



Town and Country Planning Act 1990

Appeal by

Petersham Nurseries Limited

**Proof Of Evidence
Noise Expert appointed by the Appellant**

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Big Sky Acoustics document control sheet

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Submitted to:	Mr Simon Ricketts Town Legal LLP 10 Throgmorton Avenue London EC2N 2DL acting on behalf of Petersham Nurseries Limited
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1.0 Qualifications and experience

- 1.1 My name is Richard Vivian. I am the founder and director of Big Sky Acoustics Ltd. Big Sky Acoustics is an independent acoustic consultancy that is engaged by local authorities, private companies, public companies, residents' groups and individuals to provide advice on the assessment and control of noise.
- 1.2 I have a Bachelor of Engineering Degree with Honours from Kingston University, I am a Member of the Institution of Engineering & Technology, the Institute of Acoustics, and the Institute of Licensing.
- 1.3 I have over thirty years of experience in the acoustics industry and have been involved in acoustic measurement and assessment throughout my career. My professional experience has included the assessment of noise in connection with planning, licensing and environmental protection relating to sites throughout the UK.
- 1.4 I have given expert evidence in the courts, in licensing hearings, in planning hearings and at public inquiries on many occasions. In providing expert evidence I understand and accept my responsibility to provide unbiased and balanced evidence to the Inquiry. The evidence which I have prepared and provided for this appeal (appeal reference APP/L5810/C/24/3339372) in this proof of evidence is true and has been prepared and given in accordance with the guidance of my professional institution and I confirm that the opinions expressed are my true and professional opinions.

2.0 Introduction

- 2.1 Richard Vivian of Big Sky Acoustics Ltd was instructed by the Appellant to carry out an assessment of the noise impact from the evening operation of the restaurant at the appeal site.

3.0 Criteria

NPPF

- 3.1 The revised National Planning Policy Framework (NPPF) was last revised on 19 December 2023 and sets out the government's planning policies for England and how these are expected to be applied. This revised Framework replaces the previous National Planning Policy Framework published in March 2012, revised in July 2018, updated in February 2019, revised in July 2021 and updated in September 2023.
- 3.2 References to noise can be found in Section 15 titled 'Conserving and enhancing the natural environment'. The NPPF states at Paragraph 180 sub-paragraph (e) *"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 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"*.
- 3.3 The NPPF states at Paragraph 191 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: 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"*.

- 3.4 The comments about *adverse impacts on health and quality of life* are referenced¹ to the Noise Policy Statement for England (NPSE) published by the Department for Environment, Food & Rural Affairs in 2010. The NPSE is intended to apply to all forms of noise, including environmental noise, neighbour noise and neighbourhood noise.
- 3.5 The NPSE sets out the Government's long-term vision 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'* which 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.*
- 3.6 The NPSE defines the concept of a 'significant observed adverse effect level' (SOAEL) as *'the level above which significant adverse effects on health and quality of life occur'*. The following guidance is provided within the NPSE: *'It is not possible to have a single objective noise-based measure that defines SOAEL that is applicable to all sources of noise in all situations. Consequently, the SOAEL is likely to be different for different noise sources, for different receptors and at different times. It is acknowledged that further research is required to increase our understanding of what may constitute a significant adverse impact on health and quality of life from noise. However, not having specific SOAEL values in the NPSE provides the necessary policy flexibility until further evidence and suitable guidance is available.'*
- 3.7 The Planning Practice Guidance (PPG) on Noise published by the Ministry of Housing, Communities & Local Government in March 2014 (last updated on 22 July 2019) is written to support the NPPF with more specific planning guidance on how planning can manage potential noise impacts in new development.

¹ NPPF at footnote 69

- 3.8 The PPG reflects the NPSE and states at Paragraph 001 that noise needs to be considered when development may create additional noise or would be sensitive to the prevailing acoustic environment (including any anticipated changes to that environment from activities that are permitted but not yet commenced).
- 3.9 The PPG clarifies at Paragraph 002 that it is important to look at noise in the context of the wider characteristics of a development proposal, its likely users and its surroundings, as these can have an important effect on whether noise is likely to pose a concern.
- 3.10 The PPG expands upon the concept of SOAEL (together with Lowest Observed Adverse Effect Level, LOAEL and No Observed Effect Level, NOEL) as introduced in the NPSE and provides a table of noise exposure hierarchy for use in noise impact assessments in the planning system.
- 3.11 Figure 1 is reproduced from PPG Paragraph 005 and summarises the noise exposure hierarchy, based on the likely average response.
- 3.12 The PPG at Paragraph 005 considers that a noise impact with an effects level which is lower than SOAEL is acceptable but that consideration needs to be given to mitigating and minimising those effects (taking account of the economic and social benefits being derived from the activity causing the noise).
- 3.13 When the significant observed adverse effect level boundary is crossed noise causes a material change in behaviour such as keeping windows closed for most of the time or avoiding certain activities during periods when the noise is present. If the exposure is predicted to be above this level the planning process should be used to avoid this effect occurring, for example through the choice of sites at the plan-making stage, or by use of appropriate mitigation such as by altering the design and layout. While such decisions must be made taking account of the economic and social benefit of the activity causing or affected by the noise, it is undesirable for such exposure to be caused.

