

Unit 29,
Robert Court Industrial Estate,
Britten Road,
Reading
RG2 0AU

Noise Impact Assessment

9 October 2024

Client: PassoVest Capital
Lotus
Tintagel Road
Finchampstead
RG403JJ

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Document Control

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Document Approvals

Role	Name	Signature	Date
Preparation	Sarah Barnes Assistant Acoustic Consultant BA, MSc, AMIOA		9 October 2024
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For Information

Please Note

Quantum Acoustics Ltd have prepared this report with generally accepted acoustic consultancy principles, using all reasonable skill, care and diligence. This is as per the terms agreed between Quantum Acoustics Ltd and our Client. Information referred to herein which may have been provided by third parties should not be assumed to have been checked and verified by Quantum Acoustics Ltd, unless specifically confirmed to the contrary. Both confidential and commercially sensitive information is contained within this document, and as such it should not be disclosed to third parties. Any third party choosing to rely on this document does so at their own risk.

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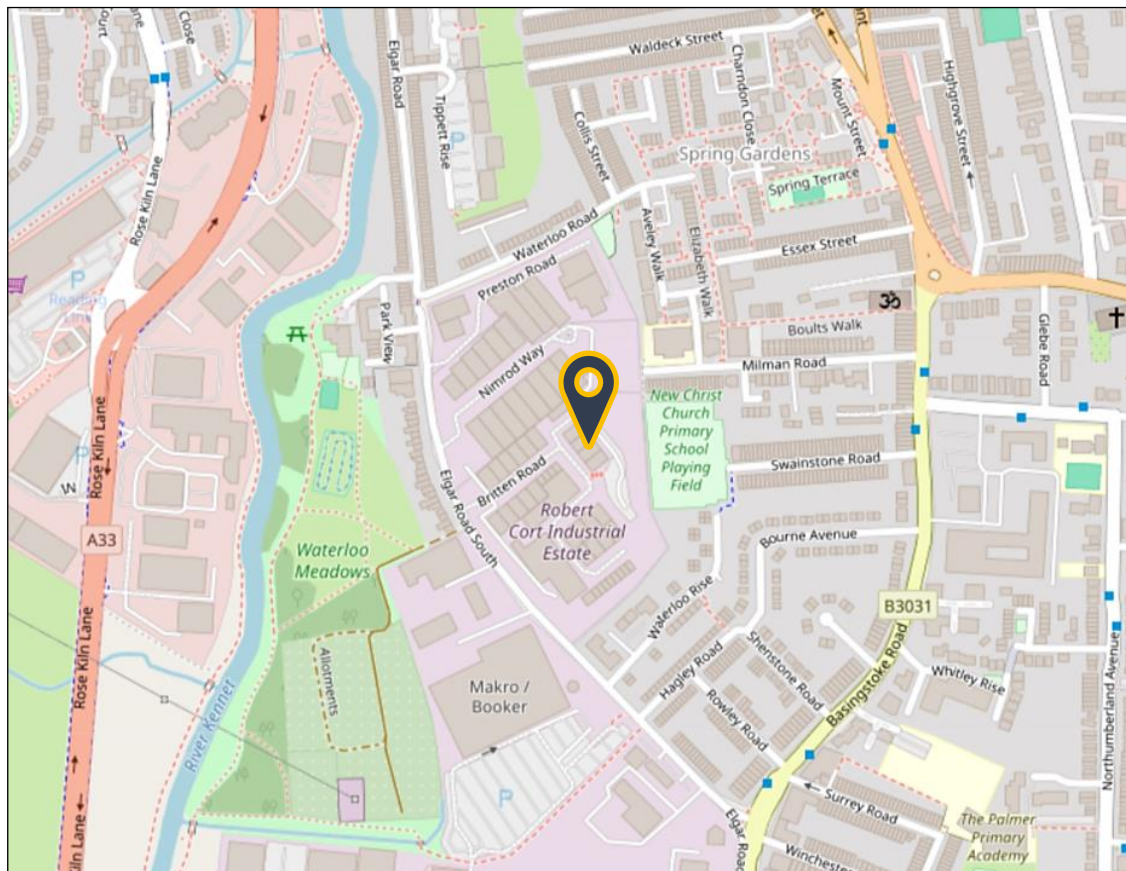
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1.0 INTRODUCTION

- 1.1 Quantum Acoustics Ltd has been to prepare this Noise Impact Assessment, to accompany a planning application for a new dance studio at Robert Court Industrial Estate, Britten Road, Reading, RG2 0AU.
- 1.2 The dance studio will be mainly used for Ballroom and Latin dancing.
- 1.3 This report presents the results of an environmental noise survey undertaken at the site to determine existing environmental noise climate experienced by existing residential receptors in the vicinity of the site.
- 1.4 The report considers the potential noise impacts of the scheme on neighbouring noise-sensitive receptors and presents the findings of a noise impact assessment. An evaluation of the findings has been undertaken as well as an assessment of the results for compliance with national and local planning policies.

