

19th January 2024

OUR REF: 22007-PR01
YOUR REF: LA01/2022/0779/F

Site Northwest of No.293 Drumsum Road, Drumsum

PLANNING RESPONSE

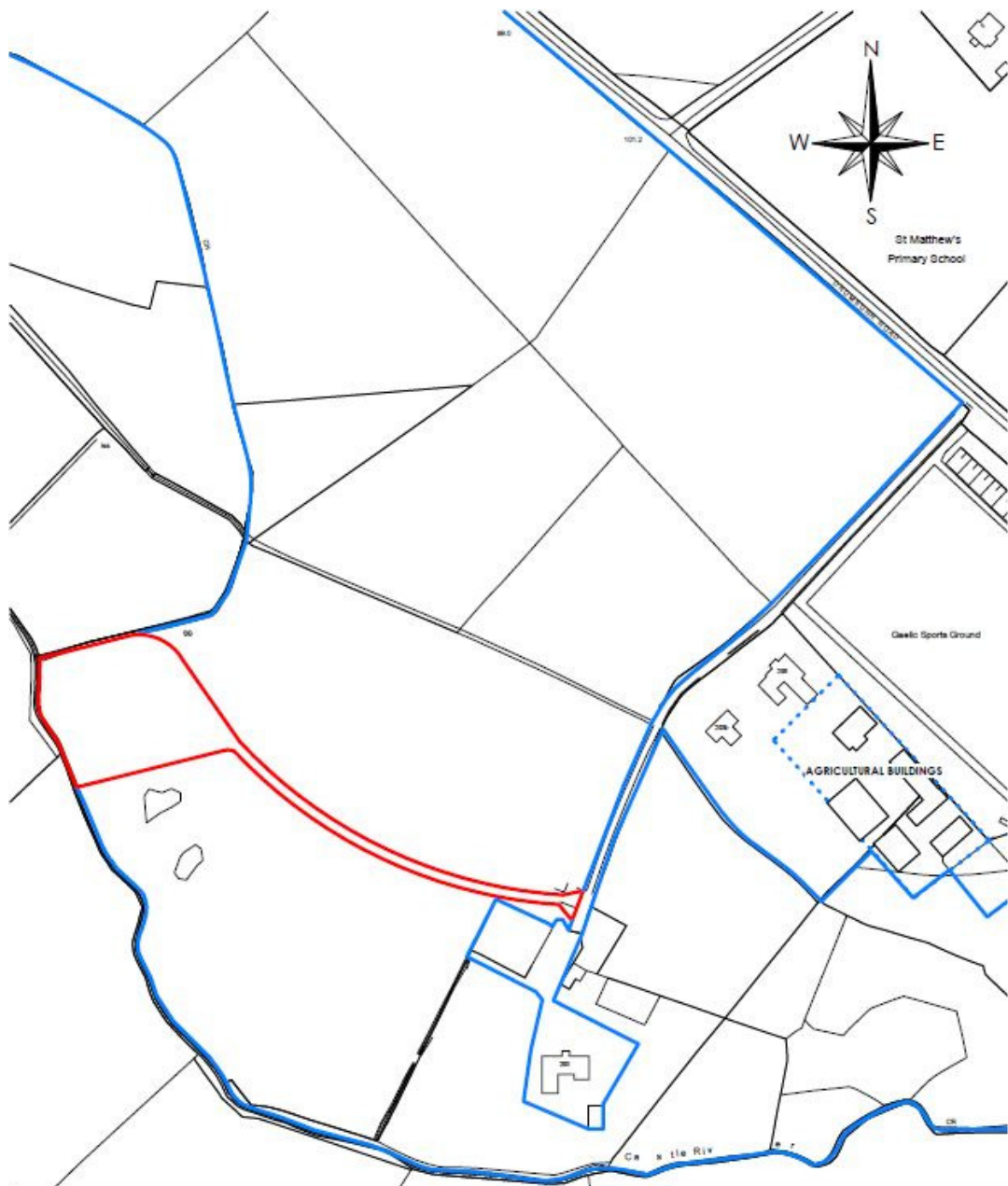
Please see below our Response to the Planning Committee Report published on 17/01/24.

INTRODUCTION

1. The application meets criteria CTY10 (a) and (b), therefore planning permission should be granted for a dwelling house on the farm provided a suitable site can be agreed.
2. The application site meets the requirements of Design and Integration with the existing Rural Character under Policy criteria CTY13 (a-f) and CTY14;
 - a) *"The site is a mature setting for a dwelling with good integration."*
 - b) *"The site would not appear prominent in the landscape or damage the rural character."*
 - c) *"The mature trees and bushes on the western and northern boundaries will further integrate the dwelling."*
3. The proposed dwelling utilises an existing laneway for access and has received no objections from the public.
4. The Refusal Reasons relate to the Proposal not being *"visually linked or sited to cluster with an established group of buildings on the farm"* and a failure to provide a River Model and Flood Risk Assessment.

CTY13 (g) – VISUALLY LINK

5. The established group of buildings on the farm include No.295 Drumsurn Road and the agricultural outbuildings to the rear (SE) of the property.
6. It is not possible to visually link/cluster with these buildings for the following reasons:
 - a) Land adjacent to the north east is not in the applicants ownership and is in use as a GAA pitch.
 - b) Land adjacent to the south west cannot be developed as it is located within a floodplain.
 - c) Land adjacent to the south east cannot be developed as it is located within a floodplain.