Perception	Examples of Outcomes	Increasing Effect Level	Action
No Observed Effect Level (NOEL)			
Not present	No Effect	No Observed Effect	No specific measures required
No Observed Adverse Effect Level (NOAEL)			
Present and not intrusive	Noise can be heard, but does not cause any change in behaviour, attitude or other physiological response. Can slightly affect the acoustic character of the area but not such that there is a change in the quality of life	No Observed Adverse Effect	No specific measures required
Lowest Observed Adverse Effect Level (LOAEL)			
Present and intrusive	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	Observed Adverse Effect	Mitigate and reduce to a minimum
Significant Observed Adverse Effect Level (SOAEL)			
Present and disruptive	The noise causes a material change in behaviour, attitude or other physiological response, 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
Present and very disruptive	Extensive and regular changes in behaviour, attitude or other physiological response and/or an inability to mitigate effect of noise leading to psychological stress, e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non-auditory	Unacceptable Adverse Effect	Prevent

Figure 1: PPG Noise Exposure Hierarchy Table (revision date: 22.07.2019)

- 3.14 At the highest extreme, noise exposure would cause extensive and sustained adverse changes in behaviour and/or health without an ability to mitigate the effect of the noise. The impacts on health and quality of life are such that, regardless of the benefits of the activity causing the noise, this situation should be avoided.
- 3.15 The PPG on noise states, at Paragraph 008, that *"For an area to justify being protected for its tranquillity, it is likely to be relatively undisturbed by noise from human sources that undermine the intrinsic character of the area. It may, for example, provide a sense of peace and quiet or a positive soundscape where natural sounds such as birdsong or flowing water are more prominent than background noise, e.g. from transport."* The acoustic environment at Petersham Nurseries is subject to ambient noise from several human sources, including (but not limited to) aircraft associated with the Heathrow flightpath, road traffic on the surrounding road network and commercial and residential uses in the surrounding area (including the lawful operation of the appeal site itself). The area around the appeal site does not meet the definition of tranquillity as set out in the PPG.

The London Plan 2021

- 3.16 The London Plan 2021 is the Spatial Development Strategy for Greater London. It sets out a framework for how London will develop over the next 20-25 years and is the Mayor's vision for Good Growth.
- 3.17 **Policy HC5** recognises London's rich cultural offer includes visual and performing arts, music, spectator sports, festivals and carnivals, pop-ups and street markets, and a diverse and innovative food scene, which is important for London's cultural tourism. It supports the continued growth and evolution of London's diverse cultural facilities and creative industries. Development Plans and development proposals should protect existing cultural venues, facilities and uses where

appropriate and support the development of new cultural venues in town centres and places with good public transport connectivity.

3.18 **Policy HC6** promotes the night-time economy², where appropriate. It protects and supports evening and night-time cultural venues such as pubs, nightclubs, theatres, cinemas, music and other arts venues, and encourages the management of the night-time economy through an integrated approach to planning and licensing.

3.19 **Policy D13** tables the Agent Of Change principle and states that new noise and other nuisance-generating development proposed close to residential and other noise-sensitive uses should put in place measures to mitigate and manage any noise impacts for neighbouring residents and businesses.

3.20 **Policy D14** addresses the reduction, management and mitigation of noise. It encourages good acoustic design and notes that the management of noise should be an integral part of development proposals and considered as early as possible. It recognises that consideration of existing noise sensitivity within an area is important to minimise potential conflicts of uses or activities, for example in relation to internationally important nature conservation sites which contain noise-sensitive wildlife species, or parks and green spaces affected by traffic noise and pollution.

London Borough Of Richmond Upon Thames Local Plan (adopted 3 July 2018)

3.21 **Policy LP 8** addresses Amenity and Living Conditions and states that the council will ensure there is no harm to the reasonable enjoyment of the use of buildings, gardens and other spaces due to increases in traffic, servicing, parking, noise, light, disturbance, air pollution, odours or vibration or local micro-climatic effects.

² The night-time economy refers to all economic activity taking place between the hours of 6pm and 6am, and includes evening uses. Night-time economic activities include eating, drinking, entertainment, shopping and spectator sports, as well as hospitality, cleaning, wholesale and distribution, transport and medical services, which employ a large number of night-time workers - paragraph 7.6.1 The London Plan.

- 3.22 **Policy LP 10** considers Local Environmental Impacts, Pollution and Land Contamination and requires that developers should follow any guidance provided by the Council on local environmental impacts and pollution as well as on noise generating and noise sensitive development. Where necessary, the Council will set planning conditions to reduce local environmental impacts on adjacent land uses to acceptable levels.
- 3.23 **Policy LP 43** considers the Visitor Economy and the Council recognises the value of the visitor economy both to the local and London economy. The borough is a popular destination for visitors to traditional attractions such as the historic houses and gardens, the River Thames as well as the rugby-related attractions and associated facilities such as restaurants and shops. Retail and other commercial uses, such as cafés and restaurants, will add to the vibrancy of the new centre as well as contributing to the provision of important local employment opportunities.

Development Control for Noise Generating and Noise Sensitive Development

- 3.24 This SPD supplements the Borough's Local Plan by providing interpretation of national planning and noise policy in a local context along with advice on the technical requirements that the Borough regards as relevant to meeting those requirements.
- 3.25 The SPD provides a table on Determining the Noise Impact and Effect which considers: *"Whether or not opportunities have been taken to improve or protect the existing acoustic environment where relevant; Whether or not a good acoustic design process has been followed and whether or not appropriate acoustic standards have been achieved; and Whether or not a good standard of amenity can be achieved; Whether or not an adverse effect is occurring or likely to occur; Whether or not a significant adverse effect is occurring or likely to occur; and Whether or not an unacceptable adverse effect is occurring or likely to occur."*

Licensing Act 2003

3.26 The Licensing Act 2003 requires the London Borough of Richmond Upon Thames, in its role as Licensing Authority, to carry out its various licensing functions to promote the following four licensing objectives:

- The prevention of crime and disorder
- Public safety
- The prevention of public nuisance
- The protection of children from harm

3.27 Each objective is of equal importance. It is important to note that there are no other licensing objectives, therefore these four are of paramount importance at all times. The Licensing Authority must base its decisions about determining applications and attaching any conditions to licences, on the promotion of these four licensing objectives.

3.28 The Licensing Act 2003 further requires the Licensing Authority to publish a Statement of Licensing Policy (SLP) that sets out the policies the Licensing Authority will apply to promote the licensing objectives when making decisions on applications made under the Act. The current SLP took effect from 3 January 2022 and advises that the Council is responsible for the licensing of some 790 premises, including pubs, bars, restaurants, registered clubs, nightclubs and late night takeaways. Other premises including cultural venues and shops are also licensed. The SLP notes that some licensed premises are in residential areas. The SLP is clear that guideline terminal hours or fixed trading hours within designated areas (zoning) will not be adopted in Richmond Upon Thames and that each application will be considered on its merits³.

