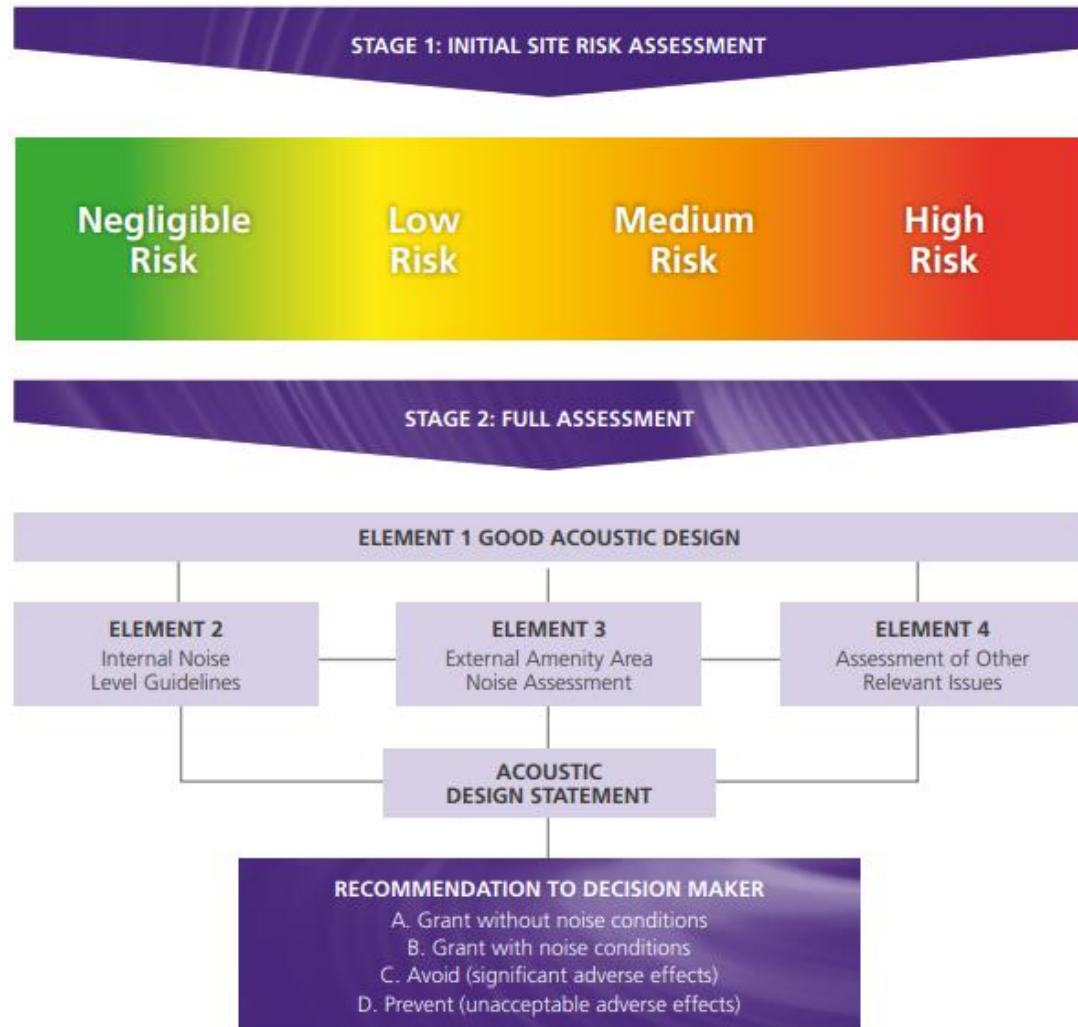
5. TRANSPORTATION NOISE AFFECTING THE DEVELOPMENT

5.1 Specific guidance on the assessment of noise affecting new residential development is given in ProPG: Planning and Noise for New Residential Development, May 2017 (ProPG). The process within the ProPG guidance for the appraisal of noise levels affecting new residential development is considered to be current 'best practice' and has, therefore, been followed for the assessment. The assessment process can be summarised as follows:

- Stage 1 – measure noise levels at the site and carry out an initial noise risk assessment of the proposed development site based on the measured levels.
- Stage 2 – where a higher noise risk is identified, carry out a detailed assessment including the following four considerations:
 - Element 1 – the overall acoustic design and layout of the site
 - Element 2 – internal noise levels in habitable areas
 - Element 3 – noise levels in external amenity areas
 - Element 4 – consideration of other relevant issues
- Based on the results of the Stage 2 assessment, provide a recommendation to the decision maker on whether planning permission can and should be granted.

5.2 The process is shown visually in Figure 2 below.

Figure 2 ProPG Assessment Process



- 5.3 It should be noted that the guidance in ProPG relates primarily to noise from transportation sources, i.e. road traffic, aircraft, rail etc. Any significant noise from other sources (e.g. industrial, commercial or entertainment sources) is outside the scope of the ProPG guidance and, therefore, requires separate consideration. This is discussed further below in relation to noise from Snarlton and Manor Farm.

Stage 1 – Noise survey and initial assessment

- 5.4 A noise survey was carried out at the site from 24 to 28 July 2025 to assess existing noise levels in the area. The full methodology and results of the noise survey are provided in Appendix 2.
- 5.5 Average (LAeq) and maximum (LAm_{ax}) noise levels across the site were generally dictated by road traffic on the A3102.

- 5.6 Background noise levels (LA90) across the site were dictated by constant road traffic noise from the A3102 and other surrounding roads.
- 5.7 Noise was also identified from aircraft movements; however, noise from aircraft was insignificant when compared with noise from road traffic.
- 5.8 No significant noise was observed from the businesses at Manor Farm or Snarltan Farm during the survey period and they are not considered further in this report. Based on our site observations and a review of satellite imagery we don't believe there are any significant noise generating activities that take place at either premises that would preclude the granting of planning permission for the proposed development. If the Council require further reassurance, a suitably worded planning condition can be imposed, and this will be investigated further at the detailed design stage.
- 5.9 Areas of the development at the northern edge of the site will be subject to the highest noise levels. The noise survey results show that noise levels at these positions are as follows:
- Northern edge of the site, approximately 40m from the road:
 - Average noise levels during the daytime - 56 dB LAeq,0700-2300hrs
 - Average noise levels during the night-time - 46 dB LAeq,2300-0700hrs
 - Typical maximum noise levels during the night-time - 63 dB LMax
- 5.10 The measured noise levels can be compared with Figure 3 below to assess the 'noise risk' of the site. Where the noise risk is high, significant acoustic design measures may be required to achieve acceptable noise levels in the development. Where the noise risk is low, acceptable noise levels may be achievable with no specific acoustic design measures.

Figure 3 Noise Risk Assessment (Adaption of Figure 1 from ProPG)



- 5.11 It can be seen from a comparison of the measured noise levels in paragraph 5.9 above with Figure 3 that the site is 'Low' risk in relation to daytime and night-time noise levels. Therefore, ProPG requires that a more detailed 'Stage 2' assessment is carried out.

Stage 2 – Element 1 – Overall acoustic design of the site

- 5.12 The acoustic design of development has been reviewed in relation to the measured noise levels at the site. The layout of the development is considered to represent good acoustic design for the following reasons:

- the layout positions dwellings away from the noise sources. The Indicative Phase 2 Development Areas, as referenced in the layout in Appendix 1, are set back from the A3102 by at least 40m.
- the proposed dwellings at the north of the site are screened from noise generated by the A3102 by an existing housing estate.

