



**E N S**

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**New Micropub  
138A Redbrook Road, Gawber, Barnsley,  
S75 2RB  
Noise Impact Assessment**

**For:**

**NYPAS Ltd**

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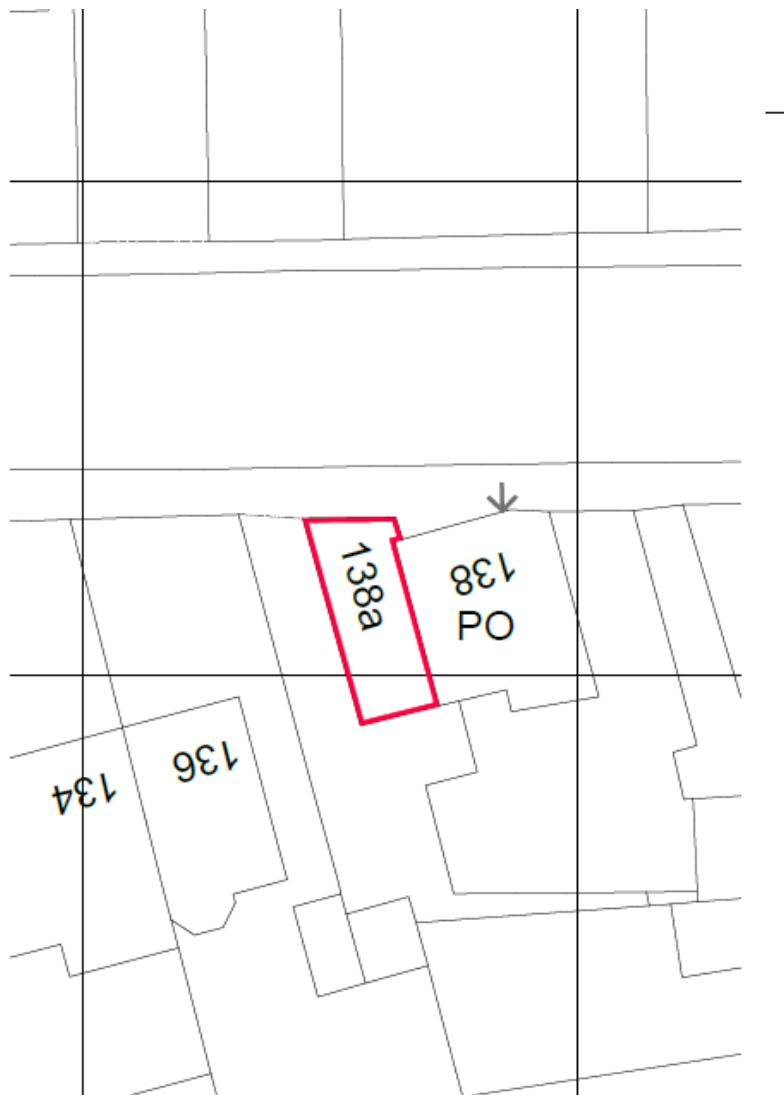
# 1 Introduction

- 1.1.1 Environmental Noise Solutions Ltd (ENS) has been commissioned by NYPAS Ltd to undertake a Noise Impact Assessment for the New Micropub at 138A Redbrook Road, Gawber, Barnsley, S75 2RB (hereafter referred to as 'the site'). Permission has been sought with Barnsley Metropolitan Council under application No. 2022/0525.
- 1.1.2 This noise assessment has been conducted in order to address the concerns of the LPA regarding noise from the development of the Public House due to its proximity to residential dwellings. Regarding this, pollution control have requested:
- “a noise impact assessment which will detail the predicted increase in noise levels at the nearest noise sensitive receptors from sounds including breakout noise and any fixed plant (e.g. chillers, air conditioners, extraction units etc) and any mitigation necessary to ensure that residents are not adversely impacted.”*
- 1.1.3 The assessment is intended to accompany the planning application to satisfy Local Planning concerns and ensure the future amenity of the occupiers of the development.
- 1.1.4 The objectives of the noise impact assessment are to:
- Determine current external ambient and background noise levels at the application site during the evening periods.
  - Assess the potential impact of the proposed development with reference to relevant guidelines.
  - Provide recommendations for a scheme of sound attenuation works, as necessary.
- 1.1.5 This report details the methodology and results of the assessment and provides recommendations where required. It has been prepared to accompany the planning applications submitted to Barnsley Metropolitan Council for the proposed development at the application site.
- 1.1.6 This report has been prepared for NYPAS Ltd for the sole purpose described above and no extended duty of care to any third party is implied or offered. Third parties making reference to the report should consult the aforementioned and ENS as to the extent to which the findings may be appropriate for their use.
- 1.1.7 A glossary of acoustic terms used in the main body of the text is contained in Appendix A.