3.29 When it comes to the evaluation of noise under the Licensing Act an understanding of the concept of *public nuisance* is essential. Public nuisance is not narrowly

³ Section 16 - Licensing Hours, Statement of Licensing Policy v6, The London Borough of Richmond upon Thames, 03 January 2022.

defined in the Licensing Act and retains its broad common law meaning. It may include the reduction of the living and working amenity and environment of other persons living and working in the area of the licensed premises.

- 3.30 Once those involved in making licensing decisions are satisfied of the existence of a public nuisance, or its potential to exist, the question is how to address it. Home Office Guidance⁴ is useful in this regard and explains that, in the context of noise nuisance, conditions might be a simple measure such as ensuring that doors and windows are kept closed after a particular time, or persons are not permitted in garden areas of the premises after a certain time, noting that conditions in relation to live or recorded music may not be enforceable in circumstances where the entertainment activity itself is not licensable.
- 3.31 The guidance is clear that any conditions appropriate to promote the prevention of public nuisance should be tailored to the type, nature and characteristics of the specific premises and its licensable activities. Licensing authorities should avoid inappropriate or disproportionate measures that could deter events that are valuable to the community.
- 3.32 The guidance also states that any appropriate conditions should normally focus on the most sensitive periods. For example, the most sensitive period for people being disturbed by unreasonably loud music is at night and into the early morning when residents in adjacent properties may be attempting to go to sleep or are sleeping. This is why there is still a need for a licence for performances of live music between 23:00 and 08:00hrs even though it is deregulated at other times.
- 3.33 As with all conditions, those relating to noise nuisance may not be appropriate in certain circumstances where provisions in other legislation adequately protect those living in the area of the premises.

⁴ Revised Guidance issued under section 182 of the Licensing Act 2003, December 2023

3.34 The London Borough of Richmond upon Thames, in its role as the local Licensing Authority, granted a premises licence⁵ covering the opening hours of:

Monday & Tuesday 09:00-17:00hrs

Wednesday, Thursday, Friday & Saturday 09:00-23:00hrs

Sunday 11:00-17:00hrs

Alcohol sales are permitted from 11:00-17:00hrs except on no more than 3 days per week, Wednesday to Saturday, when the hours for the sale of alcohol are 11:00-23:00hrs.

3.35 Although it is not unusual for a premises licence and planning permission hours to not precisely align it is not uncommon to seek regularisation between planning and licensing hours.

Other relevant legislation

3.36 In addition to the protection afforded under planning controls and the Licensing Act 2003, members of the public are protected from noise that is a nuisance.

3.37 The Environmental Protection Act 1990 part III deals with statutory nuisance which includes noise. This Act allows steps to be taken to investigate any complaints which may then result in the issuing of an abatement notice and a subsequent prosecution of any breach of the notice. A statutory nuisance is a material interference that is prejudicial to health or a nuisance.

3.38 The Clean Neighbourhoods and Environment Act 2005 deals with many of the problems affecting the quality of the local environment and provides local authorities with powers to tackle poor environmental quality and anti-social behaviour in relation to litter, graffiti, waste and noise. A fixed penalty notice can be issued when noise exceeds the permitted level at night as prescribed under the Noise Act 1996 as amended by the Clean Neighbourhoods and Environment Act.

⁵ Premises Licence Number PL062096 granted 10 November 2022

The permitted noise level using A-weighted decibels (the unit environmental noise is usually measured in) is 34dBA if the underlying level of noise is no more than 24dBA, or 10dBA above the underlying level of noise if this is more than 24dBA.

3.39 The Anti-Social Behaviour, Crime and Policing Act 2014 defines anti-social behaviour as "*conduct that has caused, or is likely to cause, harassment, alarm or distress to any person*"; "*conduct capable of causing nuisance or annoyance to a person in relation to that person's occupation of residential premises*"; or "*conduct capable of causing housing-related nuisance or annoyance to a person*". The Act contains a range of powers intended to support Local Authority and partner bodies dealing with anti-social behaviour. These include powers of premises closure in cases of nuisance or disorder which may support primary legislation.

British Standard 8233

3.40 BS8233:2014 states that for steady external noise sources, it is desirable that the internal ambient noise level in dwellings does not exceed the guideline values in the table shown below in Figure 2.

3.41 Annex G of BS8233 informs that windows, and any trickle ventilators, are normally the weakest part of a brick and block façade. Insulating glass units have a sound insulation of approximately 33 dB R_w and, assuming suitable sound-attenuating trickle ventilators are used, the resulting internal noise level ought to be determined by the windows. If partially open windows are relied upon for background ventilation, the insulation would be reduced to approximately 15 dB.

Activity	Location	07:00 to 23:00	23:00 to 07:00
Resting	Living room	35 dB $L_{Aeq,16hour}$	-
Dining	Dining room/area	40 dB $L_{Aeq,16hour}$	-
Sleeping (daytime resting)	Bedroom	35 dB $L_{Aeq,16hour}$	30dB $L_{Aeq,8hour}$

Figure 2: Indoor ambient noise levels for dwellings (from BS8233 Table 4)

Operational objectives

- 3.42 Petersham Nurseries Limited is committed to promoting good relationships with their neighbours and therefore, in addition to all statutory obligations, it is a primary operational objective that noise from the use of the site will not have a detrimental impact on the local community.
- 3.43 To support this commitment operational procedures to manage noise from the premises are in place including an Evening Management Plan addressing customer and staff travel and dispersal management procedures. The noise control measures include regular auditing, for example a video record is taken of a walk-through of the site, starting in the restaurant area and moving to outside areas, illustrating that while the restaurant is in use noise breakout to outside areas is minimal and, at the boundaries of the site, is undetectable.