Stage 2 – Element 2 - Internal noise levels

5.13 Appropriate design criteria for acceptable noise levels in acoustically sensitive areas of new developments are given in BS8233:2014 'Guidance on sound insulation and noise reduction for buildings'.

5.14 Relevant BS8233 design criteria are summarised in Table 1 below.

Table 1 BS8233:2014 Internal Noise Criteria

Activity	Location	07:00 to 23:00	23:00 to 07:00
Resting	Living room	35 dB LAeq,16hour	-
Dining	Dining room/area	40 dB LAeq,16hour	-
Sleeping (daytime resting)	Bedroom	35 dB LAeq,16hour	30 dB LAeq,8hour

5.15 It is also considered appropriate in this case to assess the potential impact of noise emissions from individual vehicle passes on the bedrooms of the development during the night-time. This is in line with guidance given in BS8233:2014 and ProPG, which both point out that regular individual noise events during the night have the potential to cause sleep disturbance.

5.16 Appropriate design criteria for acceptable maximum noise levels in habitable rooms of new residential developments are given in the ProPG guidance, which states that "*In most circumstances in noise-sensitive rooms at night (e.g. bedrooms) good acoustic design can be used so that individual noise events do not normally exceed 45 dB LAmax,F more than 10 times a night.*"

5.17 Full construction details for the development have not been finalised as the project is at an early design stage. It has therefore been assumed that the external walls of the development will be constructed using a standard masonry construction (e.g. 102mm brick, 100mm insulated cavity, 100mm concrete block) or a light-weight construction designed to achieve a similar level of sound insulation (this is technically achievable subject to detailed design).

5.18 The ventilation strategy for the development has not yet been confirmed and therefore it is assumed that background ventilation will be provided via trickle ventilators in the building facade. This is a 'worst case' assumption from an acoustic perspective as trickle ventilators are often an acoustic weak point in the facade.

5.19 Calculations were carried out using facade modelling software in accordance with the methodology given in BS8233:2014 to calculate the sound insulation performance required of the glazing and ventilation to achieve the nominated internal noise criteria in the 'worst-case' habitable rooms of

the development (i.e. the habitable rooms that will be subject to the highest external noise levels). The calculations included a 3 dBA design margin.

- 5.20 If acceptable internal noise levels can be achieved in ‘worst case’ habitable rooms then it follows that acceptable internal noise levels can be achieved in all other habitable rooms of the development using similar glazing and ventilator types.
- 5.21 The calculations were carried out based on the following typical dimensions/details for facade elements:
- glazing – 1.5m² for bedrooms and 2.5m² for living rooms
 - external walls – 8m² for bedrooms and 15m² for living rooms
 - 2 in-frame trickle ventilators in bedrooms and 3 in-frame trickle ventilators in living rooms
- 5.22 The results of the calculations are shown in Appendix 3 and are summarised in Table 2 below.

Table 2 Acoustic Requirements for ‘Worst Case’ Habitable Rooms

‘Worst Case’ Rooms	Glazing Performance Requirements (inc. Frames)	Ventilator Performance Requirements (in Open Position)
Bedrooms and living rooms nearest to the A3102	27 dB Rw+Ctr	31 dB Dne,w + Ctr

Note The requirements given are approximate only and should be confirmed at the detailed design stage when full design details are available.

- 5.23 The required sound insulation performance values in Table 2 could typically be achieved by standard thermal double glazing and standard hit & miss trickle ventilators.
- 5.24 It can be seen from the above that acceptable internal noise levels will be achievable in the development subject to the specification of suitable glazing and ventilation systems at the detailed design stage. It is our view therefore that the proposed development is, in principle, acceptable with regards to the noise levels that will exist within the habitable rooms.
- 5.25 The above ProPG assessment for planning purposes is based on internal noise levels with windows closed (assumed to be “normal” circumstances). However, it is anticipated that residents will open their windows at times for thermal comfort (e.g. to prevent overheating in warmer months). Noise levels in the rooms will increase under these circumstances.
- 5.26 The development will be subject to Part O of the Building Regulations (Approved Document O), which came into effect on 15 June 2022. Section 3.2 of Approved Document O (ADO) states:

In locations where external noise may be an issue (for example, where the local planning authority considered external noise to be an issue at the planning stage), the overheating mitigation strategy should take account of the likelihood that windows will be closed during sleeping hours (11pm to 7am).

Windows are likely to be closed during sleeping hours if noise within bedrooms exceeds the following limits.

a. 40dB LAeq,T, averaged over 8 hours (between 11pm and 7am).

b. 55dB LAFmax, more than 10 times a night (between 11pm and 7am).

- 5.27 The results of the noise survey indicate that areas at the north of the development facing the A3102 may exceed the noise limits provided in ADO when the windows are opened. The overheating assessment is, therefore, not likely to be able to rely solely on open windows. This will need to be confirmed as part of the overheating assessment during the detailed design stage.

Stage 2 – Element 3 – Noise levels in external amenity areas

- 5.28 BS8233 states that it is desirable that noise levels in external amenity areas of residential developments do not exceed 50 dB LAeq and that 55 dB LAeq,T should be regarded as an upper guideline value. However, BS8233 recognises that these guideline values will not always be achievable in city centres or urban areas adjoining main roads or other transport sources. In these cases, BS8233 states that the development should be designed to achieve the lowest practicable noise levels in the amenity spaces.
- 5.29 The noise survey results indicate that noise levels in external amenity areas are predicted to generally achieve the BS8233 recommended levels. The proposed development is therefore also considered to be acceptable based on noise levels in external amenity areas.

Stage 2 – Element 4 – Other relevant issues

- 5.30 There is also a solar farm situated directly to the eastern site boundary. Our understanding is that this will not generate any significant noise emissions that would impact the development. However, by way of reassurance to the Local Planning Authority, it will be investigated further at the detailed design stage to ensure that there is no material noise impact on future occupants of the proposed development.
- 5.31 In our view the design and acoustic approach outlined above is in line with both local and national noise policy. It is common for residential properties to be situated near to main roads and this is an acceptable scenario provided that the properties are acoustically upgraded where necessary to achieve acceptable noise levels in habitable areas.

Recommendation to decision maker

- 5.32 It is our view that planning permission may be granted in relation to noise affecting habitable areas of the development subject to the imposition of suitable planning conditions, if necessary, to ensure that acceptable noise levels are achieved in the finished development.

6. ROAD TRAFFIC NOISE IMPACTS

Methodology

- 6.1 It is important to ensure that changes in traffic flows on roads due to new large-scale developments do not result in unacceptable increases in noise levels at existing nearby noise sensitive properties.
- 6.2 Traffic data has been analysed to assess the change in road traffic noise levels at the site and within the wider study area due to additional road traffic associated with the proposed development as well as other permitted and proposed developments within the vicinity.
- 6.3 A change in road traffic noise of 3 dBA change is the smallest change in noise levels that is considered perceptible outside of a laboratory environment.
- 6.4 Classifications for the magnitude of effects that can be expected from changes in road traffic noise are given in Table 3 below. These are reproduced from the guidance given in the Design Manual for Roads and Bridges (DMRB) LA 111 Noise and Vibration document.

