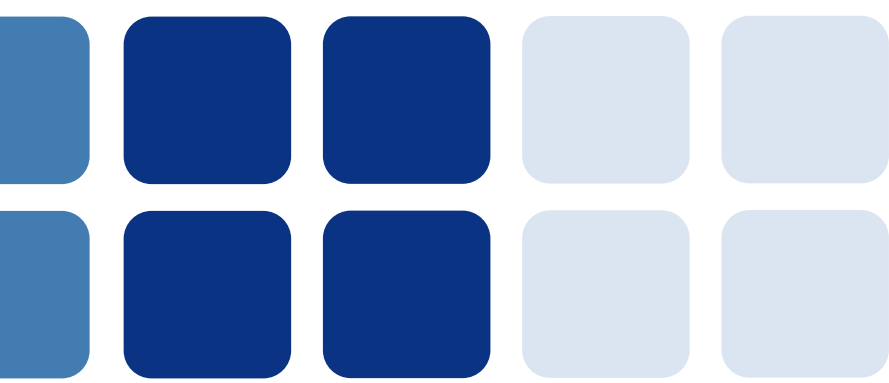




POWERLEAGUE BURY,
MARKET STREET,
MANCHESTER BL9
0DB – PADEL COURTS

Noise Impact Assessment Report

Reference: 15633.RP01.NAR.0

Prepared: 18 August 2026

Revision Number: 0

Powerleague

172 Tottenham Court Road
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Noise Impact Assessment Report



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Revision	Comment	Date	Prepared By	Approved By
0	First issue of report	18 August 2026	Struan Carmichael	Martin Raisborough

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The recommendations within this report relate to acoustics performance only and will need to be integrated within the overall design by the lead designer to incorporate all other design disciplines such as fire, structural integrity, setting-out, etc. Similarly, any sketches appended to this report illustrate acoustic principles only and again will need to be developed into full working drawings by the lead designer to incorporate all other design disciplines.



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1.0 INTRODUCTION

Three full sized new padel courts and one smaller ‘touch’ padel court are proposed at the Powerleague site located at Market Street, Manchester BL9 0DB.

RBA Acoustics has been commissioned to undertake an assessment of the noise impact from the use of the padel courts on the nearby noise sensitive receptors. This report presents the results of the noise assessment.

This report occasionally uses technical acoustic terminology. In order to assist the reader, a summary of the technical terminology used is presented in Appendix A.

2.0 SITE DESCRIPTION

Powerleague Bury currently comprises 6No. 5-a-side and 2No. 7-a-side football pitches and with an associated clubhouse building that contains reception facilities and changing rooms.

The opening hours are as follows:

- Monday to Thursday - 09:00 to 23:00
- Friday - 09:00 to 22:00
- Saturday - 09:00 to 17:00
- Sunday – 10:00 to 22:00

The Powerleague site is located off Market Street, Bury. To the north of the site is the Bury College campus, to the east is Market Street and Bury Athletics Club. To the south is a playing field associated with Bury College as well as residential properties along Wellington Road. To the west is Manchester Road Park and to the Northwest are residential properties along Parliament Street.

The site is shown in relation to its surroundings in the site plan in Figure 1 (Appendix D).

3.0 ENVIRONMENTAL NOISE SURVEY

3.1 Survey Methodology

Long term monitoring of the prevailing background noise was undertaken at one location at the site over the following period:

- Tuesday 21st July to Tuesday 28th July 2026.

As the survey was unattended it is not possible to comment with certainty regarding meteorological conditions throughout the entire survey period. However, based on observations during the site visits and weather reports for the area, conditions were generally considered suitable for obtaining representative noise measurements, being predominantly dry with little wind.

As it was not possible to undertake long term measurements at the receptors due to equipment security, additional short term spot measurements were also undertaken during the evening period on Monday 27th July (20:00 – 23:00) at the nearest residential receptor locations. Measurements were made of the L_{Aeq} and L_{Amax} noise levels and the measurement locations are described further in Section 3.3 below.

3.2 Instrumentation

For information regarding the equipment used for the measurements please refer to Appendix B. The sound level meters were calibrated both prior to and on completion of the survey with no significant calibration drifts observed.

3.3 Measurement Locations

To determine the existing noise climate at the site and the nearest noise sensitive receptors, measurements were undertaken at the following locations.

Measurement Position 1 (Long Term) – North-West Boundary of Powerleague Site

Measurements were undertaken along the northwestern boundary of the Powerleague site. The microphone was attached to the edge fencing surrounding the existing football pitches approximately 2.5m from the ground level, the microphone was above the fencing line so to avoid any reflections. During our time on site, the noise climate was noted to consist of activities on the football pitches, general road traffic from Wellington Road and to a lesser extent general surrounding road network.

Measurement Position 2 (Short Term) – 42 Wellington Road

Measurements were undertaken along Wellington Road, approximately 2m from the roadside outside of 42 Wellington Road. The microphone was attached to a tripod resulting in the microphone being 1.2m from ground level. During the attended measurements the main noise source was noted to be road traffic noise associated with Wellington Road. Occasional noise from activities on the football pitch were also noted during the measurements.

Measurement Position 3 (Short Term) – 43 Parliament Street

Measurements were undertaken along Parliament Street, approximately 2m from the roadside outside of 43 Parliament Street. The microphone was attached to a tripod resulting in the microphone being 1.2m from ground level. During the attended measurements the main noise source was noted to be low level traffic noise associated with Parliament Street. Occasional noise from activities on the football pitch were also noted during the measurements.

The measurement positions are also illustrated on the site plan attached in Figure 1 and photos in Figures 3-5 (Appendix D).

3.4 Review of Measurement Data

A review of the measured sound levels has been undertaken to determine the absolute lowest L_{Aeq} levels when comparing the measurements at both the Powerleague site and receptors. To provide a worst-case assessment, we have compared the lowest level measured (comparing MP1 to either MP2 / MP3 at the receptors) and adopted this level this at the relevant receptor for use in our noise impact assessment. We consider this to be appropriate to provide a very worst-case assessment of potential noise impact.

