

Our ref: RC/SU/GM11368/0002

Date: 15th February 2023

Your ref:

Mr Steve Barker
Gladman Developments Limited
Gladman House
Alexander Way
Congleton
CW12 1LB

Dear Steve,

Noise Screening Report for Proposed Residential Development at Land off The Hill, Littlebourne, Canterbury.

By email instruction dated 10th August 2022 Gladman Developments Limited (GDL) commissioned Wardell Armstrong LLP (WA), to undertake a noise screening assessment. This letter report has been prepared for a proposed residential development at land south of The Hill (A275), Littlebourne.

It is understood that this noise screening report is required to accompany a planning application, for the construction of up to 300 residential dwellings on a site of circa 15.77 ha in area. Figure 1 at the end of this report shows the redline boundary.

To the north, the site is bound by The Hill (A257) with The Evenhill, a restaurant and hotel, existing dwellings and dwellings under construction beyond. To the east, the site is bound by existing dwellings, Canterbury Lodges and Glamping with residential dwellings beyond. To the south-east and south, the site is bound by Bekesbourne Lane, with open agricultural land beyond. To the south-west the site is bound by Howletts Wild Animal Park Limited with associated infrastructure and open land beyond. To the west and north-west, the site is bound by an existing dwelling and open land with Canterbury Road (A257) beyond.



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Local Authority Consultation

Our proposed scope of works was sent to the Environmental Health Department at Canterbury City Council (CCC) via email on the 4th January 2021. However, at the time of writing this report no response has been received. This assessment considers current planning and technical guidance along with good working practices.

Noise Assessment Criteria for Residential Developments

Typically, local authorities require that potential impacts caused by existing noise sources on a proposed residential development to be assessed with reference to the National Planning Policy Framework 2021, Planning Practice Guidance – Noise, and BS8233:2014 '*Guidance on sound insulation and noise reduction for buildings*'.

National Planning Policy Framework, 2021

The National Planning Policy Framework within England provides Government policy and is a material consideration in planning policy and decision making. The NPPF seeks to avoid significant adverse impacts on health and on quality of life as a result of noise from a new development, including mitigation where appropriate, whilst recognising that existing businesses wanting to develop should not have unreasonable restrictions put on them because of changes in nearby land uses. In addition, areas of tranquillity which have remained relatively undisturbed by noise in the past should be protected from significant noise in the future.

Planning Practice Guidance – Noise, 2019

The Planning Practice Guidance (which is produced to clarify and sit alongside the NPPF), requires that noise is considered when new developments may create additional noise and when new developments would be sensitive to the prevailing acoustic environment. When preparing local or neighbourhood plans, or making decisions about new development, there may also be opportunities to consider improvements to the acoustic environment.



British Standard 8233:2014 Guidance on sound insulation and noise reduction for buildings

British Standard 8233 suggests the following guideline noise levels and states that they are based on guidelines issued by the World Health Organisation

- 35dB $L_{Aeq,16h}$ during the daytime in noise sensitive rooms.
- 30dB $L_{Aeq,8h}$ during the night-time in bedrooms.
- 50dB $L_{Aeq,16h}$ desirable external noise levels for amenity space such as gardens and patios, with an upper guideline value of 55dB $L_{Aeq,16h}$ which would be acceptable in noisier environments.
- Further to this, guidance found in ProPG Planning and Noise, suggests a criterion of 45dB $L_{Amax,F}$ is not regularly exceeded during the night-time in bedrooms.

Development Impact Appraisal

Existing Noise Sources Affecting the Development Site

This section outlines any effects the identified, existing noise sources may have on the site.

Road Traffic as a Noise Source

It is likely that the dominant source of noise which may affect the proposed development, during day and night-time periods will be road traffic on the A257. The road is a typical single carriageway road, with a 30mph speed limit adjacent to the site.

The road has been included in the most recent strategic noise mapping for road and rail noise in England as published by Defra 2017, this can be seen on Figure 1 attached to this report.

Table 1 shows the noise levels, generated by the A275 that are expected to be experienced on site.

Table 1: Approximate Noise Levels Taken from the Most Recent Strategic Noise Mapping for Road and Rail Noise in England as Published by Defra 2017		
Approximate Distance from A275 (m)	$L_{Aeq,16hour}$ (dB)	$L_{Aeq,8hour}$ (dB)
0 to 50	60.0 to 69.9	55.0 to 64.9
50 to 100	55.0 to 64.9	50.9 to 59.9

Bekesbourne Lane is a narrow single carriage way road, adjacent to the eastern site boundary. It carries a 30 mph to 40 mph speed limit. Therefore, it is likely that guideline noise levels in external and internal living areas can be achieved through good acoustic design, further details will be provided in the latter sections.



