PROJECT NOTE

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PROJECT NAME	KOJO RETROSPECTIVE APPLICATION	**AUTHOR**	DANI FIUMICELLI
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INTRODUCTION

1.1. Vanguardia Ltd have been commissioned to review the revised noise impact assessment submitted in support of the retrospective planning application for chiller and air conditioning plant at the rear of the Kojo restaurant at 32 - 34 Rosslyn Hill, Hampstead, NW3.

1.2. Kojo is a new restaurant operator in an existing unit on the ground floor of the terraced properties at 32 – 34 Rosslyn Hill. The development has involved the installation of new mechanical plant and ductwork on the rear roof of the building, serving the restaurant floor and kitchen.

1.3. A retrospective planning application has been submitted to the local authority (London Borough of Camden) for “Installation of roof lantern, replacement condenser units and duct on the roof of the rear ground floor extension. (Retrospective).” The application number is 2021/0101/P.

1.4. This Project Note provides comments and observations on the noise impact assessment submitted in support of the retrospective planning application made to LB Camden for the plant and equipment.

1.5. This review is based on documents downloaded from the LB Camden planning web site including the following:

- A report by Bickerdicke Allen & Partners entitled: KOJO HAMPSTEAD, 32 – 34 ROSSLYN HILL LONDON, NW3 1NH BS4142:2014 NOISE ASSESSMENT, APP 021/0101/PA11414_01_RP001_2.0, dated the 8th September 2021.

- Associated plant details and drawings showing site and plant locations.

AUTHOR'S QUALIFICATIONS AND EXPERIENCE

1.6. The author of this note, Dani Fiumicelli, is a Technical Director of Vanguardia Limited, a company whose services include specialising in the field of acoustics, noise, and vibration. Dani was awarded the Chartered Institute of Environmental Health's Diploma in 1986 and a Master of Science (MSc) in Environmental Acoustics from the Southbank University in 1999; and has over 30 years of experience in the field of acoustics having worked as an Environmental Health Officer in London from 1986 until 2002, and as an acoustic consultant in the private sector since then. Dani is a full member of the Institute of Acoustics (IoA) and the Chartered Institute of Environmental Health Officers (CIEH), and a member of the IoA Environmental Noise Committee. Dani was chair of a committee set up by the IOA, the Association of Noise Consultants and the CIEH which published good practice guidance regarding noise sensitive development in May 2017 and am a member of a working groups revising the IOA Good Practice Guide to Noise from Place of Entertainment and from outdoor concerts.

1.7. Dani has a wide range of experience in all technical aspects related to acoustics and has managed numerous projects as well as presenting evidence at planning committees and appeals, legal proceedings, public inquiries and House of Commons and Scottish Parliament Scrutiny Committees. He has presented technical papers and written articles nationally and internationally on noise and acoustics covering a wide range of aspects. His overall project experience includes being the project director or manager and participant in Environmental Impact Assessments for restaurants, bars, pubs and clubs, residential schemes, schools, airports, road transport, guided transport (trams and buses), light and heavy railway projects, renewable energy, hospital development, mixed developments, harbour developments, leisure developments, sport stadiums, and commercial and industrial developments.

1.8. The author confirms he has visited the vicinity of the Kojo restaurant and viewed the existing buildings and the relationship with adjoining and nearby residential properties from publicly accessible areas around the premises.

POLICY

1.9. National, London and LB Camden policy and guidance in relation to noise is discussed in this section.

NATIONAL POLICY AND GUIDANCE

Noise Policy Statement for England (NPSE)

1.1. NPSE seeks to clarify the underlying principles and aims in existing policy documents, legislation and guidance that relate to noise. The statement applies to all forms of noise, including environmental noise, neighbour noise and neighbourhood noise.

1.2. The statement sets out the long-term vision of the Government's noise policy, which is to "*promote good health and a good quality of life through the effective management of noise within the context of policy on sustainable development*".