2.0 SITE DESCRIPTION

2.1 The site is located on Britten Road, Reading, as shown in the figure below.



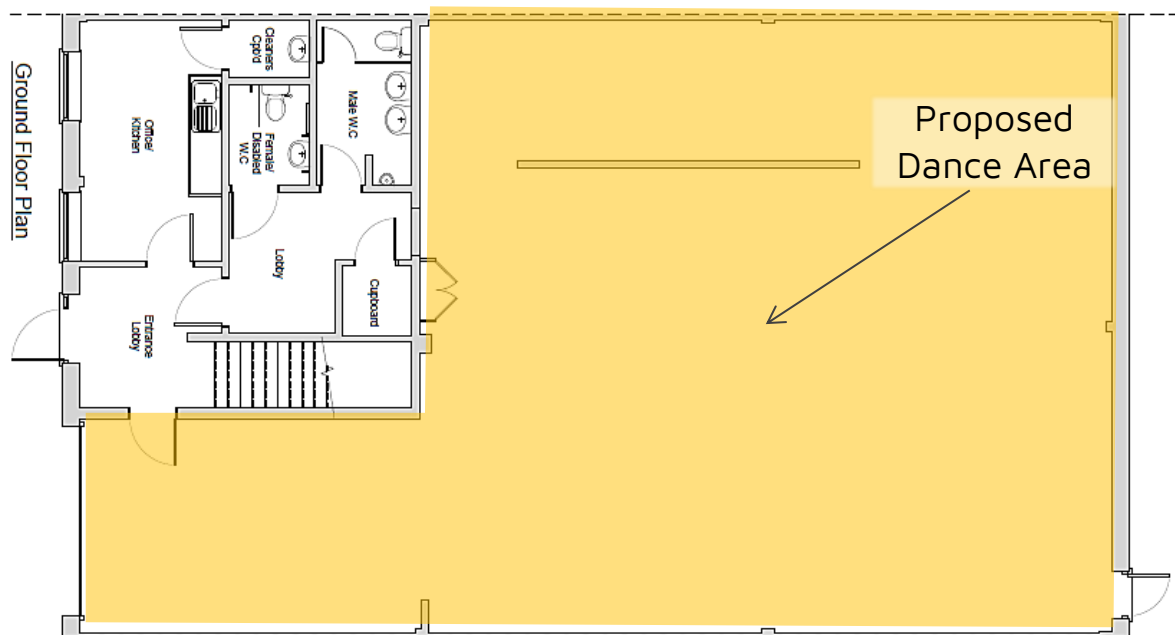
- 2.2 The industrial unit sits to the rear of the Robert Court Industrial Estate, Britten Road accessed off Elgar Road South and housing a number of different business units of various uses.
- 2.3 The surrounding area is made up of similar industrial units all with a uniform appearance.
- 2.4 To the east of the site there is Christchurch School playing fields as well as residential housing.
- 2.5 The northern, western and southern boundaries of the site are formed by additional commercial units.
- 2.6 Beyond the western boundary of the site are residential units on Elgar Road South.
- 2.7 The closest noise sensitive receptors to the site are the houses towards the northeast of the site on Milman Road.

2.8 An aerial view of the site and neighbouring land uses is shown in the figure below.



3.0 PROPOSED SCHEME

- 3.1 The application considers the change of use of the current building from Class B8 – Storage and Distribution to Class E – Indoor Sports & Recreation for the proposed use as a dance studio for mainly Ballroom and Latin dancing.
- 3.2 The client has advised us that the proposed hours for the dance classes are from 10:00am to 10:00pm, seven days a week. No dance classes, music or amplified speech will occur after 10:00pm. After 10:00pm, activities at the site will be limited to cleaning up and general closing down.
- 3.3 No changes are proposed to the external façade or appearance of the building. It is however proposed to install full height plasterboard walls around the dance area.
- 3.4 The proposed general arrangement of the studio is shown in the figure below.



4.0 PLANNING CONTEXT AND DESIGN GUIDANCE

National Planning Policy Framework

- 4.1 The overarching aim of the planning regime is to ensure the compatibility of land uses. With regard to noise, the National Planning Policy Framework sets out two primary policies which seek to ensure that new noise sensitive development is adequately protected from noise; that the impact of noise from new noise generating land uses on existing residential uses is minimised and that existing commercial/industrial uses and community facilities do not have unreasonable restrictions imposed on them by new noise sensitive development:

Paragraph 191

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.*

Paragraph 193:

"Planning policies and decisions should ensure that new development can be integrated effectively with existing businesses and community facilities (such as places of worship, pubs, music venues and sports clubs). Existing businesses and development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or 'agent of change') should be required to provide suitable mitigation before the development has been completed."

Noise Policy Statement for England

4.2 With regard to 'adverse' impacts and 'significant adverse' impacts, the NPPF directs the reader to the advice contained in DEFRA's "*Noise Policy Statement for England*" (NPSE). This Policy Statement introduces the concept of a "*Significant Observed Adverse Effect Level*" (SOAEL), "*Lowest Observed Adverse Effect Level*" (LOAEL) and "No Observed Effect Level" (NOEL). These are concepts aligned with toxicology outcomes derived from guidance given by the World Health Organisation.