7. The only remaining land where a dwelling could be sited to visually link/cluster with the established group of buildings would be within the field directly opposite, to the north west. It is not desirable to site a new dwelling at this location for the following planning policy based reasons:
 - a) It would be c.280m closer to Drumsurn Road than the application site, making it much more prominent in the landscape when viewed from the primary vantage points along Drumsurn Road and Gortnagross Road.
 - b) It would be c.10m higher than the application site, making it much more prominent in the landscape when viewed from the primary vantage points along Drumsurn Road and Gortnagross Road.
 - c) It would only be able to utilise a single hedgerow as a boundary (to the north east) whereas the application site has mature boundaries to the west and north. Furthermore, there would be less mature vegetation to shield the site from the primary vantage point of Drumsurn Road, making a dwelling much more prominent in the landscape at this location.
8. All of the above would be contrary to the requirements of Design and Integration with the existing Rural Character under Policy criteria CTY13 and CTY14.
9. Furthermore, siting a dwelling at this location would visually link/cluster exclusively with No.295 & No.293b Drumsurn Road. These dwellings are located within the Settlement Development Limit of Drumsurn. The purpose of the Settlement Limit is to create a clear distinction between settlement and countryside and any development that would visually link/cluster with these existing dwellings would blur that distinction.



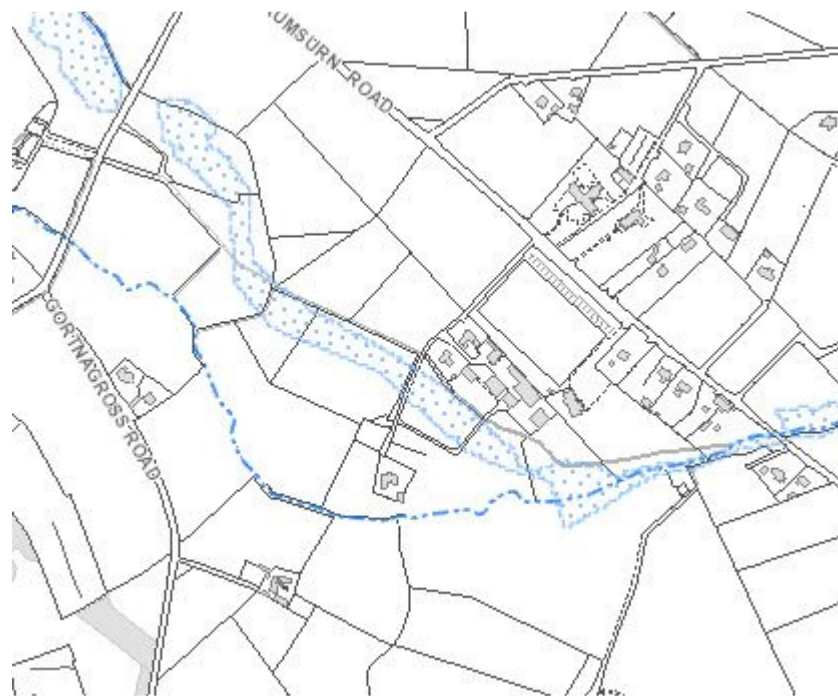
CTY10 (c) – HEALTH & SAFETY

10. Policy CTY10 (c) allows for consideration of an alternative site elsewhere on the farm provided there are no other sites available at another group of buildings on the farm and where there are demonstrable health and safety reasons.
11. It is not desirable to site a new dwelling within the field directly opposite to visually link/cluster with the established group of buildings for the following health and safety reasons:
 - a) It would be c.280m closer to the active agricultural buildings than the application site, exacerbating the noise, odour and pest issues experienced.
 - b) It would be c.280m closer to the GAA pitch than the application site, exacerbating the noise and light issues experienced.
12. In assessing the application site, Environmental Health Services Department stated *“Occupants of the dwelling or future occupants may suffer intermittent disturbance and loss of amenity, as a result of noise, odour and pests arising from activities associated with agricultural business”*.
13. They also state *“Future occupants of the development may suffer intermittent disturbance and loss of amenity, as a result of noise and light arising from activities associated with these (GAA pitch) facilities”*.
14. A Noise Impact Assessment has been prepared by F.R. Mark & Associates in support of the application site. The site has been selected to ensure suitable separation distances between the farm buildings and the GAA pitch to provide a suitable noise environment. Their assessment concludes *“A buffer zone has been recommended around the farm buildings and GAA pitch to minimise the impact of noise on the proposed residential property”* and states that the application site is *“entirely suitable for residential development in terms of noise”*.
15. Though the application site is deemed within acceptable tolerances, siting the dwelling closer to the active agricultural buildings and GAA pitch would present health and safety issues.
16. The application meets the requirements of criteria CTY10 (c) as an alternative site is proposed for exceptional consideration (i.e. it is not visually linked or sited to cluster with an established group of buildings on the farm).
17. Our proposal is entitled to this as there are no other sites available at another group of buildings on the farm (see points above) and demonstrable health and safety reasons have been provided to justify the siting (a Noise Impact Assessment).

FLD1 – FLOOD RISK

18. DfI Rivers consultation response states that *“The Flood Hazard Map (NI) indicates that the development does not lie within the 1 in 100 year fluvial or 1 in 200 year coastal flood plain”* and the applicant has reported no instances of flooding on the application site.
19. However, DfI Rivers suggest that topographical information indicates that the strategic flood map is inaccurate at this location and have requested River Modelling and a Flood Risk Assessment be provided.

20. The topographical information referred to relates to how the predicted floodplain 'detaches' from the mill race and indicates flooding in an area which would be unlikely given the topographical survey we provided.
21. It is much more likely to follow the route of the watercourse as it does for the wider context of the flood map, meaning any predicted floodplain would move north, away from our proposed development, making a flood risk less likely.



22. With regard to the Castle River, the existing property at No.293 Drumsurn Road is located a comparable distance from the river and has experienced no instances of flooding.
23. Under Paragraph D4 of PPS15, policy states that *"For some sites the applicant may be able to demonstrate through local knowledge or a level survey that the site lies outside the flood plain and would be suitable for development from a flood risk aspect"*.
24. We believe that, even allowing for inaccuracies, the Flood Hazard Map together with our topographical survey and the applicants local knowledge of their own farmland is sufficient to approve the application at this stage as the significant expense of obtaining River Modelling and a Flood Risk Assessment could be Conditions of the approval if necessary.
25. This has precedent in application ref: LA01/2022/0233/O which was approved at committee in the absence of a Flood Risk Assessment despite a small portion of the site being within the floodplain.
26. The Committee Report stated that as no works take place within the floodplain, FLD1 of PPS15 is not engaged. This is the case for the application site and FLD1 should not be a reason for refusal.

