

## Grounds for objection on Noise grounds

The ProPG guidelines state

“In particular, where a site is considered **medium** or high risk following an initial site noise risk assessment, it is recommended that the examination of acoustically critical issues such as site layout, building heights, materials, landform contouring, detailed design and landscaping, the location of vehicle and pedestrian access, boundary treatments, amenity spaces etc. **should not be left for agreement at a later stage**. Any changes in acoustically critical issues following grant of outline consent should be fully assessed in an ADS.”

This development has been assessed as “**Medium Risk**” under **Stage 1** of the ProPG risk assessment approach.

**Extract from : ProPG: Planning & Noise Professional Practice Guidance on Planning & Noise New Residential Development May 2017**



### Recommendation – Objection on noise grounds

3.7 Government policy contained in both the NPSE and the NPPF (see Supplementary Document 1) is to “aim to **avoid** noise from giving rise to significant adverse impacts on health and quality of life”. The Government’s subsequent guidance (PPG-Noise) contained advice that the planning process should be used to **avoid** a significant observed adverse effect, and to **prevent** an unacceptable adverse effect, from occurring.

3.8 The following two subsections therefore use the four elements of the ProPG Stage 2 guidance to seek to provide clarity on making the necessary distinction.

#### **C. Recommend refusal – in order to “avoid” significant adverse effects**

3.9 Accepting that there may be overwhelming reasons to the contrary, the noise practitioner should recommend that consent for a new housing development in its proposed form should be refused on noise grounds if:

- (1) There is a failure to follow a good acoustic design process (as part of the broader requirement for good design set out in the NPPF); OR
- (2) Internal noise levels are regarded as “unreasonable” and the applicant has not shown that this impact has been mitigated and minimised; OR
- (3) There is an unacceptable “external amenity area noise assessment” OR
- (4) There is an unacceptable “assessment of other relevant issues”.

3.10 Note – The noise practitioner should also consider the need for inclusion of suitable noise conditions in the event that overwhelming reasons to override the recommendation are under consideration. In such cases close liaison with the planning decision maker will be essential.

#### **D. Recommend refusal – in order to “prevent” unacceptable adverse effects**

3.11 Notwithstanding that a good acoustic design process has been demonstrated, the noise practitioner should recommend that consent for a new housing development in its proposed form is prevented on noise grounds alone, regardless of any case for the development to proceed if:

- (1) Internal noise levels are regarded as “unreasonable” **AND either** there is an unacceptable “external amenity area noise assessment” **or** an unacceptable “assessment of other relevant issues”; OR
- (2) Internal noise levels are regarded as “unacceptable”.

### Recommendations concerning outline planning permission

- 3.12 Details submitted as part of an outline application must be treated by the LPA as forming part of any subsequent “full” application; conditions cannot be used to reserve consideration of these details for subsequent approval unless the applicant has made it clear that they were only illustrative. It is therefore recommended that an initial site noise risk assessment should be undertaken and that LPAs should not grant outline planning permission for new residential developments at sites considered to pose a medium or high noise risk without first being satisfied that good acoustic design will be able to overcome the acoustic challenges.
- 3.13 In particular, where a site is considered medium or high risk following an initial site noise risk assessment, it is recommended that the examination of acoustically critical issues such as site layout, building heights, materials, landform contouring, detailed design and landscaping, the location of vehicle and pedestrian access, boundary treatments, amenity spaces etc. should not be left for agreement at a later stage. Any changes in acoustically critical issues following grant of outline consent should be fully assessed in an ADS.

### Recommendations to help improve future decision making

- 3.14 It is recommended that records should be kept of the location and scale of all new residential development that is permitted in circumstances where there is a potential risk of significant adverse effects arising from noise so that such properties (and any special acoustic design measures) can be specifically identified in the future. This information may be useful when interpreting any local or national analysis of population noise exposure, for example in connection with local noise strategies, noise maps, aircraft noise contours and Noise Action Plans.
- 3.15 It is recommended that LPAs should encourage developers to obtain post occupancy feedback from new residents on acoustic design issues for all new residential development that is permitted in circumstances where there is a potential risk of significant adverse effects arising from noise and that the lessons learned from such surveys should inform future good practice, including local and national plan-making and decision-taking activities.

