

Project:

Banana Moon Nursery, 371 Gosbrook Road

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Acoustic Assessment Report

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Limitations			
This report has been prepared for the titled project and client in accordance with our agreed scope of work, document reference: PA-01311/SC1, dated 03 February 2026.			
This report should not be used or relied upon for any other project or purpose without the written authorisation of Pulsar Acoustics Ltd. Pulsar Acoustics Ltd accepts no responsibility or liability for the consequences of this document if it is used for a purpose other than for the project to which it was intended. The findings and opinions included herein are based on measurements and information gathered prior to the date the report was issued. If additional information becomes available which may affect our comments, recommendations or conclusions, then Pulsar Acoustic Ltd should be informed. We then reserve the right to review the information, assess any new potential concerns, and modify our advice accordingly.			



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1.0 - Introduction

In 2015 planning permission was granted to convert Caversham Conservative Club to a nursery as follows:

“Change of use of ground floor from Class D2 (Assembly & Leisure) to D1 (nursery). Prior Notification under Class T, Part 3 of Schedule 2 of the Town and Country Planning (General Permitted Development) Order 2015.”

The site has operated successfully as a nursery ever since.

The site address is: Banana Moon Nursery, 371 Gosbrook Road, Caversham, Reading, RG4 8ED.

There is great demand for nursery places in the area.

This proposal is for a Section 73 application to increase the permitted occupancy at the above property, seeking amendments to Conditions 5 (occupancy) and 7 (use of garden). In summary:

- Condition 5: increase the approved numbers to 65.
- Condition 7: increase garden numbers to 25.

Pulsar Acoustics has been commissioned to undertake an environmental noise survey and acoustic assessment of the proposals.

This report presents the results of our survey, recommends relevant industry standard criteria, and provides acoustic assessment, to show that the proposed site would be suitable for increased occupancy.



2.0 - Project Description

The original use of the site was Caversham Conservative Club. This was once a busy social club with a licensed bar, snooker and pool tables, regular on stage live music, bingo, line dancing, darts, skittle alley, TV sports, a 46-seat restaurant, and outdoor beer garden.

The opening hours were:

- Mon - Fri: 11:30h - 14:45h, and 18:30h - 23:30h.
- Sat: 11:30h - 14:45h, and 18:30h - 00:00h.
- Sun: 12:00h - 15:00h, and 19:00h - 23:00h.

In 2015 planning permission was granted to convert Caversham Conservative Club to a nursery as follows:

“Change of use of ground floor from Class D2 (Assembly & Leisure) to D1 (nursery). Prior Notification under Class T, Part 3 of Schedule 2 of the Town and Country Planning (General Permitted Development) Order 2015.”

Planning Conditions 5, 6, 7 and 8 state the following:

- “5. *The number of children attending the nursery for which prior approval has hereby been given at 371 Gosbrook Road shall not at any one time exceed 30 (thirty) children.*

Reason: In order for the Local Planning Authority to control the intensity of the use of the site in the interest of the noise impact on the amenities of surrounding residential properties (CS34 of the Reading Core Strategy 2008, altered 2015; and DM4 of the Sites and Detailed Policies Document 2012, altered 2015).

6. *The nursery use at 371 Gosbrook Road for which prior approval has hereby been given shall not operate outside the hours of 07:30 – 18:30 Monday to Friday only.*



Reason: In order for the Local Planning Authority to control the use of the site in the interest of the noise impact on the amenities of surrounding residential properties (CS34 of the Reading Core Strategy 2008, altered 2015; and DM4 of the Sites and Detailed Policies Document 2012, altered 2015).

7. *The number of children using the nursery garden area at the nursery for which prior approval has hereby been given at 371 Gosbrook Road shall not at any one time exceed 10 (ten) children.*

Reason: In order for the Local Planning Authority to control the intensity of the use of the site in the interest of the noise impact on the amenities of surrounding residential properties (CS34 of the Reading Core Strategy 2008, altered 2015) and DM4 of the Sites and Detailed Policies Document 2012, altered 2015).

8. *The garden area of the nursery for which prior approval has hereby been given at 371 Gosbrook Road shall not be used outside the hours of 09:00 – 18:00 Monday to Friday.*

Reason: In order for the Local Planning Authority to control the intensity of the use of the site in the interest of the noise impact on the amenities of surrounding residential properties (CS34 of the Reading Core Strategy 2008, altered 2015) and DM4 of the Sites and Detailed Policies Document 2012, altered 2015)."

During the planning process to convert a club to a nursery, there does not appear to be any justification for the number of indoor and outdoor children permitted, and when the club was in operation there would obviously have been significantly more people. The noise levels from club activities and people would have been significantly louder and until late at night.

The site is outlined red on the Google Maps site plan below with measurement Positions 1 & 2 annotated.

To the east is Caversham Coachworks which is a large 9-bay industrial unit for vehicle maintenance, body shop, dent/crash repairs and paint.

To the west is Mill Road Garage which specialise in German vehicle repairs.

To the north and south are residential dwellings.