## 2 Proposed Development

- 2.1.1 The development is located at 138A Redbrook Road, Gawber, Barnsley, S75 2RB. The site is located in a mixed residential/commercial context with dwellings located to the north, west and south.
- 2.1.2 The neighbour at No 138 is a Londis convenience store and post office, which occupies the ground floor with a flatted residential dwelling above. The nearest neighbour to the west is No 136, which lies at a distance of circa 6 metres from the development.
- 2.1.3 The proposal is for the redevelopment of the existing flower shop at 138A Redbrook Road into a micropub. There will be internal renovations to alter the existing 1<sup>st</sup> floor of the unit into a loft space for storage with the small public house occupying the ground floor only. No fixed services are proposed for the unit.
- 2.1.4 The approximate application site boundary is shown in Figure 2-1 with the monitoring positions given in Appendix B.

Figure 2-1: Site Plan



## 3 Noise Impact Assessment Criteria

### 3.1 National Planning Policy Framework

3.1.1 The National Planning Policy Framework (NPPF)<sup>1</sup> was updated in July 2021 and sets out the Government's planning policies for England and how these are expected to be applied.

3.1.2 Where issues of noise impact are concerned the NPPF provides brief guidance in paragraph 174 where it states that planning policies and decisions should contribute to and enhance the natural and local environment by:

*'preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of.....noise pollution'.*

3.1.3 Paragraph 185 advises that:

*'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.....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 life'.*

3.1.4 With regard to extant community noise sources and the potential to affect proposed new developments, paragraph 187 states that:

*'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.'*

3.1.5 The NPPF also refers to the 2010 DEFRA publication, the Noise Policy Statement for England (NPSE) which reinforces and supplements the NPPF.

### 3.2 Noise Policy Statement for England

3.2.1 The Noise Policy Statement for England<sup>2</sup> (NPSE) sets out the long-term vision of promoting good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development. This long-term vision is supported by the following aims:

- Avoid significant adverse impacts on health and quality of life
- Mitigate and minimise adverse impacts on health and quality of life
- Where possible, contribute to the improvement of health and quality of life

3.2.2 The NPSE describes the following levels at which noise impacts may be identified:

- NOEL – No Observed Effect Level. This is the level below which no effect can be detected. In simple terms, below this level, there is no detectable effect on health and quality of life due to the noise
- LOAEL – Lowest Observed Adverse Effect Level. This is the level above which adverse effects on health and quality of life can be detected

<sup>1</sup> National Planning Policy Framework. Ministry of Housing, Communities and Local Government (2019)

<sup>2</sup> Noise Policy Statement for England. Government Department for Environment, Food and Rural Affairs (2010)

- SOAEL – Significant Observed Adverse Effect Level. This is the level above which significant adverse effects on health and quality of life occur

3.2.3 According to the explanatory notes in the statement, where a noise level falls between the lowest observable adverse effect level (LOAEL) and a level which represents a significant observable adverse effect level (SOAEL):

*‘...all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life whilst also taking into consideration the guiding principles of sustainable development. This does not mean that such effects cannot occur.’*

### 3.3 Planning Practice Guidance on Noise

3.3.1 Planning Practice Guidance<sup>3</sup> (PPG) is an online resource (last updated 2019) which provides additional guidance and elaboration on the NPPF. It advises that 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
- Whether or not a good standard of amenity can be achieved

3.3.2 In line with the Explanatory Note of the NPSE, the PPG references the LOAEL and SOAEL in relation to noise impact. It 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. However, in line with the NPSE, no objective 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’.*