CONCLUSION

27. We have illustrated above why it is not possible to visually link/cluster on three of the four sides of the existing buildings.
28. For the only remaining location to visually link/cluster we have indicated the numerous reasons for which this site would be more prominent and contrary to planning policy as well as providing demonstrable health and safety reasons for siting the dwelling away from this location.
29. The application site chosen meets the planning policy requirements of Design and Integration with the existing Rural Character and is accessed from an existing laneway.
30. The application site is not located in a floodplain and the issues raised have been addressed using the Flood Hazard Map, providing level surveys and local knowledge and any outstanding information required can be provided as part of a conditioned approval which would give the applicant peace of mind that the principle of development is acceptable before undertaking such expenditure.
31. We politely request that the application be recommended for approval on the basis of the above.



F. R. MARK & ASSOCIATES

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Noise Impact Assessment

**Proposed Dwelling,
Lands at 200m Northwest of 293 Drumsurn Road, Drumsurn,
Limavady.**

October 2023

Prepared by

Simon Hetherington B.Sc. (Hons) P.G.Dip.

Introduction

This report is submitted in response to a planning application for the construction of a single dwelling on lands 200m northwest of 293 Drumsurn Road, Drumsurn, Limavady. The proposed application is for a residential development on the existing farmlands adjacent to 293 – 295 Drumsurn Road. The site is in a rural setting surrounded by agricultural lands. The site for the proposed farm dwelling has been selected for a number of health and safety reasons such as flood risk and potential noise impact from the existing farm activities and noise emanating from an adjacent Gaelic Football Pitch (as noted by the Causeway Coast and the Glens Borough Council Environmental Health Services). The site has been selected to ensure suitable separation distances between the farm buildings and the GAA pitch to provide a suitable noise environment.

The noise environment across the proposed site is influenced by transportation noise on the Drumsurn Road and distant agricultural activities.

Methodology and Measurement Results

A survey was conducted at the site between 5th and 9th October 2023 in the vicinity of the proposed site. The actual site location is not secure and noise monitoring equipment could not be left unattended. However, it was possible to measure in the garden of 293 Drumsurn Road for the duration of the survey. 293 Drumsurn Road is at a similar distance from the existing farm and GAA pitch as the proposal and it is submitted that the survey location is representative of the proposed site. Weather conditions were monitored at the site and were suitable for the majority of the survey period with no rain and wind speeds below 5m/s with the exception of the afternoon and evening of the 5th – these measurements have been excluded from the survey.

It is noted that a home match took place on the afternoon of the 7th October 2023 (a busy quarterfinal game) on the near sited GAA pitch while the survey was taking place.

All readings were carried out with Type 1 instrumentation, calibrated as required by BS4142.

The results of the survey are summarised in Tables 1 below with the full results presented in the Appendix:

Start Date	Time	L _{Aeq}

Table 1: Noise Measurement Results

The measurement location is presented on Figure 1.