1.3. The policy promotes the effective management and control of noise, within the context of Government policy on sustainable development and thereby aims to:

- 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 improvements of health and quality of life.

1.4. The statement adopts established concepts from toxicology that are currently being applied to noise impacts. The concept details noise levels, at which the effects of an exposure may be classified into a specific category. The classification categories as detailed within the NPSE are as follows:

- No Observed Effect Level (NOEL) - the level below which no effect can be detected. Below this level no detectable effect on health and quality of life due to noise can be established;
- Lowest Observable Adverse Effect Level (LOAEL) - the level above which adverse effects on health and quality of life can be detected; and
- Significant Observed Adverse Effect Level (SOAEL) - the level above which significant adverse effects on health and quality of life occur.

1.5. It is recognised that SOAEL does not have a single objective noise-based level that is applicable to all sources of noise in all situations and therefore the SOAEL is likely to be different for different sources, receptors and at different times of the day.

1.6. No guidance has been issued at the time of writing to identify the noise levels that represent SOAEL and LOAEL for typical noise sources and receptors.

National Planning Policy Framework (NPPF)

1.7. Paragraph 174 of the NPPF advises that:

"174 (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.

1.8. Paragraph 185 of the NPPF comments further on noise as follows:

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[65];

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.

Footnote 65 says: "See Explanatory Note to the Noise Policy Statement for England (Department for Environment, Food & Rural Affairs, 2010).

National Planning Practice Guidance (NPPG)

1.9. The Planning Practice Guidance (PPG) is issued by the Department of Communities and Local Government and at Paragraph: 005 Reference ID: 30-005-20140306 expands on the use of Lowest Observed Adverse Effect Level (LOAEL) and Significant Observed Adverse Effect Level (SOAEL) as follows:

LOAEL - "*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*".

1.10. Thus, the PPG is explicit in saying that although noise can be heard, the effects have been mitigated and minimised as far as is practicable and this is the lower limit to what policy requires i.e. there is no policy imperative to achieve Noise Observed Effect Level (NOEL) i.e. for noise to be inaudible.

1.11. The PPG goes on to describe the effects of SOAEL as follows:

"*If the exposure is above this level the planning process should be used to avoid this effect occurring, by use of appropriate mitigation such as by altering the design and layout. Such decisions must be made taking account of the economic and social benefit of the activity causing the noise, but it is undesirable for such exposure to be caused.*"

1.12. In the same section the PPG also goes on to identify unacceptable noise exposure as:

"*At the highest extreme, noise exposure would cause extensive and sustained changes in behaviour without an ability to mitigate the effect of 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 prevented from occurring.*"

1.13. At Paragraph: 002 Reference ID: 30-002-20140306 the NPPG states that noise can override other planning considerations; with the qualification that: "*but neither the Noise Policy Statement for England nor the National Planning Policy Framework (which reflects the Noise Policy Statement) expects noise to be considered in isolation, separately from the economic, social and other environmental dimensions of proposed development.*"

1.14. The NPPG at Paragraph: 003 Reference ID: 30-003-20140306 advises that when dealing with noise aspects of planning applications LPAs should "consider:

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

1.15. Like the NPPF and NPSE the NPPG does not contain any noise level decibel based standards or guidelines.

1.16. At paragraph 006 Reference ID: 30-006-20141224 the NPPG also recognises that:

- where applicable, the cumulative impacts of more than one source should be taken into account along with the extent to which the source of noise is intermittent and of limited duration;
- The subjective nature of noise means that there is not a simple relationship between noise levels and the impact on those affected;
- There are no specific objective noise-based measures or values that define when the "significant observed adverse noise level" applicable to all sources of noise is crossed;
- The impact on those affected by noise will depend on how various factors combine in any particular situation. The NPPG goes on to explain that factors including the following are important;
    - *the source and absolute level of the noise together with the time of day it occurs. Some types and level of noise will cause a greater adverse effect at night than if they occurred during the day – this is because people tend to be more sensitive to noise at night as they are trying to sleep. The adverse effect can also be greater simply because there is less background noise at night;*
    - *for a new noise making source, how the noise from it relates to the existing sound environment;*
    - *for non-continuous sources of noise, the number of noise events, and the frequency and pattern of occurrence of the noise;*
    - *the spectral content of the noise (i.e. whether or not the noise contains particular high or low frequency content) and the general character of the noise (i.e. whether or not the noise contains particular tonal characteristics or other particular features), and;*
    - *the local arrangement of buildings, surfaces and green infrastructure, and the extent to which it reflects or absorbs noise.*
- At para [005] the NPPG provides a qualitative description of "*How can it be established whether noise is likely to be a concern*" and includes a table summarising a noise exposure hierarchy in subjective terms which applies to all noise sources in any situation, including in this case.

The London Plan

1.17. The following policy from the London Plan is relevant.

"Policy D14 Noise

A In order to reduce, manage and mitigate noise to improve health and quality of life, residential and other non-aviation development proposals should manage noise by:

1) avoiding significant adverse noise impacts on health and quality of life

2) reflecting the Agent of Change principle as set out in Policy D13 Agent of Change

3) mitigating and minimising the existing and potential adverse impacts of noise on, from, within, as a result of, or in the vicinity of new development without placing unreasonable restrictions on existing noise-generating uses

4) improving and enhancing the acoustic environment and promoting appropriate soundscapes (including Quiet Areas and spaces of relative tranquillity)

5) separating new noise-sensitive development from major noise sources (such as road, rail, air transport and some types of industrial use) through the use of distance, screening, layout, orientation, uses and materials – in preference to sole reliance on sound insulation

6) where it is not possible to achieve separation of noise-sensitive development and noise sources without undue impact on other sustainable development objectives, then any potential adverse effects should be controlled and mitigated through applying good acoustic design principles

7) promoting new technologies and improved practices to reduce noise at source, and on the transmission path from source to receiver.

B Boroughs, and others with relevant responsibilities, should identify and nominate new Quiet Areas and protect existing Quiet Areas in line with the procedure in Defra's Noise Action Plan for Agglomerations.

LB CAMDEN LOCAL PLAN

1.18. The LB Camden Local Plan considers noise in Policies A1 Managing the impact of development and A4 Noise and vibration, which are reproduced below:

Policy A1 Managing the impact of development

The Council will seek to protect the quality of life of occupiers and neighbours. We will grant permission for development unless this causes unacceptable harm to amenity.

We will:

a. seek to ensure that the amenity of communities, occupiers and neighbours is protected;

b. seek to ensure development contributes towards strong and successful communities by balancing the needs of development with the needs and characteristics of local areas and communities;

c. resist development that fails to adequately assess and address transport impacts affecting communities, occupiers, neighbours and the existing transport network; and

d. require mitigation measures where necessary.

The factors we will consider include:

e. visual privacy, outlook;

f. sunlight, daylight and overshadowing;

g. artificial lighting levels;

h. transport impacts, including the use of Transport Assessments, Travel Plans and Delivery and Servicing Management Plans;

i. impacts of the construction phase, including the use of Construction Management Plans;

j. noise and vibration levels;

k. odour, fumes and dust;

l. microclimate;

m. contaminated land; and

n. impact upon water and wastewater infrastructure.

Policy A4 Noise and vibration

The Council will seek to ensure that noise and vibration is controlled and managed.

Development should have regard to Camden's Noise and Vibration Thresholds (Appendix 3).

We will not grant planning permission for:

a. development likely to generate unacceptable noise and vibration impacts; or

b. development sensitive to noise in locations which experience high levels of noise, unless appropriate attenuation measures can be provided and will not harm the continued operation of existing uses.