Table 3 DMRB classification of magnitude of noise effects in the short and long term

Short Term	
Noise Change, dB LA10,18h	Magnitude of Effect
0	No change
0.1 to 0.9	Negligible
1 to 2.9	Minor adverse
3 to 4.9	Moderate adverse
5+	Major adverse
Long Term	
Noise Change, dB LA10,18h	Magnitude of Effect
0	No change
0.1 to 2.9	Negligible
3 to 4.9	Minor adverse
5 to 9.9	Moderate adverse
10+	Major adverse

- 6.5 The approach that has been adopted in this instance is to consider the long-term noise effects of the Proposed Development for the 'worst case' transport scenario (i.e. inclusive of all cumulative schemes considered within the study area).

Assessment

- 6.6 The predicted change in noise emissions from surrounding roads due to the proposed development based on traffic flow projections for the opening year, 2028 are shown in Table 4 below.
- 6.7 Baseline and future (2028) traffic data and analysis for the surrounding road network has been provided in the Transport Assessment for the following scenarios:
- Scenario 1: Existing Baseline – 2024 24 hour two way AADTs.
 - Scenario 2: 2028 + committed development (without development opening year)
 - Scenario 3: 2028 + committed development (with development Phase 1 and Phase 2)
- 6.8 The Average Annual Daily Traffic (AADT) flow data was used to calculate the change in noise levels in accordance with the method set out in CRTN. This method predicts road noise in terms of the A-weighted level exceeded for 10% of the 18-hr period 0600-0000hrs (dB LA10,18hr).
- 6.9 Classifications for the magnitude of impacts that can be expected from changes in road traffic noise are given in DMRB. The classifications are provided in Table 3.
- 6.10 A worst-case future scenario comparing the traffic flows for Scenario 2 with Scenario 3 has been used to determine the potential change in noise level with and without the development.
- 6.11 The comparison of these two scenarios therefore provides a clear indication of any potential impacts that the increase in road traffic from the development will have, against what would be, the existing traffic flows prior to the development completion.
- 6.12 Table 4 below outlines the expected change in noise for each of the road links included in the assessment and the associated significance of effect.

Table 4 Change in Road Traffic Noise Levels

Road Link	Calculated Change in dB LA10,18hr	Long-Term Magnitude of Impact
A3102 Sandridge Common Road (East of Accesses)	0.4	Negligible
A3102 Sandridge Common Road (West of Accesses)	1.9	Negligible
A3102 Sandridge Common Road (West of Blackmore Road)	1.3	Negligible
Lowbourne Road	1.1	Negligible
Bank Street	0.3	Negligible
A3102 Bradford Road	0.3	Negligible
A350 Beanacre Road	0.1	Negligible

Road Link	Calculated Change in dB LA10,18hr	Long-Term Magnitude of Impact
Eastern Way (South of Skylark Road)	0.7	Negligible
Spa Road	0.4	Negligible
Bath Road	0	No change
Western Way	0.1	Negligible
A350 Western Way	0	No change

- 6.13 It can be seen from Table 4 above that the magnitude of impact for the predicted increase in noise level due to traffic is either negligible or no change for all road links. Consequently, no mitigation is considered necessary with respect to road traffic increases.

7. CONSTRUCTION NOISE AND VIBRATION IMPACTS

- 7.1 Noise and vibration emissions from construction works associated with the Proposed Development have the potential to adversely impact noise sensitive receptors in the area. Some impacts are generally unavoidable as construction activities are inherently noisy. However, such impacts will only occur for the duration of the works and are, therefore, temporary.
- 7.2 Guidance on the control of noise and vibration emissions from construction works is given in BS5228. The Standard provides noise and vibration data for various construction activities and outlines available mitigation measures to reduce noise and vibration emissions from construction.
- 7.3 Generally it is straightforward to control noise and vibration emissions from construction activities through the adoption of appropriate noise control measures in the planning and execution of the works. Specific noise or vibration limits can also be adopted if deemed necessary.
- 7.4 Noise and vibration levels due to construction works will depend on a number of factors:
- Source noise levels of each of the items of machinery at the site
 - Phasing of construction
 - Typical duty periods of each item of machinery as a percentage of the working day
 - Position of the machinery at the site
 - Attenuation due to site topography, ground absorption, constructed buildings or barriers
 - Reflection of noise from nearby structures
- 7.5 At this stage, full details of all the above factors are not available. Guidance is therefore provided for “best practice” mitigation and management strategies that, based on Cass Allen’s experience of similar and typical sites, will result in a low impact from construction noise and vibration.
- 7.6 Based on guidance given in BS5228, and considering the temporary nature of the works, limits for construction noise and vibration limits that may be appropriate for surrounding sensitive receptors in this case are summarised in Table 5.

Table 5 Construction noise and vibration significance criteria for receptors of high sensitivity (i.e. dwellings)

Significance of effect	Average noise level, dB LAeq, 10hr (weekday) 5h(Saturday)	Peak Particle Velocity Vibration Level, mm/s	Vibration Dose Value, m/s ^{1.75}
Negligible	<65	<0.3	<0.2
Minor adverse	65 to 70	0.3 to 1	0.2 to 0.4
Moderate adverse	70.1 to 75	1.01 to 10	0.4 to 0.8
Major adverse	>75	>10	>0.8

- 7.7 A full construction noise assessment in accordance with BS5228 would be undertaken once a contractor has been appointed and construction details are known. It would include an assessment of the “likely significant effects” that would arise from the project during the construction phase.
- 7.8 At this stage guideline construction noise limits have been recommended (refer to Table 5 above) based on existing ambient noise levels across the site and guidance given in BS5228-1. Guideline construction vibration levels have also been recommended in Table 5 based on guidance contained in BS5228-2. These could be included within an appropriate project Construction Environmental Management Plan (CEMP).
- 7.9 It is expected that the sensitive receptors that will be most likely affected by noise (and possibly vibration) from construction works associated with the development will be:
- Manor Farm
 - Blackmore House and Farm
 - The dwellings along Sandridge Common and
 - The dwellings along the A3102
- 7.10 These existing dwellings may, at times, be bounded by construction activities in relative close proximity. It will therefore be important to plan the construction works around these areas carefully to minimise any noise and vibration impacts. The establishment of good communications with the owner(s)/occupier(s) of these properties will also be important to minimise impacts (e.g. where practical, organising noisier activities at times most convenient to the residents, etc.).
- 7.11 It is anticipated that construction impacts in the absence of a CEMP would be localised short-term, direct, temporary moderate adverse impacts. With the implementation of an appropriate CEMP, any construction impacts are anticipated to be short-term, direct, temporary minor adverse impacts.
- 7.12 BS5228 recommends procedures for the practicable control of construction noise and vibration and the Best Practicable Means described by the standard should be adopted for the project. A selected summary of the recommendations in BS5228 are listed below.

Execution of works

- The hours of working should be planned, and account should be taken of the effects of noise upon persons in areas surrounding site operations and upon persons working on site, considering the nature of land use in the areas concerned, the duration of work and the likely consequence of any lengthening of work periods. It is envisaged that the Local Authority would impose a noise related planning condition limiting the allowable periods when construction activities could be carried out. Typical restrictions for construction noise are 0800-1600hrs Mondays to Fridays (excluding bank holidays) and 0800-1400hrs on Saturdays.
- Where reasonably practicable, quiet working methods should be employed, including use of the most suitable plant, reasonable hours of working for noisy operations, and economy and speed of operations. Site work should be programmed, when appropriate, so that haulage vehicles will not arrive at or leave the site between 19:00hrs and 0700hrs.