- NOEL – No Observed Effect Level
This is the level below which no effect can be detected and below which there is no detectable effect on health and quality of life due to noise.
- LOAEL – Lowest Observable Adverse Effect Level
This is the level above which adverse effects on health and quality of life can be detected.
- SOAEL – Significant Observed Adverse Effect Level
This is the level above which significant adverse effects on health and quality of life occur.

Planning Practice Guidance

- 4.3 The government's Planning Practice Guidance is a web-based resource and provide advice on various issues, including noise (<https://www.gov.uk/guidance/noise--2>). Guidance in relation to noise was outlined March 2014 and updated July 2019.
- 4.4 The guidance seeks to help clarify understanding the perception of noise effects, outcomes and actions that should be taken to align decision making with the NPPF. In line with the NPPF concept of basing decision making on the identification of "*significant*" or "*other*" impacts on health and quality of life, the NPPG aligns its guidance with the NPSE.
- 4.5 The table below summarises this guidance.

Response	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			
Present and not intrusive	Noise can be heard but does not cause any change in behaviour or attitude. Can slightly affect the acoustic character of the area but not such that there is a perceived change in the quality of life.	No Observed Adverse Effect	No specific measures required
Lowest Observed Adverse Effect Level (LOAEL)			
Present and intrusive	Noise can be heard and causes small changes in behaviour and/or attitude, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance.	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 and/or attitude, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area.	Significant Observed Adverse Effect	Avoid
Present and very disruptive	Extensive and regular changes in behaviour and/or an inability to mitigate effect of noise leading to psychological stress or physiological effects, e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable hard, e.g. auditory and non-auditory.	Unacceptable Adverse Effect	Prevent

Local Planning Policy

4.6 Reading Borough Council's Local Plan was adopted in November 2019. Key planning policies relating to noise include:

- Policy CC8: Safeguarding Amenity

...

Development will not cause a detrimental impact on the living environment of existing residential properties or unacceptable living conditions for new residential properties, in terms of:

...

- Noise and disturbance;

- Policy EN16: Pollution and Water Resources

Development will only be permitted where it would not be damaging to the environment and sensitive receptors through land, noise or light pollution; ...

Proposals for development that are sensitive to the effects of noise or light pollution will only be permitted in areas where they will not be subject to high levels of such pollution, unless adequate mitigation measures are provided to minimise the impact of such pollution.

- Policy EN17: Noise Generating Equipment

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

4.7 The Planning Statement issued to Reading Brough Council states on following on noise:

- Whilst the proposed use involves the playing of music for the purpose of dance classes and noise associated to this purpose it is the intention of the applicant to take additional acoustic measures to the internal fabric of the building to reduce any noise disturbance.

Design Guidance

4.8 A number of industry standard design documents have been used in the preparation of this report to inform the assessment of potential impact magnitudes and resulting effects associated with the proposed development. These include:

- *"Guidelines for Environmental Noise Impact Assessment"*. The Institute of Environmental Management and Assessment's (IEMA), 2014;
- BS 8233: 2014: *"Sound Insulation and Noise Reduction for Buildings"*;
- BS 4142: 2014 + A1: 2019: *"Methods for Rating and Assessing Commercial and Industrial Noise"*;
- *"Guidelines for Community Noise"*: World Health Organisation (WHO), 1999;
- *"Noise from Pubs and Clubs – Phase 1"*: DEFRA, 2005.

4.9 All of the above documents provide helpful guidance in relation to the assessment of noise, advice on magnitudes of noise that may assist in determining an adverse noise effect and good practice guidance in relation to noise minimisation.

4.10 While specific guidance on the potential impact of a dance studio is not available, the documents noted above will serve as a reasonable equivalent to assess the impact.

5.0 POTENTIAL NOISE IMPACT

5.1 The application seeks permission for use of the site to operate as a dance studio (Class E). Potential operational noise sources therefore include:

- Noise associated with potential plant equipment and/or mechanical services installations located external to the building or located internally and "ducted" to the outside; and
- Noise break-out from the fabric of the building due to internal activities.
- Noise associated with the potential impact of additional vehicles associated with drop-offs/pickups.

5.2 The following sections of this report assess these potential impacts.

5.3 However, when making such assessment, it is also material to consider the context of the site, including the potential sensitivity of likely receptors.

5.4 The closest noise sensitive receptors to the site are the houses towards the northeast of the site on Milman Road. These receptors are approximately 70 meters away beyond a high wooded embankment.

5.5 The houses are exposed to environmental noise due to road traffic noise on Milman Road, Waterloo Rise and also amenity noise from the Christchurch School playing field towards the east. There will also be distant noise from the industrial complex. The impact of noise associated with the proposed use will be considered in the context of the noise climate at the nearest residential unit.