We will only grant permission for noise generating development, including any plant and machinery, if it can be operated without causing harm to amenity. We will also seek to minimise the impact on local amenity from deliveries and from the demolition and construction phases of development.

1.19. Policy A4 references Camden's Noise and Vibration Thresholds in Appendix 3 of the local plan, which are discussed in the following section.

NOISE AND VIBRATION THRESHOLDS IN APPENDIX 3 OF THE LOCAL PLAN.

1.20. The relevant extracts from the noise and vibration thresholds of the local plan are reproduced below:
"The significance of noise impact varies dependent on the different noise sources, receptors and times of operation presented for consideration within a planning application. Therefore, Camden's thresholds for noise and vibration evaluate noise impact in terms of various 'effect levels' described in the National Planning Policy Framework and Planning Practice Guidance:

- NOEL – No Observed Effect Level
- LOAEL – Lowest Observed Adverse Effect Level
- SOAEL – Significant Observed Adverse Effect Level

Three basic design criteria have been set for proposed developments, these being aimed at guiding applicants as to the degree of detailed consideration needed to be given to noise in any planning application. The design criteria outlined below are defined in the corresponding noise tables. The values will vary depending on the context, type of noise and sensitivity of the receptor:

- Green – where noise is considered to be at an acceptable level.

• Amber – where noise is observed to have an adverse effect level, but which may be considered acceptable when assessed in the context of other merits of the development.

• Red – where noise is observed to have a significant adverse effect.

Industrial and Commercial Noise Sources

A relevant standard or guidance document should be referenced when determining values for LOAEL and SOAEL for non-anonymous noise. Where appropriate and within the scope of the document it is expected that British Standard 4142:2014 'Methods for rating and assessing industrial and commercial sound' (BS 4142) will be used. For such cases a 'Rating Level' of 10 dB below background (15dB if tonal components are present) should be considered as the design criterion).

Existing Noise Sensitive receptor	Assessment Location	Design Period	LOAEL (Green)	LOAEL to SOAEL (Amber)	SOAEL (Red)
Dwellings**	Garden used for main amenity (free field) and Outside living or dining or bedroom window (façade)	Day	'Rating Level'10 dB* below background	'Rating Level' between 9 dB below and 5dB above background	'Rating Level' greater than 5 dB above background
Dwellings**	Outside bedroom window (façade)	Night	'Rating Level' 10 dB* below background and no events exceeding 57 dB LAFMax	'Rating Level' between 9 dB below and 5dB above background or noiseevents between 57 and 88 dB LAFMax	'Rating Level' greater than 5 dB above background and/or events exceeding 88 dB LAFMax

*10 dB should be increased to 15 dB if the noise contains audible tonal elements (day and night). However, if it can be demonstrated that there is no significant difference in the character of the residual background noise and the specific noise from the proposed development then this reduction may not be required. In addition, a frequency analysis (to include, the use of Noise Rating (NR) curves or other criteria curves) for the assessment of tonal or low frequency noise may be required.

**levels given are for dwellings, however, levels are use specific and different levels will apply dependent on the use of the premises.

There are certain smaller pieces of equipment on commercial premises, such as extract ventilation, air conditioning units and condensers, where achievement of the rating levels (normally determined by a BS 4142 assessment) may not afford the necessary protection. In these cases, the Council will generally also require a NR curve specification of NR35 or below, dependant on the room (based upon measured or predicted Leq, 5mins noise levels in octave bands) 1 metre from the façade of affected premises, where the noise sensitive premise is located in a quiet background area."

SUMMARY OF NOISE POLICY AND GUIDANCE

1.21. In summary, National, London wide and local planning policy and guidance require that:

- The worst, unacceptable, effects of noise on its own that remain despite mitigation, must be prevented; and,
- That the lesser significant effects of noise should be avoided; and,
- The least effects of adverse impacts should be mitigated and minimised;
- A good standard of amenity shall be achieved;
- Residential amenity and quality of life shall be protected.