4.0 Balancing planning and licensing noise conditions

- 4.1 The guidance issued under Section 182 of the Licensing Act 2003 is clear in its general principles (Para 1.16) that *"[licence conditions] should not duplicate other statutory requirements or other duties or responsibilities placed on the employer by other legislation"*. Therefore if the objective of the prevention of public nuisance is satisfactorily upheld because there already exist tests of nuisance through The Environmental Protection Act 1990; The Noise Act 1996; and The Clean Neighbourhoods and Environment Act 2005, then additional conditions on a premises licence that merely duplicates these statutory requirements should not be necessary according to Home Office guidance.
- 4.2 Similarly planning guidance has, for a long time, stated that additional planning conditions which duplicate the effect of other legislation should not be imposed, and current planning practice guidance is clear that conditions requiring

compliance with other regulatory requirements will not meet the test of necessity and may not be relevant to planning⁶.

4.3 The House of Lords Select Committee in its 2017 post-legislative scrutiny of the Licensing Act⁷ found that *"it is not only permissible but logical to look at licensing as an extension of the planning process"*. In its most recent follow-up report⁸ of 2022, the Committee concluded that it *"is disappointed that no practical progress has been made to address the lack of coordination between the licensing and planning systems. It is clear that issues between the two systems remain and we regret that there has been no initiative from Government to take forward the work undertaken to explore solutions"* (Paragraph 31), and adds *"The Government must consider the coordination between the licensing and planning systems in its ongoing planning reforms in the Levelling-up and Regeneration Bill to ensure new proposals do not further exacerbate tensions between the two systems"* (Paragraph 34).

4.4 The Local Government Association Licensing Act 2003 Councillor's handbook⁹ states that *"Whilst there is a clear distinction and separation between licensing and planning in terms of their remit, councillors have a key role in ensuring that these two different services are fully joined-up and aligned. Where this doesn't happen councils can struggle to shape their areas as they would like them to be."*

4.5 The pragmatic approach to specifying noise conditions would be that the more general criteria relating to the principle of the design, and use of the site, are applied under the planning regime and more specific requirements relating to the operational control of licensable activities such as hours of operation, the

⁶ Planning Practice Guidance on Use of planning conditions, Paragraph 005, Revision date 23 July 2019

⁷ Select Committee on the Licensing Act 2003, The Licensing Act 2003: post-legislative scrutiny (Report of Session 2016–17, HL Paper 146)

⁸ Liaison Committee on the Licensing Act 2003, The Licensing Act 2003: post-legislative scrutiny follow-up report (2nd Report of Session 2022–23, HL Paper 39)

⁹ Local Government Association, Licensing Act 2003 – Councillor's handbook (England and Wales) (July 2021)

requirement for controls on regulated entertainment, or the need for a noise limiter on a sound system, are more effectively implemented and enforced through the licensing process.

5.0 Noise survey

5.1 The following proposal for a noise survey was made to the LPA on 19 April 2024:

To install noise monitoring equipment close to the boundary wall with Rosebank and leave it there for a week covering the early May bank holiday weekend.

5.2 In addition an attended noise monitoring session was also carried out on the night of Friday 3 May 2024 during normal evening operation of the restaurant until beyond closing time and after all patrons had dispersed.

5.3 A response to the proposed noise survey procedure was received from Mr Edward Appah on 24th April 2024 stating:

"The Environmental Health team recommends that the acoustic report must adequately quantify the ambient soundscape with and without the use in place. They also recommend using Guidelines for Noise Impact Assessment 2014 produced by the Institute of Environmental Management and Assessment (IEMA) because it provides a comprehensive methodology for conducting a noise impact assessment and its use would be encouraged. The assessment methodology provides across 7 assessment factors (para 7.14 IEMA Guidelines) that should all be considered.

They are satisfied with the measurement location.

In terms of attending a monitoring session, they are of the view that provided the acoustic survey is undertaken by an individual who holds a recognised acoustic qualification and membership of an appropriate professional body (The primary professional body for acoustics in the UK is the Institute of Acoustics) then officer attendance would not be necessary."

- 5.4 I visited the site on the afternoon and evening of Friday 3 May 2024.
- 5.5 I was already familiar with the location but chose to walk to the site from Richmond railway station in order to appreciate the site location in relation to Richmond town centre, the local transport links, and the surrounding road network.
- 5.6 I walked from Richmond town centre heading south along the A307 Petersham Road. Road traffic going south was flowing, but traffic heading north into the town centre was slow-moving and often stationary. Using the Milestone on the east side of Richmond Bridge as a reference point my journey alongside the A307, with the Thames to my right, continued for approximately 700 metres until I turned off to the right into Buccleuch Gardens. I then took the path known as Capital Ring across Petersham Meadows. This was muddy in parts, but walkable. Other pedestrians and cyclists passed me on the path which leads to the corner of Church Lane at the car parking area next to Petersham Nurseries. The total walking distance was a little under 1500m from the milestone at Richmond Bridge.
- 5.7 In order to continuously assess ambient noise levels a logging sound level meter was configured to record and store noise levels at the location shown by the red pin in Figure 3, and also identified in the photograph at Figure 4. This location was approximately 50 metres from the restaurant dining area and chosen to be an appropriate accessible point on the appeal site closest to Rose Bank.
- 5.8 The microphone for the logging sound meter was mounted at a secure position 3m above grade. The instrument and batteries were stored in a weatherproof case and continuously logged data for the following six days which covered a period including two nights of restaurant operation (Friday and Saturday) and four nights without the restaurant operating in the evening.