Review of Measurement Position 1 (Long Term)

The noise levels measured are shown as time-histories on the attached Graphs 1-3 (Appendix D). A summary of the period averaged L_{Aeq} noise levels measured at Measurement Position 1 are presented in Table 1, along with typical L_{AFmax} levels measured during the night-time. As a note, the typical night-time L_{AFmax} levels (based upon the 90th percentile of the 5-minute samples across the night-time period) have been analysed to eliminate any L_{max} events associated with existing Powerleague operations.

Table 1 – Measurement Position 1 Measured Levels

Date / Date	Measurement Period	Period-Averaged Noise Level, L_{Aeq} (dB)	Typical Maximum Noise Level, $L_{AFmax,5min}$ (dB)
Tuesday 21/07/2026	Operating Hours (09:00-23:00)	55	N/A
	Night-time (23:00-07:00)	42	60
Wednesday 22/07/2026	Operating Hours (09:00-23:00)	51	N/A
	Night-time (23:00-07:00)	42	62
Thursday 23/07/2026	Operating Hours (09:00-23:00)	56	N/A
	Night-time (23:00-07:00)	44	64
Friday 24/07/2026	Operating Hours (09:00-23:00)	54	N/A
	Night-time (23:00-07:00)	44	62
Saturday 25/07/2026	Operating Hours (09:00-23:00)	53	N/A
	Night-time (23:00-07:00)	47	66
Sunday 26/07/2026	Operating Hours (09:00-23:00)	54	N/A
	Night-time (23:00-07:00)	44	64
Monday 27/07/2026	Operating Hours (09:00-23:00)	54	N/A
	Night-time (23:00-07:00)	46	67

For use in the noise impact assessment and to ensure a worst-case assessment, analyses have been undertaken to determine the lowest $L_{Aeq,1hour}$, ambient sound level during operational hours over the entire survey duration.

Table 2 – Measurement Position 1 - Lowest Measured Levels

Measurement Period	L_{Aeq} (dB)
Monday 27 th July (22:00 – 23:00)	47dB $L_{Aeq,1hour}$

From review of the time history during the above hourly period and given these are lower than the typical hourly periods, we consider these are representative of periods where no football activities were taking place near to the monitoring position. As such, being representative of the typically lowest ambient sound levels which may be used to ensure a robust noise impact assessment and worst-case assessment criteria.

Review of Measurement Positions 2 & 3 (Short Term)

The results of the noise measurements at Measurement Position 2, close to the identified noise sensitive receptors on Long Lane are presented in Table 3.

Table 3 – Short Term Measured Levels at Long Lane Receptor

Measurement Position / Receptor	Measurement Period	$L_{Aeq,20mins}$ (dB)	$L_{AFmax,5min}$ (dB)
MP2 – Wellington Road Receptor	20:24-20:44	59	78
	21:00-21:20	57	78
	22:24-22:44	58	80

For comparison, the lowest L_{Aeq} level measured at the Wellington Road receptor along with the lowest $L_{Aeq,1hour}$ level measured at the long-term position at the Powerleague site are provided below:

- Measurement Position 2 (Wellington Road Receptor): 57dB L_{Aeq}
- Measurement Position 1 (Powerleague Site Position): 47dB L_{Aeq}

As can be seen from the results above, the measured levels at MP2 (Wellington Road) are significantly higher than the lowest measured levels at the long term MP1 at the Powerleague site. Therefore, to provide a very worst-case assessment, our noise impact assessment has used the lowest measured hourly level at MP1.

The results of the noise measurements at Measurement Position 3, close to the identified noise sensitive receptors on Parliament Street are presented in Table 4 below.

Table 4 – Short Term Measured Levels at Oakenbottom Road Receptor

Measurement Position / Receptor	Measurement Period	$L_{Aeq,20mins}$ (dB)	$L_{AFmax,5min}$ (dB)
MP3 – Parliament Street Receptor	20:24-20:44	47	69
	21:30-21:50	47	69
	22:00-22:20	44	66

For comparison, the lowest L_{Aeq} level measured at the Parliament Street receptor along with the lowest $L_{Aeq,1hour}$ level measured at the long term position at the Powerleague site are provided below:

- Measurement Position 3 (Parliament Street Receptor): 44dB L_{Aeq}
- Measurement Position 1 (Powerleague Site Position): 47dB L_{Aeq}

At MP3 (Parliament Street), the level measured at 22:00-22:20 is 3dB lower than the lowest hourly at MP1, and therefore, to provide a worst-case assessment, the noise impact assessment for this location has considered the short-term measurement of 44dB L_{Aeq} .

4.0 NOISE IMPACT ASSESSMENT CRITERIA

4.1 National Planning Policy Framework

The Ministry of Housing, Communities & Local Government's *National Planning Policy Framework* (NPPF) December 2024, sets out the Government's planning policies for England. In respect of noise, Paragraphs 187, 198 and 200 of the NPPF state the following:

- "187. Planning policies and decisions should contribute to and enhance the natural and local environment by:*
- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in manner commensurate with their statutory status or identified quality in the development plan);*
 - b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;*
 - c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;*
 - d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs;*
 - e) 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; and*
 - f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.*
- 198. 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 72 ;*
 - (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.*
- 200. Planning policies and decisions should ensure that new development can be integrated effectively with existing businesses and community facilities (such as places of worship, pubs, music venues and sports clubs). Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on*

new development (including changes of use) in its vicinity, the applicant (or 'agent of change') should be required to provide suitable mitigation before the development has been completed."

The following specific documents are considered to give appropriate consideration to the principles within the NPPF in relation to the impact of noise on sensitive receptors.

4.2 British Standard (BS) 8233: 2014

BS 8233: 2014 – “*Guidance on sound insulation and noise reduction for buildings*” provides information on achieving internal acoustic environments appropriate to their functions. As part of this document, recommendations are given to the internal noise levels which are commensurate with achieving acceptable resting, dining and sleeping conditions within residential properties. The values given are generally in terms of an L_{Aeq} level although reference is also made with regards to maximum noise levels, although no criterion is specified in this recently revised version of the standard.