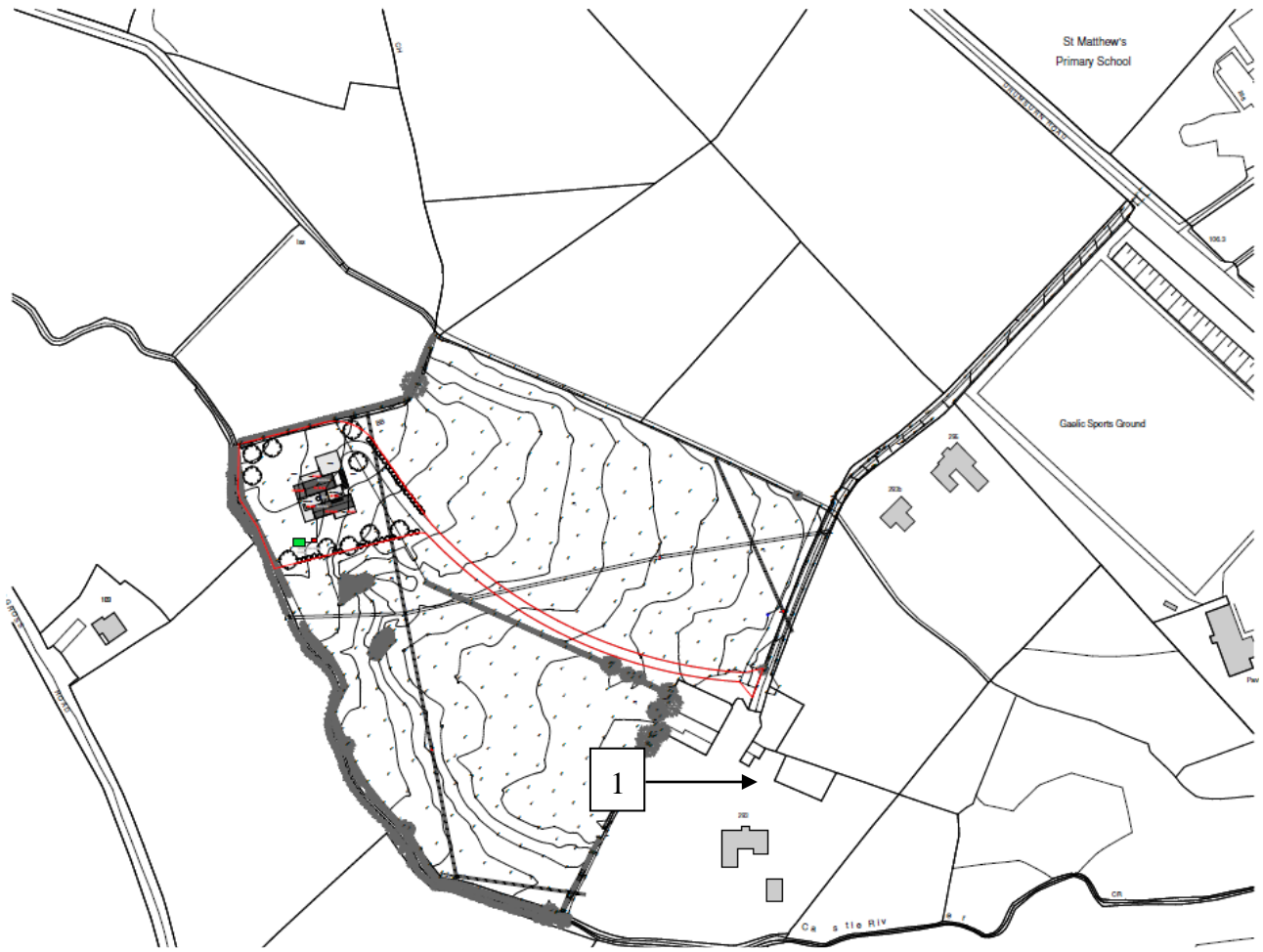


Figure 1: Site Location Plan and Measurement Locations

Evaluation Criteria

As stated previously, the proposed properties are impacted by mixed source noise, predominantly transportation noise with limited agricultural noise. It is therefore submitted that the proposed that the site will be assessed with reference to the following documents:

Mixed Source Noise (Transport and Agricultural)

It would be typical, where a site is influenced by mixed source noise to assess the suitability of a site for residential development with reference to Professional Practice Guidance on Planning and Noise (ProPG), the World Health Organisations – Guidelines for Community Noise 1999, and BS 8233 – Guidance on Sound Insulation and Noise Reduction in Buildings 2014. ProPG is based primarily based on the guidance of BS 8233 when assessing transportation noise. It is therefore submitted that the suitability of the site for residential development will be assessed with reference to this document as well as BS 8233 (2014).

Assessment of Noise Levels from the Adjacent GAA Pitch

In previous noise impact assessments for sports pitches/activities, the noise impact assessments considered the guidance of the Sport England – Artificial Grass Pitch (AGPA) Acoustics – Planning Implications Document. This document presents a methodology for assessing the activity on a sports pitch with noise levels for the activities and cites relevant noise guidelines and targets for such activity.

The AGPA presents noise targets with reference to the World Health Organisation - *Guidelines for Community Noise (1999)*. This document presents an external target of 50 dB $L_{Aeq,16hr}$ (though it is noted that the AGPA recommend an assessment time period of dB $L_{Aeq,1hr}$ to ensure a more robust assessment rather than the impact being averaged over a 16hr period) at the nearest residential properties. AGPA presents a noise level of sporting activity of 58 dB $L_{Aeq,1hr}$ at 10m. Depending on the topography of the surrounding lands, in order to meet the target of 50 dB $L_{Aeq,1hr}$ at residential lands, a separation distance of circa 70-90m between the pitch and house would generally be required to meet the target levels.

Given that there is a degree of noise impact at the site due activity on the farm and the GAA pitch, the application site would be best suited on the lands at the extent of the farm, to the northwest. This will provide a buffer area and reduce the noise impact of the activities on the proposed residential amenity.

With regard to ProPG, sections of the site are at present considered as ‘Negligible’ due to the remote location and distance from the farm and pitch. Sites that are impacted by levels of circa 50 dB $L_{Aeq,16hr}$ or below are considered as ‘Negligible’ in terms of noise risk and as such sites are acceptable from a noise perspective. ProPG states that sites which are exposed to ‘Low’ - *These noise levels indicate that the development site is likely to be acceptable from a noise perspective, and the application need not normally be delayed on noise grounds.*

BS8233 (2014) contains guidelines for appropriate internal and external environments based on WHO Guidelines on Community Noise (1999). These guidelines will be used to ensure that the property facades eg. walls, windows, etc. are of a sufficient construction to ensure acceptable internal conditions.

Target Noise Level inside Properties

BS8233 recommends internal target level for habitable rooms in properties of:

- bedrooms: (Night-time) = 30 dB $L_{Aeq,8hr}$; (Daytime) = 35 dB $L_{Aeq,16hr}$; and less than 45 dB $L_{Af,max}$ in bedrooms during night-time
- living rooms: 35 dB $L_{Aeq,16hr}$

Target Levels for Private External Amenity Space

BS8233 states the following:

'For traditional external areas that are used for amenity space, such as gardens and patios, it is desirable that the external noise level does not exceed 50 dB $L_{Aeq,T}$, with an upper guideline value of 55 dB $L_{Aeq,T}$ which would be acceptable in noisier environments.'

Given that a partially open window will provide attenuation in the region of 10 – 15 dB and external noise levels are circa 45 dB $L_{Aeq,16hr}$ during the daytime, internal noise levels will be less than 35 dB $L_{Aeq,16hr}$ during the daytime and night-time and will therefore comply with the noise targets presented in BS8233 and the WHO guidance.

With regard to the

External Noise Environment

It is noted that the 'worst case' daytime levels are circa 45 dB $L_{Aeq,16hr}$ and night-time levels are less than 39 dB $L_{Aeq,8hr}$ at the site. This impact level is significantly lower than the BS8233 and WHO targets for external amenity spaces and therefore suitable for residential amenity.

Summary and Conclusion

A survey of noise impact at the site has been completed to assess the existing noise environment.

The suitability of the site for residential development has been assessed following typical methodology used throughout the United Kingdom.

The predominant noise source across the site is that of transportation noise and distant agricultural activity.