Figure 3: Site plan showing continuous noise logging measurement position



Figure 4: Continuous noise logging measurement position showing microphone location

- 5.9 I walked out of the nursery through the entrance gate to the car park and turned right to walk clockwise through the wider area around the appeal site. Starting along Church Lane and going past St Peter's Church on my left, then turning right along Petersham Road, and noting heavy road traffic uncomfortably close to the narrow pavement at times, then turning right into River Lane. Petersham Road was busy and large vehicles had to stop and give way as they were unable to pass on the narrow section of road before River Lane.
- 5.10 I walked down River Lane to the Thames, observing dog walkers, cyclists and pedestrians, then returned and turned left at The Old Stables and walked along the public footpath that passes alongside Rose Bank. Pedestrians and cyclists were also using this path at this time and I had to step out of the way to let them pass.
- 5.11 I remained on site, or close to the site on the surrounding streets and footpaths, during the Friday night operation of the restaurant and until after all patrons had departed. During this time I took additional attended noise measurements with a hand-held sound level meter inside the restaurant and around the appeal site.
- 5.12 Noise measurements were made in continuous samples of 1-second intervals. Measurements included the L_{Aeq} , L_{A90} and L_{Amax} indices which are used to indicate the average noise level sampled over a period, the background noise level, and the maximum noise level respectively. Simultaneous octave and third-octave frequency spectra were also obtained during the survey. Measurements with the hand-held meter were taken at 1.5 m above grade level. Measurement duration was typically 5 minutes per sample. Throughout the course of the survey an outdoor microphone windshield was used. Noise measurements were generally made in accordance with BS7445-2:1991 'Description and measurement of environmental noise. Guide to the acquisition of data pertinent to land use'.
- 5.13 The continuous logging noise measurement equipment is battery powered and therefore can only operate for a finite measurement period defined by the capacity

of the battery pack, which is approximately six days in duration. Data was recorded from the evening of Friday 3 May continuously monitoring through to 17:30hrs on Thursday 9 May. This covers two evenings of restaurant trading and four evenings with no activity in the restaurant. Typically only one day of operation and one day with the restaurant closed would be required to allow a comparison, and so having six full days of data provides sufficient information to quantify the ambient soundscape with and without the use in place and to assess the impact of noise from the use of the restaurant in the evenings.

5.14 The noise levels were found to be consistent between measurements taken on a hand-held sound level meter and those logged at the fixed measurement position.

5.15 A large amount of noise data were gathered during the survey which is summarised in the graph and table below.

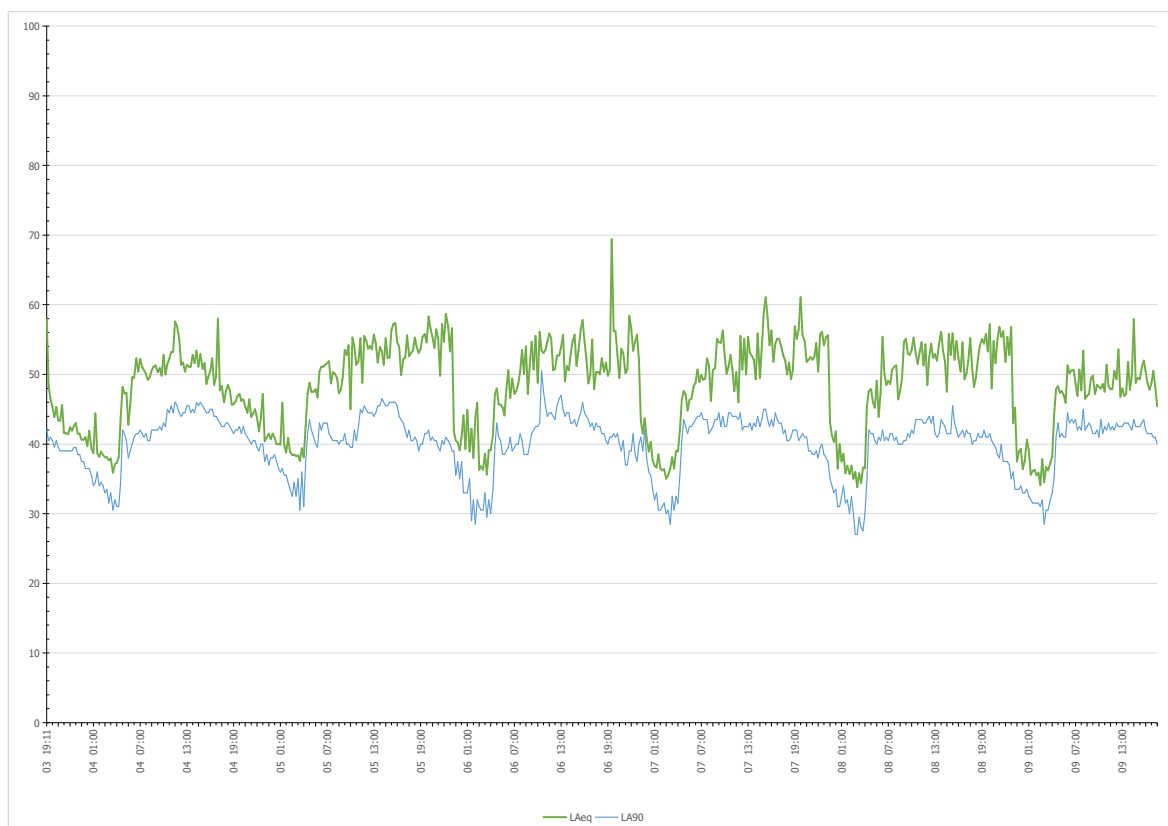


Figure 5: Continuously logged noise data at the measurement position reported in 15-minute samples

Date	Time	Location	L _{Aeq}	L _{Ceq}	L _{AFMax}	L _{AF90}	L _{Eq,63Hz}	L _{Eq,125Hz}	Comments
03/05/2024	20:52	Internal level	72	75	85	68	56	64	Restaurant with 52 covers
03/05/2024	21:08	Logging position	44	55	59	36	49	43	Road traffic noise, aircraft
03/05/2024	21:17	Logging position	42	60	48	39	56	48	Traffic, aircraft, sirens
03/05/2024	22:20	Logging position	37	59	41	35	52	50	Traffic, aircraft
03/05/2024	22:26	Old Stables	45	60	55	37	49	47	Fireworks from Twickenham area, finished at 22:30
03/05/2024	23:09	Logging position	38	56	44	35	52	45	All customers left, premises closed

Figure 6: Attended measurement data and commentary. All sound pressure levels in dB re: 20µPa

- 5.16 The maximum number of cars I observed in the parking area on the evening of my attended assessment was ten. I observed customers gradually leaving by car, by taxi, and on foot as the evening progressed. This process was supervised by the member of staff allocated to the car park and the was both quiet and uneventful.
- 5.17 By 23:09 I observed that the restaurant was empty and that all customers had left the site.
- 5.18 I left the appeal site at approximately 23:20hrs and ordered an Uber which collected me within a few minutes at a bus stop on Petersham Road and took me to Richmond railway station. This was a journey time of 5 minutes.