6.0 EXISTING NOISE ENVIRONMENT

- 6.1 The site is exposed to a combination of road traffic noise from vehicles within the industrial complex and noise breakout from neighbouring industrial units.
- 6.2 In order to quantify the magnitude of noise, an automated environmental noise survey was undertaken of the locality of the site from approximately 10:00 hours on 10 June 2024 to 14:00 hours on 12 June 2024.
- 6.3 Noise levels were monitored at one position, as indicated in the figure below.



Position	Description
LT1	The meter was attached to a road barrier approximately 1m above ground overlooking the rear of the site. The measurement was taken under free-field conditions. This monitoring position is representative of the noise sensitive receptor (NSR1) at 69 Milman Rd, Reading RG2 0AR.

6.4 Details of the equipment used for the survey are summarised below.

Instrumentation				
Position	Type	Manufacturer	Type	Serial Number
LT1	Sound Level Analyser	Convergence	NRST_mk4	AFvUL9WS8X8XgBNgQ4rZFD
All	Acoustic Calibrator	Rion	NC74	34651766

6.5 All instrumentation holds current laboratory calibration certificates (available on request).

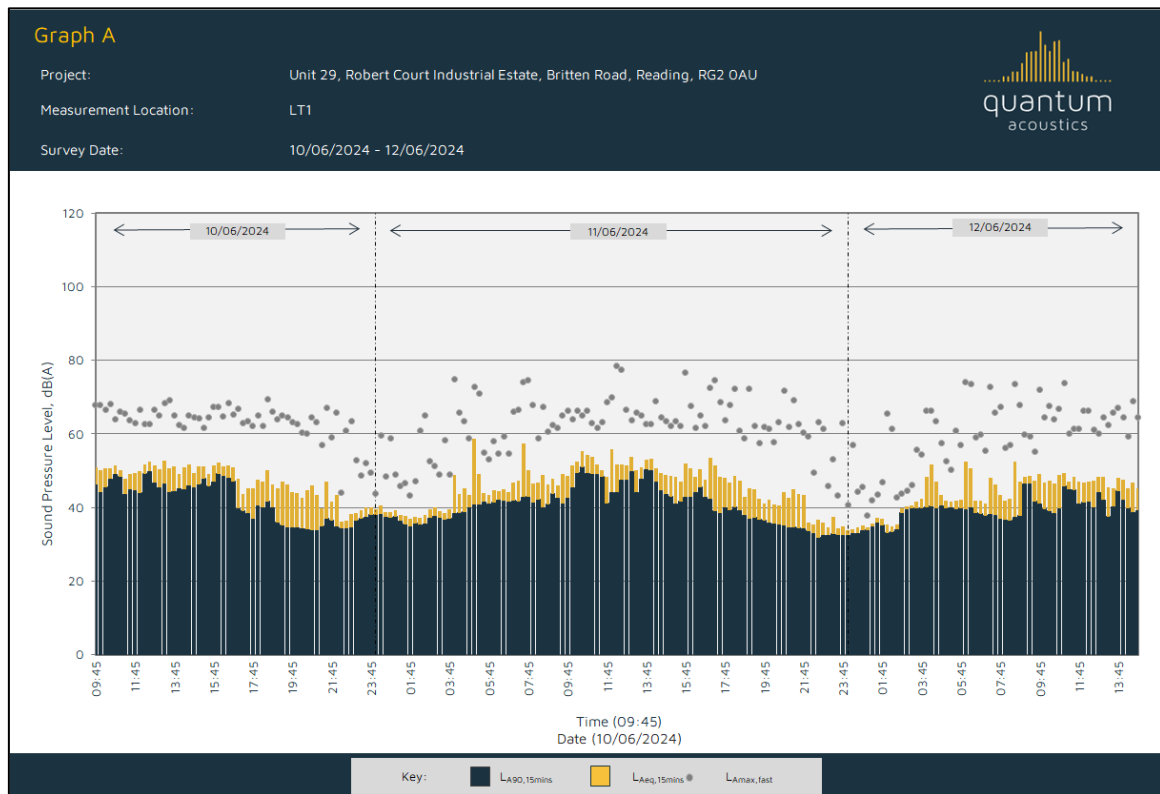
6.6 A field calibration check on the meter was made at the start of the survey and a further calibration check made on completion. No significant drift in the calibration of any instrument was observed.

Procedure

6.7 The noise monitoring equipment at Position LT1 was configured to record the L_{A90} , L_{Aeq} , and $L_{Amax,fast}$ sound pressure levels over consecutive 15-minute periods to provide a detailed time history profile showing fluctuations in noise levels.

Results

6.8 The results of the noise monitoring are shown in the Graph A below.



6.9 The measurement data has been processed to determine typical daytime ($L_{Aeq,16\text{hour}}$) and night-time ($L_{Aeq,8\text{hour}}$) noise metrics for the site.