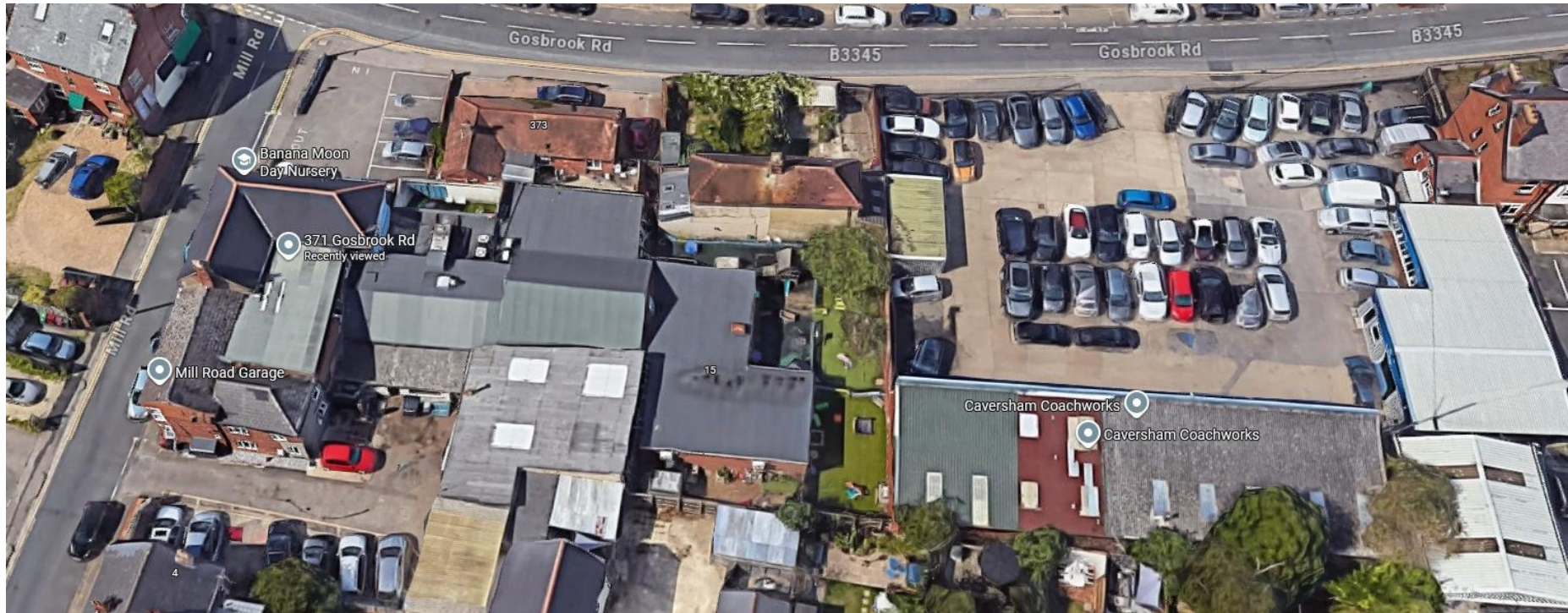


On site it was noted the dominant noise source to the north relative to Position 1 was road traffic. The dominant noise source to the south relative to Position 2 was noted to be both car repair business activities in the industrial units, clangs/bangs, hiss of compressors etc from the repair work.