6.0 Assessment

- 6.1 The graph at Figure 5 shows continuously logged data at the measurement location close to Rose Bank. Each dip in the graph is the night-time period, with the very lowest point occurring between 03:00hrs and 04:00hrs in the morning. This is a typical noise profile for a suburban location influenced by road traffic and it is this time, in the early hours of the morning, where activity on the surrounding roads is at its lowest and hence the lowest ambient noise levels are recorded. It is also of note that commercial aircraft noise is rare in the early hours, whereas up to

around 23:30hrs at this location there is regular and noticeable aircraft noise primarily due to the Heathrow flightpath.

- 6.2 The first dip on the graph in Figure 5 is in the early hours of Saturday morning following the Friday night installation of the noise logging equipment and my attended survey. This is followed by dips in the graph in the early hours of Sunday morning, Monday morning, Tuesday morning, Wednesday morning and Thursday morning, with the survey eventually ending at around 17:30hrs on Thursday 9 May.
- 6.3 As can be seen the noise profile follows a very similar pattern each day of the week with no particular day, or days, dominating the survey as louder. Daytime noise levels are higher, typically in the mid to high fifties dB.
- 6.4 Further analysis of the data, summarised in Figure 7 below shows that the average noise levels, and background noise levels, at the measurement position do not increase on the evenings when the restaurant is open compared to the evenings when the restaurant is closed. It is of note that average noise levels were higher on the evenings when the restaurant is closed and this is likely to be as a result of increased weekday road traffic activity, and the variability of aircraft activity. (For around 70% of the time aircraft arrive from the east over London following the Thames into Heathrow and take off towards the west and for the other 30% of the time this direction is reversed).

Date	Open in evening	Average noise level L_{Aeq}, 18:30-23:00hrs	Background level L_{A90}, 18:30-23:00hrs
Friday 3rd May 2024	Yes	48	40
Saturday 4th May	Yes	46	41
Sunday 5th May 2024	No	56	40
Monday 6th May 2024	No	58	40
Tuesday 7th May 2024	No	55	40
Wednesday 8th May	No	55	39
Thursday 9th May	Yes	<i>No data for evening</i>	<i>No data for evening</i>

Figure 7: Evening noise levels for the period 18:30 - 23:00. All sound pressure levels in dB re: 20µPa

6.5 There is one high noise incident at 19:42hrs on Monday 6 May. It is a relatively short-duration incident contained within a single 15-minute sample period and follows a spectral profile that indicates activity close to the measurement microphone.

6.6 With this single exception, the noise profile, based on 15-minute sample periods, is consistent throughout the week. What is relevant to note is the restaurant use is not consistent: The restaurant was only open on the evenings of Friday 3 May and Saturday 4 May, between 18:30 and 23:00, and closed on the other evenings, but the noise profile does not show louder noise levels on the Friday or the Saturday evenings when the restaurant was open compared to the other evenings when the restaurant was closed.

Date	Lunch service	Dinner service
Friday 3rd May 2024	12:00 - 17:00	18:30 - 23:00
Saturday 4th May 2024	12:00 - 17:00	18:30 - 23:00
Sunday 5th May 2024	12:00 - 17:00	CLOSED
Monday 6th May 2024	12:00 - 17:00	CLOSED
Tuesday 7th May 2024	12:00 - 17:00	CLOSED
Wednesday 8th May 2024	12:00 - 17:00	CLOSED
Thursday 9th May 2024	12:00 - 17:00	18:30 - 23:00

Figure 8: Restaurant operating hours during the continuous noise survey

6.7 The area of the site that was specifically in operation as a restaurant (i.e. the dining area for customers) on 3 May 2024 during my attended assessment is shown as the area shaded yellow in Figure 3. It is furnished and decorated with soft coverings, blinds and plants, creating a relaxed and calm acoustic environment. Some customers did go outside to smoke/vape in small numbers, I observed one or two people at a time, and they remained close to the dining area in the area just to the west of the area shaded yellow.

6.8 The number of covers on the two dates of evening service during the survey week was 52 on Friday 3 May, and 80 on Saturday 4 May.

- 6.9 No amplified music was played inside or outside any part of the building on either date. The Premises Licence (PL062096, November 2022) specifically requires through Condition 11 in Annex 3 that: *"11. The Licence Holder shall ensure that no loudspeakers or public address systems are operated or used outside of the premises building."*
- 6.10 Daytime use of the restaurant: The restaurant was open during the daytime on the dates, times and in the locations described in the table below.

Date	Time	Areas in use during daytime
Friday 3 rd	10:00-17:00	Greenhouses 1, 2 and 3
Saturday 4 th	10:00-17:00	Greenhouses 1, 2 and 3 (sunny day so pergola area in use for teahouse customers)
Sunday 5 th	11:00-17:00	Greenhouses 1, 2 and 3 (sunny day so pergola area in use for teahouse customers)
Monday 6 th	10:00-17:00	Greenhouses 1, 2 and 3
Tuesday 7 th	10:00-17:00	Greenhouses 1 and 2 (sunny day so pergola area in use for teahouse customers)
Wednesday 8 th	10:00-17:00	Greenhouses 1 and 2 (Workshop in floristry area GH3 1030-1200) (sunny day so pergola area in use for teahouse customers)
Thursday 9 th	10:00-17:00	Greenhouses 1 and 2 (sunny day so pergola area in use for teahouse customers)

Figure 9: Restaurant daytime use, areas used during continuous noise survey

7.0 Discussion

- 7.1 The enforcement notice states that *"The current hours of operation cause noise and disturbance which is harmful to the residential amenity of the adjoining dwellings"* but also acknowledges that the use between 10:00 and 17:00hrs *"is not considered harmful to the residential amenity of the adjoining dwellings"*.
- 7.2 There is nothing significant, in noise terms, that happens at 17:00hrs. The existing noise climate does not suddenly become quiet (see background noise levels reported as dB L_{A90}) at this time rendering noise from the nursery restaurant operation more noticeable.