6.10 The results are summarised in the table below.

Typical Daytime and Night-time Noise Levels $L_{Aeq, T}$ dB		
Position LT1	Daytime Noise Level, $L_{Aeq,16\text{hour}}$ (dB) (07:00 – 23:00)	Night-time Noise Level, $L_{Aeq,8\text{hour}}$ (dB) (23:00 – 07:00)
10 June 2024	49.1	46.1
11 June 2024	50.0	44.0
12 June 2024	47.4	
Data is averaged for available time period		

- 6.11 The measurement data has also been analysed to determine minimum background ($L_{A90,T}$) noise levels during the daytime, evening and night-time periods.

Minimum Background Noise Level, $L_{A90,T}$ dB			
Position	Daytime (07:00 – 19:00)	Evening (19:00 – 23:00)	Night-time (23:00 – 07:00)
LT1	37	32	33

Discussion

- 6.12 The noise climate around the site was dominated by noise from road traffic noise and neighbouring industrial units, predominately vehicle repair operations.

Weather

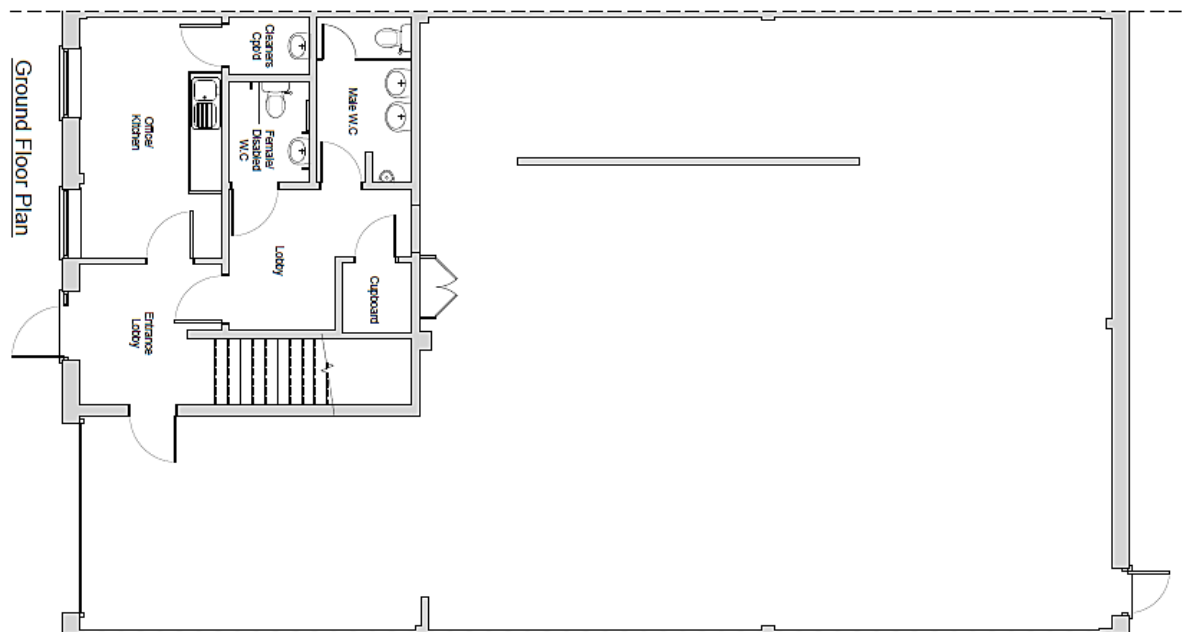
- 6.13 Whilst weather conditions were not actively measured during the survey, observed weather conditions during site attendance were suitable for noise monitoring with dry conditions and light winds. Publicly available on-line weather records show the following typical conditions during the survey period.

10 June 2024 Temperature range: 9.8 to 22.1°C Pressure range: 1002 – 1011 hPa Humidity range: 34 – 94% Wind speed: 0 to 17.9 km/h Average wind direction: NW Precipitation: 2.79 mm	11 June 2024 Temperature range: 6.4 to 19.4°C Pressure range: 1011 – 1016 hPa Humidity range: 40 – 89% Wind speed: 0 to 13.2 km/h Average wind direction: NNW Precipitation: 0.25 mm	12 June 2024 Temperature range: 9.8 to 20.4°C Pressure range: 1013 – 1016 hPa Humidity range: 34 – 88% Wind speed: 0 to 14.6 km/h Average wind direction: NNW Precipitation: 0 mm
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7.0 MUSIC NOISE BREAK-OUT

- 7.1 The client has advised us that the proposed hours for the dance classes are from 10:00am to 10:00pm, seven days a week. No dance classes, music or amplified speech will occur after 10:00pm. After 10:00pm, activities at the site will be limited to cleaning up and general closing down.

Nearest Noise Sensitive Receptor



- 7.2 The potentially most affected noise-sensitive receptor to the proposed Ballroom and Latin dance studio is at 69 Milman Rd, Reading RG2 0AR, approximately 70 metres from the site as identified above.
- 7.3 To assess the potential impact and resulting effect of noise breakout associated with the use of the proposed dance studio, consideration has been given to the absolute and potential relative levels in context of the existing noise environment.
- 7.4 The World Health Organisation's "*Guidelines for Community Noise*" provides the following guidance in relation to potential annoyance in external areas:

"During the daytime, few people are seriously annoyed by activities with L_{Aeq} levels below 55dB; or moderately annoyed with L_{Aeq} levels below 50dB".