The potential noise impact of the local transportation movement, agricultural activity and sports activity on the proposed site has been assessed with reference to ProPG and BS8233 (2014).

A buffer zone has been recommended around the farm buildings and GAA pitch to minimise the impact of noise on the proposed residential property. The survey was conducted in the vicinity of the proposed development and based on the survey results the site is entirely suitable for residential development in terms of noise.

Simon Hetherington B.Sc. (Hons), P.G.Dip.
F.R. Mark & Associates.

12th October 2023

Appendix 1: ProPG Noise Risk Assessment

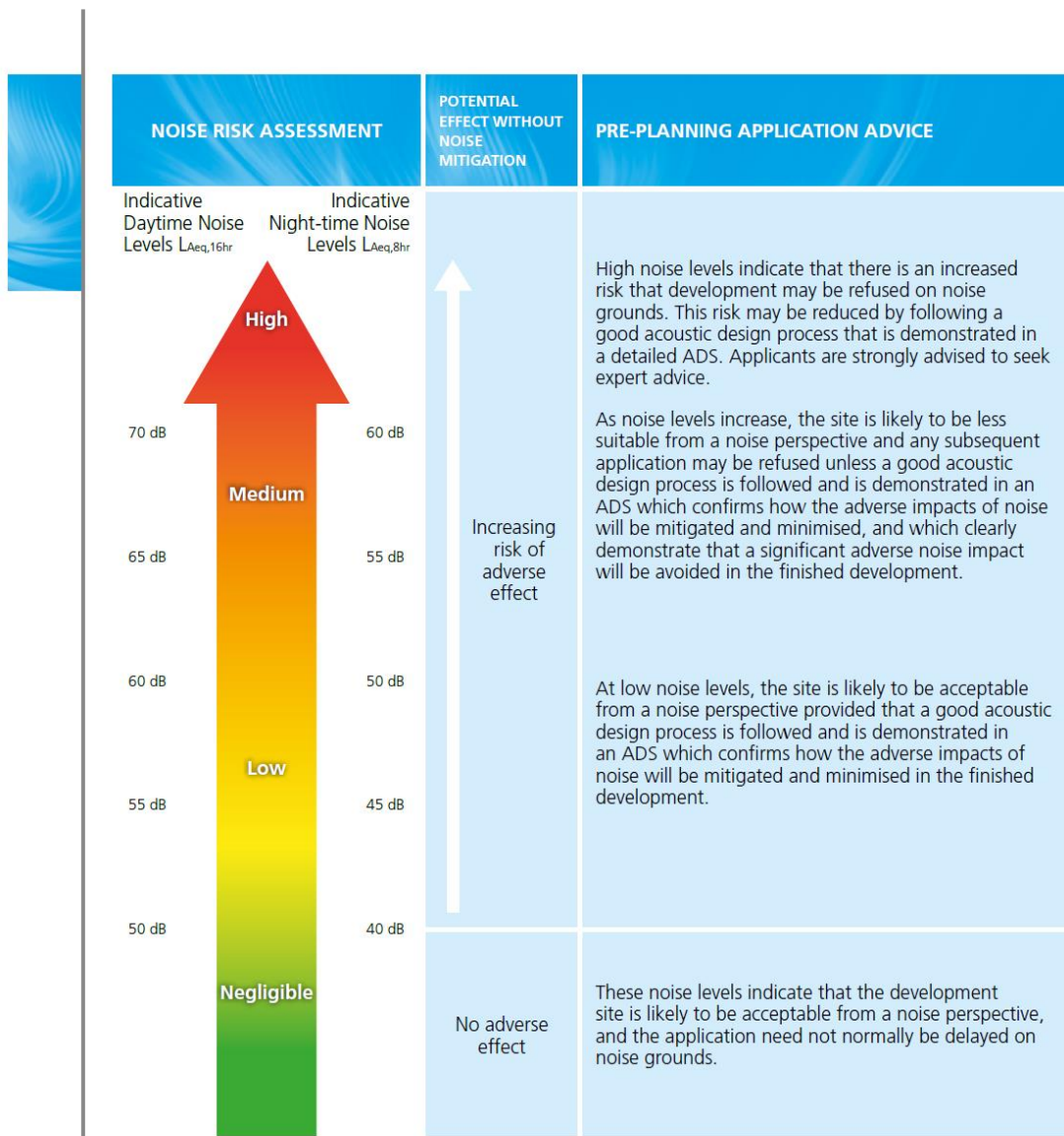


Figure 1 Notes:

- a. Indicative noise levels should be assessed without inclusion of the acoustic effect of any scheme specific noise mitigation measures.
- b. Indicative noise levels are the combined free-field noise level from all sources of transport noise and may also include industrial/commercial noise where this is present but is "not dominant".
- c. $L_{Aeq,16hr}$ is for daytime 0700 – 2300, $L_{Aeq,8hr}$ is for night-time 2300 – 0700.
- d. An indication that there may be more than 10 noise events at night (2300 – 0700) with $L_{Amax,F} > 60$ dB means the site should not be regarded as negligible risk.

