

Winchester Racquets & Fitness

PROPOSED PADEL COURTS

Acoustic Assessment

Report No. 20-0020-0 R01





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Report No.: 20-0020-0 R01

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1 INTRODUCTION

Winchester Racquets and Fitness have instructed Sustainable Acoustics Limited (SAL) to assist with the planning application for three new Padel courts, to undertake a noise survey to determine the noise impact of the proposed courts, and recommend any mitigation measures that may be necessary.

Sustainable Acoustics visited the site on Friday 7th February 2020 to undertake a background noise survey at the club and the likely impact at the nearest noise sensitive properties.

In order to predict the noise levels of Padel at the site, data from a previous Sustainable Acoustics survey of a typical Padel match undertaken at the Hurlingham Club in London, in January 2020, was used.

This report details the instrumentation, methodology and results of the survey, and presents the predicted noise level at the nearest noise sensitive properties.

1.1 Context and history

The proposed location of the padel courts is currently two full sized tennis courts. It is a small area of the wider Winchester Racquets and Fitness site, which has been a venue for various sports over many years, therefore the noise character of the area has historically been influenced by sport.

In terms of context noise from racquet sports is an established part of the character of the area, which provides legal protections from prescription and whether a noise can be considered an actionable nuisance¹.

In planning terms the impact being considered is on the quality of life of the residents, but the context means that this must be considered against this historical soundscape.

¹ Coventry and Lawrence [2014] UKSC 13

1.2 Site Layout

The proposed site is bounded by residential properties across an access road to the west, covered tennis courts to the north, residential properties to the east and Berewecke Court Care Home to the south.

The nearest noise sensitive receptors are highlighted in red on Figure 1. The proposed site is highlighted in green. Figure 2 shows the site in more detail.



Figure 1 - Site Location



Figure 2 - Site Plan

Background and ambient noise levels at the site are subjectively quiet. Road traffic can be heard from the surrounding network and from movements within the site, as well as occasional air traffic.



2 PLANNING & LOCAL POLICY

2.1 National Planning Policy Framework

Current planning policy is based on the National Planning Policy Framework (NPPF), revised in July 2018, which supports a presumption in favour of sustainable development, unless the adverse impacts of that development would outweigh the benefits when assessed against the policies in the Framework, taken as a whole.

In this case the site has operated as a sports club since 1901, with various sports being played at the site over time.

The noise implications of development are recognised at paragraph 180, where it is stated that planning policies and decisions should:

- *“mitigate and reduce to a minimum potential adverse impacts from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life²”*
- *“Identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason”*

In addition Paragraph 80 of the NPPF is of relevance where it sets out that *‘Planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development. The approach taken should allow each area to build on its strengths, counter any weaknesses and address the challenges of the future. This is particularly important where Britain can be a global leader in driving innovation, and in areas with high levels of productivity, which should be able to capitalise on their performance and potential.’* This is relevant and supportive of the applicant’s position.

2.2 Noise Policy Statement for England

Paragraph 180 of the NPPF also refers to advice on adverse effects of noise given in the Noise Policy Statement for England³ (NPSE). This document sets out a national policy vision for noise, which is to

“Promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development”.

To achieve this vision the Statement sets the following three aims:

“Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:

- *avoid significant adverse impacts on health and quality of life*
- *mitigate and minimise adverse impacts on health and quality of life; and*
- *where possible, contribute to the improvement of health and quality of life.*

² See Explanatory Note to the Noise Policy Statement for England.

³ Department for Environment, Food and Rural Affairs, *Noise Policy Statement for England*, London, 2010



In achieving these aims the document introduces significance criteria as follows:

SOAEL – Significant Observed Adverse Effect Level

This is the level above which significant adverse effects on health and quality of life occur. It is stated that “significant adverse effects on health and quality of life should be avoided while also taking into account the guiding principles of sustainable development”.