- 7.5 Similar guidance for external noise levels is presented in BS 8233: 2014.
- 7.6 Whilst commentary accompanying the guidance of BS 8233 indicates that the guidance is intended to relate to noise from "*anonymous*" sources of environmental noise (such as road or rail traffic"), the WHO guidelines are proposed on the basis of "*community*" noise. The foreword of the guidance clarifies that community noise includes "*neighbourhood noise*" which includes sources such as "*premises and installations related to the catering trade (restaurant, cafeterias, discotheques, etc.) from live or recorded music;...*"

Noise Breakout

- 7.7 Noise "break-out" from the internal areas of the dance studio will be determined by two primary considerations. Firstly, the level of source noise within the premises, which will itself be determined by the levels of music during operation. Secondly, the sound insulation capabilities of the external fabric of the building.

Source Noise Levels

- 7.8 We understand that music will be played at relatively low levels, as normally associated with “domestic” listening. We are advised that music will be significantly quieter than would normally be associated with aerobics or Zumba exercise classes. Ballroom/Latin Dance classes typically involve partnered dancing, where clear verbal communication between the instructor and dancers is essential, as well as communication between dance partners. Dancers need to hear instructions, subtle rhythms, and cues from both the instructor and their partners, so the music tends to be quieter to allow for this interaction. The music is typically played at a moderate volume to ensure participants can concentrate on technique while also hearing the instructor's advice. In contrast, aerobics/zumba classes are more fitness-oriented, where verbal communication between participants is less critical, and movements are usually led by visual cues from the instructor. The music drives the energy and pace, and loud, high-energy music is used to motivate and keep participants engaged.
- 7.9 We understand that mainly Ballroom and Latin style music will be played within the dance studio, which, based on octave band spectrum analysis, has less prominent bass compared to music for similar activities such as aerobics or Zumba. The client has advised that suitable domestic operational noise levels are expected to reach around 70dB $L_{Aeq,T}$. Therefore, we have assumed 70dB across octave band levels, with a slight increase of 5dB at 63Hz to safeguard nearby receptors.
- 7.10 The client has advised that operational noise levels are expected to reach around 70dBA. This is based on measurements taken in a similar studio.
- 7.11 To provide a robust assessment we have assumed the following octave band sound pressure levels in the proposed dance studio.

Assumed Maximum Sound Pressure Levels (dB) at Octave Band Centre Frequencies (Hz)								
63	125	250	500	1000	2000	4000	8000	dB A
75	70	70	70	70	70	70	78	75

- 7.12 It is important to note the above equates to a robust assessment because:

- The above noise spectrum equates to 75dBA, so is 5dBA higher than the client advises.

- The above assumes a relatively high low frequency content (at 63Hz octave band) as is associated with many genres, whereas Ballroom and Latin dance music tends to have less low frequency content.

External Building Fabric

- 7.13 It is proposed to retain the existing external building envelope and to install full height plasterboard walls around the dance area.
- 7.14 The solid areas of external wall comprise solid masonry. We estimate this will offer the following sound reduction performance:

Octave Band Sound Reduction Indices (dB) for External Walls at Octave Band Centre Frequencies (Hz)						
63	125	250	500	1k	2k	4k
23	24	34	40	45	49	49

- 7.15 We estimate the roof will offer the following sound reduction performance:

Octave Band Sound Reduction Indices (dB) for External Roof at Octave Band Centre Frequencies (Hz)						
63	125	250	500	1k	2k	4k
12	16	19	23	26	22	21

Operational Noise Assessment

- 7.16 Based on the assumed source noise levels and building fabric performances outlined above, we have assessed operational noise “break-out” from the proposed dance studio to the nearest sensitive receptor.
- 7.17 As previously mentioned, the closest noise sensitive receptors to the site are the houses towards the northeast of the site on Milman Road. These receptors are approximately 70 meters away beyond a high wooded embankment.
- 7.18 Based on the above we predict operational noise “break-out” from the proposed dance studio to the nearest sensitive receptor of around 33 dB $L_{Aeq,T}$.

- 7.19 This predicted noise level is well below WHO/BS 8233 guidelines for external amenity spaces and also well below the existing ambient $L_{Aeq,T}$ noise levels. It is therefore concluded that noise break-out from the proposed dance studio will have no significant impact in absolute terms.
- 7.20 To demonstrate the potential significance of noise change, predicted noise levels have also been considered in the context of guidance set out in the IEMA's *"Guidelines for Environmental Noise Impact Assessment"*.
- 7.21 The table below seeks to align the potential significance of changes in sound level with noise related national and local planning policy and the government's accompanying planning practice guidance relating to noise.