Figure 1. Stage 1– Initial Site Noise Risk Assessment

Appendix 2: Long term Survey Results

Time	LAeq	LAFmax	LA10	LA90
11:45	53.4	73.5	56.1	47.4
12:00	53.5	71.9	55.7	46.4
12:15	52.7	69.4	55.4	46.2
12:30	49.6	66.7	52.2	44.1
12:45	48.5	64.1	51.2	43.8
13:00	50.8	66.8	54.3	44
13:15	50.3	70.4	53.3	43.4
13:30	53.1	75.3	55.9	45.9
13:45	54.7	75.1	57.8	48.3
14:00	51.2	71	54.5	45.2
14:15	53.6	75.5	55.7	46.4
14:30	52.1	70.7	54.5	44.8
14:45	53.6	74.7	56.2	47.5
15:00	50.9	67	54.3	45.5
15:15	53.9	82.4	54.6	44.8
15:30	50.3	66.5	53.5	45.5
15:45	49.4	66.2	52.3	43.7
16:00	53.7	76.6	56.7	45.3
16:15	54	80.4	54.9	46.2
16:30	51.3	63.6	54.8	44.3
16:45	50.2	64.5	53.6	43.9
17:00	53.1	82	55.6	43.5
17:15	53.5	83.7	50.9	42.7
17:30	48.3	62.7	51.9	42.5
17:45	48	62	50.7	42.6
18:00	48.3	69	51	42.1
18:15	49.9	73.6	52.4	39.1
18:30	42	54.7	45.3	37.3
18:45	41.9	60.7	43.6	37.2
19:00	37.9	49.8	39.9	35.2
19:15	39.8	54.5	41.1	37.3
19:30	48.3	62.2	50.7	40.9
19:45	46.4	57.2	50.4	36.2
20:00	48.4	78.8	47.7	37.7
20:15	45.5	57.2	48.9	39.6
20:30	41.7	55.8	45.1	36.3
20:45	44.1	59.1	48	36
21:00	45.6	61.6	48.1	41
21:15	45.5	73.1	47.3	39.9
21:30	41.4	55.4	43.7	37.6
21:45	41.9	53.6	44.7	38.4
22:00	39.4	54.4	42.3	34.6
22:15	36.7	47.4	38.9	34
22:30	38.2	56.2	41	33.9
22:45	38.3	55.2	41.1	34.2

23:00	41.1	53.5	44.3	35.4
23:15	39.5	49.6	41.7	36
23:30	46.3	57.8	50.2	38.8
23:45	48	60.1	51.3	42.2
00:00	44.8	56.9	47.2	41.1
00:15	45.3	61.5	48.8	39.9
00:30	44.3	57.9	46.9	39.9
00:45	46.4	60.6	49.5	41
01:00	43.6	57	45.8	39.4
01:15	42.7	54.4	45.8	37.9
01:30	44.8	60.4	47.9	39.6
01:45	44.6	56.2	47.2	40.2
02:00	45.5	59.2	49	39.2
02:15	44.8	61.9	48.1	36.8
02:30	38.2	52.9	40.5	35.1
02:45	38	52.2	40.8	34.1
03:00	35.5	48	37.5	33.1
03:15	34.4	42.5	36.2	32.3
03:30	35.5	55.1	37.7	32
03:45	39.6	53.6	42.2	34.6
04:00	40.5	54.1	43.1	37.1
04:15	38	52	40.9	33.6
04:30	35.1	53.8	37.2	32.1
04:45	33.2	47.8	35.1	30.8
05:00	34.2	48.1	36.5	30.8
05:15	33	47.6	34.9	30.8
05:30	34.7	48	37.1	31.6
05:45	36.7	52.6	39.4	32.6
06:00	35.1	49.9	37	32.6
06:15	36	50.7	37.5	33.3
06:30	35.4	47	37.4	32.4
06:45	35.9	45.6	37.8	33.1
07:00	44.8	70.1	41.7	34.5
07:15	41.2	62.9	42.2	35.3
07:30	39.8	59.1	41.6	36.1
07:45	42	66.5	41.4	35.8
08:00	41	57.2	44.3	35.2
08:15	45.9	75.6	44.5	35.5
08:30	39.5	53.3	41.7	35.6
08:45	46.5	77.8	44.2	35.9
09:00	45.5	70	48.6	36.6
09:15	41.2	60.1	43.4	35.8
09:30	48	67.2	51.4	37.3
09:45	47.8	64.9	51.4	38.4
10:00	47.6	64.9	52.7	35.6
10:15	53.1	80	50.7	36.1
10:30	46.9	78.6	44.9	34.8
10:45	42.6	59.3	46.6	34.3

11:00	42	56.8	45.4	35.2
11:15	40.7	53.3	43.5	36.6
11:30	44.3	59.2	48.5	36.5
11:45	47.5	59.1	51.5	38.2
12:00	46.4	58.4	50.3	38.7
12:15	46.6	60.4	50.2	38.2
12:30	48.5	62	52.5	39.4
12:45	50.3	60	53.9	41.4
13:00	46.3	60	50.2	38
13:15	47.8	61.8	52.3	36.9
13:30	46	60.1	50.4	36
13:45	45.4	67.5	48.2	34
14:00	44.5	59.2	47.4	38.7
14:15	47.1	58.4	49.9	41.1
14:30	51.1	72.4	53.3	42.7
14:45	47	65.9	50.2	41.1
15:00	47.1	57.5	51	40.8
15:15	49.4	69.9	52.3	42.5
15:30	46.5	56.9	49.4	42.7
15:45	45.7	65.7	47.2	39.8
16:00	44.9	69.8	46	39.4
16:15	44.4	60.8	45.8	39.2
16:30	46.8	61.3	49.6	41.6
16:45	47.8	62.2	51.2	42.3
17:00	46	58.9	48.6	40.7
17:15	42.6	56.2	44.8	39.4
17:30	44.2	59.8	47.2	38.4
17:45	44.6	63.7	47.2	37.6
18:00	42.4	59.6	45.5	36.2
18:15	45.6	62.8	47.5	36
18:30	44.7	72.2	46.2	36
18:45	37.9	50.3	39.8	34.8
19:00	38.6	52.1	41.2	35.1
19:15	40.5	58	42.7	36.9
19:30	46.5	59.3	50.3	37.2
19:45	42.1	65.9	44.5	37.3
20:00	41.5	53.3	44.6	36.9
20:15	40.4	52.1	43.3	36.6
20:30	45.3	71.8	46.9	38.2
20:45	41.9	51.2	44.8	37.6
21:00	39.9	52.7	41.7	36.5
21:15	45.2	60.4	48	39.5
21:30	47.9	59.7	51.2	41.1
21:45	48.8	63	52	42.8
22:00	52.6	79.8	54.7	44.6
22:15	48.6	61.6	51.7	44.2
22:30	46.9	61.8	49.3	42.3
22:45	45.5	67.3	48.2	40.2