The wider local road network, in particular the A2 (approximately 3 km south of the site) and the A28 (approximately 3.5 km north-west of the site), may occasionally be faintly audible, at times of lower traffic flow on the A257. However, it is highly unlikely that noise from these sources would result in an adverse impact in habitable rooms, or outdoor amenity spaces.

Noise Sources Other Than Road Traffic

Table 2 shows the identified industrial, commercial and other nearby sources that may result in noise impact at the proposed development.

Identified Sources	Bearing and Approximate Distance to Closest Site Boundary	Potential Attenuation and Existing Mitigation	Approximate Operational Hours	Noise Sources	Approximate Noise Source Characterisation
The Evenhill Hotel	North, 20 m	Distance attenuation, screening from existing plant and noise masking from road traffic	Intermittent during the daytime	External fixed plant and cars	Intermittent/tonal
Howletts Wild Animal Park	South-west, 26 m	Distance attenuation	Intermittent between the hours of 09:30 and 18:30	Vehicles	Impulsive/Intermittent

Existing Ambient Noise

It is thought that through daytime hours (07:00 – 23:00) and quieter traffic spells, noise from The Evenhill Hotel, and Howletts Wild Animal Park and could be occasionally audible at the proposed development site. This includes potentially distinctive characteristics from activities associated with carparks and plant.

Overall, whilst the previously mentioned noise sources may be occasionally audible on site, the impact is likely to be low when compared to the background sound levels. Good site design in terms of layout, individual plot orientation, and an appropriate glazing and ventilation strategy would be suitable to mitigate noise to appropriate levels.

The appropriate mitigation strategy will be established at the detailed design stage.



Potential Noise Sources Affecting Existing Receptors

The development will not include any new industrial or commercial noise sources. It is likely there will be a net increase in local road traffic due to the proposed development, however the increase is expected to be less than 25%. This is equivalent to less than a 1 dB increase in traffic noise. As such the effect of increased traffic noise should be considered negligible.

Acoustic Design Process

It is recommended that the developers should seek to achieve, a good acoustic design and take a holistic approach to manage the propagation of noise on site. This can be achieved by following the noise management measures listed below, which are in order of preference.

Site Layout and Plot Orientation

Where possible, noise sensitive rooms should be located on façades which are screened from the identified noise sources, however, it is recognised that this is not always possible. The orientation of individual groups of plots should be developed so that the building massing is used to shield outdoor amenity space wherever possible. In particular any proposed dwellings located closest to the A257 and Howletts Wild Animal Park.

Dwellings located further into the site, away from existing noise sources are expected to benefit from screening provided by intervening dwellings.

Spatial Separation

Where possible in the site design, proposed development layout should encompass a standoff distance between the dwellings and the noise sources. Thus, reducing the need for further mitigation. This applies to dwellings adjacent to the northern, eastern and southern boundaries.

Noise Barriers

Where sufficient screening cannot be provided by dwellings, acoustic fencing is likely to be required at garden boundaries to achieve the guideline noise levels for external amenity areas.

It is thought that bespoke acoustic barriers will not be a requirement to achieve internal guideline noise levels. Good acoustic design in terms of plot layout and orientation, will be sufficient to mitigate noise at the majority of dwellings.



Façade Mitigation

Where the above mitigation measures have been considered but further mitigation is still required, façade mitigation in the form of an appropriate glazing and ventilation strategy should be applied. This will achieve internal guideline noise levels, while maintaining sufficient levels of background ventilation. Mitigation will comprise standard double thermal glazing and passive ventilation measures.

Appropriate mitigation measures, on a dwelling-by-dwelling basis will be established as part of the detailed design process. Although the above applies to areas which may exceed guideline levels, good acoustic design should be integral for all areas of the site. This would result in more desirable properties for future residents.

Conclusions

Road traffic on the A257 has been identified as the main noise source affecting the proposed development. Noise from the local road network may occasionally be audible on site but is unlikely to adversely affect the proposed development.

Noise associated with The Evenhill Hotel and Howletts Wild Animal Park and their potential impacts upon the new development have been considered in terms of noise. It has been found that, the proposed dwellings are unlikely to experience a significant adverse impact due to the noise generated by these premises.

During quieter spells of road traffic commercial noise may be audible. However, with good acoustic design of the proposed development site the noise sources should be sufficiently mitigated.

The guideline noise levels set out in BS8233 can be met, using good acoustic design in the form of standoff distance and plot orientation. Where this is not possible, strategic boundary fencing and façade mitigation in the form of standard glazing and ventilation will be incorporated.

