

Abacus Belsize Primary School

Summary Proof of Evidence (Noise)

19/0084 PoE//PINS Ref:APP/X5210/Y/20/3248003

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1 Summary

- 1.1 In May 2019 a planning application was made for the change of use of the site from a police station (sui generis) to a one-form entry school (Use Class D1) for 210 pupils and business/enterprise space (Class B1) including alterations and extensions to the rear and associated works.
- 1.2 Cole Jarman undertook a noise assessment that accompanied the application. This included;
 - a) Results of a noise survey at the site
 - b) Results of a survey of playground use by the school at its existing temporary site at Camley Street
 - c) An assessment of noise break-in to the proposed school premises from road traffic noise)
 - d) An assessment of the impact of playground noise upon residences adjacent to the site.
- 1.3 Following discussions with residents and council planning officers the proposed acoustic barriers on the Downshire Hill side of the site were reduced in extent and in height to 3m.
- 1.4 It was also subsequently agreed that use of the playground by children would be limited to two hours a day term time only and on no more than four weekends a year.
- 1.5 Whilst the application was recommended for approval (with no objections from Environmental Health), members refused. Reason for refusal 2 concerned noise from the playground area impacting neighbouring residents.
- 1.6 There are no specific noise criteria adopted nationally or locally with respect to playground noise. Camden do however have guideline noise levels with respect to entertainment premises (customer noise) which is considered to be similar in nature to that of a playground, although entertainment noise usually peaks in the more noise sensitive evening period. Therefore, considering school playground noise against these criteria represents a robust assessment, based on average levels.
- 1.7 Noise levels arising from playground use have been assessed for five different garden receptor locations taking account of the barriers now proposed and the limited use of the playground during the school day.
- 1.8 At four of those locations the highest noise level when the playground is fully occupied would be 59dB $L_{Aeq,T}$ reducing to 50 dB L_{Aeq} or lower over the 9.5 hours the school is occupied and 48 dB L_{Aeq} over the full 16 hour day. Comparing these results with the Camden entertainment criteria this equates to “Amber” at worst for some periods of the day and “Green” for the



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remainder. The Camden guidance states that “Amber” is “where noise is observed to have an adverse effect level, but which may be considered acceptable when assessed in the context of other merits of the development” and “Green” is “where noise is considered to be at an acceptable level”.

- 1.9 At the one other location the highest noise level predicted from the playground (when fully occupied) in a garden area is higher at 64dB $L_{Aeq,T}$, reducing to 56 dB L_{Aeq} over the 9.5 hours the school is occupied and 54 dB L_{Aeq} over the full 16 hour day.
- 1.10 Comparing these results with the Camden entertainment criteria this equates to “Red” for some periods of the day. The Camden guidance states that “Red” is “where noise is observed to have a significant adverse effect”. This is however a robust assessment as the playground noise is of limited duration on limited number of days compared to entertainment noise and does not extend into the evening or at weekends as entertainment noise does typically. It should be noted the relevant residents have indicated they would prefer no new acoustic screening be erected to their relevant section of the site boundary, but that the existing brickwork wall be retained. It is also relevant to note the clarification added to the Planning Practice Guidance in July 2019 on noise standards contained within Local Plans:

“Plans may include specific standards to apply to various forms of proposed development and locations in their area. Care should be taken, however, to avoid these being applied as rigid thresholds, as specific circumstances may justify some variation being allowed.”
- 1.11 The Camden noise guideline used is primarily aimed at activity taking place at times when people are typically at home relaxing in the evening and at weekends. There will be no playground use in evenings and only for up to 4 weekends a year, daytime only. The Camden noise guidance also is aimed at activities that could be expected to occur over several hours, not just two hours per school day as here.
- 1.12 The average noise levels over school days at the five positions considered are assessed to be 45-54 dB L_{Aeq} (16 hours), thereby meeting the guideline value for gardens in the 1999 WHO guidelines. to prevent serious annoyance of 55 dB $L_{Aeq, 16h}$. These levels would only apply for around ½ the year, the remaining days the playground not being in use.
- 1.13 The duration of this noise exposure will be limited to no more than 2 hours on school days only, expected to be 183 days per year, an important part of the context.
- 1.14 Noise levels within dwellings have also been considered, assuming properties are single glazed only, a reasonable assumption for the properties ages. (Double glazing or secondary glazing sound insulation would be greater).
- 1.15 Our indicative noise intrusion calculations give highest results of L_{eq} (15 min) NR41 and L_{eq} NR34 over the 9.5 hour school day internally with windows closed. These noise levels are applicable at first floor level on the rear façades of Downshire Hill residences adjacent to the sections of the playground where no new acoustic screen is proposed, although offered. At second floor level and above on these same façades, and at all other residential façades, our indicative



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calculations give highest results of $L_{eq(15\text{ min})}$ NR40 and L_{eq} NR35 over the 9.5 hour school day internally with windows closed.

- 1.16 During the daytime, the Camden guidance for new entertainment sources including customer noise gives a single internal target of NR35 rather than Red, Amber and Green ranges as is provided for garden criteria. The NR35 target is therefore taken to be intended to equate to the threshold between Green and Amber (i.e. LOAEL). Applying a 5dB "Amber" range as for the gardens gives a second threshold of NR40, equating to the threshold between Amber and Red (i.e. SOAEL).
- 1.17 The conclusion on internal levels is therefore similar as for the assessed noise levels in gardens. By 1dB only a significant adverse noise impact is assessed where the relevant residents have indicated they would prefer no new acoustic screening be erected to the relevant section of the site boundary. This 1dB excess should be seen in the context that only a 3dB change in noise levels is considered perceptible. It of course only applies for a limited period of each school day.
- 1.18 The PPG section on noise provides descriptive text relating to Significant Observed Adverse Effect Level (SOAEL), the Lowest Observed Adverse Effect Level (LOAEL) and the No Observed Effect Level (NOEL). Between LOAEL and SOAEL there is an Observed Adverse Effect where:

"Noise can be heard and causes small changes in behaviour, attitude or other physiological response, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a small actual or perceived change in the quality of life"
- 1.19 It is noted that it is common for residences to be found located close to school playground areas. Within LB Camden there are (excluding hospital schools) 41 state primary schools, all with playgrounds.
- 1.20 20 of those schools have residential windows within 5m plan distance of a school playground area, a total of 31 have residential windows within 10m of a playground area.

■ End of Section



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