Table 5 – BS 8233: 2014 – Suitable Internal Ambient Noise Levels for Residences

Activity	Location	07:00 – 23:00	23:00 – 07:00
Resting	Living room	35 dB $L_{Aeq,16-hour}$	-
Dining	Dining room / area	40 dB $L_{Aeq,16-hour}$	-
Sleeping	Bedroom	35 dB $L_{Aeq,16-hour}$	30 dB $L_{Aeq,8-hour}$
Other	External amenity areas	50 – 55 dB $L_{Aeq,T}$	

4.3 World Health Organisation (WHO): Guidelines for Community Noise

To put the predicted levels into context, it is important to consider the recommendations stated in the World Health Organisation (WHO) document “Environmental Noise Guidelines for the European Region” 2018. This document sets out to define “recommended exposure levels for environmental noise in order to protect population health”. The guidance documents relates specifically to external noise levels, and recommends that “all CNG (WHO Community Noise Guidelines, 1999) indoor guideline values and any values not covered by the current guidelines (such as industrial noise and shopping areas) should remain valid”. We therefore make reference to the WHO Community Noise Guidelines for recommendations on internal noise levels.

The WHO document “Guidelines for Community Noise” describes guideline levels that are “essentially values for the onset of health effects from noise exposure”. A table of guideline values is included, relating to adverse health effects, referred to as any temporary or long-term deterioration in physical, psychological, or social functioning that is associated with noise exposure. The following is an extract from the Table 4.1: Guideline values for community noise in specific environments, as stated in the WHO document.

Table 6 – Guideline Values for Community Noise

Specific Environment	Critical Health Effect(s)	L_{Aeq} (dB)	Time Base (hours)	$L_{Amax,T}$ (dB)
Outdoor living area	Serious annoyance, daytime and evening	55	16	-
	Moderate annoyance, daytime and evening	50	16	-
Dwelling, indoors	Speech intelligibility and moderate annoyance, daytime and evening	35	16	-

Specific Environment	Critical Health Effect(s)	L_{Aeq} (dB)	Time Base (hours)	$L_{Amax,t}$ (dB)
Inside bedrooms	Sleep disturbance, night-times	30	8	45
Outside bedrooms	Sleep disturbance, window open (outdoor values)	45	8	60

From Table 6, it is implied that a partially open window offers a level difference of approximately 15dB L_{Aeq} , as the difference between guideline values for areas inside of a bedroom (30 dBA) should be 15dB lower than that directly outside of the bedroom (45 dBA).

As such, where external noise levels directly outside a receptor location have not been defined either in the WHO guidelines or BS 8233, a correction of 15dB will be applied on top of the internal noise level design value.

4.4 Sport England's Design Guidance

Sport England's Design Guidance Note "Artificial Grass Pitch (AGP) Acoustics" provides the following guidance in relation to AGPs:

"The determining noise criteria for AGPs proximity to residential properties, to avoid moderate annoyance in the daytime and evenings, as set by The World Health Organisation's 'Guidelines for Community Noise': = 50dB $L_{Aeq}(1 \text{ hour})$ upper noise limit external to residential properties and within external living areas"

Note that although the above relates to AGPs, the noise character is anticipated to be similar for a padel court and is therefore deemed to be a relevant assessment criterion.

4.5 Institute of Environment Management & Assessment (IEMA) and Institute of Acoustic Guidelines on Noise Impact Assessment

When assessing the subjective impact of any development it is important to consider the specific circumstances of the site. The characteristics of the various sources must therefore be considered in addition to factors common to all noise impact assessments such as existing background noise level comparisons.

The Institute of Environmental Management and Assessment (IEMA) document "Guidelines on Environmental Noise Impact Assessment" (2014) gives guidance as to how basic noise changes may be categorised. Table 7 has been adopted to categorise the difference between the measured levels as identified in the guidelines published by IEMA. This identifies the impact of different levels of noise above the prevailing L_{Aeq} noise.

Table 7 – Significance of Noise Level Change

Noise Change (dBA)	Category	
	Receptor of Some Sensitivity	Receptor of Great Sensitivity
0.1 – 2.9	None / not significant impact	
3.0 – 4.9	Slight impact	Moderate impact
5.0 – 9.9	Moderate impact	Substantial impact
10.0 and above	Substantial impact	Very substantial impact

4.6 Subjective Impact

In addition to the comparison of the difference in background noise levels in line with the above guidelines, it is important to understand the potential subjective effect of such changes in the noise level.

Table 8 compares the generally accepted subjective response of typical subjects to variations in sound pressure level.

Table 8 – Subjective Response to Noise Levels

Change In Sound Level (dB)	Change in Power		Apparent Change in Loudness
	Decrease	Increase	
3	1/2	2	Just Perceptible
5	1/3	3	Clearly Noticeable
10	1/10	10	Half or Twice as Loud
20	1/100	100	Much Quieter or Louder

4.7 BB93 Acoustic Design of Schools - Non-residential Receptor

Department for Education (2015) Building Bulletin 93 – Acoustic Design of Schools: Performance Standards (BB93) provides guidelines on internal ambient noise levels to be achieved within education spaces. Section 1.1.1 – Objectives and Definitions states:

“The IANL includes noise contributions from:

- External sources outside the school premises (including, but not limited to, noise from road, rail and air traffic, industrial and commercial premises).
- Building services (eg , ventilation systems, plant, drainage etc). [...]”

Table 1 within Section 1.1.2 – Acoustic Performances Standards presents the internal noise criteria of various educational spaces. The exact use of the spaces belonging to the worst-affected noise-sensitive windows at the school are not known, therefore we have assumed them to be classrooms / lecture rooms, which are amongst the most noise sensitive spaces considered. BB93 recommends the required internal ambient noise level for this type of space to be 35 dB $L_{Aeq,30minutes}$.

Assuming a reduction in noise levels from outside to inside through a partially open window of 15 dBA, it is therefore recommended that the noise level from new plant does not exceed 50 dBA $L_{Aeq,30minutes}$ at 1m from the nearest noise-sensitive window of the college/school.