- Noise should be controlled at source and the spread of noise should be limited.
- On-site noise levels should be monitored regularly, particularly if changes in machinery or project designs are introduced, by a suitably qualified person appointed specifically for the purpose.

Control of noise at source

- Avoid unnecessary revving of engines and switch off equipment when not required.
- Audible reversing warning systems on mobile plant and vehicles should be of a type which, whilst ensuring that they give proper warning, have a minimum noise impact on persons outside the site.
- The plant and activities to be employed on that site should be reviewed to ensure that they are the quietest available for the required purpose.
- Where appropriate, and as far as reasonably practicable, sources of significant noise should be enclosed.
- Plant should always be used in accordance with manufacturers' instructions. Care should be taken to site equipment away from noise-sensitive areas.
- Where possible, loading and unloading should also be carried out away from noise-sensitive areas.
- Regular and effective maintenance by trained personnel is essential and will do much to reduce noise from plant and machinery.

Other recommendations

- The establishment and maintenance of good community relations should also be considered. This may include informing local residents on progress and ensuring measures are put in place to minimise noise and vibration impacts.
- Measures should be put in place to ensure that employees know that minimisation of noise will be important at the site.

7.13 Control measures such as those given above can be incorporated into a Construction Environmental Management Plan (CEMP) as the planning of the construction works progresses.

7.14 It is considered that it will be straightforward to achieve acceptable construction noise and vibration emissions at the positions of nearby noise sensitive uses with the adoption of a CEMP. The Local Planning Authority can secure the implementation of an appropriate CEMP through the imposition of suitable planning conditions.

7.15 In addition, the Control of Pollution Act 1974 (Section 60) also permits Local Authorities to serve a notice with regard to noise from construction sites imposing requirements, including the types of plant, hours of working and noise level to control the impacts of the noise from construction sites. Contravention of a Section 60 notice constitutes an offence. It should be noted that the Local Authority must have regard to 'Best Practical Means' in serving such a notice.

8. CONCLUSIONS

- 8.1 Cass Allen has been instructed by Gleeson Land Ltd to assess noise and vibration affecting Phase 2 of a proposed new development at Blackmore Farm, Melksham.
- 8.2 The assessment was carried out in accordance with relevant local and national planning guidance.
- 8.3 A noise and vibration survey was carried out at the site. Noise levels at the site are dictated by road traffic noise emissions from the A1302.
- 8.4 A qualitative assessment of ground-borne vibration levels was carried out at the site and no perceptible vibration levels were identified. Consequently, vibration levels are considered to be acceptable for the development
- 8.5 Transportation noise affecting the development has been assessed in accordance with ProPG guidance. The design of the development is considered to be acceptable subject to the adoption of standard thermal double glazing and standard hit & miss trickle ventilators. This can be investigated further at the detailed design stage and may be secured by the imposition of a noise related planning condition by the Local Planning Authority.
- 8.6 Compliance with noise criteria in Building Regulations Part O has also been assessed. Some bedrooms at the north of the site will need to be designed so that windows can remain closed at night without the rooms overheating. This can be assessed further in due course.
- 8.7 Road traffic noise increases because of the development as well as cumulative schemes has been assessed and is shown to result in either no change or minor adverse impacts. These are considered acceptable without the need for any specific acoustics mitigation.
- 8.8 It is anticipated that construction impacts in the absence of a CEMP would be localised short-term, direct, temporary moderate adverse impacts. With the implementation of an appropriate CEMP, any construction impacts are anticipated to be short-term, direct, temporary minor adverse impacts.
- 8.9 In summary, it is our view that the site is suitable for the development in terms of noise and vibration levels and that planning permission may be granted subject to the imposition of suitable planning conditions, if necessary.

Appendix 1 Indicative Site Layout

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- Site Area (Land East of Blackmore Farm)
- Indicative Residential Blocks
- Accessible POS Greenspace inc Park with Destination Equipped Play
- Allotments & Orchards
- Naturally Characterised Landscape (inc Accessible Greenspace, stream corridor, SUDs basins / drainage infrastructure, hedgerows and habitat areas)
- (indicative SUDs basins)
- Urban Spaces & Highway Areas
- New highway connections
- Existing PRoWs / Existing Bridleways
- Proposed key pedestrian routes on-site
- Land identified for ecological habitat enhancement, with managed footpath access
- Scope for Foot/Cycle routes on-site
- Scope for Foot/Cycle connections
- Existing trees & hedgerows
- Proposed trees & planting area
- Existing deciduous woodland
- Proposed orchard trees

proj: 25-004 drg: 421

date: 09/04/26 rev: E

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Land East of Blackmore Farm, Melksham

Masterplan

Gleeson Land

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Sketch proposals are for illustrative purposes only & as such are subject to detailed site investigation including ground conditions/contaminants, drainage, design & planning/density negotiations. Sketch proposals may be based upon enlargements of OS sheets & visual estimations of existing site features, accuracy will therefore need to be verified by survey.

W:\PLANNING\25-004 Blackmore Farm, Melksham Ph2, Gleeson\Urban Design\2 Graphics\1 In Progress\CAD\25004_421E East of Blackmore Farm - Masterplan_090426.dwg

Appendix 2 Survey Results

Survey Summary:

The survey comprised short-term operator attended noise measurements and longer-term unattended noise monitoring at the site. Noise levels at the site were generally dictated by road traffic on surrounding roads and noise from train passes on the adjacent railway. A qualitative vibration assessment was carried out, vibration levels at the site were considered acceptable for the development.

Survey Period:

24/07/2025 to 28/07/2025

Survey Objectives:

- To identify noise sources that contribute to ambient noise levels at the site;
- To measure noise levels around the site over a typical day and night-time period.

Equipment Used:

Type	Manufacturer	Model	Serial Number
Sound level meter ¹ (noise logger)	Rion	NL-32	00903342
Sound level meter ¹ (noise logger)	Rion	NL-32	00903343
Calibrator	Rion	NC-74	34551703
Sound level meter ¹	Rion	NL-52	00965090

Note 1: All sound level meters were calibrated before and after measurement periods and no significant drift in calibration was found to have occurred. The results of the measurements are therefore considered to be representative.

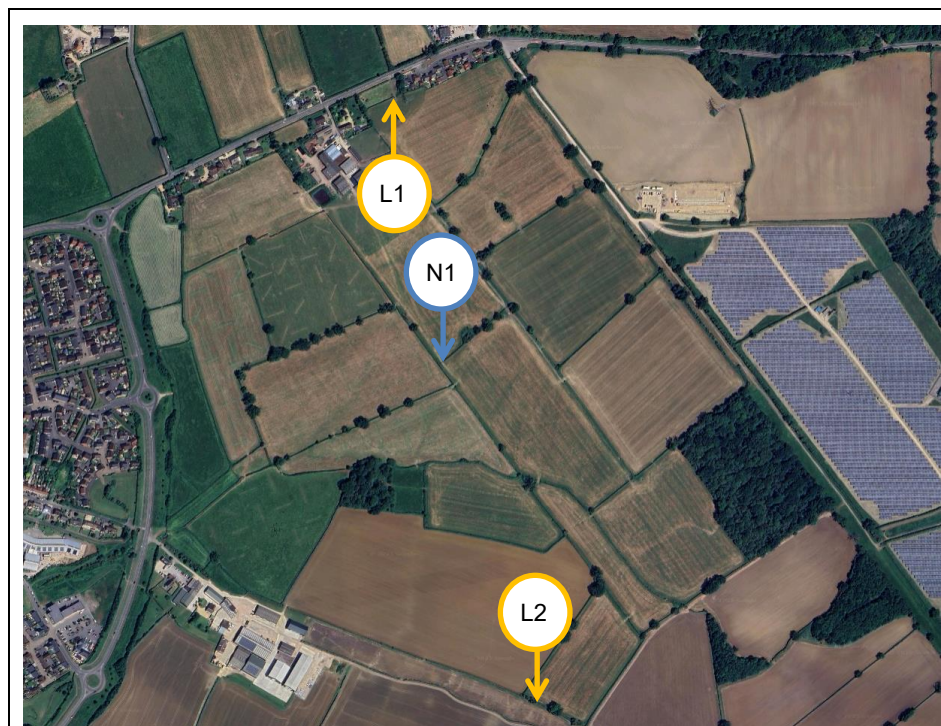
Weather Conditions:

The observed weather conditions were acceptable for acoustic measurement throughout the attended survey periods (low-medium wind speeds and no rain). Weather records for the area confirmed that weather conditions were also generally acceptable for acoustic measurement during the unattended monitoring.

Measurement Positions:

Position (refer plan below)	Description
N1	Attended noise monitoring position. 1.5m above ground. Free-field. Direct line of sight to nearby roads
L1	Unattended noise logging position. 3m above ground level. Free-field. Direct line of sight to A3102
L2	Unattended noise logging position. 3m above ground level. Free-field.

Site Plan showing Measurement Positions:



Attended Noise Monitoring Results:

Date	Position	Time	Meas. Length	LAeq, dB	LAmix, dB	LA90, dB	Observations
24/07/2025	N1	14:03	5 mins	44	49	42	Noise dictated by road traffic from A3102

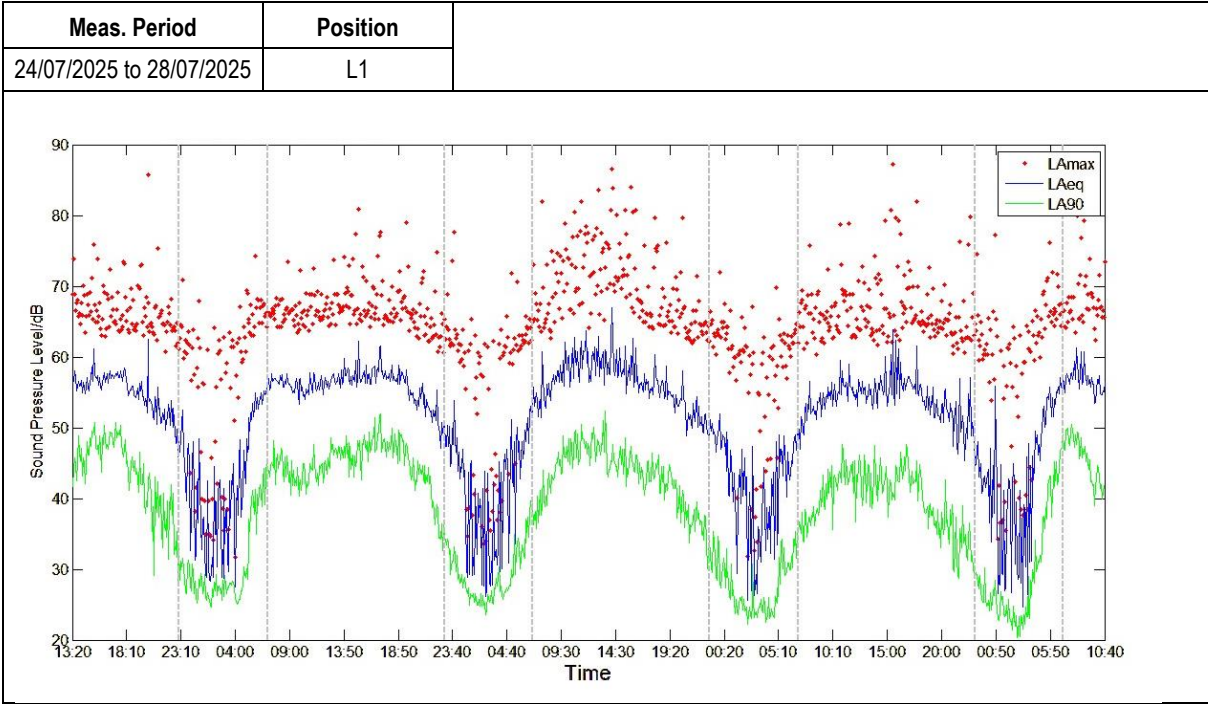
Unattended Noise Monitoring Results:

Meas. Period	Position	Daytime (0700-2300hrs)		Night-time (2300-0700hrs)		
		LAeq,16hr, dB	LA90,1hr dB ¹	LAeq,8hr, dB	LA90,5mins, dB ¹	LAmix, dB ²
24/07/2025 to 28/07/2025	L1	57	45	47	26	65
	L2	44	33	40	22	49

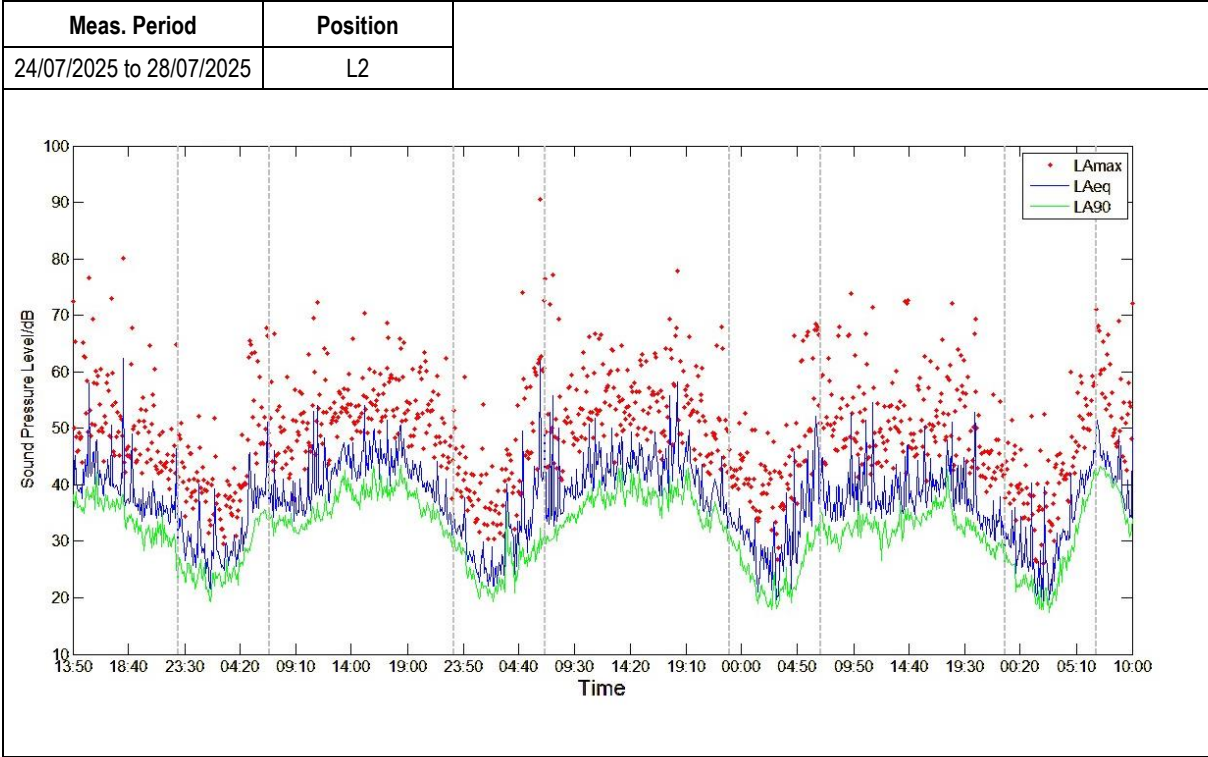
Note 1: Typical lowest measured during the period shown.