LOAEL – Lowest Observed Adverse Effect Level

This is the level above which adverse effects on health and quality of life can be detected. It is stated that the second aim above lies somewhere between LOAEL and SOAEL and requires that: “all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life while also taking into account the guiding principles of sustainable development. This does not mean that such adverse effects cannot occur.” The LOAEL is generally accepted to be the level of impact at which an application achieves the balance that can be considered acceptable.

NOEL – No Observed Effect Level

This is the level below which no effect can be detected. In simple terms, below this level, there is no detectable effect on health and quality of life due to noise. This can be related to the third aim above, which seeks: “where possible, positively to improve health and quality of life through the pro-active management of noise while also taking into account the guiding principles of sustainable development, recognising that there will be opportunities for such measures to be taken and that they will deliver potential benefits to society. The protection of quiet places and quiet times as well as the enhancement of the acoustic environment will assist with delivering this aim.”

The NPSE recognises that it is not possible to have a single objective noise-based measure that is mandatory and applicable to all sources of noise in all situations and provides no guidance as to how these criteria should be interpreted. It is clear, however, that there is no requirement to achieve noise levels where there are no observable adverse impacts but that reasonable and practicable steps to reduce adverse noise impacts should be taken in the context of sustainable development and ensure a balance between noise sensitive and the need for noise generating developments.

Health and Quality of Life

The explanatory note to the NPSE states that “quality of life” is a subjective measure that refers to people’s emotional, social and physical wellbeing and “health” refers to physical and mental wellbeing.

It is recognised that noise exposure can cause annoyance and sleep disturbance both of which impact on quality of life. It is also agreed by many experts that annoyance and sleep disturbance can give rise to adverse health effects.

2.3 Local policies

Winchester City Council does not have specific criteria related to noise from sports facilities, however the following comments were made by Mr Phil Tidridge, Environmental Health Officer at Winchester City Council.

“Noise – I note there have been concerns expressed regarding an increase in noise from Padel tennis due to more persons being present within the same area plus noise from balls striking the walls. However, in my view, the main issue is the proposed lighting extends the hours of use and thus potential noise disturbance. I would therefore expect to see all such matters covered in a noise report/assessment.”

3 SURVEY METHODOLOGY

3.1 Survey at Winchester Racquets and Fitness

A noise survey measuring ambient and background noise levels was conducted at the site between Friday 7th February 2020 and Thursday 13th February 2020.

Conditions were mixed throughout the survey, but were suitable for measurements during Friday 7th February, until 19:00 on Saturday 8th February, from 12:00 on Monday 10th February and on Tuesday 11th February and Wednesday 12th February. This provides over 36 hours of measurements which is considered enough to provide a representative sample, and the other time periods have been excluded from results and calculations.

Conditions included time periods where mild with temperatures between 0 and 11 degrees Celsius, occasional light rain showers and average wind speeds below 5m/s. Figure 3 below shows the measurement positions used during the survey.



Figure 3 - Measurement positions

Two long term monitors were set up to continually log noise levels, MP1 and MP2. MP3 was an attended survey conducted between 09:30 and 10:30 on Saturday 8th February 2020. Descriptions of the measurement positions are given overleaf.

MP1: 3.0 m above ground level, on a pole tied to the existing boundary fence between the tennis courts and Bereweke Court Care Home.

MP2: 1.8 m above ground level, on a tripod close to the rear boundary of the residential properties on Bereweke Close.

MP3: 1.5 m above ground level, on a tripod 1m from the fence of the current tennis courts.

3.2 Survey of Padel court at the Hurlingham Club

In January 2020 Sustainable Acoustics undertook an attended survey at the Hurlingham Club in London.

Four Hurlingham Club members with experience playing padel tennis played a three set match over the course of an hour. This is considered to have generated representative noise levels to what would be a typical match.

Noise levels at the Hurlingham Club are affected by landings at Heathrow airport, whereas Winchester Racquets and Fitness is affected by aircraft at high altitude, therefore only measurements excluding aircraft noise have been used for this assessment.