3.3.3 Table 3-1 summarises the PPG noise exposure hierarchy.

Table 3-1: PPG Noise Exposure Hierarchy

| Perception                                | Examples of Outcomes                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Increasing Effect Level             | Action                           |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|----------------------------------|
| Not Noticeable                            | No Effect                                                                                                                                                                                                                                                                                                                                                                                                                                                            | No Observed Effect                  | No specific measures required    |
| Noticeable and not intrusive              | Noise can be heard, but does not cause any change in behaviour or attitude. Can slightly affect the acoustic character of the area but not such that there is a perceived change in the quality of life.                                                                                                                                                                                                                                                             | No Observed Adverse Effect          | No specific measures required    |
| Lowest Observed Adverse Effect Level      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     |                                  |
| Noticeable and intrusive                  | Noise can be heard and causes small changes in behaviour and/or attitude, 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 perceived change in the quality of life.                                                          | Observed Adverse Effect             | Mitigate and reduce to a minimum |
| Significant Observed Adverse Effect Level |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     |                                  |
| Noticeable and disruptive                 | The noise causes a material change in behaviour and/or attitude, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. 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 acoustic character of the area. | Significant Observed Adverse Effect | Avoid                            |

<sup>3</sup> Planning Practice Guidance on Noise, 2014: <http://planningguidance.planningportal.gov.uk/blog/guidance/noise/>

| Perception                     | Examples of Outcomes                                                                                                                                                                                                                                                                   | Increasing Effect Level     | Action  |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---------|
| Noticeable and very disruptive | Extensive and regular 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 | Unacceptable Adverse Effect | Prevent |

- 3.3.4 The PPG also provides general advice on the typical options available for mitigating noise, suggesting 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'.*

### 3.4 IEMA Guidelines for Environmental Noise Impact Assessment

- 3.4.1 The Guidelines for Environmental Noise Impact Assessment provide recommendations for approaches to noise impact assessment in the context of the Environmental Impact Assessment (EIA) process. However, the principles in the guidelines are relevant to all types of project where noise effects are likely to occur, regardless of size including small developments which are not screened as EIA development.
- 3.4.2 The guidelines provide a number of examples regarding approach to impact assessment. In circumstances where a noise environment may be altered by addition or removal of a noise source, considered to be within the prevailing acoustic character of an area, assessment of impact magnitude may be performed by considering the relative change in ambient noise level, as shown in Table 4.2.

Table 3.2: Example Noise Impact Magnitude Descriptors

| Relative Change dB(A) | Magnitude / Scale of Change |
|-----------------------|-----------------------------|
| ≤ 2.9                 | Negligible                  |
| 3 – 4.9               | Minor                       |
| 5 – 9.9               | Moderate                    |
| ≥ 10                  | Major                       |

## 4 Baseline Noise Survey

- 4.1.1 The noise survey was undertaken on Wednesday 20<sup>th</sup> July 2022 and covered an evening period at the front of the site. The approximate location of the noise monitoring position is shown in Appendix B for reference.
- 4.1.2 Noise measurements were made using a Bruel & Kjaer 2250 Type 1 integrating sound level meter with the microphone mounted at a height of 4 metres. A windshield was fitted for all measurements. The calibration of the measurement system was verified immediately before and after the survey using a Bruel & Kjaer Type 4231 calibrator. No drift in calibration level was noted.
- 4.1.3 Weather conditions throughout the survey were appropriate for monitoring with dry conditions and low windspeed throughout.
- 4.1.4 Measurements consisted of A-weighted broadband parameters, together with linear octave band  $L_{eq}$  levels. Table 4-1 presents a summary of the measurement data for each measurement session, at each measurement position, rounded to the nearest decibel.