Note 2: Highest typical maximum noise level during the night-time (not exceeded more than 10-15 times per night).

Unattended Noise Monitoring Results:



Unattended Noise Monitoring Results:



Appendix 3 Facade Calculations

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PROJECT: Blackmore Farm, Melksham
ROOM: Bedroom
VARIANT: Worst-Case Daytime Average Noise Level (LAeq)
NOTES: Typical assumptions used for ext. wall & glazing dimensions, and no. ventilators.

Room Dimensions [m] $\begin{matrix} W \\ 3.0 \end{matrix}$ X $\begin{matrix} L \\ 4.0 \end{matrix}$ X $\begin{matrix} H \\ 2.4 \end{matrix}$

Room Volume = 28.8 m³
 Partition Area = 9.5 m²
 Ventilation ref area = 10.0 m²
 Free Field SPL K = 3 dB

SELECT Free Field or Façade SPL for model input >>> ☐

NOTES: _____

EXTERNAL SPECTRUM (A weighted)

EXTERNAL SPECTRUM (A weighted)		dBA	63	125	250	500	1000	2000	4000	
Direct input - Free Field SPL (A weighted octave bands) dB ----->		-								No data
Road traffic spectrum (according to BS 8233:1999 section 6)		56.0								
			37.8	41.9	45.4	48.8	52.0	49.2	44.0	Reference spectrum

REVERBERATION TIME

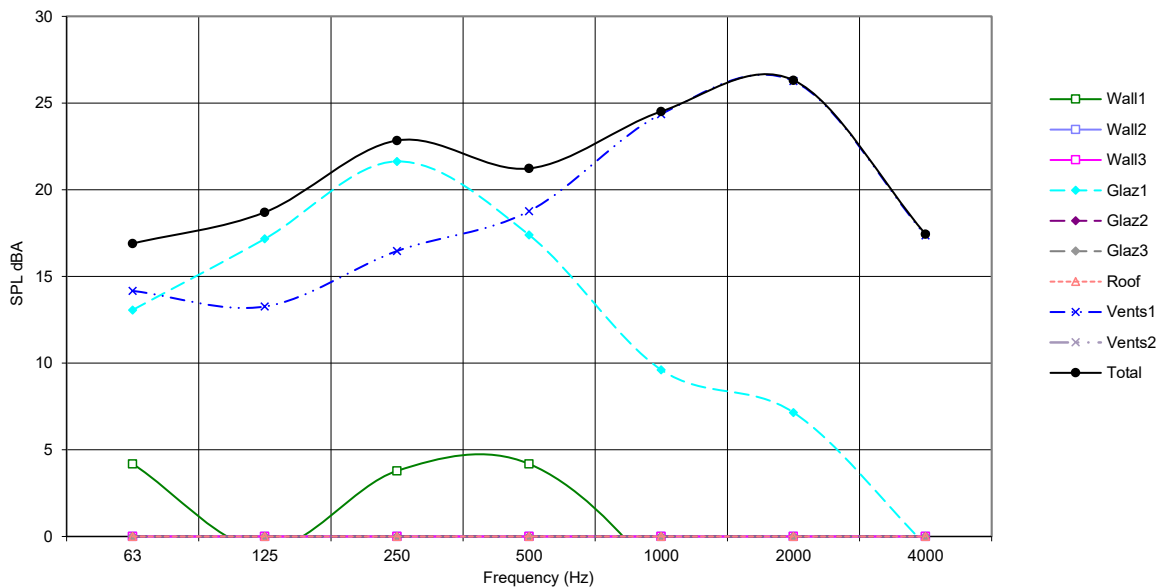
DIRECT INPUT ----->								No data
EQUAL RT for all bands ----->	0.5	0.5	0.5	0.5	0.5	0.5	0.5	Default - RT set to 0.5s

Façade Element	Area [m ²]	SRI dB to BS EN ISO 140-3:1995								Rw	C	Ctr
Wall 1 Typical - 102mm brick/50mm cavity/100mm block	8.0	36	45	44	47	57	67	77	1%	54	0	-4
ATTENUATION												
Wall 2 WALLS		0	0	0	0	0	0	0	0%			
ATTENUATION												
Wall 3 WALLS		0	0	0	0	0	0	0	0%			
ATTENUATION												
Glazing 1 27 dB Rw + Ctr - Standard Thermal Double Glazing	1.5	20	20	19	27	38	37	40	24%	27 (inc Ctr)	-	-
ATTENUATION												
Glazing 2 GLAZING		0	0	0	0	0	0	0	0%			
ATTENUATION												
Glazing 3 GLAZING		0	0	0	0	0	0	0	0%			
ATTENUATION												
Roof ROOF / FLOOR		0	0	0	0	0	0	0	0%			
ATTENUATION												
Resultant composite Façade SRI		27	28	27	34	45	45	48				
Resultant SPL inside room excluding ventilators dB	24.7	14	17	22	18	10	7	0	24%			

Ventilator Type	Num	D _{n,e} dB to BS EN 20140-10:1992								D _{nw}	C	Ctr
Ventilation Hit and miss trickle (4000mm ²) e.g. Tilton Trimvent XS13	2	30	35	35	36	34	29	33	75%	32	0	-1
ATTENUATION												
Ventilation VENTS		0	0	0	0	0	0	0	0%			
ATTENUATION												
Resultant SPL inside room through ventilators dB	29.6	14	13	16	19	24	26	17	76%			

Total SPL inside room

30.8	17	19	23	21	25	26	17
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Element contribution to total internal noise level

PROJECT: Blackmore Farm, Melksham
 ROOM: Bedroom
 VARIANT: Worst-Case Night-time Average Noise Level (LAeq)
 NOTES: Typical assumptions used for ext. wall & glazing dimensions, and no. ventilators.