This desktop assessment has identified likely sources of noise affecting the proposed development site. It is considered, through good acoustic design and standard mitigation measures, where required, noise is not expected to generate a significant adverse effect on the proposed development site. Therefore, noise is not considered to be a key planning issue affecting the proposed development and should not restrict, future residential development on the identified site.



On this basis, it is considered that a full noise assessment is not required at this stage for the proposed development on land off The Hill, Littlebourne, Canterbury. The specific mitigation measures will need to be determined at the detailed design stage and can be dealt with by way of planning condition.

We trust that the information contained in this letter is clear however, please do not hesitate to contact should you have any queries.

Yours sincerely
for Wardell Armstrong LLP

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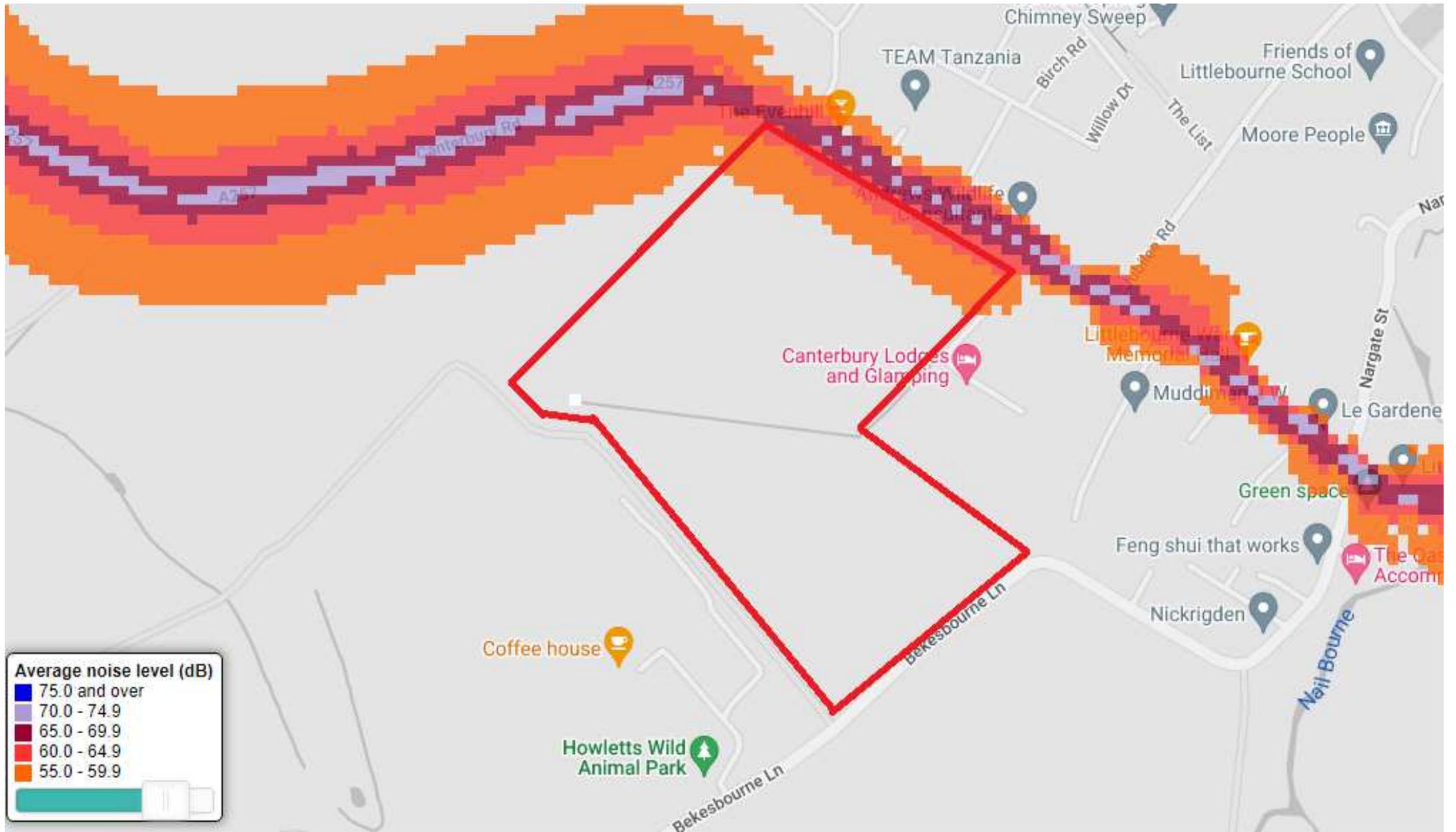


Figure 1 – DEFRA Noise Map