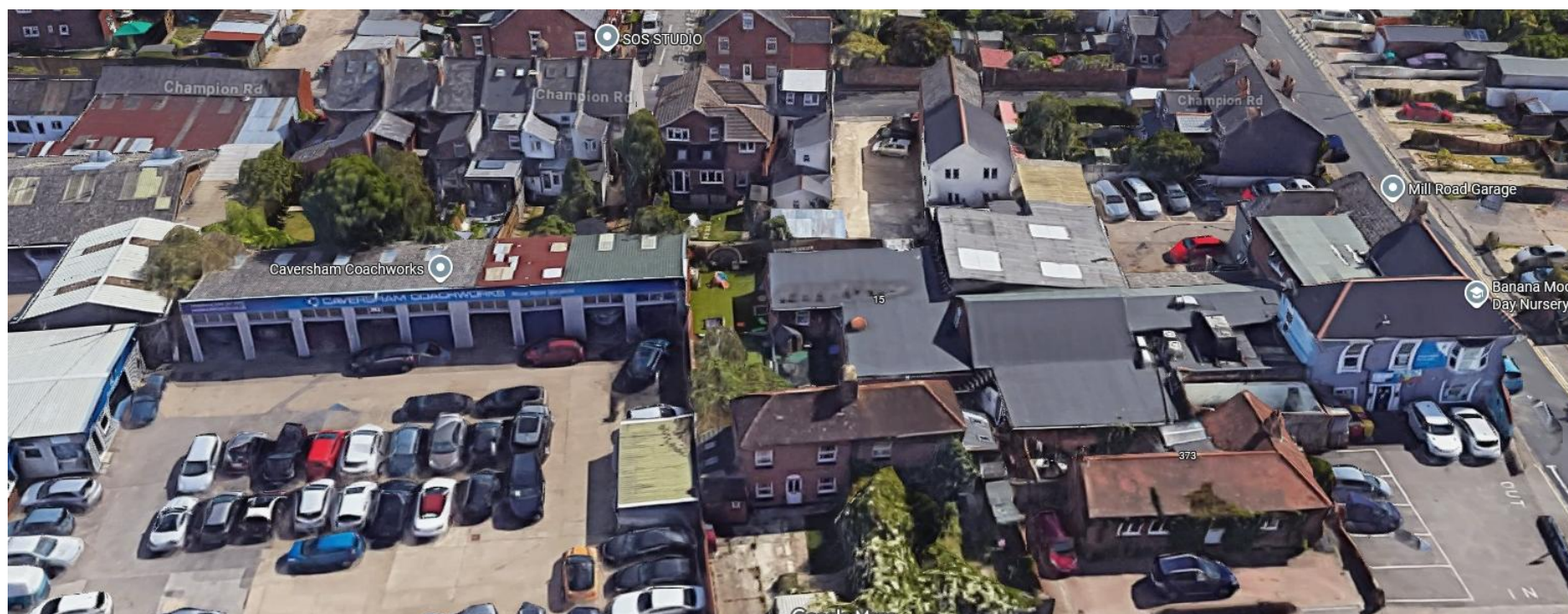


The image below is looking north.





The image below is looking south.





3.0 - Industry Standard Guidance & Criteria

3.1 - NPPF

The National Planning Policy Framework (NPPF) December 2024, Section 8 (Promoting healthy and safe communities) seeks to achieve healthy, inclusive and safe places.

Paragraph 98 states to provide the social, recreational and cultural facilities and services the community needs, planning policies and decisions should:

- (a) plan positively for the provision and use of shared spaces, community facilities (such as local shops, meeting places, sports venues, open space, cultural buildings, public houses and places of worship) and other local services to enhance the sustainability of communities and residential environments;
- (b) take into account and support the delivery of local strategies to improve health, social and cultural well-being for all sections of the community;
- (c) guard against the unnecessary loss of valued facilities and services, particularly where this would reduce the community's ability to meet its day-to-day needs;
- (d) ensure that established shops, facilities and services are able to develop and modernise, and are retained for the benefit of the community; and
- (e) ensure an integrated approach to considering the location of housing, economic uses and community facilities and services.

The NPPF also advises various objectives with regards to noise. Some important paragraphs are presented below:

Paragraph 187 advises that planning policies and decisions should contribute to and enhance the natural and local environment by:

e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans;



Paragraph 198 suggests:

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 new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life⁷²;*
- 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.*

Paragraph 200 seeks to ensure that any new development does not prejudice the legally permitted operations and activities of other existing non-residential uses, stating:

Planning policies and decisions should ensure that new development can be integrated effectively with existing businesses and community facilities (such as places of worship, pubs, music venues and sports clubs). Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or ‘agent of change’) should be required to provide suitable mitigation before the development has been completed.

National Planning Policy Framework (NPPF) sets out the government’s planning policies for England and how they are expected to be applied to achieve sustainable development.

The NPPF confirms that National Policy Statements form part of the national planning policy framework and should be considered in planning decisions. The NPPF makes reference to Noise Policy Statement for England (NPSE).

The NPPF document does not refer to any other documents or British Standards regarding noise other than the NPSE.



3.2 - Noise Policy Statement for England (NPSE)

The NPSE is the overarching statement of noise policy for England and applies to all forms of noise other than occupational noise, setting out the long-term vision of Government noise policy which is to:

“Promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development.”

That vision is supported by the following NPSE noise policy aims which are reflected in planning policies and decisions in the NPPF:

“Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:

- *avoid significant adverse impacts on health and quality of life;*
- *mitigate and minimise adverse impacts on health and quality of life; and*
- *where possible, contribute to the improvement of health and quality of life.”*

The Explanatory Note to the NPSE has three concepts for the assessment of noise:

1. NOEL – No Observed Effect Level

This is the level below which no effect can be detected and below which there is no detectable effect on health and quality of life due to noise.

2. LOAEL – Lowest Observable Adverse Effect Level

This is the level above which adverse effects on health and quality of life can be detected.



3. SOAEL – Significant Observed Adverse Effect Level

This is the level above which significant adverse effects on health and quality of life occur.

It must be noted that none of these three levels are defined numerically.

For the SOAEL the NPSE makes it clear that the noise level is likely to vary depending upon the noise source, the receptor and the time of day/day of the week, etc.

Where predicted noise impact lies between LOAEL and SOAEL, all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life, while also taking into account the guiding principles of sustainable development.

The need for more research to investigate what may represent an SOAEL for noise is acknowledged in the NPSE, and the NPSE asserts that by not stating specific numerical SOAEL levels provides flexibility in the absence.

3.3 - Reading Local Plan

The following Reading Local Plan (2019) wording is relevant to the proposal:

CC2: Sustainable Design and Construction – requires proposals for new development, including the construction of new buildings and the redevelopment and refurbishment of existing building stock, will be acceptable where the design of buildings and site layouts use energy, water, minerals, materials and other natural resources appropriately, efficiently and with care and take account of the effects of climate change.

