

SHARPS REDMORE

ACOUSTIC CONSULTANTS ▪ Established 1990



Report

**Eaton Court, 104 – 112
Oxford Road, Reading**

Change of Use to Residential
Under Permitted
Development

Prepared by
Gary King MIOA

Date 15 November 2018
Project No 1818348

Head Office

Sharps Redmore

The White House, London Road,
Copdock, Ipswich, IP8 3JH

T 01473 730073

E contact@sharpsredmore.co.uk

W sharpsredmore.co.uk

Regional Locations

South England (Head Office),
North England, Wales, Scotland

Sharps Redmore Partnership Limited

Registered in England No. 2593855

Directors

RD Sullivan BA(Hons), PhD, CEng, MIOA, MAAS, MASA;

DE Barke MSc, MIOA;

KJ Metcalfe BSc(Hons), MIOA

Company Consultant

TL Redmore BEng, MSc, PhD, MIOA



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1.0 Introduction

- 1.1 Sharps Redmore has been instructed to undertake an acoustic review to accompany an application for prior approval for the change of use of the existing office accommodation known as Eaton Court, 104 – 112 Oxford Road, Reading, RG1 7LL. This application is made pursuant to part 3 class O of the Town and Country Planning (General Permitted Development) (England) Order (or GPDO) 2015 (As Amended).
- 1.2 The application site comprises of two/three storey office accommodation and a multi-storey car park. The site location is shown in Figure 1 below.

FIGURE1: Site Location



- 1.3 On April 6th 2016, changes to the GPDO came into force. These amendments included changes to prior approval requirements with respect to the change in use from offices to dwelling houses as follows:

“O.2.—(1) Development under Class O is permitted subject to the condition that before beginning the development, the developer must apply to the local planning authority for a determination as to whether the prior approval of the authority will be required as to:

(a) transport and highways impacts of the development,

(b) contamination risks on the site,

(c) flooding risks on the site, and

(d) impacts of noise from commercial premises on the intended occupiers of the development,

and the provisions of paragraph W (prior approval) apply in relation to that application.

*“Interpretation of Class O O.3. For the purposes of Class O, “commercial premises” means any premises normally used for the purpose of any commercial or industrial undertaking which existed **on the date of application** (SR emphasis) under paragraph O.2(1), and includes any premises licensed under the Licensing Act 2003(a) or any other place of public entertainment.”.*

- 1.4 Sharps Redmore has assessed the site and surrounding area for commercial premises. Where sound from these sources may need consideration with respect to residential end use, reference is made to national and local planning policy objectives and acoustics standards.
- 1.5 The report is structured as follows:
- Section 2.0: Legislation and Assessment Criteria;
 - Section 3.0: Description of area;
 - Section 4.0: Noise Survey Results;
 - Section 5.0: Assessment of Commercial Noise Sources
 - Section 6.0: Summary and Conclusions

2.0 Assessment Criteria

- 2.1 The legislative context for this assessment is GPDO 2015 and subsequent 2016 amendment.
- 2.2 The permitted development and prior approval requirements are set out in the Introduction of this report. Available guidance is very limited at this stage as to the requirements for prior approval however the National Planning Practice Guidance (6th March 2014) provides the following advice with respect to the approach and level of details perhaps needed for prior approval:

“The statutory requirements relating to prior approval are much less prescriptive than those relating to planning applications. This is deliberate, as prior approval is a light-touch process which applies where the principle of the development has already been established. Where no specific procedure is provided in the General Permitted Development Order, local planning authorities have discretion on what processes they put in place. It is important that a local planning authority does not impose unnecessarily onerous requirements on developers, and does not seek to replicate the planning application system.”

[\(http://planningguidance.communities.gov.uk/blog/guidance/when-is-permission-required/what-are-permitted-development-rights/\)](http://planningguidance.communities.gov.uk/blog/guidance/when-is-permission-required/what-are-permitted-development-rights/)

- 2.3 In the absence of specific guidance, it is considered that the principles of National Planning Policy and requirements within Local Planning Policies with respect to noise are relevant.

National Policy

- 2.4 Though the prior approval system is intended as a light touch process and not to replicate the planning system, the aims of national planning policy with respect to noise are relevant and therefore should be considered for new development.
- 2.5 In respect of noise, Paragraph 180 of the NPPF states the following:

“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 life;*
- 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; and*
- c) limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation”.*

- 2.6 The NPPF reinforces the March 2010 DEFRA publication, “Noise Policy Statement for England” (NPSE), which states three policy aims, as follows:

“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.”*

- 2.7 Together, the first two aims require that no significant adverse impact should occur and that, where a noise level which falls between a level which represents the lowest observable adverse effect and a level which represents a significant observed adverse effect, then according to the explanatory notes in statement:

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

- 2.8 It is possible to apply objective standards to the assessment of noise and the design of new dwellings should seek to achieve these objective standards. Such guideline values are given in the World Health Organisation (WHO) document “Guidelines for Community Noise” and within British Standard, BS 8233:2014 which principally intended to assist in the design of new dwellings.
- 2.9 The WHO guideline values are appropriate to what are termed “critical health effects”. This means that the limits are at the lowest noise levels that would result in any physiological or sociological effect. They are, as defined by NPSE, set at the Lowest Observed Adverse Effect (LOAEL), but do not define the level above which effects are significant (the SOAEL). Compliance with the LOAEL should, therefore, be seen as a robust aim.
- 2.10 The national interpretation of the WHO guidelines is contained in BS 8233:2014 ‘Sound Insulation & Noise Reduction for Buildings’. BS 8233 recommends the following desirable guideline values for internal ambient noise:

TABLE 1: BS 8233:2014 Indoor ambient noise levels for dwellings

Activity	Location	0700 to 2300	2300 – 0700
Resting	Living Room	35 dB $L_{Aeq,16hour}$	-
Dining	Dining room/area	40 dB $L_{Aeq,16hour}$	-
Sleeping (daytime resting)	Bedroom	35 dB $L_{Aeq,16hour}$	30 dB $L_{Aeq,8hour}$

- 2.11 There is no longer a L_{Amax} standard for bedrooms in BS 8233. However, footnote 4 to Table 4 states that “Regular individual noise events (for example, schedule aircraft or passing trains) can cause sleep disturbance. A Guideline value may be set in terms of SEL of $L_{Amax,F}$ depending in the character and number of events per night. Sporadic noise events could require separate values.” In this case, it is proposed that the previous BS

8233 internal standard (also referred to in World Health Organisation Guidelines for Community Noise) is applied. This is 45 dB L_{Amax} , inside bedrooms.

- 2.12 The residential criteria within BS 8233:2014 and WHO Guidelines will therefore be considered with respect to noise from commercial premises identified in the vicinity of the development site as per the amendments to the order.
- 2.13 The GPDO, in terms of noise, is restricted to the assessment of impacts of noise from commercial premises on the attended occupiers of the noise development. Transport sources are not considered under the permitted development process although regard will be taken for local aims further to guidance in the National Planning Practice Guidance.
- 2.15 The assessment relates to the current use of the adjacent commercial units in line with the requirements of the GPDO. It is not necessary or appropriate to consider potential changes to operation of occupation of the units.

3.0 Site Description

- 3.1 The starting point for this assessment was to identify possible commercial or industrial premises in the immediate area surrounding the site through a desk top exercise. This was then followed by a visit to the site and survey of existing noise levels on the 23rd October 2018 and a further visit on 8th November 2018 to specifically assess the impact of the Face Bar and Club which is located to at the rear of the site. Details of the site surveys are discussed in section 4.0 below.
- 3.2 The site is located off Oxford Road in a mixed use area, immediately adjacent to the site is a Grade II listed building currently occupied by the Royal Meteorological Society. The land to east is currently being developed but was previously occupied by Richer Sounds. Immediately to the north of the site is a technology company Bottomline Technologies Ltd. To the north of the site adjacent to Bottomline Technologies are two licensed premises, Face bar nightclub and The Butler Public House
- 3.3 During the day the existing noise climate is dominated by localised traffic noise on Oxford Road no noise was noted coming from Bottomline Technologies or any other commercial premises in the area. A separate visit was made during the late evening period 2100 – 2230 hours on the 8th November 2018 to monitor noise from the adjacent licensed premises. Observations were made in front of Face Bar and it was confirmed that live music was being played however it was noted that there were no windows or doors facing towards the proposed residential development. No noise was noted coming from the club or the Butler Public House at Eaton Court.

4.0 Noise Survey Details

- 4.1 A noise survey was carried out on the 23rd and 25th October 2018 to determine the impact the commercial uses adjacent and below the proposed residential development.
- 4.2 Measurements were carried out at the front of the existing office accommodation as shown in Figure 2 below:

FIGURE 2: Monitoring Location



- 4.3 Measurements were carried out using a Norsonic 118 type 1 sound level meter which was calibrated before and after the survey with no drift in accuracy found. Measurements were carried out at 15 minute intervals throughout the survey from 1400 hours on the 23rd October to 1500 hrs on the 25th October to establish existing day time and night time noise levels. Weather conditions during the survey were overcast, dry with a slight NW breeze. Weather conditions were suitable for taking noise measurements.
- 4.3 Full details of the survey are included in Appendix A and summarised in Table 2 below.