- 7.3 Ambient noise levels do drop, but this occurs around 23:30hrs and that corresponds with a reduction in flight activity into Heathrow¹⁰.
- 7.4 17:00hrs is not recognised as a particular cut-off point in noise legislation or guidance. As the use up to 17:00hrs is considered acceptable by the LPA it remains unclear why this time is chosen as a cut-off point: in accepting there is no harm to residential amenity up until 5pm all through the week then that is an acknowledgement that there is no significant noise from this use. The background noise levels do not suddenly drop at 17:00hrs, nor do planes stop flying into Heathrow or do cars stop using the surrounding roads at this time.
- 7.5 The restaurant's operation in the evening has been tested many times over a period of years. I have not been made aware of any attempt at enforcement action due to noise under either the Environmental Protection Act 1990 or the Licensing Act 2003, both of which provide swift and effective routes for enforcement in the event of noise. One illustration that the historic use does not cause a problem comes in the Technical Officer comments in respect of application reference 14/0345/VRC in which Environmental Health Officer Chris Hurst states *"The owners of the premises have issued Temporary Event Notices (under the Licensing Act 2003) over the past 3 years for evening events and supper clubs and there is no record, on our system, of noise or other types of complaints associated with these events. This suggests that extended hours can be managed so as to limit any negative impact on amenity. The last noise complaint was in October 2011 and was associated with music noise from an event at the nursery."*
- 7.6 A key question regarding noise has to be *"Is the test of protecting residential amenity in planning a stricter criterion than that of public nuisance under the Licensing Act 2003, or statutory nuisance under the Environmental Protection Act*

¹⁰ Night-time (23:30 - 06:00) operations at Heathrow are heavily restricted by the Government, which sets a limit of 5,800 night-time take-offs and landings a year. A night quota limit is also in place, which caps the amount of noise the airport can make at night.

1990?" The reason this is important is because (A) the public nuisance objective has recently been examined by the LPA in its role as Licensing Authority and not found to be at risk of not being promoted when the site remains open until 23:00hrs, and (B) under Section 79 of the Environmental Protection Act 1990 there is a duty on every local authority to inspect its area at appropriate intervals to detect any statutory nuisances that ought to be dealt with. Where a member of the public makes a complaint of a statutory nuisance to the local authority, the authority has to take such steps as are reasonably practicable to investigate the nuisance. Therefore if there was noise from evening use, a use that has been extensively tested, it is highly likely that action to restrict that noise would have been taken under one, or both, of these relevant and powerful pieces of legislation. Whilst it has historically been argued that residential amenity is a finer test than that of Public Nuisance, it is now the case that the NPPF, through the PGG on noise, considers that a noise impact with an effects level which is lower than a Significant Observed Adverse Effect Level (SOAEL) is acceptable.

- 7.7 My experience is that any noise that is intrusive and interferes with residential living is likely to trigger firstly complaints, and then, if substantiated as a nuisance, enforcement action by an Environmental Health Officer. In my experience Officers will consider using a noise abatement notice (Environmental Protection Act 1990) and/or a premises licence review (Licensing Act 2003) first, and the last recourse is generally to planning enforcement. This is not an indication of the noise level experienced but of the speed and effectiveness of those first two enforcement procedures in addressing noise that is causing complaints.

8.0 Conclusions

- 8.1 Richard Vivian of Big Sky Acoustics Ltd was instructed by Mr Simon Ricketts of Town Legal LLP, acting on behalf of the Appellant, to carry out an assessment of the noise impact from the evening operation of the restaurant at the appeal site.
- 8.2 This assessment makes reference to the National Planning Policy Framework, the Noise Policy Statement for England, Planning Practice Guidance on Noise, Local Planning Policy, the Environmental Protection Act 1990, the Clean Neighbourhoods and Environment Act 2005, the Noise Act 1996, the Anti-Social Behaviour, Crime and Policing Act 2014, the Licensing Act 2003, British Standard 8233 and the operational objectives of the applicant. There is no discernible change of the average ambient noise levels caused by the restaurant in operation compared to evenings when it is not in operation, and therefore, in accordance with the IEMA Guidelines for Noise Impact Assessment, the noise from the restaurant use is not significant.
- 8.3 The use has been tested for years. The restaurant is open to the public, promoted and unhidden. As such there has been no opportunity for this to have been a covert or secretive attempt to trial the use: it has happened in clear site with the public, local residents and the London Borough of Richmond upon Thames aware of the use. The London Borough of Richmond upon Thames, in its role as Licensing Authority, has even approved the use the the grant of a premises licence for evening use.
- 8.4 There is no noise evidence presented by the LPA, or any record on file that I have been shown, of a history of substantiated noise complaints and subsequent enforcement action, and therefore no technical justification that the use should be allowed through the day, but then restricted beyond 17:00hrs.
- 8.5 The operation of this site has been assessed, with measurement data gathered over a six-day survey including attended measurements and observations, covering

a Friday and Saturday night of normal trading, and four nights without restaurant activity. The average noise levels at the closest residential property do not increase when the restaurant is in use.

- 8.6 The evening operation of the restaurant has no impact on average noise levels and therefore this use does not cause an adverse impact, by reason of noise.



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Appendix A - Glossary

Sound Pressure Level and the decibel (dB)

A sound wave is a small fluctuation of atmospheric pressure. The human ear responds to these variations in pressure, producing the sensation of hearing. The ear can detect a very wide range of pressure variations. In order to cope with this wide range of pressure variations, a logarithmic scale is used to convert the values into manageable numbers. Although it might seem unusual to use a logarithmic scale to measure a physical phenomenon, it has been found that human hearing also responds to sound in an approximately logarithmic fashion. The dB (decibel) is the logarithmic unit used to describe sound (or noise) levels. The usual range of sound pressure levels is from 0 dB (threshold of hearing) to 140 dB (threshold of pain).