Room Dimensions [m] $\begin{matrix} W \\ 3.0 \end{matrix}$ X $\begin{matrix} L \\ 4.0 \end{matrix}$ X $\begin{matrix} H \\ 2.4 \end{matrix}$

Room Volume = 28.8 m³
 Partition Area = 9.5 m²
 Ventilation ref area = 10.0 m²
 Free Field SPL K = 3 dB

SELECT Free Field or Façade SPL for model input >>> ☐

NOTES: _____

EXTERNAL SPECTRUM (A weighted)

EXTERNAL SPECTRUM (A weighted)		dBA	63	125	250	500	1000	2000	4000	
Direct input - Free Field SPL (A weighted octave bands) dB ---->		-								No data
Road traffic spectrum (according to BS 8233:1999 section 6)		46.0								
			27.8	31.9	35.4	38.8	42.0	39.2	34.0	Reference spectrum

REVERBERATION TIME

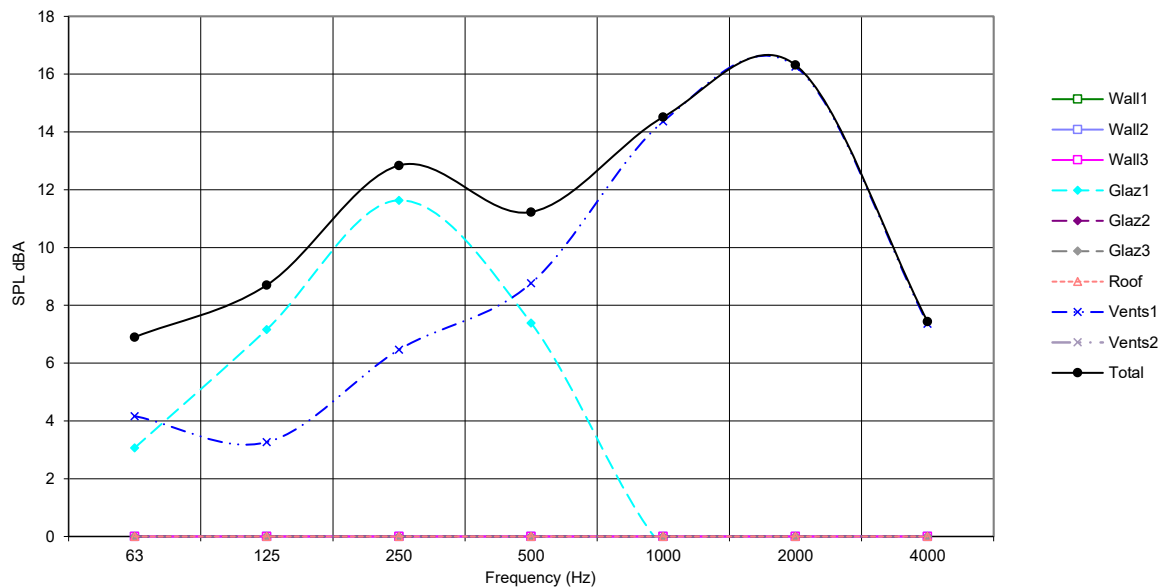
DIRECT INPUT ----->								No data
EQUAL RT for all bands ----->	0.5	0.5	0.5	0.5	0.5	0.5	0.5	Default - RT set to 0.5s

Façade Element	Area [m ²]	SRI dB to BS EN ISO 140-3:1995								Rw	C	Ctr
Wall 1 Typical - 102mm brick/50mm cavity/100mm block	8.0	36	45	44	47	57	67	77	1%	54	0	-4
ATTENUATION												
Wall 2 WALLS		0	0	0	0	0	0	0	0%			
ATTENUATION												
Wall 3 WALLS		0	0	0	0	0	0	0	0%			
ATTENUATION												
Glazing 1 27 dB Rw + Ctr - Standard Thermal Double Glazing	1.5	20	20	19	27	38	37	40	23%	27 (inc Ctr)	-	-
ATTENUATION												
Glazing 2 GLAZING		0	0	0	0	0	0	0	0%			
ATTENUATION												
Glazing 3 GLAZING		0	0	0	0	0	0	0	0%			
ATTENUATION												
Roof ROOF / FLOOR		0	0	0	0	0	0	0	0%			
ATTENUATION												
Resultant composite Façade SRI		27	28	27	34	45	45	48				
Resultant SPL inside room excluding ventilators dB	14.7	4	7	12	8	0	-3	-10	24%			

Ventilator Type	Num	D _{n,e} dB to BS EN 20140-10:1992								D _{nw}	C	Ctr
Ventilation Hit and miss trickle (4000mm ²) e.g. Titon Trimvent XS13	2	30	35	35	36	34	29	33	72%	32	0	-1
ATTENUATION												
Ventilation VENTS		0	0	0	0	0	0	0	0%			
ATTENUATION												
Resultant SPL inside room through ventilators dB	19.6	4	3	6	9	14	16	7	76%			

Total SPL inside room

20.8	7	9	13	11	15	16	7
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Element contribution to total internal noise level

PROJECT: Blackmore Farm, Melksham
ROOM: Bedroom
VARIANT: Worst-Case Night-time Maximum Noise Level (L_{Amax})
NOTES: Typical assumptions used for ext. wall & glazing dimensions, and no. ventilators.

Room Dimensions [m] $\begin{matrix} W \\ 3.0 \end{matrix}$ X $\begin{matrix} L \\ 4.0 \end{matrix}$ X $\begin{matrix} H \\ 2.4 \end{matrix}$

Room Volume = 28.8 m³
Partition Area = 9.5 m²
Ventilation ref area = 10.0 m²
Free Field SPL K = 3 dB

SELECT Free Field or Façade SPL for model input >>> ☐

NOTES: _____

EXTERNAL SPECTRUM (A weighted)

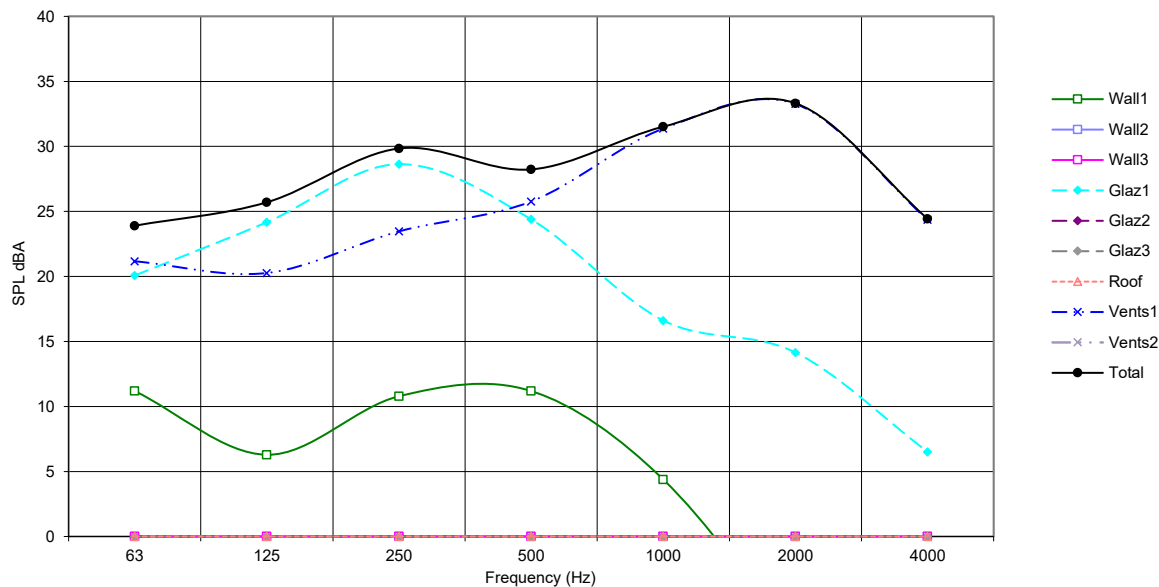
EXTERNAL SPECTRUM (A weighted)								
dBA	63	125	250	500	1000	2000	4000	
Direct input - Free Field SPL (A weighted octave bands) dB ----->	-							No data
Road traffic spectrum (according to BS 8233:1999 section 6)	63.0							
	44.8	48.9	52.4	55.8	59.0	56.2	51.0	Reference spectrum