TABLE 2: Measured Noise Levels (1m)

Date	Daytime (0700 – 2300 hrs)		Night time (2300 – 0700 hrs)		
	L _{Aeq,15min}	L _{A90,15min}	L _{Aeq,15min}	L _{A90,15min}	L _{Amax}
23.10.18	58 – 64 dB	48 – 57 dB	50 – 63 dB	36 – 51 dB	70 dB
24.10.18	58 – 68 dB	47 – 57 dB	50 – 62 dB	38 – 51 dB	70 dB
25.10.18	61 – 71 dB	52 – 57 dB	--	--	--

- 4.4 The existing sound environment to the front is dominated by passing vehicles on the Oxford Road which is a busy route carrying a high volume of traffic. Road traffic is not required to be considered under the GPDO Regulations.
- 4.5 In addition to the above as described in section 3.0 of this report a further site visit was carried out during the late evening period when live music was being played at the adjacent night club. At the time of the visit it was confirmed that music was being played however no noise could be heard externally at the site and noise was dominated by road traffic.

5.0 Noise Assessment

- 5.1 The GPDO, in terms of noise, is restricted to the assessment of impacts of noise from commercial premises on the attended occupiers of the noise development.
- 5.2 Transport sources are not considered under the permitted development process however to meet the internal noise level criteria found in BS 8233:2014 noise mitigation measures, will be incorporated into the design of the scheme.
- 5.3 No sound from any commercial premises in the vicinity including Face Bar night club and the Butler Public House was considered likely to cause any disturbance to future residential occupants of the proposal. Sounds from the commercial activities would not require further façade insulation or other mitigation to residential end use, over and above that required for the influence of road traffic noise at the proposal to satisfy the requirements of BS 8233:2014 or the WHO guidelines.

6.0 Summary and Conclusions

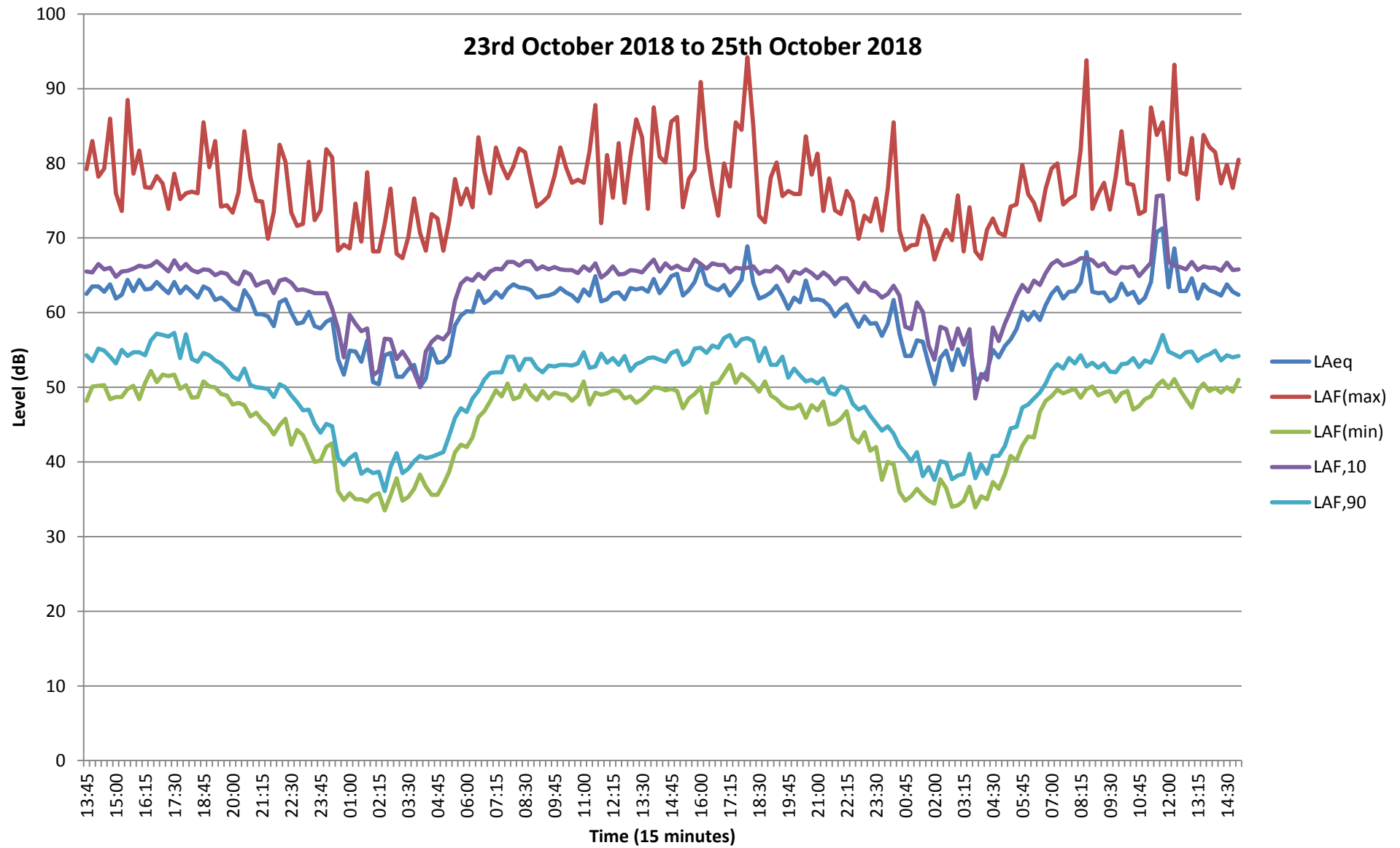
- 6.1 As stated in National Planning Practice Guidance, *“Prior approval is a light-touch process which applies where the principle of the development has already been established”*. The assessment takes into account the impact of adjacent commercial units that were operational at the time of application.
- 6.2 The commercial premises within the immediate vicinity of the proposal have been identified for their potential to emit noise. Assessment has subsequently been made to determine whether these sources are likely to require consideration in terms of noise mitigation measures in any final design of the residential proposals.
- 6.3 Based on site measurements and observations the existing noise climate at the front façade is dominated by road traffic. Noise from any commercial noise would not require further façade insulation or other mitigation to residential end use, over and above that required for the influence of road traffic noise to satisfy the requirements of BS 8233:2014.
- 6.4 At the rear of the premises are two licensed premises, Face Bar night club and The Butler Public House. Site visits were carried out during the late evening when live music was taking place at Face Bar and also the Butler Public House was open, no noise was audible coming from either premises. As a result it is concluded that the proposed change in use to residential will also not result in unreasonable restrictions on the adjacent commercial operations in line with the policy aims of the National Planning Policy Framework (NPPF paragraph 180)