CC8: Safeguarding Amenity – requires development to not detrimentally affect the living environment of existing residential properties, in terms of privacy and overlooking, sunlight and daylight, visual dominance and overbearing effects, harm to outlook, noise and disturbance.

As well as immediate impacts, other aspects to which this policy applies will include matters such as hours of operation of businesses, and effects of traffic movements, particularly of heavy goods vehicles (HGVs). Proposals which would generate regular movements of HGVs on residential roads will not be acceptable.



EN17: NOISE GENERATING EQUIPMENT

Where noise generating equipment is proposed, the noise source specific level (plant noise level) should be at least 10dBA below the existing background level as measured at the nearest noise sensitive receptor.

4.2.93 Planning Practice Guidance on noise states that no specific measures are required to manage the acoustic environment in situations where noise can be heard as a result of a development, and there is a slight effect on the acoustic character of the area, but there is no effect on the behaviour and attitude of people exposed to the noise.

3.4 - Planning Practice Guidance – Noise

Planning Practice Guidance (PPG) for noise provides additional guidance on the ‘National Planning Policy Framework’ (NPPF). The guidance advises that when plan-making and decision-taking, the Local Planning Authority should consider the acoustic environment in relation to:

- Whether or not a significant adverse effect is occurring or likely to occur;
- Whether or not an adverse effect is occurring or likely to occur; and
- Whether or not a good standard of amenity can be achieved.

In line with the Explanatory Note of the ‘Noise Policy Statement for England’ (NPSE), the PPG mentions the ‘Lowest-Observed-Adverse-Effect Level’ (LOAEL) and ‘Significant Observed Adverse Effect Level’ (SOAEL) in relation to noise impact.

As per the NPSE and NPPF, no objective numerical noise levels are provided for LOAEL or SOAEL, although the PPG acknowledges that:

“...the subjective nature of noise means that there is not a simple relationship between noise levels and the impact on those affected. This will depend on how various factors combine in any particular situation”.

The PPG also provides examples of outcomes that could be expected for a given perception level of noise, plus actions that may be required to bring about a desired outcome.



Examples of these factors include:

- The source and absolute noise level of the source along with the time of day that it occurs;
- Where the noise is non-continuous, the number of noise events and pattern of occurrence;
- The frequency content and acoustic characteristics of the noise;
- The effect of noise on wildlife;
- The impact of noise from certain commercial developments such as night clubs and pubs where activities are often at their peak during the evening and night.

The PPG also provides general advice on the typical options available for mitigating noise. It goes on to suggest that Local Plans may include noise standards applicable to proposed developments within the Local Authority's administrative boundary, although it states that:

"Care should be taken, however, to avoid these being implemented as fixed thresholds as specific circumstances may justify some variation being allowed".

3.5 - IEMA

It is clear from the above that noise policy aims to avoid a development which will lead to any Adverse Effects, and where any Adverse Effects are predicted, to include mitigation such that either the Adverse Effect is removed or at the very least reduced to a minimum.

As mentioned in each policy document there is no quantitative numerical guidance, and therefore we first make reference to - The Institute for Environmental Management & Assessment (IEMA) 'Guidelines for Environmental Noise Impact Assessment'.

The IEMA document contains suitable assessment methodology for determining the potential noise impact from a relative change to an existing noise climate. This methodology is regularly used by Local Authorities and Acoustic Consultants, to consider the potential impact for many reasons.



A general principle that should be employed, is to consider whether a change to the noise source, will likely cause a significant increase over the current sound level, or a change of character compared to the existing noise climate.

When considering environmental impact, it is typically considered in terms of change to the existing ambient (dBA $L_{eq,T}$) noise climate as a result of introducing a new noise source or a change to existing noise source.

Having established the likely change in sound levels, an initial indication of the significance of the change can be determined from Table 7-12 of the IEMA Guidelines as reproduced below.

TABLE 7-12 EFFECT DESCRIPTORS	
Very Substantial	Greater than 10 dB L_{Aeq} change in sound level perceived at a receptor of great sensitivity to noise
Substantial	Greater than 5 dB L_{Aeq} change in sound level at a noise-sensitive receptor; or a 5 to 9.9 dB L_{Aeq} change in sound level at a receptor of great sensitivity to noise
Moderate	A 3 to 4.9 dB L_{Aeq} change in sound level at a sensitive or highly sensitive noise receptor; or a greater than 5 dB L_{Aeq} change in sound level at a receptor of some sensitivity
Slight	A 3 to 4.9 dB L_{Aeq} change in sound level at a receptor of some sensitivity
None/Not Significant	Less than 2.9 dB L_{Aeq} change in sound level and/or all receptors are of negligible sensitivity to noise or marginal to the zone of influence of the proposals

Note that by defining the change of loudness to one decimal place, it is not a reflection of the accuracy of assessment undertaken, but simply to provide the anticipated threshold between adjacent descriptions.



The guidelines advise that the change in sound level provides an initial estimate of the impact. This should be considered in context with the existing use of the development, the type of noise source, the nature of the change, and other acoustic factors.

The table below copied from IEMA describes the likely magnitude, the effect on the receptor and significance, if there is a reduction of noise or no discernible effect to the receptor.