4.8 Summary of Criteria

Based on the above and the measured noise levels in Section 3 the following assessments will be made:

- An IEMA assessment comparison between the measured noise levels (L_{Aeq}) at the nearest residential receptors due to noise associated with activities from the padel court.
- An assessment of external noise levels to achieve suitable internal noise levels, based on BS 8233, BB93, WHO and Sport England’s Design Guidance guidelines, at the receptor.

5.0 ASSESSMENT

5.1 General

In general, the character of the noise associated with padel is comparable to that of a tennis match. The ball used is similar to a tennis ball but with a lower pressure, and the padel racquets used are solid but perforated. The speed of the ball is therefore lower than in tennis. Serving is also undertaken underhand as opposed to an overhead serve as in tennis.

One area where the character of the noise in padel varies from tennis is the impact of the balls on the rear and side perimeter walls, which are made of a solid glass/Perspex. Players may hit the ball directly into these glass/Perspex walls on their own side of the court to hit over to the other side of the court, however, it is important to note that the game is not the same as squash, where playing off of the walls is integral to the game. The presence of glass/Perspex walls to the rear and part of the sides of the court also provides additional acoustic screening which reduces the egress of noise out of the courts and screens noise from the other courts which are located behind them.

Noise levels from padel courts are therefore made of the following elements:

- Players shouting
- Ball hitting padel racquets
- Ball hitting solid glass/Perspex walls

As referred to above the noise from a padel match is typically dominated by the striking of the ball along with noise from participants.

5.2 Noise Levels

Padel noise levels were previously measured at an existing Padel site at Powerleague, Birmingham. The background-corrected level at both the side and head of the padel courts are given below:

Table 9 – Measured Noise Levels at Padel Court

Scenario	Sound Level (dB) at Octave Band Centre Frequency (Hz)								dBA
	63	125	250	500	1k	2k	4k	8k	
Specific sound level <i>L_{eq,30min}</i> at rear of court (@ 1m)	65	58	56	54	56	51	44	36	59
Specific sound level <i>L_{eq,5min}</i> at rear of court (@ 1m)	69	60	58	58	57	55	50	43	62
Specific sound level <i>L_{eq,30min}</i> at side of court (@ 3m)	58	56	57	59	61	55	49	39	64
Specific sound level <i>L_{eq,5min}</i> at side of court (@ 3m)	58	56	58	59	61	55	48	40	64
Typical worst-case <i>L_{Amax1min}</i> noise levels at rear of Court (@ 1m)	84	85	82	75	80	75	68	60	82

5.3 Noise-Sensitive Receptors

The nearest residential windows to the South belong to 52 Wellington Road and are at a distance of approximately 95m from Padel Courts 3 and 4, 105m from Padel Court 2 and 115m from Padel Court 1.

The nearest affected residential windows to the North / West belong to 43 Parliament Street and are at a distance of approximately 130m from Padel Court 1, 140m from Padel Court 2, 150m from Padel Court 3 and 145m from Padel Court 4.

The nearest affected windows belonging to Bury College to the North are at a distance of 25m from Padel Court 1, 35m from Padel Court 2 and 45m from Padel Courts 3 and 4.

The above receptors are shown on Figures 1 in Appendix D.

5.4 Noise Impact Assessment – Residential Receptors

5.4.1 L_{Aeq} and L_{Amax} Assessment

Assuming the worst-case noise levels (5-minute period measured at the side of a Padel Court), a quantity correction for the 4no. courts and distance loss corrections (outlined in Section 5.3 for each receptor) resulting noise levels are provided in Table 10. Reference calculations are provided in Appendix C which present our calculations to determine the predicted noise at the NSR1 – 42 Wellington Road.

Table 10 – $L_{Aeq,1hour}$ Noise Assessment – Residential Receptors

Source	Receptor	Predicted external noise level (dB)	Lowest Ambient L_{Aeq} (dB)	Resultant Overall Noise Level (dB)	Noise change (dB)
$L_{Aeq,5min}$ Padel Level for 4No. Courts	NSR1 – 52 Wellington Road	37	47	47.6	0.6
$L_{Aeq,5min}$ Padel Level for 4No. Courts	NSR2 – 43 Parliament Street	36	44	44.6	0.6

As can be seen from the above, when comparing these levels with those measured at the site / receptor, predicted resulting levels are significantly (10dB for NSR1 and 8dB for NSR2) below the measured ambient measured noise levels. Therefore, it is likely that audibility of any padel activity at the residential receptor would be low / negligible based on the IEMA guidance.

It is also notable that this prediction represents a worst-case scenario, with noise occurring at all 4No. Padel courts simultaneously and with no consideration of directivity or screening from intervening fencing or trees. In reality, resulting levels may well be lower still, further reducing the likelihood of any audibility or noise disturbance.

It is also important note the predicted external noise from padel activities are also 13dB-14dB below the Sport England's criterion of 50dB, L_{Aeq} .

The predicted noise level change is below 3dB (0.6dB for NSR1 and NSR2), and therefore, it is likely that audibility of any padel activity at this receptor would be low / negligible based on the IEMA guidance.

An assessment of an L_{Amax} padel noise event has also been undertaken to determine the likely resultant level at the nearest noise sensitive residential receptors. To provide a worst-case assessment, we have assumed an event at the nearest court and therefore, a distance loss of 95m to NSR1 and 130m to NSR2. Additionally, we have considered the typical night-time L_{AFmax} levels (based upon the 90th percentile of the 5-minute samples across the night-time period when Powerleague is not in operation) to eliminate any L_{max} events

associated with existing Powerleague operations. This level has been used for all receptors as it is lower than the $L_{\max}$ levels measured at the receptor.

Table 11 – $L_{\max}$ Noise Assessment

Source	Receptor	Predicted $L_{\max}$ Padel event external noise level (dB)	Typical $L_{AF\max,5min}$ (dB)	Difference in Level (dB)
$L_{\max}$ Padel Event Level	NSR1 – 52 Wellington Road	43	64	-21
$L_{\max}$ Padel Event Level	NSR2 – 43 Parliament Street	41	64	-23

The predicted $L_{\max}$ level at NSR1 is 43dB which is 21dB below the lowest typical $L_{\max}$ measured on site. The predicted $L_{\max}$ level at NSR2 is 41dB which is 23dB below the lowest typical $L_{\max}$ measured at the receptor. It is important to note this $L_{\max}$ level was measured and taken from periods where there was no influence by existing Powerleague activities to ensure only road traffic being considered.