The four key elements to be undertaken in parallel during **Stage 2** of the recommended approach are:

- Element 1 – demonstrating a “Good Acoustic Design Process”;
- Element 2 – observing internal “Noise Level Guidelines”;
- Element 3 – undertaking an “External Amenity Area Noise Assessment”; and
- Element 4 – consideration of “Other Relevant Issues”

## Element 1 – “Good Acoustic Design”

It is proposed to limit the noise on whole the development by the use of the front ( most northerly) row of houses as a “barrier block”.

By reference to

“*Sound Control for Homes*” (BRE Report 238 / CIRIA Report 127), Building Research Establishment / Construction Industry Research and Information Association (1993)

The assessment concludes that there will be a 10db reduction throughout the site. This was concluded by using the graph in the above report, only,

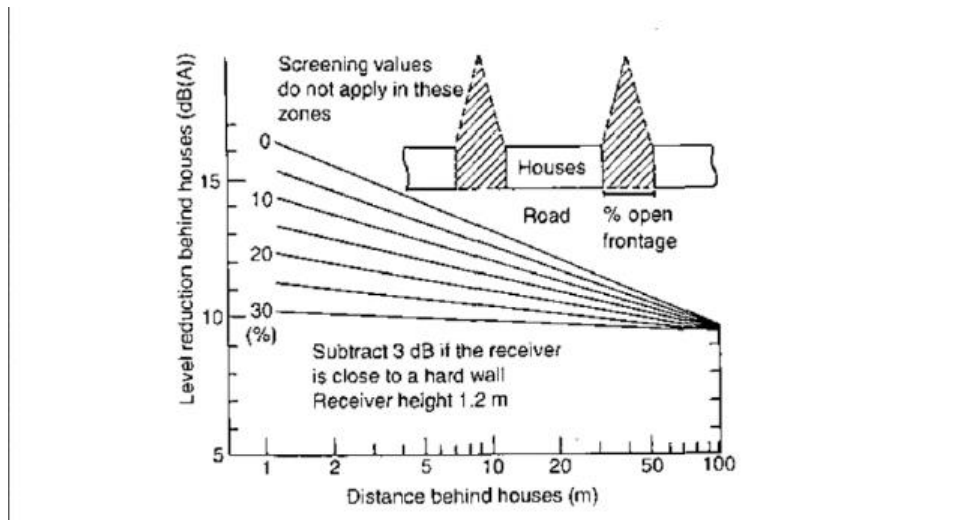


Figure 8.4: Screening from Individual Rows of Buildings

This graph assumes that the road is on the same level as the houses.

P10 of the above report states

The other factors which determine the final result are:

- road gradient,
- texture of the road surface,
- nature of the ground between the road and the receiver point,
- barriers and cuttings,
- angle of view of the road,
- reflections at the facade of the affected building (add 2.5 dB to the calculated value), and
- reflections from buildings opposite.

None of these factors have been considered in the assessment.

**This planning application relies entirely on this 10dB reduction to ensure that all external amenity areas are within the 50-55dB range. This position is unsafe as it does not recognise the specifics of the Lucas Lane site on 2 key issues:**

1. **The elevated position of the source of the A50 noise which would radiate noise over the houses in the barrier block**

- 2. The site is next to the exit slip road which will give rise to considerable low frequency noise due to engine braking. No noise survey has been done specifically on low frequency noise and the resonance impact, particularly on the facing buildings.**

## Element 2 – “Internal Noise Level Guidelines”

### **Overheating risk in houses**

The achievement of the internal noise levels will be by thermal double glazing, and ventilation techniques which do not rely on opening windows for long periods of time

From the noise assessment:

*It is generally accepted that an open window will provide an outside to inside sound reduction of around 15dB(A). It can therefore be seen that, in order to maintain ProPG internal target levels, external noise levels would need to be no greater than 50dB  $L_{Aeq,16hour}$  daytime or a night-time value of 45dB  $L_{Aeq,8hour}$  for “normal” design purposes.*

It is clear that this is a weak point in the noise assessment and it tries to argue that exceeding WHO noise guidelines is acceptable. Given that the plan does not deliver the right dB levels, the assessment goes on to say:

*However, the above observations should not be taken to imply that development of land characterised by noise levels above WHO guideline values should be precluded.*

The above is recognised within the ProPG guidance, which offers the following commentary:

***“Where development is considered necessary or desirable, despite external noise levels above WHO guidelines, the internal  $L_{Aeq}$  target levels may be relaxed by up to 5dB and reasonable conditions still be achieved. The more often internal noise level start to exceed the internal  $L_{Aeq}$  target levels by more than 5dB, the more that most people are likely to regard them as “unreasonable”***

This development is **not considered “necessary”** as it is not part of the SDDC Local Plan Part 2. It is **not considered “desirable”** by local residents.

*At the planning stage of a development, it is generally not practicable/proportionate for detailed thermal modelling to determine the significance of any over-heating risk to be quantified (which would be required to consider the potential duration that windows might need to be open to control overheating if reliant on natural ventilation).*

***Consideration will therefore need to be given to potential strategies to minimise any overheating risk and, where more prolonged exposure to higher noise levels may still result, to provide additional mitigation to avoid a significant effect.***

Overheating risks can **also potentially be minimised through the detailed design provisions implemented within the buildings, including:**

- Utilising the benefits of additional thermal mass in the design;
- Using “Low E” glass to minimise solar gains through windows;

- Solar shading and shutters can be used to good effect to reduce the heating effect of the sun;
- The use heat reflective finishes on walls and roofs.

**Such provisions are normally developed at the detailed design stage of a project.** Where it is not possible to avoid an unacceptable risk of over-heating, additional means of ventilation or cooling should be considered to ensure that residents are provided with adequate provisions for maintaining thermal control over their home without the need for windows to be opened.

**Conformance to recommended internal levels relies on the specification of windows, and the management of the overheating risk ; this is accepted within the assessment. This has not been addressed in detail and is therefore not compliant with the ProPG planning recommendations for medium risk developments which states that “detailed design should not be left to a later stage”**

### Element 3 - External Amenity Area Noise Assessment

ProPG guidance is that

*“If external amenity spaces are an intrinsic part of the overall design, the acoustic environment of those spaces should be considered so that they can be enjoyed as intended”.*

*The acoustic environment of external amenity areas that are an intrinsic part of the overall design should always be assessed and noise levels should ideally not be above the range 50 – 55 dB  $L_{Aeq,16hr}$ .”*

**This assumes that the 10dB in Element 1 above is achieved –however this is unsafe, so there is a risk that the ProPG, and WHO guidance will not be met. More work is required to confirm that the external noise amenity level can be satisfied**

### Element 4 - Assessment of other Relevant Issues

The noise assessment states:

The proposed development will deliver up to 61 residential units. The proposed occupants of the development **are considered to have a “normal” sensitivity noise**, which would not alter the preceding conclusions regarding policy compliance

ProPG guidance on this element states:

2.66 The detailed design may, to a certain extent, both reflect and influence the likely occupants of a new residential development. LPAs should bear in mind the extent to which occupants are likely to be able to exercise choice about living with the acoustic conditions in and around the proposed residential development. In addition, certain groups such as families with young children, students and the elderly may **all have different requirements and sensitivities as regards acoustic conditions** and, in particular, **varying needs for access to quiet external space**. Care should additionally be taken as far as possible to anticipate future changes in types of occupancy that may result in differing acoustic requirements.

**The assessment has not considered that:**

- **Hilton is a village where the age profile is predicted to increase and therefore this development will, most likely, not be suitable for older residents due to the marginal acoustic conditions, as contemplated in the ProPG guidelines**
- **Derby as a City ( Hilton is an integral part of the wider Derby population) has a higher than average number of children on the Autistic Spectrum. These children generally have much more sensitivity to noise. These properties would not be suitable for families with autistic children.**
- **In the above cases, this development does not allow these residents to “exercise choice “**

**OTHER POINTS**

p.12 of the Noise Assessment details the sound equipment used and the status of calibration.

The equipment used for A3, was calibrated over a year before the assessment date. The manufacturer’s recommendation is that it should be calibrated every 12 months.

**The readings at this location are unsafe due to out of calibration equipment.**