Proposed Assessment of Noise Change Significance		
Impact Descriptor	Change in sound level	Effect
Major	Greater than 10dB L_{Aeq} change in sound level	Significant Adverse Effect
Moderate	A 5 to 9.9 dB L_{Aeq} change in sound level.	
Minor	A 3 to 4.9dB L_{Aeq} change in sound level	Adverse Effect
Negligible	Less than 2.9dB L_{Aeq} change in sound level	
None	No change in sound level	No Adverse Effect

- 7.22 The client has advised us the proposed operating hours related to the new dance studio would be from 10:00 hours to 22:00 hours seven days per week.
- 7.23 The significance of noise change impacts has been assessed based on the operational hours above. The table below outlines the worst predicted noise level from the dance studio and compared it against the lowest 1-hour $L_{Aeq,1hour}$ measured on site. The assessment has been completed on the assumption the rear door will remain closed during music operation.

Assessment of Noise Change Significance				
Time	Predicted Worst Noise Level, LAeq,1hour	Worst Case Ambient Noise Level, LAeq,1hour	Resultant Noise Level, LAeq,1hour	Noise Level Change (dB)
10.00 – 11.00	33	53.7	54.0	+0.0
11.00 – 12.00	33	51.5	52.0	+0.1
12.00 – 13.00	33	53.2	53.5	+0.0
13.00 – 14.00	33	52.2	52.6	+0.1
14.00 – 15.00	33	50.9	51.5	+0.1
15.00 – 16.00	33	49.4	50.2	+0.1
16.00 – 17.00	33	49.4	50.2	+0.1
17.00 – 18.00	33	51.0	51.5	+0.1
18.00 – 19.00	33	46.9	48.1	+0.2
19.00 – 20.00	33	43.8	46.0	+0.3
20.00 – 21.00	33	42.2	45.1	+0.5
21.00 – 22.00	33	43.8	46.0	+0.3

- 7.24 The above table indicates that the proposed use of the dance studio would not result in a perceptible change to existing ambient noise levels at the nearest receptors. It is thus predicted to be fully compliant with all local noise policy and guidance.

Octave Band Noise Impact Assessment

- 7.25 To further demonstrate compliance, we have undertaken a noise impact assessment in octave bands to assess the resulting effect of noise breakout associated with the use of the proposed dance studio.
- 7.26 The predicted noise levels 1m from the nearest receptor have been reviewed and compared with representative lowest octave band ambient noise levels to assess the frequency characteristics emanating from the building.
- 7.27 The following table summarises our predicted noise level due to the dance studio at the nearest noise-sensitive residential window.

Predicted noise (dB $L_{eq,T}$) at the Nearest Residential Window in Octave Band Centre Frequencies (Hz)								
	63Hz	125 Hz	250 Hz	500 Hz	1kHz	2kHz	4kHz	8kHz
Source Noise Level (Internal)	75	70	70	70	70	70	70	78
Source Noise Level, L_p @ 1m (External)	72	64	63	62	61	61	61	61
Geometric Divergence, Adiv (Distance = 70m)	37	37	37	37	37	37	37	37
Predicted noise level at Receptor	35	27	26	25	25	25	25	24

- 7.28 The following table compares our predicted noise level due to the dance studio at the nearest noise-sensitive residential window with the estimated ambient noise levels between 20:00pm and 21:00pm.

Predicted noise (dB $L_{eq,T}$) at the Nearest Residential Windows in Octave Band Centre Frequencies (Hz)								
	63Hz	125 Hz	250 Hz	500 Hz	1kHz	2kHz	4kHz	8kHz
Predicted noise level at Receptor	35	27	26	25	25	25	25	24
Ambient Noise Level at Receptor	40	34	33	31	35	30	33	29
Difference	-5	-7	-7	-6	-10	-5	-8	-5

- 7.29 It is thus predicted that the noise level due to the dance studio at the nearest noise-sensitive residential window will be at least 5dB below the estimated ambient noise level in each octave band.

Vehicle Noise Assessment

- 7.30 A scoping review has been undertaken to assess the potential increase in noise levels due to additional cars dropping off and picking up at the dance studio. Since the current estate is primarily used for industrial purposes, and given the significant intervening distance and acoustic screening, it is predicted that the vehicles associated with the dance studio will have little to no additional impact on the nearest noise-sensitive receptors.

8.0 BUILDING SERVICES NOISE EMISSIONS

- 8.1 The proposed dance studio will inherit the mechanical plant area in situ on the site.
- 8.2 As the proposed dance studio may require the installation of new building services systems/equipment in future, an assessment on the potential impact has been undertaken. The required systems may include plant located internally within the building which may need to be "ducted" to outside or the installation of external plant. It will therefore need to be ensured that the noise emissions from proposed plant installations are adequately controlled to minimise the risk of an adverse impact on existing dwellings in the vicinity of the site.
- 8.3 If an operative condition is considered appropriate, it would be usual to expect operational noise emission criteria to be set in accordance with BS 4142: 2014 + A1: 2019 *"Methods for rating and addressing industrial and commercial sound"*.
- 8.4 BS 4142 is a relative method of assessment where noise (the *"rated sound level"*) from industrial/commercial activities is assessed relative to the typical background sound levels characterising a site. With regard to the significance of the assessment, the guidance indicates

"A difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context."