5.4.2 Comparison with BS8233 and WHO Guidance

In addition to the IEMA assessment approach, it is useful to predict the typical L_{Aeq} and $L_{\max}$ outside and within the nearest residential properties. As referred to in Section 4.4, guidance within WHO suggests a reduction of around 15 dBA can typically be expected for external noise intrusion through an open window. Based on this assumption, the following internal noise levels due to padel activities are summarised in Table 12 below.

Table 12 – Predicted Noise Levels at Nearest Residential Receptors

Parameter	Receptor	Predicted Level Outside Worst Affected Residential Window (dB)	Predicted Internal Level at Worst Affected Room (dB)
$L_{Aeq,5min}$	NSR1 – 52 Wellington Road	37	22
$L_{\max}$		43	28
$L_{Aeq,5min}$	NSR2 – 43 Parliament Street	36	21
$L_{\max}$		41	26

With reference to Table 13, it can be seen that the typical internal $L_{\max}$ and L_{Aeq} noise levels at both residential receptors (due to padel activity) are significantly below the levels referred to in BS8233 and WHO.

It is our professional opinion that the predicted external and internal noise levels would not cause any loss of amenity and should be considered acceptable.

5.5 Noise Impact Assessment – Non-residential Receptors

An assessment has also been undertaken to determine the potential impact within the nearest spaces within Bury College considering a partially open window and the results are provided below in Table 13.

Table 13 – L_{Aeq} Noise Assessment – Bury College Receptor

Source	Receptor	Predicted external noise level (dB)	Assumed reduction through partially opened window (dB)	Resultant Overall L_{Aeq} Noise Level (dB)	BB93 Recommended L_{Aeq} Noise Level (dB)
$L_{Aeq,5min}$ Padel Level for 4No. Courts	NSR3 – Bury College	48	-15	33	35

With reference to Table 13, it can be seen that the predicted internal L_{Aeq} noise levels are below the recommended level referred to in BB93. If windows belonging to Bury College were closed, noise levels would be even further below the recommended BB93 level.

Furthermore, it is also important to acknowledge the Bury College is directly opposite to the Powerleague site and noise from existing activities associated with the football pitches is already a part of the current noise climate.

7.0 DISCUSSION

With reference to the results highlighted in the previous Sections, the following overall comments can be made:

Residential Receptors

- Adoption of the IEMA approach demonstrates that there will be a less than 1 dB increase of the noise levels at the residential receptors and therefore “None / not significant impact”.
- In terms of subjective impact at the residential receptors, an increase in noise level below 3dB is below the threshold as to what would be considered ‘just perceptible’.
- Typical L_{Aeq} and L_{Amax} noise levels within the habitable rooms of the neighbouring property are within the recommended criteria specified within the WHO Guidelines for community noise and BS 8233.

Non-residential Receptor

- Typical L_{Aeq} noise levels within the worst-case areas within Bury College are within the recommended criteria specified within the BB93.

8.0 CONCLUSION

Four padel courts are proposed to replace two existing 5-a-side football pitches at the Powerleague site in Bolton.

A detailed assessment of noise from the use of the padel courts has been undertaken. The results of the assessment, with regard to guidance set by IEMA, BS8233, WHO and BB93, demonstrate that noise associated with the operation of the padel court is unlikely to impact the amenity of the nearest receptors.

Based on the above predictions and assessment, it is considered that the proposed padel courts and associated activity should be considered acceptable on the grounds of noise.

Appendix A - Acoustic Terminology

dB	Decibel - Used as a measurement of sound pressure level. It is the logarithmic ratio of the noise being assessed to a standard reference level.
dB(A)	The human ear is more susceptible to mid-frequency noise than the high and low frequencies. To take account of this when measuring noise, the 'A' weighting scale is used so that the measured noise corresponds roughly to the overall level of noise that is discerned by the average human. It is also possible to calculate the 'A' weighted noise level by applying certain corrections to an un-weighted spectrum. The measured or calculated 'A' weighted noise level is known as the dB(A) level. Because of being a logarithmic scale noise levels in dB(A) do not have a linear relationship to each other. For similar noises, a change in noise level of 10dB(A) represents a doubling or halving of subjective loudness. A change of 3dB(A) is just perceptible.
L_{eq}	L_{eq} is defined as a notional steady sound level which, over a stated period of time, would contain the same amount of acoustical energy as the actual, fluctuating sound measured over that period (1 hour).
L_{Aeq}	The level of notional steady sound which, over a stated period of time, would have the same A-weighted acoustic energy as the A-weighted fluctuating noise measured over that period.
L_{An} (e.g. L_{A10} , L_{A90})	If a non-steady noise is to be described it is necessary to know both its level and the degree of fluctuation. The L_n indices are used for this purpose, and the term refers to the level exceeded for n% of the time, hence L_{10} is the level exceeded for 10% of the time and as such can be regarded as the 'average maximum level'. Similarly, L_{90} is the average minimum level and is often used to describe the background noise.
$L_{max,T}$	The instantaneous maximum sound pressure level which occurred during the measurement period, T. It is commonly used to measure the effect of very short duration bursts of noise, such as for example sudden bangs, shouts, car horns, emergency sirens etc. which audibly stand out from the general level of, say, traffic noise, but because of their very short duration, maybe only a very small fraction of a second, may not have any effect on the L_{eq} value.

Appendix B – Equipment Details

The following equipment was used for the measurements.