MAGNITUDE (Nature of Impact)		DESCRIPTION OF EFFECT (on a specific sensitive receptor)	SIGNIFICANCE (as required within EIA)
Substantial	BENEFICIAL	Receptor perception = Marked change Causes a material change in behaviour and/or attitude, e.g. individuals begin to engage in activities previously avoided due to preceding environmental noise conditions. Quality of life enhanced due to change in character of the area.	More Likely to be Significant (Greater justification needed – based on impact magnitude and receptor sensitivities – to justify a non-significant effect) ↕ (Greater justification needed – based on impact magnitude and receptor sensitivities – to justify a significant effect) Less Likely to be Significant
Moderate		Receptor perception = Noticeable improvement Improved noise climate resulting in small changes in behaviour and/or attitude, e.g. turning down volume of television; speaking more quietly; opening windows. Affects the character of the area such that there is a perceived change in the quality of life.	
Slight		Receptor perception = Just noticeable improvement Noise impact can be heard, but does not result in any change in behaviour or attitude. Can slightly affect the character of the area but not such that there is a perceived change in the quality of life.	
Negligible		N/A = No discernible effect on the receptor	Not Significant



The table below copied from IEMA describes the potential magnitude, the effect on the receptor and the significance, if there is an increase of noise.

MAGNITUDE (Nature of Impact)		DESCRIPTION OF EFFECT (on a specific sensitive receptor)	SIGNIFICANCE (as required within EIA)
Slight	ADVERSE	Receptor perception = Non-intrusive Noise impact can be heard, but does not cause any change in behaviour or attitude, e.g. turning up volume of television; speaking more loudly; closing windows. Can slightly affect the character of the area but not such that there is a perceived change in the quality of life.	Less Likely to be Significant (Greater justification needed – based on impact magnitude and receptor sensitivities – to justify a significant effect)
Moderate		Receptor perception = Intrusive Noise impact can be heard and causes small changes in behaviour and/or attitude, e.g. turning up volume of television; speaking more loudly; closing windows. Potential for non-awakening sleep disturbance ⁸¹ . Affects the character of the area such that there is a perceived change in the quality of life.	
Substantial		Receptor perception = Disruptive Causes a material change in behaviour and/or attitude, e.g. avoiding certain activities during periods of intrusion. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in character of the area.	(Greater justification needed – based on impact magnitude and receptor sensitivities – to justify a non-significant effect) More Likely to be Significant
Severe		Receptor perception = Physically Harmful Significant changes in behaviour and/or an inability to mitigate effect of noise leading to psychological stress or physiological effects, e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non-auditory.	Significant



Based on the above, any equal sound level or reduction should be deemed beneficial and acceptable, and, we would suggest achieving a magnitude of impact of “negligible” or “slight” increase is often deemed acceptable.

Where an assessment indicates a “moderate” or greater impact, then this would potentially have an adverse impact to nearby residents, and would only be acceptable if it is reasonably mitigated to a minimum. In all cases a significant adverse effect is not usually deemed acceptable.

This descriptive commentary is comparable to that used with the National Planning Policy Framework (NPPF) and the Noise Policy Statement for England (NPSE) where no numerical criteria is presented.

With a lack of numerical levels in NPSE for NOEL, LOAEL, and SOAEL, it is common to apply the classification levels to the IEMA Table 7-12 values as presented in the table below:

Noise Change dBA	Effect	NPSE Classification
<3.0	None/Not Significant	NOEL
3.0 - 4.9	Slight/Moderate	LOAEL
5.0 - 9.9	Substantial	LOAEL
≥10	Very Substantial	SOAEL

To evaluate the potential noise impact change, the predicted level of noise is compared to the measured ambient noise level, to establish the change in noise that would be expected. This can be assessed using the significance effect and classification ratings given in the table above.

It is also possible to consider subjective human response to change of sound:

Change in Sound Level (dBA)	Subjective Human Response
±3	Just perceivable
±5	Noticeable
±10	Twice or half as loud

Sounds rarely remain constant in level over a period of time and it is necessary to consider how to quantify the existing noise environment to account for variations. Consequently, it is common to use the single-figure description of dBA Leq,T to describe a complex varying noise climate over a defined time period.



L_{eq} Is a fundamental measurement parameter designed to represent a varying sound source over a given time as a single number. This is a useful parameter for quantifying the potential impact of sound, and is extensively used in acoustic standards and regulations.

$L_{eq,T}$ Is the equivalent continuous A-weighted sound pressure level. This indicator describes the average sound energy, but with a bias towards the noisier events that occur during the measurement period T.

3.6 - BS4142

When setting plant noise emission criteria, reference is commonly made to BS4142:2014 *“Methods for rating and assessing industrial and commercial sound”*.

As stated within BS4142, this standard is not intended to be applied to the rating and assessment of sound from:

- a) recreational activities, including all forms of motorsport;
- b) music and other entertainment;
- c) shooting grounds;
- d) construction and demolition;
- e) domestic animals;
- f) people;
- g) public address systems for speech; and
- h) other sources falling within the scopes of other standards or guidance.

If any building services items are installed in the future, they may need to be assessed in accordance with BS4142.