23:00	45.6	71.5	46	38.4
23:15	41.3	55.3	44.2	37.1
23:30	40.4	56.2	42.7	36.8
23:45	41.1	57.7	43.8	37.3
00:00	44.8	57.9	48.2	38.7
00:15	41.3	51	44.8	36.9
00:30	39.9	57.3	42.3	35.7
00:45	39.1	53.7	41.1	35.5
01:00	36.6	54.1	38.5	33.7
01:15	37	48.7	38.4	33.6
01:30	41.4	51.9	44.6	35.7
01:45	37.5	49.4	39.9	34.2
02:00	34.2	42.2	36.1	32.1
02:15	35.9	46.6	37.8	32.4
02:30	34.3	45.5	36.1	31.8
02:45	32.7	43.5	34.3	30.6
03:00	32	41.2	33.2	30.4
03:15	30.3	37.5	31.8	29.1
03:30	29.1	33.7	29.8	28.5
03:45	29.7	44.2	29.7	27.9
04:00	29.3	39.6	30	28.3
04:15	31	43.4	32.4	29.2
04:30	30.7	45.4	31.9	29.1
04:45	30.3	42.6	31.5	29.1
05:00	31.8	47.3	33.8	29.1
05:15	33	46.6	35.8	29.5
05:30	35.6	54.6	37.9	32
05:45	36.8	47.2	40	31.9
06:00	33.6	51.7	34.6	31.1
06:15	32.8	45.1	34.5	30.7
06:30	32.8	44.6	34.8	30.3
06:45	39.1	51.1	42.4	34
07:00	43.8	63.9	46.4	38.3
07:15	42.5	65.4	44.9	35.3
07:30	41.3	63.6	42.3	33.4
07:45	39.2	54.9	41.5	35.2
08:00	40	61.6	42.3	35.3
08:15	39	56.2	41.8	34.2
08:30	40.4	56.8	42.4	35.1
08:45	41.6	60.4	44.2	36
09:00	43.4	61.5	46.4	37.4
09:15	43.1	57.9	46.3	37
09:30	42.2	63.2	44.7	36.3
09:45	44.7	67.4	47.2	38.3
10:00	45.8	75	45.4	37.9
10:15	42.6	56	46.1	37.1
10:30	51.7	81.3	48.9	36.6
10:45	40.4	57.6	43.3	35.7

11:00	48.9	82.1	43.4	35.3
11:15	54	85.6	44.5	35.3
11:30	41.6	56.5	45	35.6
11:45	43.8	60.2	46.9	37.7
12:00	49.4	78.5	50.5	37.2
12:15	48.3	66.8	50.9	40.4
12:30	45.5	62.4	48.6	38.6
12:45	53.4	84.1	51.9	41.9
13:00	51.9	81.6	45.6	38.1
13:15	43.9	62.1	45.9	37.6
13:30	50.7	81.8	44.1	35.2
13:45	46	66.3	46.7	35.6
14:00	50.1	81.9	42.1	35.6
14:15	41.4	58.7	44.4	34.8
14:30	52.8	82	44.8	33.6
14:45	49.2	78.3	42.4	32.7
15:00	49.5	81.3	45	32.6
15:15	39.4	58.3	41.9	33.7
15:30	40.4	55.9	43.4	34.5
15:45	40.3	54.5	43	35.8
16:00	43	68.3	44.7	35.2
16:15	46.7	74.8	46.7	35.2
16:30	40	57.9	43.2	34.2
16:45	36.7	54.6	39.2	32.5
17:00	36.3	51.9	38.5	32
17:15	34.8	49.2	37.3	30.6
17:30	51.6	81.2	49.2	33.3
17:45	40.6	54.2	44.2	32.8
18:00	40.5	61.2	42.5	32.9
18:15	36.9	49.9	39.6	33.2
18:30	39.7	56.1	42.5	32.5
18:45	41.8	62.4	43.1	32.1
19:00	47.2	70	43.3	33.7
19:15	36.1	47.1	39.8	29.1
19:30	34.2	49.9	37.1	28.9
19:45	35.9	60.1	39.7	28.8
20:00	40.1	73.4	38.4	28.9
20:15	30.6	43.8	32.7	27.8
20:30	34	51.3	37.2	28
20:45	32.8	44.1	35.9	28.4
21:00	35.6	48.3	39.7	28.4
21:15	34.3	47.3	38.1	27.9
21:30	32.5	46.4	36.5	27.3
21:45	37	54.7	39.6	27.6
22:00	32.9	50.7	35	27.7
22:15	29.9	44.5	31.2	27.9
22:30	30.8	52.1	32.8	27.5
22:45	32.1	44	35.6	27.6