Manufacturer	Model Type	Serial No.	Calibration	
			Certificate No.	Valid Until
Norsonic Type 1 Sound Level Meter	Nor140	1405945	UCRT25/2048	11 July 2027
Norsonic Pre Amplifier	1209	15314		
Norsonic ½" Microphone	1225	208218		
Norsonic Sound Calibrator	1251	34057	UCRT25/2030	11 July 2027
Norsonic Type 1 Sound Level Meter	Nor140	1406969	UCRT25/2391	2 October 2027
Norsonic Pre Amplifier	1209	21204		
Norsonic ½" Microphone	1225	285599		
Norsonic Sound Calibrator	1251	34966	UCRT25/2381	1 October 2027

Appendix C – Calculations for NSR 1, 52 Wellington Road

Table C1 – Calculation for 1No. Court at 220m

Scenario	Sound Level (dB) at Octave Band Centre Frequency (Hz)								dBA
	63	125	250	500	1k	2k	4k	8k	
Period Ambient corrected Leq,5min noise levels at side of court (@ 3m)	58	56	58	59	61	55	48	40	64
Distance losses @ 95m	-30	-30	-30	-30	-30	-30	-30	-30	
Noise level at receiver	28	26	28	29	31	25	18	10	33

Table C2 – Total for all four courts

Scenario	dBA
Noise level at receiver from 1No. Court at 95m	33
Noise level at receiver from 1No. Court at 105m	33
Noise level at receiver from 1No. Court at 115m	32
Noise level at receiver from 1No. Court at 95m	33
Noise level at receiver for all four courts	39

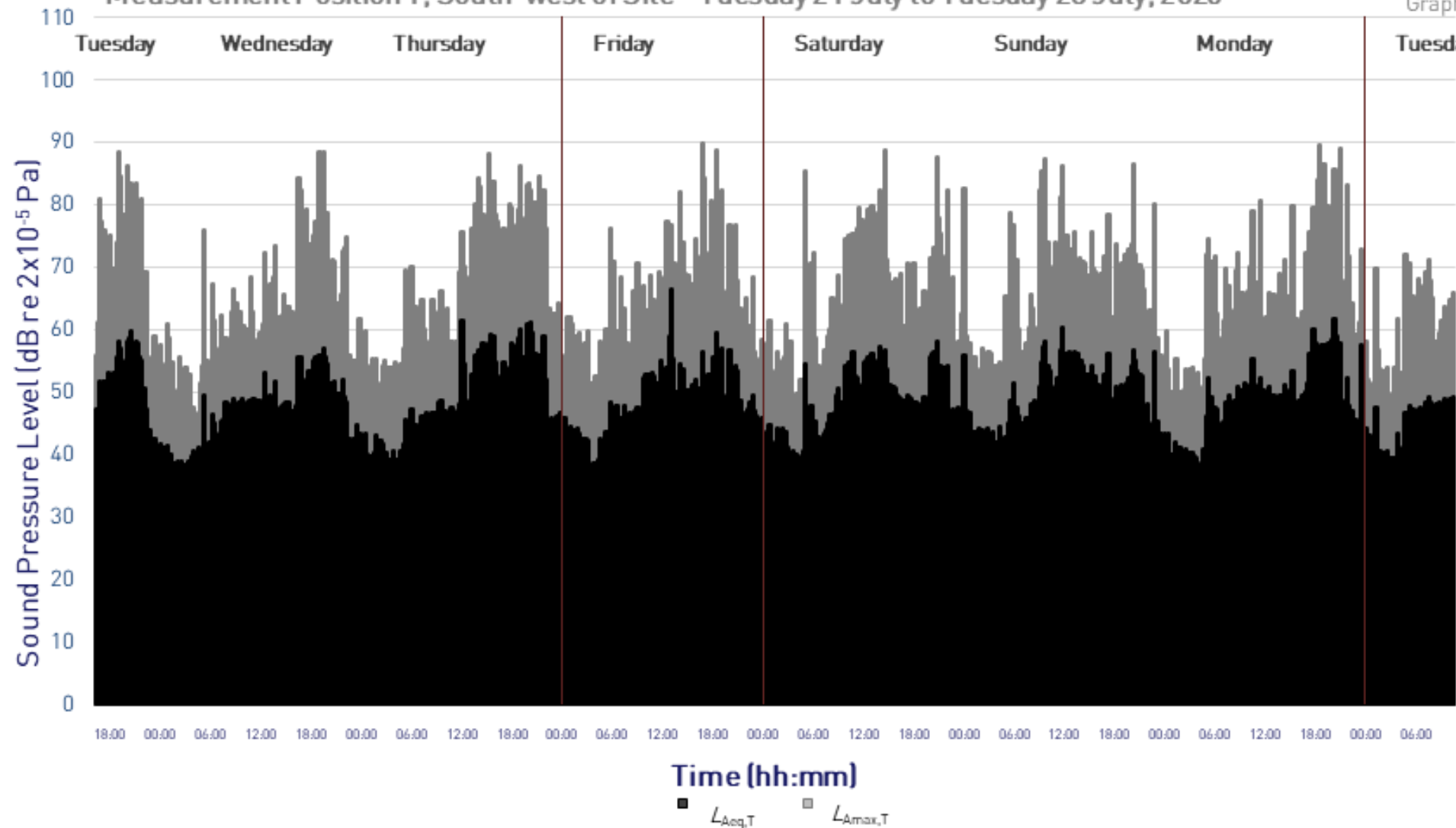
Appendix D – Graphs and Site Plans

Powerleague Bury, Market Street, Manchester BL9 0 - Padel Courts
Measured Levels (15min Sample Periods)