Figure 4 presents the measurement positions during the match at the Hurlingham Club (not to scale).

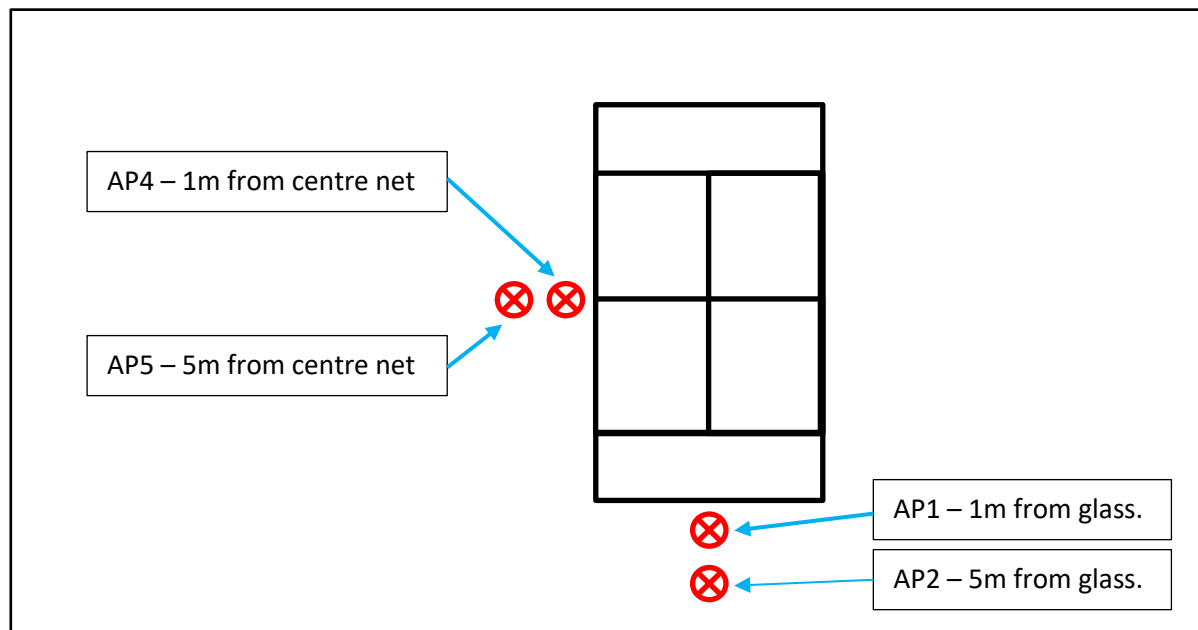


Figure 4 - Measurement positions at the Hurlingham Club



3.3 Instrumentation

At monitoring position MP1 a Svantek 971 Class 1 sound level meter (serial number 60684), with microphone (serial number 66699) and a Svantek SV18 pre-amplifier (serial number 62752) fitted. The sound level meter, microphone and preamplifier were last calibrated in a calibration laboratory on 24 May 2019 and calibration and conformance certificates are available.

At monitoring position MP2 a Svantek 958 Class 1 sound and vibration analyser (serial number 34551), with microphone (serial number 55952) and a Svantek SV 12L pre-amplifier (serial number 33537) fitted. The sound level meter, microphone and preamplifier were last calibrated in a calibration laboratory on 20 February 2019 and calibration and conformance certificates are available.

Attended noise measurements AP1 to AP6 and MP3 were undertaken using a Rion NA28 Class 1 sound level meter (serial number 00170246) with microphone (serial number 00299) and preamplifier (serial number 60254) fitted. The sound level meter, microphone and preamplifier were last calibrated in a calibration laboratory on 27 March 2019 and calibration and conformance certificates are available.