REVERBERATION TIME

DIRECT INPUT ----->								No data
EQUAL RT for all bands ----->	0.5	0.5	0.5	0.5	0.5	0.5	0.5	Default - RT set to 0.5s

Façade Element	Area [m ²]	SRI dB to BS EN ISO 140-3:1995								Rw	C	Ctr
Wall 1 Typical - 102mm brick/50mm cavity/100mm block	8.0	36	45	44	47	57	67	77	1%	54	0	-4
ATTENUATION												
Wall 2 WALLS		0	0	0	0	0	0	0	0%			
ATTENUATION												
Wall 3 WALLS		0	0	0	0	0	0	0	0%			
ATTENUATION												
Glazing 1 27 dB Rw + Ctr - Standard Thermal Double Glazing	1.5	20	20	19	27	38	37	40	24%	27 (inc Ctr)	-	-
ATTENUATION												
Glazing 2 GLAZING		0	0	0	0	0	0	0	0%			
ATTENUATION												
Glazing 3 GLAZING		0	0	0	0	0	0	0	0%			
ATTENUATION												
Roof ROOF / FLOOR		0	0	0	0	0	0	0	0%			
ATTENUATION												
Resultant composite Façade SRI		27	28	27	34	45	45	48				
Resultant SPL inside room excluding ventilators dB	31.7	21	24	29	25	17	14	7	24%			

Ventilator Type	Num	D _{n,e} dB to BS EN 20140-10:1992								D _{nw}	C	Ctr
Ventilation Hit and miss trickle (4000mm ²) e.g. Titon Trimvent XS13	2	30	35	35	36	34	29	33	75%	32	0	-1
ATTENUATION												
Ventilation VENTS		0	0	0	0	0	0	0	0%			
ATTENUATION												
Resultant SPL inside room through ventilators dB	36.6	21	20	23	26	31	33	24	76%			
Total SPL inside room	37.8	24	26	30	28	32	33	24				

Element contribution to total internal noise level

PROJECT: Blackmore Farm, Melksham
 ROOM: Living Room
 VARIANT: Worst-Case Average Noise Level (LAeq)
 NOTES: Typical assumptions used for ext. wall & glazing dimensions, and no. ventilators.

Room Dimensions [m] $\begin{matrix} W \\ 4.0 \end{matrix}$ X $\begin{matrix} L \\ 5.0 \end{matrix}$ X $\begin{matrix} H \\ 2.4 \end{matrix}$

Room Volume = 48.0 m³
 Partition Area = 17.5 m²
 Ventilation ref area = 10.0 m²
 Free Field SPL K = 3 dB

SELECT Free Field or Façade SPL for model input >>> ☐

EXTERNAL SPECTRUM (A weighted)

Direct input - Free Field SPL (A weighted octave bands) dB ---->	-							No data
Road traffic spectrum (according to BS 8233:1999 section 6)	56.0							
		37.8	41.9	45.4	48.8	52.0	49.2	44.0
								Reference spectrum

REVERBERATION TIME

DIRECT INPUT ----->								No data
EQUAL RT for all bands ----->	0.5	0.5	0.5	0.5	0.5	0.5	0.5	Default - RT set to 0.5s

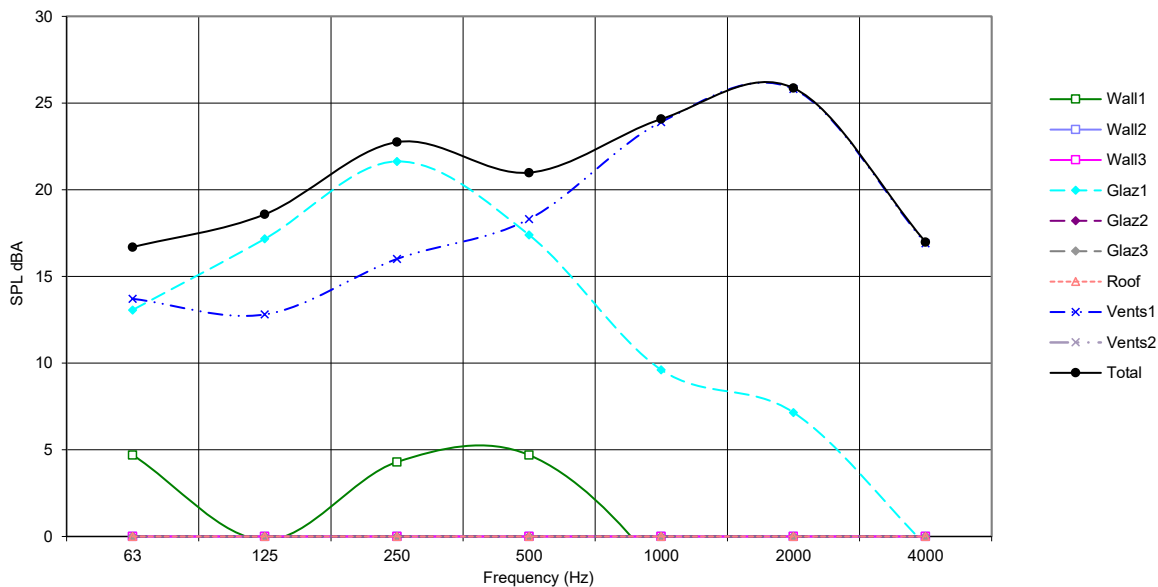
Façade Element	Area [m ²]	SRI dB to BS EN ISO 140-3:1995								Rw	C	Ctr
Wall 1 Typical - 102mm brick/50mm cavity/100mm block	15.0	36	45	44	47	57	67	77	1%	54	0	-4
ATTENUATION												
Wall 2 WALLS		0	0	0	0	0	0	0	0%			
ATTENUATION												
Wall 3 WALLS		0	0	0	0	0	0	0	0%			
ATTENUATION												
Glazing 1 27 dB Rw + Ctr - Standard Thermal Double Glazing	2.5	20	20	19	27	38	37	40	26%	27 (inc Ctr)	-	-
ATTENUATION												
Glazing 2 GLAZING		0	0	0	0	0	0	0	0%			
ATTENUATION												
Glazing 3 GLAZING		0	0	0	0	0	0	0	0%			
ATTENUATION												
Roof ROOF / FLOOR		0	0	0	0	0	0	0	0%			
ATTENUATION												
Resultant composite Façade SRI		28	28	27	35	46	46	48				
Resultant SPL inside room excluding ventilators dB	24.7	14	17	22	18	10	7	0	27%			

Ventilator Type	Num	D _{n,e} dB to BS EN 20140-10:1992								D _{nw}	C	Ctr
Ventilation Hit and miss trickle (4000mm ²) e.g. Titon Trimvent XS13	3	30	35	35	36	34	29	33	73%	32	0	-1
ATTENUATION												
Ventilation VENTS		0	0	0	0	0	0	0	0%			
ATTENUATION												
Resultant SPL inside room through ventilators dB	29.2	14	13	16	18	24	26	17	73%			

Total SPL inside room

30.5	17	19	23	21	24	26	17
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Element contribution to total internal noise level





Architectural & Environmental Consultants

Acoustics | Vibration | Air Quality

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