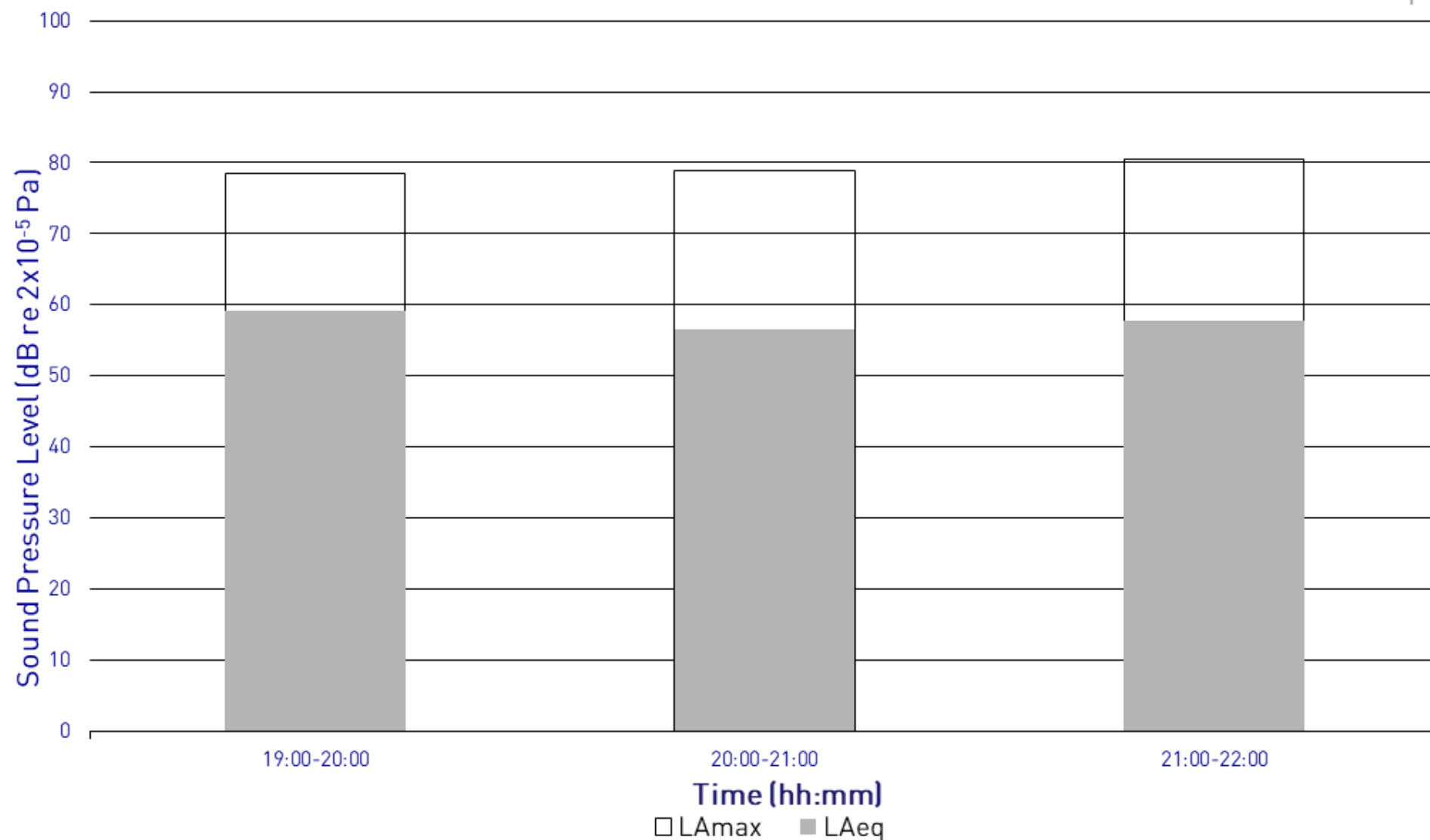
Project: 15633
Graph 1

Measurement Position 1, South-west of Site - Tuesday 21 July to Tuesday 28 July, 2026



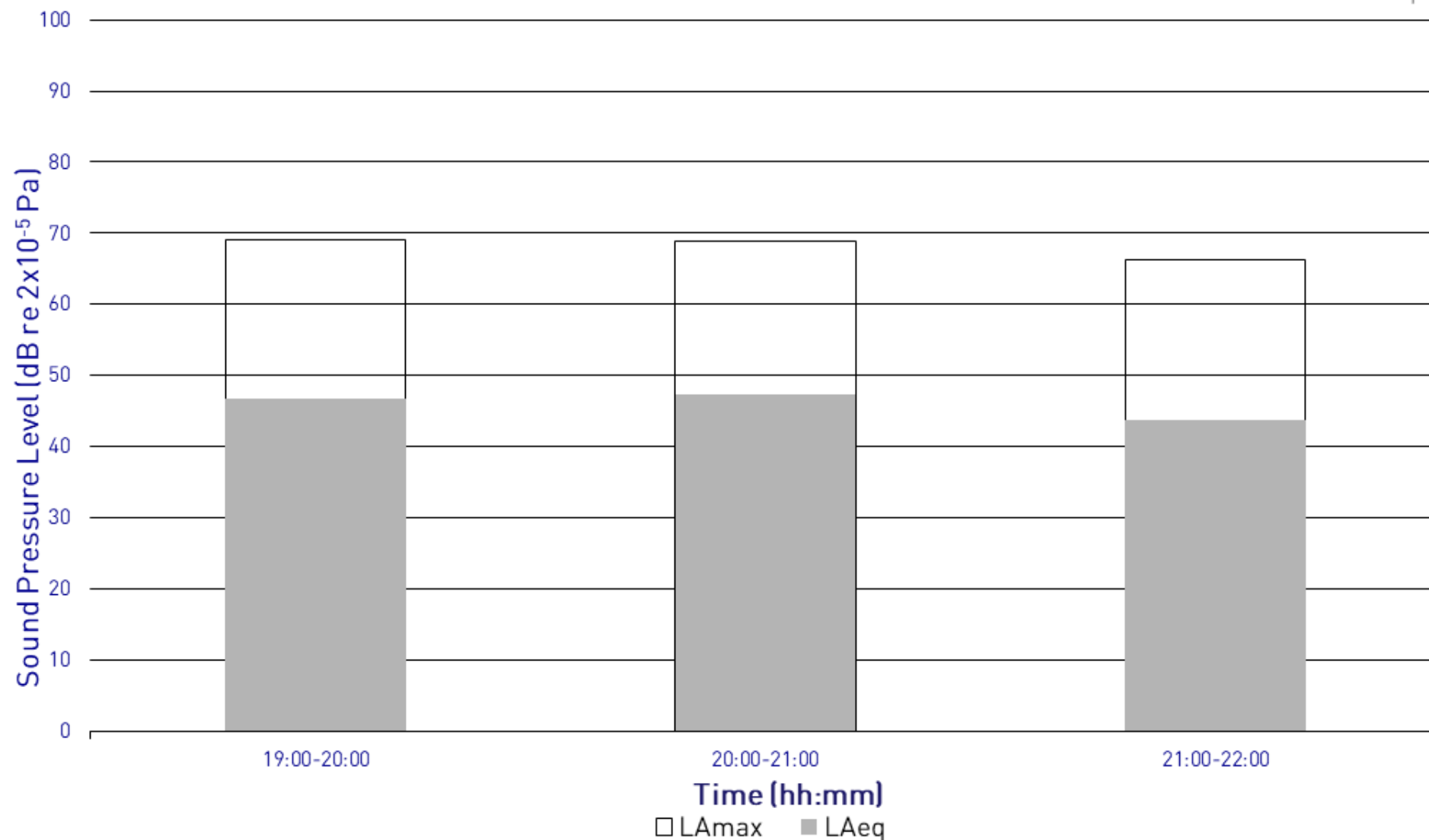
Short Term Measurement Position 2 - Wellington Road
Average L_{Aeq} and Maximum $L_{Amax,f}$ Hourly Time History
Tuesday 21st July 2026