When assessing plant noise, BS4142 states that:

“The significance of sound of an industrial and/or commercial nature depends upon both the margin by which the rating level of the specific sound source exceeds the background sound level and the context in which the sound occurs”.



An estimation of the impact of the specific noise can be obtained by the difference of the rating noise level and the background noise level and considering the following:

- Typically, the greater this difference, the greater the magnitude of the impact.
- A difference of around +10dB or more is likely to be an indication of a significant adverse impact, depending on the context.
- A difference of around +5dB is likely to be an indication of an adverse impact, depending on the context.
- The lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact.
- Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low [or no] impact, depending on the context.

BS4142 also suggests:

In using the background sound level in the method for rating and assessing industrial and commercial sound it is important to ensure that values are reliable and suitably represent both the particular circumstances and periods of interest. For this purpose, the objective is not simply to ascertain a lowest measured background sound level, but rather to quantify what is typical during particular time periods.

Depending on the context the determination of the 'rating level' and the 'background level' are both open to interpretation. With reference to the above, it appears reasonable to infer that if the rating level does not exceed the background noise level, then the noise is likely to be deemed acceptable.

The outcome of the assessment is then determined by consideration of both the excess of Rating Level over the Background Sound Level, and consideration of all pertinent contextual factors.



4.0 - Environmental Noise Survey

4.1 - Methodology

Sound level measurements have been undertaken to determine the existing noise climate around site.

Two fixed position sound level meters were set up from approximately, 11:00 hours on 18 March 2026 to 12:00 hours on 20 March 2026.

The sound level meters were set to record many acoustic statistical parameters, including dBA Leq,T, for comparison to appropriate IEMA guidance.

The equipment listed in the table below was used to undertake the survey.

Position	Equipment Description	Manufacturer	Type	Serial No.
1	Combined Sound Level Meter, Preamp & Microphone	Convergence	NSRTW_mk4	AtFWr9WQUVWXirHiy6rxvD
2	Combined Sound Level Meter, Preamp & Microphone	Convergence	NSRTW_mk4	CtL0BN2y2901qLHSYyB5ID
Both	Handheld Calibrator	G.R.A.S.	GRAS-42AG	280968

The equipment calibration was checked using the handheld calibrator before and after the survey. No significant drift was measured (no more than 0.1dB). The equipment was calibrated to traceable standards within 12 months prior to the survey.

The measurement positions are described in the table below.

Position	Description
1	The data logging sound level meter (SLM) was located attached to railings of the roof access stairs at the north boundary of site. The microphone height was circa 3.5m above ground level.
2	The data logging sound level meter (SLM) was located attached to the fence at the south boundary of site. The microphone height was circa 2.5m above ground level.



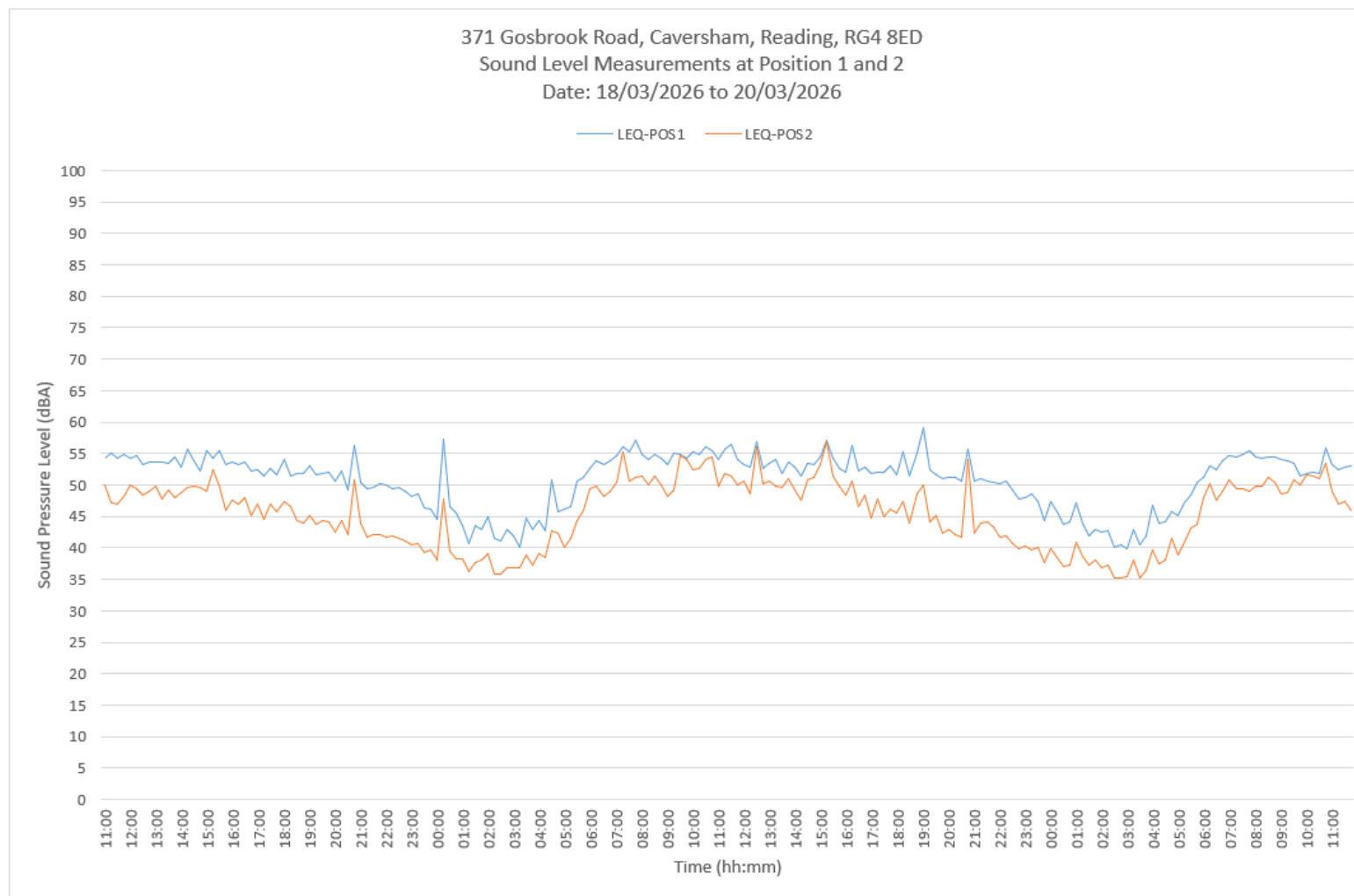
The approximate measurement positions are indicated on the Google Maps image below.