A difference of around +5 dB is likely to be an indication of an adverse impact, depending on the context."

The lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context"

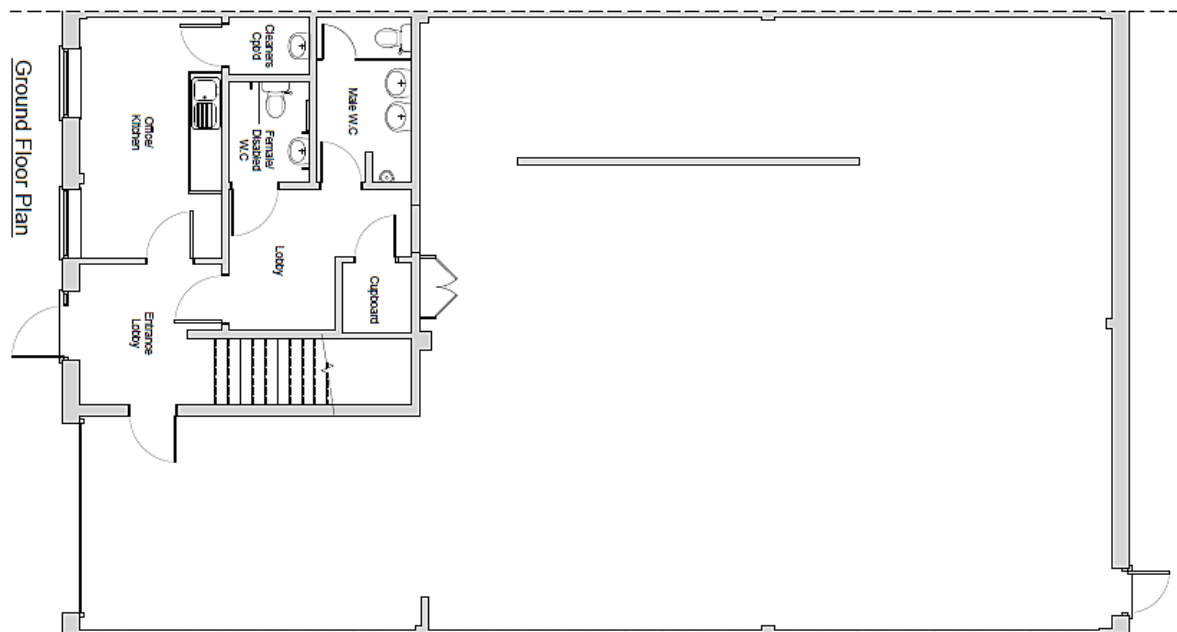
- 8.5 As a result, a requirement that noise emissions from any new building services plant is controlled to a level set to be 10dB below the typical minimum background sound level ($L_{A90,15\text{mins}}$).
- 8.6 Based on the results of the environmental noise survey, the following plant noise emission criteria are proposed in compliance with the Reading Borough Councils standard requirements.

Plant Noise Rating Level, $L_{A,T}$ (dB)			
Location	Daytime (07:00 – 19:00)	Evening (19:00 – 23:00)	Night-time (23:00 – 07:00)
69 Milman Road	27	22	23

- 8.7 The proposed noise criteria should be met at as measured at the nearest noise sensitive receptor with all plant operating normally.
- 8.8 The proposed criteria should be achieved with the appropriate specification of plant, inclusive of noise control mitigation as necessary.

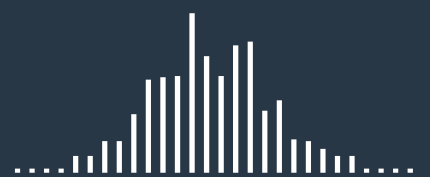
9.0 CONCLUSIONS

- 9.1 Quantum Acoustics have undertaken an environmental noise survey to establish the existing acoustic climate around the site at Robert Court Industrial Estate, Britten Road, Reading, RG2 0AU.
- 9.2 An assessment of noise “break-out” from activity within the dance studio has been undertaken. The proposed hours for the dance classes are from 10:00am to 10:00pm, seven days a week. No dance classes, music or amplified speech will occur after 10:00pm.
- 9.3 We understand that music will be played at relatively low levels. The reasoning is explained in Section 7.
- 9.4 The assessment concludes that the predicted level of noise “break-out” would have no significant noise impact.



- 9.5 It is predicted that vehicle movements associated with the proposed dance studio will have no additional impact on the nearest noise-sensitive receptors, given that the current estate is primarily used for industrial purposes and also the significant intervening distance and acoustic screening.
- 9.6 Environmental plant noise emission criteria have been proposed, on the basis of the noise survey results, and in accordance with the relevant guidance including the Local Authority's requirements. Compliance with these will avoid any plant noise impact on neighbouring noise sensitive residential receptors.

- 9.7 It is therefore concluded that the proposed dance studio will not have significant adverse effects and that the noise levels are predicted to be compliant with local, national policy and other relevant guidance.



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