1.22. LB Camden's Appendix 3 of the local plan is clear in saying that achieving a BS 4142 rating levels 10 decibels below the background noise levels is the aim of their policy. However, where this is not achievable a "Red, Amber and Green" system can apply where noise impacts ranked as red are unlikely to be permitted as the impacts are at or above the SOAEL, amber ranked impacts will normally be refused unless the planning balance shows the adverse effects of being between LOAEL and SOAEL are over ridden by wider planning benefits, and impacts ranked as green are regarded as being at or below LOAEL and therefore are acceptable in policy terms.

1.23. LB Camden's Appendix 3 of the local plan also goes on to say that a BS 4142 based assessment may not be adequate and that appraisal in terms of the NR curve rating should also generally be carried against a target of NR 35 or below.

COMMENTS ON THE NOISE IMPACT ASSESSMENT

1.24. As described above National, London Plan and LB Camden Local Plan policies and guidance in relation to noise aim to avoid significant adverse effects, minimise adverse effects on health

and quality of life as far as reasonably practicable, where possible improve noise conditions and to not cause harm to amenity.

1.25. There is no evidence to show that the replacing of plant has been used as an opportunity to try and improve the noise conditions for nearby sensitive receptors, i.e. select quieter plant than previously or provision of mitigation to reduce the emission of noise from the premises. Neither is there any evidence in the report to show that such an approach would not be possible.

1.26. The derivation of the BS 4142 rating level does not include any objective quantifiable evidence to show that a tonality correction is not required. Consequently, the reported rating level difference with background noise level is potentially an underestimate and the impact is greater than described.

1.27. However, even if the plant noise was not sufficiently tonal to attract a penalty, the noise from constantly running plant of this nature is likely to be readily distinctive against the residual acoustic environment. Deriving the rating level BS 4142 would require a penalty of 3 dB is added to the predicted noise levels at the receptors thereby increasing the rating level difference from +3 dBA as stated in the report to + 6 dBA.

1.28. The report claims that the plant noise impact will lie between LOAEL and SOAEL. In these circumstances policy and guidance require that reasonably practicable measures to mitigate and minimise the noise impact should be applied.

1.29. However, the report rejects screening of the plant to reduce noise at receptors as "*unlikely to achieve the LOAEL performance standard*". But achieving LOAEL is not the policy requirement. Instead, policy requires that reasonably practicable measures are used to "mitigate and minimise" noise effects and does not say that these aims should do not apply if they do not result in LOAEL being achieved. Screening will almost certainly be able to mitigate and minimise the plant noise impacts, albeit it may not be able to achieve LOAEL. Additionally, there is no objective and quantifiable analysis to support this claim, that can be audited to determine to what degree it should influence decision making on this application.

1.30. The report notes that there is a way of mitigating and minimising the noise effects by providing "*A bespoke acoustic enclosure around the condensers"* to achieve a LOAEL standard of 10 decibels below background noise. The report goes on to reject this approach to mitigating and minimising the noise effects because "*the air conditioning condenser units are replacement rather than new units it would be unreasonable to expect these to meet the stringent LOAEL standard of 10 dB below background.*" There is no policy justification for this conclusion and there is no quantified objective analysis to show that such an approach to meeting the policy

objectives to mitigating and minimising adverse noise effects in "*unreasonable*". Furthermore, provision of an acoustic enclosure could result in an improvement in noise conditions compared to previously, as supported by policy and guidance.

1.31. In addition, contrary to Appendix 3 of the Local Plan the noise impact assessment does not include an NR curve based assessment of the plant noise at nearby noise sensitive receptors. The noise impact assessment is therefore deficient.

CONCLUSION

1.32. For the reasons given above it is considered that the noise impact assessment submitted in support of the retrospective application does not demonstrate that noise from the plant will meet the aims of the National, London Plan and Local Plan policy and guidance.

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