4.2 - Survey Measurement Data

The sound level data measured at each position has been plotted on the time history graph below.





The survey data has been analysed to determine the daytime dBA Leq,T levels, as presented in the table below for comparison to IEMA guidance.

We have received a time table from the nursery that describes the daily outside play times for various ages of children. The phrases baby, teenie, mini and full age, relates to the age group of the nursery children during the outside playtime.

Timetable	Position 1 - Sound Level dBA Leq,T			Position 2 - Sound Level dBA Leq,T		
	18 March 2026	19 March 2026	20 March 2026	18 March 2026	19 March 2026	20 March 2026
Closed, 05:00h to 05:30h	n/a	46	46	n/a	41	40
Closed, 05:30h to 06:00h	n/a	51	50	n/a	45	43
Closed, 06:00h to 06:30h	n/a	53	52	n/a	50	49
Closed, 06:30h to 07:00h	n/a	54	53	n/a	49	48
Closed, 07:00h to 07:30h	n/a	55	55	n/a	54	50
Morning no children in garden = 07:30h to 09:30h	n/a	55	55	n/a	50	50
Teenie AM in garden = 09:30h to 10:00h	n/a	55	53	n/a	54	51
Full AM in garden = 10:00h to 11:00h	n/a	55	53	n/a	53	52
Baby AM in garden = 10:30h to 11:00h	n/a	56	54	n/a	54	52
Mini AM in garden = 11:00h to 11:45h	55	55	53	48	51	48
No children in garden = 11:45h to 15:00h	54	54	n/a	49	51	n/a
Baby PM in garden = 15:00h to 15:30h	55	56	n/a	51	55	n/a
Teenie PM in garden = 15:00h to 15:30h	55	56	n/a	51	55	n/a
Full PM in garden = 15:00h to 16:00h	55	55	n/a	50	54	n/a
Mini PM in garden = 16:30h to 17:30h	53	52	n/a	46	47	n/a
PM no children in garden = 17:30h to 18:30h	53	53	n/a	47	46	n/a
Closed, 18:30h to 19:00h	52	54	n/a	44	47	n/a
Closed, 19:00h to 19:30h	52	57	n/a	45	48	n/a
Closed, 19:30h to 20:00h	52	51	n/a	44	44	n/a
Closed, 20:00h to 20:30h	52	51	n/a	44	43	n/a
Closed, 20:30h to 21:00h	54	54	n/a	48	51	n/a



5.0 - Assessment

5.1 - Outside

The measurement data shows no obvious correlation between increase/decrease of noise levels and the times the children were inside or outside.

There are periods of time throughout each day, when it was louder outside with no children outside, and vice versa.

On site it was noted the dominant noise source to the north relative to Position 1 was road traffic.

The dominant noise source to the south relative to Position 2 was from car repair business activities in the industrial units, clangs/bangs, hum/hiss of tools, compressors etc, from the vehicle repair work.

If we were to speculate, that during some periods of time when noise levels were higher, that it may have been due to children outside, then we can consider calculations as follows.

Position 2 on 19 March 2026 during the middle of the day from 11:45h to 15:00h, there were no children in the garden, and the ambient background noise level was 51dBA Leq,T.

On the same day the worst-case loudest noise level whilst children were playing in the garden was 55dBA Leq,T.

If we suggest this difference of 4dBA was due to children playing outside, we can subtract the background noise level of 51dBA from 55dBA to calculate the source level as, 55dBA - 51dBA = 53dBA.

The proposal to increase the number of children playing outside from 10 to 25, should the numerical equation as follows:

$$\text{dB Gain} = 10 \log \left(\frac{P_2}{P_1} \right)$$



So, $10\log(25/10) = +3.9\text{dBA}$.