23:00	31.2	41.9	33.9	27.9
23:15	33.9	48.1	37.4	27.5
23:30	32.9	47.6	35.9	27.2
23:45	35.4	52.6	40.2	26.8
00:00	34.7	52.7	37.2	26.5
00:15	36	49.4	40.5	26.8
00:30	33.5	46.8	37.8	26.8
00:45	31.1	47.3	34.8	26
01:00	30.9	47.6	33.2	25.8
01:15	31.8	50.7	34.8	25.9
01:30	29.9	46.8	32.9	25.5
01:45	30	45.6	32.2	25.4
02:00	34.8	48.7	36.5	31.1
02:15	32.9	39.7	35	28.6
02:30	35.9	50.9	38.5	30.9
02:45	36.5	44.5	38.2	34.2
03:00	38.6	52.9	41.5	34
03:15	39.1	50.3	41.1	36
03:30	36.2	48.5	37.7	34.1
03:45	34.3	41.5	36.2	31.3
04:00	33.3	49.4	35	29.2
04:15	33.2	42	35.1	30.5
04:30	32.8	46	34.5	29.8
04:45	33.8	51.1	35	30.4
05:00	32.2	38	34.2	30
05:15	30.8	35.3	32.1	29.5
05:30	31.3	45.8	31.7	28.7
05:45	29.6	36.1	30.7	28.3
06:00	30	48	30.4	27.1
06:15	33.3	56.7	33.9	27.5
06:30	32.4	51.5	32.6	28.7
06:45	52	80.5	41.8	31.3
07:00	44.6	68.9	42.5	30.2
07:15	43.2	66.5	42.3	30.7
07:30	37.8	59	39.7	32.3
07:45	39.8	58	40	31.3
08:00	37.3	61.2	39.6	32
08:15	38.6	55.5	41.6	32.2
08:30	45.3	68.6	45	31.8
08:45	36.9	59.2	39	30.2
09:00	38.6	54.8	41.3	30.4
09:15	40	58.6	42.8	30.8
09:30	40.9	54.8	44.5	33.3
09:45	42.7	61.4	46.6	35.2
10:00	38.7	56.6	40.9	32.4
10:15	49.7	81.3	42.7	31.1
10:30	50.9	83.3	40.1	30.9
10:45	37.9	55.2	40.8	31.9

11:00	37.7	54.2	40.6	32.2
11:15	38.6	53.2	41.5	32.2
11:30	38.3	55.5	40.8	31.9
11:45	40.1	55.3	43.4	32.6
12:00	51	80	43.8	32.9
12:15	37	52.3	39.6	31.3
12:30	39.6	61.6	41.6	32.3
12:45	38.5	58.1	41	32.8
13:00	37.4	52	39.6	34
13:15	37.5	52.9	39.8	33
13:30	37.6	57.5	40.7	32.3
13:45	37.9	51.9	40.3	32.9
14:00	39.4	53.7	42.2	34
14:15	40.8	61.3	43.3	33.7
14:30	38.6	57.3	40.8	34.3
14:45	40.7	56.2	43.5	35.4
15:00	40.9	59	42.6	35.5
15:15	39.9	54.7	42.8	34.9
15:30	39	54.6	41.5	34.5
15:45	38.4	54.8	41.3	33.7
16:00	37.8	56.2	40	34.3
16:15	51.8	83.7	45.3	37.7
16:30	41.7	57.3	44.5	36.9
16:45	42	63.3	43.5	35.7
17:00	49.1	81.9	42.7	34
17:15	40.4	54.9	43.3	34.8
17:30	41.4	56.4	45	34.8
17:45	37.2	53.9	39.3	33.6
18:00	40.8	58	44.1	34.9
18:15	38.4	53.3	41	34.6
18:30	47	77.8	43.3	34.3
18:45	42.7	72.1	40.8	33.5
19:00	36.4	48.5	38.3	33
19:15	38.5	50.2	41.6	34.7
19:30	38.9	52.9	41.3	35.6
19:45	37.8	51.3	39.6	33.9
20:00	35.7	51.1	37.2	32.5
20:15	36.2	49.4	39.1	32.6
20:30	34.5	51.2	37.1	30.5
20:45	32.7	44.9	35.2	29.1
21:00	33	47.6	35.4	29.1
21:15	34	48.2	35.4	30.6
21:30	33.2	48.5	35.1	30
21:45	32.3	47.6	34	29.6
22:00	32.2	42.7	33.9	30.3
22:15	32	42.2	33.8	30
22:30	32.3	46.5	34.2	29.6
22:45	30.5	45.8	32.8	26.8

23:00	32	47.1	33.6	27.8
23:15	35	55.3	36.8	30.7
23:30	36.1	54.4	38.7	32.5
23:45	33.6	44	36	30.1
00:00	30	49.9	32.3	27.2
00:15	29	47.7	30.4	26.1
00:30	27.8	44.9	28.7	26
00:45	31.3	46.7	33.2	28.5
01:00	30.1	47.4	32.4	26.8
01:15	29.3	45	31.6	26
01:30	32.7	49.9	34.9	29.5
01:45	34.6	41.9	36.6	32.3
02:00	35.9	42.1	39.5	32.2
02:15	33.5	42.5	35.2	31
02:30	32	47.7	33.5	29.8
02:45	31.1	41.7	32.6	29.2
03:00	29.6	42	31.2	27.6
03:15	28.2	45.2	29.1	26.3
03:30	28.6	43.8	30.8	26.4
03:45	31.6	42.4	33.7	27.7
04:00	31.8	47.8	32.2	27.4
04:15	34	55.8	34.4	25.3
04:30	29.5	47.1	28.6	25
04:45	30.5	48.2	32.7	26.6
05:00	29.8	38.5	31.4	27.2
05:15	29	43	30.8	26.6
05:30	33.5	44.6	37.4	27.3
05:45	32.3	45.6	35.3	27.9
06:00	31.9	52.4	34.3	28.5
06:15	29.5	42.8	31.6	27
06:30	34.4	51.1	38.1	27.6
06:45	35.2	58	37.9	29.5
07:00	43.4	67.2	44.7	32.9
07:15	39.7	58.6	42	32.4
07:30	44	59.2	48.3	34.3
07:45	42.6	62.1	46	34
08:00	40.3	63.7	42.7	34.9
08:15	41.9	54.4	44.7	37.2
08:30	42.3	56.2	45.9	36
08:45	46.5	75.8	44.3	33.5
09:00	40.3	60.8	43	33
09:15	40.1	57.1	43.5	33.1
09:30	38.5	58	40.8	30.8
09:45	36.4	50.2	39.6	30
10:00	36.6	54.8	39.4	30.2
10:15	35.3	50.5	38.2	30
10:30	44.2	77.4	41.9	30.8