Prior to and on completion of the survey, each sound level meter and microphone was checked using a Svantek type SV36 Sound Level Meter Calibrator (serial number 83721). The calibrator was last traceably calibrated on 27 June 2019, in accordance with the requirements of ISO 10012 and a calibration and conformance certificate is available. No significant change in the calibration level occurred during the survey.



4 RESULTS

The results of the background noise surveys at MP1 and MP2 are presented in Tables 1 and 2. Rather than the lowest L_{90} value the 90% percentile of L_{90} values (i.e. exceeded for 90% of the time) has been presented, as this better represents the typical minimum consistent background over each period of interest.

	Ambient noise level, dB LAeq, 15 min		Background noise level, dB LA90, 15 min		Maximum noise level, dB LAmax, 15 min	
	Range (15 min)	Measured over period	Range	90th percentile	Range	Arithmetic average
07:00 to 19:00	44 - 61	53	41 - 54	45	57 - 85	66
19:00 to 21:00	43 - 55	49	40 - 48	43	54 - 74	62
21:00 to 23:00	41 - 53	46	36 - 48	38	53 - 69	60
23:00 to 07:00	32 - 53	43	29 - 47	32	43 - 73	54

Table 1 - Background survey results for MP1.

	Ambient noise level, dB LAeq, 15 min		Background noise level, dB LA90, 15 min		Maximum noise level, dB LAmax, 15 min	
	Range (15 min)	Measured over period	Range	90th percentile	Range	Arithmetic average
07:00 to 19:00	45 - 63	53	39 - 54	45	51 - 89	66
19:00 to 21:00	44 - 57	50	41 - 49	44	53 - 70	61
21:00 to 23:00	41 - 55	47	37 - 49	39	50 - 68	58
23:00 to 07:00	31 - 54	44	28 - 47	31	39 - 74	53

Table 2 - Background survey results for MP2.

In order to determine the noise level of a Padel game in isolation, short duration measurements were undertaken at different locations. Table 4 presents the results of these measurements, which are up to 1 minute in length. The measurement positions are shown approximately on Figure 5.

Please note that it is not possible to accurately determine the dB L_{90} from such short samples, which becomes meaningless, therefore these are not presented.

Measurement position	Distance from court edge (metres)	Measurement length, seconds	Ambient noise level, dB LAeq	Maximum noise level, dB LAmax
AP1, end	1	20	54	63
AP1, end	1	16	53	63
AP2, end	5	11	54	65
AP2, end	5	14	53	62
AP2, end	5	19	54	60
AP4, side	1	21	63	79
AP4, side	1	22	58	69
AP4, side	1	40	60	72
AP5, side	5	10	60	72
AP5, side	5	16	63	76
AP5, side	5	10	66	79
AP1, end	1	8	56	67

Table 3 - Attended survey results of event noise levels.



It can be seen from Table 3 that at the end of the court, next to the glass wall, ambient measurements range from 53 to 56 dB(A) and maximum measurements range from 60 to 67 dB(A). At the side of the court, next to the net, ambient measurements range from 58 to 66 dB(A) and maximum measurements range from 69 to 79 dB(A).

From the short term measurements of a Padel match the decibel sum of the side and end measurements for the ambient noise levels, 54 and 66, is 66.3 dB(A). The decibel sum of the maximum noise levels, 66 and 79, is 79.2 dB(A). This has been calculated to predict the worst case noise levels as the noise of both within the glass perimeter of the courts and outside it will have an impact on the nearby residential properties.

It is important to note that the site is currently occupied by two full size tennis courts. Sustainable Acoustics measured the noise level of two doubles matches taking place simultaneously on the courts on Saturday 8 February 2020. The measured noise levels were 57.8 dB $L_{Aeq, 1 \text{ min}}$ and 79.6 dB $L_{Amax, 1 \text{ min}}$.