The new noise source level would be $53\text{dBA} + 3.9\text{dBA} = 56.9\text{dBA}$. (Let's call this 57dBA)

The new combined noise environment might be increased using the following formula:

$$L_{total} = 10 \cdot \log \left(10^{\frac{L_1}{10}} + 10^{\frac{L_2}{10}} \right)$$

So, $51\text{dBA} + 57\text{dBA} = 58\text{dBA}$.

Therefore, the noise level difference between existing and future use in the garden might be 58dBA versus $55\text{dBA} = +3\text{dBA}$.

5.2 - Inside

There is also a proposal to increase the total number of children from 30 to 65. This would equate to a numerical increase using the following equation:

$$\text{dB Gain} = 10 \log \left(\frac{P_2}{P_1} \right)$$

So, $10\log(65/30) = +3.4\text{dBA}$

There is no existing indoor ambient background noise climate comparable in magnitude to the children, therefore, this change is absolute and does not need to be added to existing ambient.

The noise level difference between existing and future use could be up to $+3.4\text{dBA}$.



6.0 - Discussion

6.1 - Consideration for Outside Noise

Increasing the number of outdoor children from 10 to 25 is predicted to cause a worst-case difference of +3dBA to the outdoor environmental noise climate.

In the context of IEMA, NPPF, PPG and NPSE, this would be considered No Observed Effect Level (NOEL), and should be deemed acceptable.

Furthermore, the nearest noise sensitive house to the north has no windows on the southern elevation. It only has a solid brick wall backing on to site. Assuming a normal 215mm wide brick wall, the outside to inside sound level difference will be greater than >50dBA at the sound frequencies associated with human speech, and as such we do not believe the existing number, or the proposed increase, of outdoor children would be noticeable inside this house.

The nearest noise sensitive house to the south is circa 10m away from the boundary fence. The nursery garden has a boundary fence of approximately 2m tall. This is significantly taller than any of the children, and coupled with the distance, this will provide significant additional acoustic barrier and distance loss attenuation.

It should also be noted, the numbers in the original planning application, do not appear to have been determined based on any acoustic assessment, or have resulted in any specific restriction to objective noise levels. Plus, the existing vehicle repair garages do not appear to have any specific noise restrictions.

During the original planning process to convert the social club to a nursery, there does not appear to be any justification for the number of children permitted in the garden, and when the club was in operation it could have posed significantly greater impact. The noise levels from human activities outside in the beer garden could have been louder and until late at night.

We believe an increase from 10 to 25 children outside should go unnoticed, and will pose no detrimental effect from an acoustic point of view.



6.2 - Consideration for Inside Noise

Increasing the total number of children from 30 to 65, is predicted to cause a worst-case noise level difference of up to +3.4dBA.

In the context of IEMA, NPPF, PPG and NPSE, this would be considered on the 3dBA boundary with No Observed Effect Level (NOEL), and as such should be deemed acceptable.

It should be noted, there are no noise sensitive receptors adjacent to the rooms where children are located, and as such a much greater increase would likely go unnoticed.

Also, consider that during the original planning process to convert the social club to a nursery, there does not appear to be any justification for the number of children permitted indoor, and when the club was in operation there would obviously have been significantly more indoor people. The noise levels from the social club activities inside, especially live music and entertainment, would have been significantly louder and operated until late at night.

The numbers in the original planning application, do not appear to have been determined based on any acoustic assessment, or resulted in any specific restriction to objective noise levels.

We believe an increase from 30 to 65 total children should go unnoticed, and will pose no detrimental effect from an acoustic point of view.



7.0 - Conclusion

This proposal is for a Section 73 application to increase the permitted occupancy at the above property, seeking amendments to Conditions 5 (occupancy) and 7 (use of garden). In summary:

- Condition 5: increase the approved numbers to 65.
- Condition 7: increase garden numbers to 25.

Pulsar Acoustics has been commissioned to undertake an environmental noise survey and acoustic assessment of the proposals.

The fundamental test of acceptability for changing conditions, is to determine if there will be a positive or negative change in the magnitude and/or character of noise, in the context of the relevant Government and Local Authority policy documents.

- National Planning Policy Framework (NPPF)
- Noise Policy Statement for England (NPSE)
- Planning Practice Guidance – Noise (PPG-N)
- Reading Local Plan

As discussed, these documents describe the need to consider impact in terms of NOEL, LOAEL, and SOAEL categories, however, there are no numerical acoustic parameters provided in the documents. To further our ability to assess the potential impact of the change, this report considers suitable guidance from the, Institute for Environmental Management & Assessment (IEMA) - 'Guidelines for Environmental Noise Impact Assessment'.

Our assessment indicates a potential worst-case difference of up to +3dBA outside, and +3.4dBA inside.

In the context of IEMA, NPPF, PPG and NPSE, this would be considered No Observed Effect Level (NOEL), and should be deemed acceptable.

With all things considered, we believe we have shown that the change of numbers will be acceptable in terms of impact on neighbouring amenity, and comply with Government and Local Authority policy.