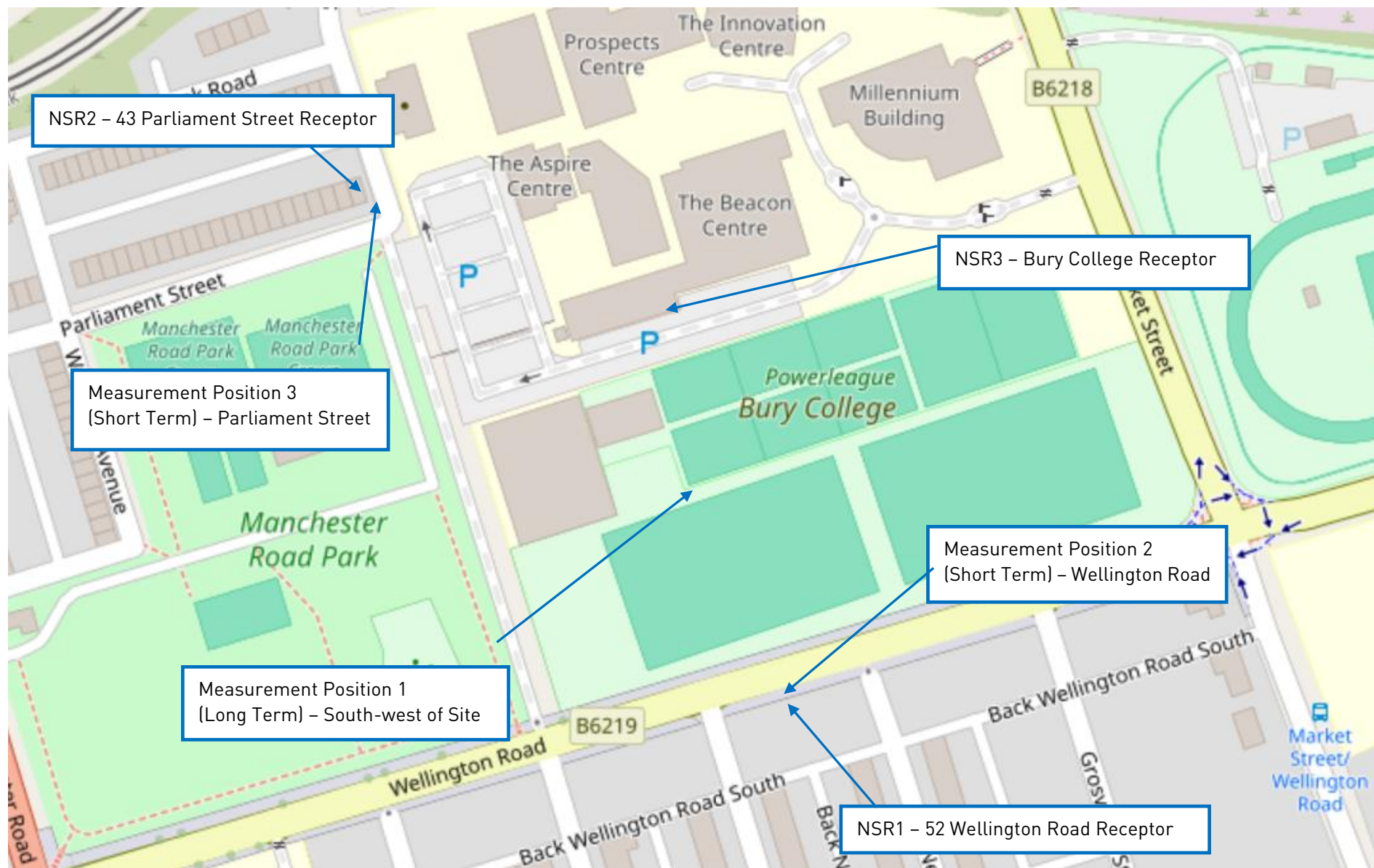
Graph 2



Short Term Measurement Position 3 - Parliament Street
Average L_{Aeq} and Maximum $L_{Amax,f}$ Hourly Time History
Tuesday 21st July 2026

Graph 3





Powerleague Bury, Market Street, Manchester BL9 0DB – Padel Courts
 Site Plan Indicating Nearest Receptors and Measurement Positions
 Project 15633

Figure 1
 18 August 2026
 Not to Scale



Powerleague Bury, Market Street, Manchester BL9 0DB – Padel Courts
Photograph of Measurement Position 1 (South-west of Site)
Project 15633

Figure 3
18 August 2026
Not to Scale



Powerleague Bury, Market Street, Manchester BL9 0DB – Padel Courts
Photograph of Measurement Position 2 (Wellington Road)
Project 15633

Figure 4
18 August 2026
Not to Scale



Powerleague Bury, Market Street, Manchester BL9 0DB – Padel Courts
Photograph of Measurement Position 3 (Parliament Street)
Project 15633

Figure 5
18 August 2026
Not to Scale

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