Table 4-1 – Summary of Noise Measurement Data

| Time (hh:mm) | Length (hh:mm) | $L_{Aeq,T}$ (dB) | $L_{Amax}$ (dB) | $L_{A90,T}$ (dB) | $L_{A10,T}$ (dB) |
|--------------|----------------|------------------|-----------------|------------------|------------------|
| 19:05        | 00:15          | 66               | 83              | 51               | 70               |
| 19:20        | 00:15          | 66               | 82              | 48               | 71               |
| 19:35        | 00:15          | 66               | 80              | 50               | 71               |
| 19:50        | 00:15          | 66               | 81              | 48               | 71               |
| 20:05        | 00:15          | 67               | 83              | 49               | 72               |
| 20:20        | 00:15          | 66               | 80              | 43               | 71               |
| 20:35        | 00:15          | 66               | 83              | 44               | 70               |
| 20:50        | 00:15          | 66               | 82              | 46               | 71               |
| 21:05        | 00:15          | 65               | 82              | 42               | 70               |
| 21:20        | 00:15          | 66               | 87              | 42               | 70               |
| 21:35        | 00:15          | 65               | 85              | 41               | 69               |
| 21:50        | 00:15          | 64               | 80              | 41               | 69               |
| 22:05        | 00:15          | 68               | 94              | 44               | 70               |
| 22:20        | 00:15          | 66               | 83              | 40               | 69               |
| Average      |                | 66               | 86              | 46               | 70               |

- 4.1.5 The ambient and background noise levels were considered to be commensurate to the application site setting with the main noise associated with traffic on the local road network and pedestrian activity outside the Londis and its associated cash point.
- 4.1.6 The average levels at MP1 over the measurement period were 66 dB  $L_{Aeq,T}$  and 46 dB  $L_{A90}$ .

## 5 Noise Impact Assessment

- 5.1.1 It was noted noise from the local road network was the dominant source at the monitoring location with an additional contribution from pedestrian activity around the convenience store. Evening noise levels had an average  $L_{Aeq,T}$  of 66 dBA in the late evening.
- 5.1.2 Regarding noise from the micropub; the following measures have been accepted by the applicant:
- There will be no music played within the pub.
  - The small first floor area to the pub adjacent to the flat will be used for storage only.
  - There will be no outside drinking or smoking areas.
  - No additional services are planned for the development.
- 5.1.3 As such the only potential noise source(s) considered within the report are:
- *Customer Noise and Bar Activity from Within Premises*
- 5.1.4 This is a small unit with the internal the area dedicated to seating and no plans for live music, therefore internal noise levels would not be expected to exceed 75 dB  $L_{Aeq,T}$ .
- 5.1.5 Internal noise from the micropub has the potential for to transmit to the nearest neighbour up and through the adjoining party wall, or by breaking out and up the front façade to a window of the nearest neighbour of the upper flat.
- 5.1.6 The performance of the party wall in attenuating noise could not be confirmed during the survey as access could not be arranged to the upper flat. Given the upper adjoining space of the development will be closed off from the main area on the ground floor (Approx. 25  $D_{nT,w}$ ) and the walls appear to be at least 2 layers of traditional stone brickwork (> 40  $D_{nT,w}$ ) then significant attenuation to noise is expected.
- 5.1.7 Where issues will lie with transmission through the floor and walls is in areas where the intermediate layers are incomplete. The ceiling/floor is to be remade over the existing staircase and a loft hatch installed, effort should be made to make this a robust partition with the floor area remade to an equivalent type (assumed floorboard/beam/2 x plasterboard) and depth to the existing floor, with a substantial and well-fitting loft hatch installed.
- 5.1.8 The upper party wall currently has small access holes cut through the main area of the brickwork which would be required to be made good with an equivalent thickness and density of brick. Further investigation should be made during the refurbishment to identify any holes in the wall structure and to make good with equivalent material.
- 5.1.9 Particular attention should be made to the party wall/ floor junction with the intention of avoiding flanking paths for sound upwards through this junction through any openings. If the intermediate floor is complete, and given the presumed source levels and expected attenuation of the existing walls, there is a very low probability of noise from loud conversation in the bar being audible within the attached property.
- 5.1.10 Regarding the impact of noise breaking out from the front façade of the micropub, it is expected the front window would provide approximately 30 dB of attenuation and there would be an element of screening due to the step back of the facade.
- 5.1.11 Based on the area of the façade and distance to the nearest 1<sup>st</sup> floor window, external levels at the 1<sup>st</sup> floor façade would be expected to be  $\leq 35$  dB  $L_{Aeq,T}$ , which is 31 dB below the representative noise level of 66 dB  $L_{Aeq,T}$  measured over the evening.
- 5.1.12 Therefore, the development is not expected to raise noise levels in the local area, or that noise from the development would be audible internally to a neighbour over the evening period.