Frequency and Hertz (Hz)

As well as the loudness of a sound, the frequency content of a sound is also very important. Frequency is a measure of the rate of fluctuation of a sound wave. The unit used is cycles per second, or hertz (Hz). Sometimes large frequency values are written as kilohertz (kHz), where 1 kHz = 1000 Hz. Young people with normal hearing can hear frequencies in the range 20 Hz to 20,000 Hz. However, the upper frequency limit gradually reduces as a person gets older.

A-weighting

The ear does not respond equally to sound at all frequencies. It is less sensitive to sound at low and very high frequencies, compared with the frequencies in between. Therefore, when measuring a sound made up of different frequencies, it is often useful to 'weight' each frequency appropriately, so that the measurement correlates better with what a person would actually hear. This is usually achieved by using an electronic filter called the 'A' weighting, which is built into sound level meters. Noise levels measured using the 'A' weighting are denoted dBA. A change of 3dBA is the minimum perceptible under normal everyday conditions, and a change of 10dBA corresponds roughly to doubling or halving the loudness of sound.

C-weighting

The C-weighting curve has a broader spectrum than the A-weighting curve and includes low frequencies (bass) so it can be a more useful indicator of changes to bass levels in amplified music systems.

Noise Indices

When a noise level is constant and does not fluctuate over time, it can be described adequately by measuring the dB level. However, when the noise level varies with time, the measured dB level will vary as well. In this case it is therefore not possible to represent the noise level with a simple dB value. In order to describe noise where the level is continuously varying, a number of other indices are used. The indices used in this report are described below.

- L_{eq}** The equivalent continuous sound pressure level which is normally used to measure intermittent noise. It is defined as the equivalent steady noise level that would contain the same acoustic energy as the varying noise. Because the averaging process used is logarithmic the L_{eq} is dominated by the higher noise levels measured.
- L_{Aeq}** The A-weighted equivalent continuous sound pressure level. This is increasingly being used as the preferred parameter for all forms of environmental noise.
- L_{Ceq}** The C-weighted equivalent continuous sound pressure level includes low frequencies and is used for assessment of amplified music systems.
- L_{eq,63Hz}** The equivalent continuous sound pressure level in the octave band centred on 63Hz. This can be considered the lower bass octave in music as it covers the frequency range of 44-88Hz.
- L_{eq,125Hz}** The equivalent continuous sound pressure level in the octave band centred on 125Hz. This can be considered the upper bass octave in music covering the range of 88-177Hz.
- L_{Amax}** is the maximum A-weighted sound pressure level during the monitoring period. If fast-weighted it is averaged over 125 ms, and if slow-weighted it is averaged over 1 second. Fast weighted measurements are therefore higher for typical time-varying sources than slow-weighted measurements.
- L_{A90}** is the A-weighted sound pressure level exceeded for 90% of the time period. The L_{A90} is used as a measure of background noise.

Sound insulation terminology

- D_{nT,w}** Weighted standardised level difference, a single figure generated by comparing the D_{nT} with a reference curve. The reference curve is shifted in 1dB steps until the sum of adverse deviation of the test curve, compared to the reference curve, is as large as possible, but no more than 32.0 dB. The value of the shifted reference curve at 500Hz is taken as the $D_{nT,w}$. N.B. As $D_{nT,w}$ for airborne transmission represents a level difference, an improvement generates a larger figure.
- G_{tr}** A 'spectrum adaptation term' used to correct the $D_{nT,w}$ in order to reflect low frequency performance of the wall or floor tested.

Appendix B - Restaurant location



Appendix C - Instrumentation

All attended measurements were carried out using a Cirrus type CR:171B integrating-averaging sound level meter with real-time 1:1 & 1:3 Octave band filters and audio recording conforming to the following standards: IEC 61672-1:2002 Class 1, IEC 60651:2001 Type 1 I, IEC 60804:2000 Type 1, IEC 61252:1993 Personal Sound Exposure Meters, ANSI S1.4-1983 (R2006), ANSI S1.43-1997 (R2007), ANSI S1.25:1991. 1:1 & 1:3 Octave Band Filters to IEC 61260 & ANSI S1.11-2004.

Unattended measurements were carried out using a Casella type CEL-633C1 integrating-averaging sound level meter with real-time 1:1 & 1:3 octave band filters conforming to the following standards: IEC 61672-1:2013 Class 1, IEC 60651:1979 Type 1, IEC 60804:2000 Type 1, ANSI S1.4-1983, ANSI S1.43-1997 (R2007). 1:1 & 1:3 octave band filters comply with EN 61260:1996, Class 0 & ANSI S1.11-1986, Order-3 Type 0C.

Description

Cirrus sound level meter	type CR:171B
Cirrus pre-polarized free-field microphone	type MK:224
Cirrus microphone pre-amplifier	type MV:200E
Cirrus class 1 acoustic calibrator	type CR:515
Casella sound level meter	type CEL-633C1
Casella pre-polarized free-field microphone	type CEL-251
Casella microphone pre-amplifier	type CEL-495
Casella class 1 acoustic calibrator	type CEL-110/1

The calibration of the measuring equipment was checked prior to and immediately following the tests and no signal variation occurred. The calibration of equipment is traceable to national standards.

Appendix D - Meteorology

Date	Temperature/°C	Wind speed (avg)/ ms ⁻¹	Precipitation/mm
Friday 3 rd May 2024	9 - 13	5	3.6
Saturday 4 th May 2024	8 - 17	2	none
Sunday 5 th May 2024	7 - 17	2	none
Monday 6 th May 2024	9 - 14	2	3.0
Tuesday 7 th May 2024	10 - 19	3	none
Wednesday 8 th May 2024	9 - 21	2	none
Thursday 9 th May 2024	10 - 23	2	none