4.1 Predicted noise levels

Full calculations are presented in Appendix 1. Some screening corrections have been applied for Bereweek Court Care Home and Bereweek Close. Bereweek Close cannot see the courts directly due to thick vegetation, therefore a 5dB reduction for line of sight screening has been applied. The highest windows of Bereweek Court Care Home can only partially see into the courts, and may be able to see the heads of players when they are stood at the very back of the court. As play is not conducted from this position, and because serving is undertaken underhand, we consider it appropriate to apply a 5dB line of sight reduction to the noise levels.

The difference in noise level between a doubles match on the current tennis courts and matches on one (the closest to the receptor) and three of the proposed padel courts is presented below. 'P' stands for Padel and 'T' stands for tennis.

	Bereweek Court		Change	Pinehurst Place		Change	Bereweek Close		Change
	P	T		P	T		P	T	
dB L_{Aeq}	53	60	-6.5	54	52	+1.8	44	43	+0.6
dB L_{Amax}	66	70	-4.4	67	74	-7.1	57	65	-8.3

Table 4 - Change in noise level between the tennis courts and one Padel court.

	Bereweek Court		Change	Pinehurst Place		Change	Bereweek Close		Change
	P	T		P	T		P	T	
dB L_{Aeq}	58	60	-1.7	55	52	+2.7	47	43	+3.4
dB L_{Amax}	70	70	+0.3	68	74	-6.2	61	65	-4.0

Table 5 - Change in noise level between the tennis courts and three Padel courts.

It can be seen in Table 5 above that for all but 1 scenarios above that there is an improvement to the dB L_{Amax} level at each of the receptors. The one increase of 0.3dB is not significant. For dB L_{Aeq} there is between a -6.5dB reduction and a 3.4dB increase depending on the receptor. This change in noise



level is due to the differences in the nature of Padel and tennis games, which is explained further in section 5.

The difference between the current tennis courts and the proposed Padel courts against the average daytime and evening ambient noise levels in dB L_{Aeq} are presented on the following tables. The dB L_{Amax} has not been compared with the background noise survey as Tables 4 and 5 show that there is generally an improvement with the introduction of the Padel courts, compared with the existing.

	Ambient noise level	Tennis	Level of tennis above background	Padel	Level of Padel above background
	dB L_{Aeq}	dB L_{Aeq}	dB	dB L_{Aeq}	dB
Daytime (07:00 to 19:00)					
Berewecke Court	53	60	6.9	53	0.4
Pinehurst Place	53	52	-1.0	54	0.8
Berewecke Close	53	43	-9.7	44	-9.1
Evening (19:00 to 21:00)					
Berewecke Court	49	60	10.9	53	4.4
Pinehurst Place	49	52	3.0	54	4.8
Berewecke Close	49	43	-5.7	44	-5.1
Late evening (21:00 to 22:00)					
Berewecke Court	46	60	13.9	53	7.4
Pinehurst Place	46	52	6.0	54	7.8
Berewecke Close	46	43	-2.7	44	-2.1

Table 6 - Change in noise level between tennis, padel and the ambient noise level, **one Padel court**.

	Ambient noise level	Tennis	Level of tennis above background	Padel	Level of Padel above background
	dB L_{Aeq}	dB L_{Aeq}	dB	dB L_{Aeq}	dB
Daytime (07:00 to 19:00)					
Berewecke Court	53	60	6.9	58	5.2
Pinehurst Place	53	52	-1.0	55	1.7
Berewecke Close	53	43	-9.7	47	-6.3
Evening (19:00 to 21:00)					
Berewecke Court	49	60	10.9	58	9.2
Pinehurst Place	49	52	3.0	55	5.7
Berewecke Close	49	43	-5.7	47	-2.3
Late evening (21:00 to 22:00)					
Berewecke Court	46	60	13.9	58	12.2
Pinehurst Place	46	52	6.0	55	8.7
Berewecke Close	46	43	-2.7	47	0.7

Table 7 - Change in noise level between tennis, padel and the ambient noise level, **three Padel courts**.