APPENDIX A

SURVEY DETAILS

Noise Survey at Eaton Court, Reading

23rd October 2018 to 25th October 2018



APPENDIX B

ACOUSTIC TERMINOLOGY

Appendix B: Guide to Acoustic Terminology

Ambient noise:

The totally encompassing sound in a given situation at a given time. Most often described in terms of the index L_{AeqT} .

Atmospheric absorption:

The excess acoustic attenuation, over and above that caused by distance attenuation, due to the interaction of an acoustic wave with air molecules.

A-weighting:

A frequency weighting which differentiates between sounds of different frequency (pitch) in a similar way to the human ear. Units may be denoted as dB(A) or as sound pressure levels L_{pA} in dB. A change of 3 dB(A) is the minimum perceptible under normal conditions, and a change of 10 dB(A) corresponds roughly to halving or doubling the loudness of a sound.

Background noise:

See L_{A90} .

Correction (for characteristic features of noise source):

A 5 dB penalty applied to the specific noise level if the noise being assessed “contains a distinguishable, discrete continuous note”, contains “distinct impulses”, or is “irregular enough to attract attention” (ref BS 4142:1997).

Decibel (dB):

A unit of level derived from the logarithm of the ratio between the value of a quantity and a reference value. It is used to describe the level of many different quantities. For sound pressure level the reference quantity is 20 μ Pa, the threshold of normal hearing is in the region of 0 dB, and 140 dB is the threshold of pain. A change of 1 dB is only perceptible under controlled conditions.

Façade noise level:

The noise level adjacent to the façade of a building, usually at a distance of 1 metre.

Free-field noise level:

The noise level away from the façade of a building or other structure.

Hertz (Hz):

Unit of frequency, equal to one cycle per second. Frequency is related to the pitch of a sound.

L_{A10T} :	The A weighted level of noise exceeded for 10% of the specified measurement period, T. It gives an indication of the upper limit of fluctuating noise such as that from road traffic. $L_{A10,18hr}$ is the arithmetic average of the 18 hourly $L_{A10,1hr}$ values from 0600 hrs to 2400 hrs.
L_{A90T} :	The A weighted noise level exceeded for 90% of the specified time period, T. In BS 4142:1997 it is used to define background noise level.
L_{AeqT} :	The equivalent continuous sound level - the sound level of a notionally steady sound having the same energy as a fluctuating sound over a specified measurement period, T. This period is taken to be 16 hours (0700 hrs to 2300 hrs) and 8 hours (2300 to 0700 hrs) to describe day and night, in PPG 24 L_{AeqT} is used to describe many types of noise and can be measured directly with an integrating sound level meter.
SEL or L_{AE} :	The sound exposure level is the A-weighted sound energy produced by a discrete noise event averaged over one second, no matter how long the event actually took. This allows for comparisons to be made between different noise events which occur for different lengths of time.