- 5.1.13 Given the hours of opening of the public house will not extend past 11pm it is expected that night-time noise levels will not be of concern. Care should be taken that activities such as glass recycling are not conducted past 2300 hours as this would be expected to be conducted in close proximity to neighbouring dwellings.

## 6 Summary and Conclusions

- 6.1.1 A noise survey and assessment has been conducted for the New Micropub at 138A Redbrook Road, Gawber, Barnsley, S75 2RB.
- 6.1.2 Section 3 details the relevant guidance regarding recommended noise limits for residential dwellings and the assessment of noise sources.
- 6.1.3 Section 4 details the external noise levels measured at the development which were established during noise monitoring carried out on Wednesday 20<sup>th</sup> July 2022. Levels were found to be commensurate with the setting, with traffic noise and pedestrian activity noted as the dominant noise sources in the area for the day and evening periods.
- 6.1.4 Section 5 assesses the likelihood of noise impact from the development. Most significant is the potential for breakthrough noise through the existing party wall, recommendations have been made to check and repair all wall/floor elements in order to mitigate against potential problems.
- 6.1.5 The potential maximum of noise breaking out from the front of the unit was found to be significantly below (>31 dB) the average level measured over the evening. This level of noise would not normally be expected to be audible and thus no impact is expected.
- 6.1.6 As the hours of the micropub are to be limited to before 2300 no night-time impact is expected. To avoid the potential for temporary disturbance of the immediate neighbours in the night-time period, glass recycling should not be undertaken past 2300 hours.

## Appendix A – Abbreviations and Definitions

### Sound Pressure Level ( $L_p$ )

The basic unit of sound measurement is the sound pressure level. As the pressures to which the human ear responds can range from 20  $\mu\text{Pa}$  to 200 Pa, a linear measurement of sound levels would involve many orders of magnitude. Consequently, the pressures are converted to a logarithmic scale and expressed in decibels (dB) as follows:

$$L_p = 20 \log_{10}(p/p_0)$$

Where  $L_p$  = sound pressure level in dB;  $p$  = rms sound pressure in Pa; and  $p_0$  = reference sound pressure (20  $\mu\text{Pa}$ ).

### A-weighting

A frequency filtering system in a sound level meter, which approximates under defined conditions the frequency response of the human ear. The A-weighted sound pressure level, expressed in dB(A), has been shown to correlate well with subjective response to noise.

### Equivalent continuous A-weighted sound pressure level, $L_{Aeq, T}$

The value of the A-weighted sound pressure level in decibels of continuous steady sound that within a specified time interval,  $T$ , has the same mean-square sound pressure as a sound that varies with time.  $L_{Aeq, 16h}$  (07:00 to 23:00 hours) and  $L_{Aeq, 8h}$  (23:00 to 07:00 hours) are used to qualify daytime and night time noise levels.

### $L_{A10, T}$

The A-weighted sound pressure level in decibels exceeded for 10% of the measurement period,  $T$ .  $L_{A10, 18h}$  is the arithmetic mean of the 18 hourly values from 06:00 to 24:00 hours.

### $L_{A90, T}$

The A-weighted sound pressure level of the residual noise in decibels exceeded 90% of a given time interval,  $T$ .  $L_{A90}$  is typically taken as representative of background noise.

### $L_{AF \max}$

The maximum A-weighted noise level recorded during the measurement period. The subscript 'F' denotes fast time weighting, slow time weighting 'S' is also used.

### Single Event Level / Sound Exposure Level (SEL or $L_{AE}$ )

The energy produced by a discrete noise event averaged over one second, regardless of the event duration. This allows for comparison between different noise events which occur over different lengths of time.

### Weighted Sound Reduction Index ( $R_w$ )

Single number quantity which characterises the airborne sound insulation properties of a material or building element over a defined range of frequencies ( $R_w$  is used to characterise the insulation of a material or product that has been measured in a laboratory).

## Appendix B – Noise Measurement Positions