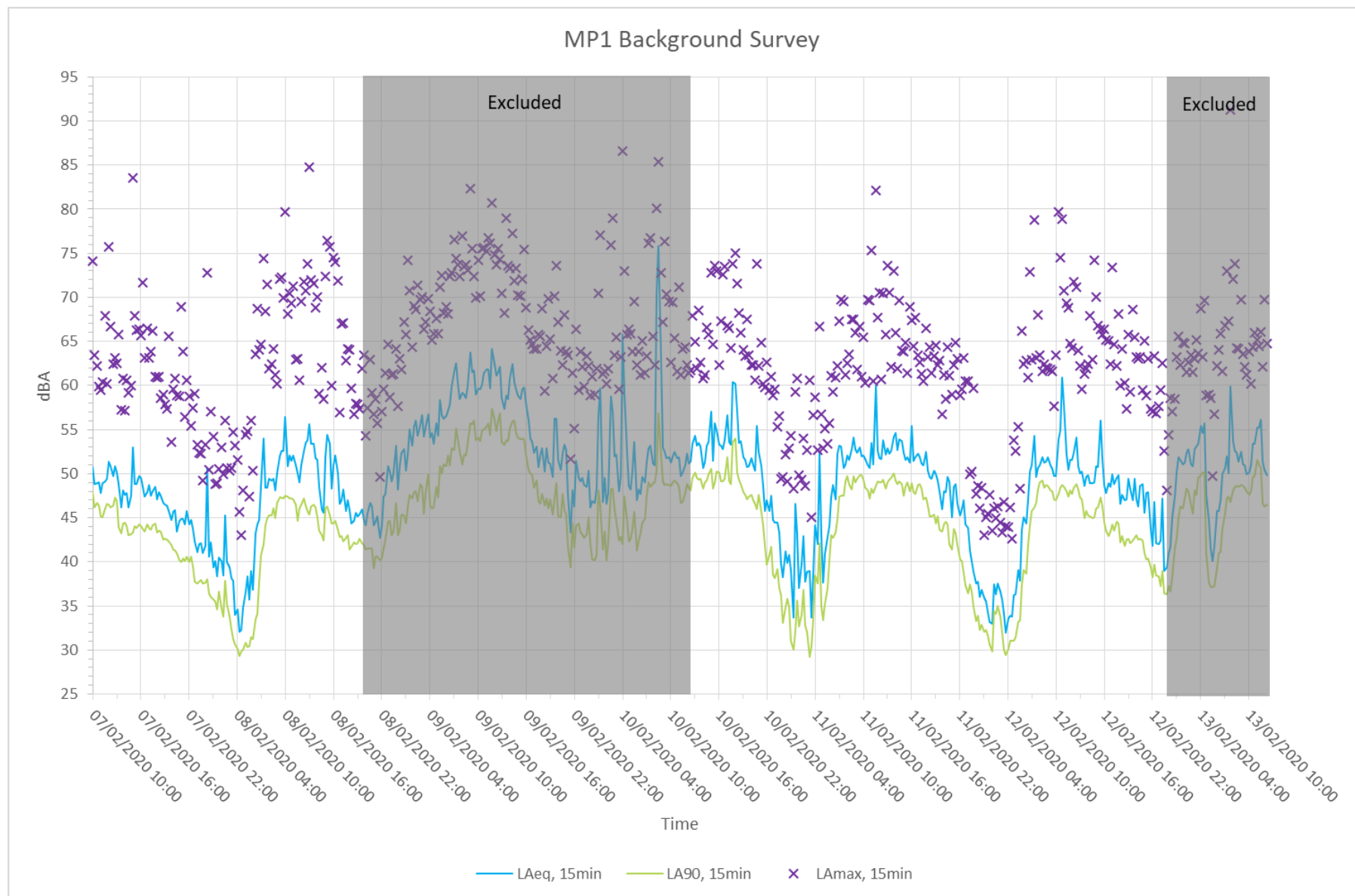


Figure 5 - Background survey results for MP1.

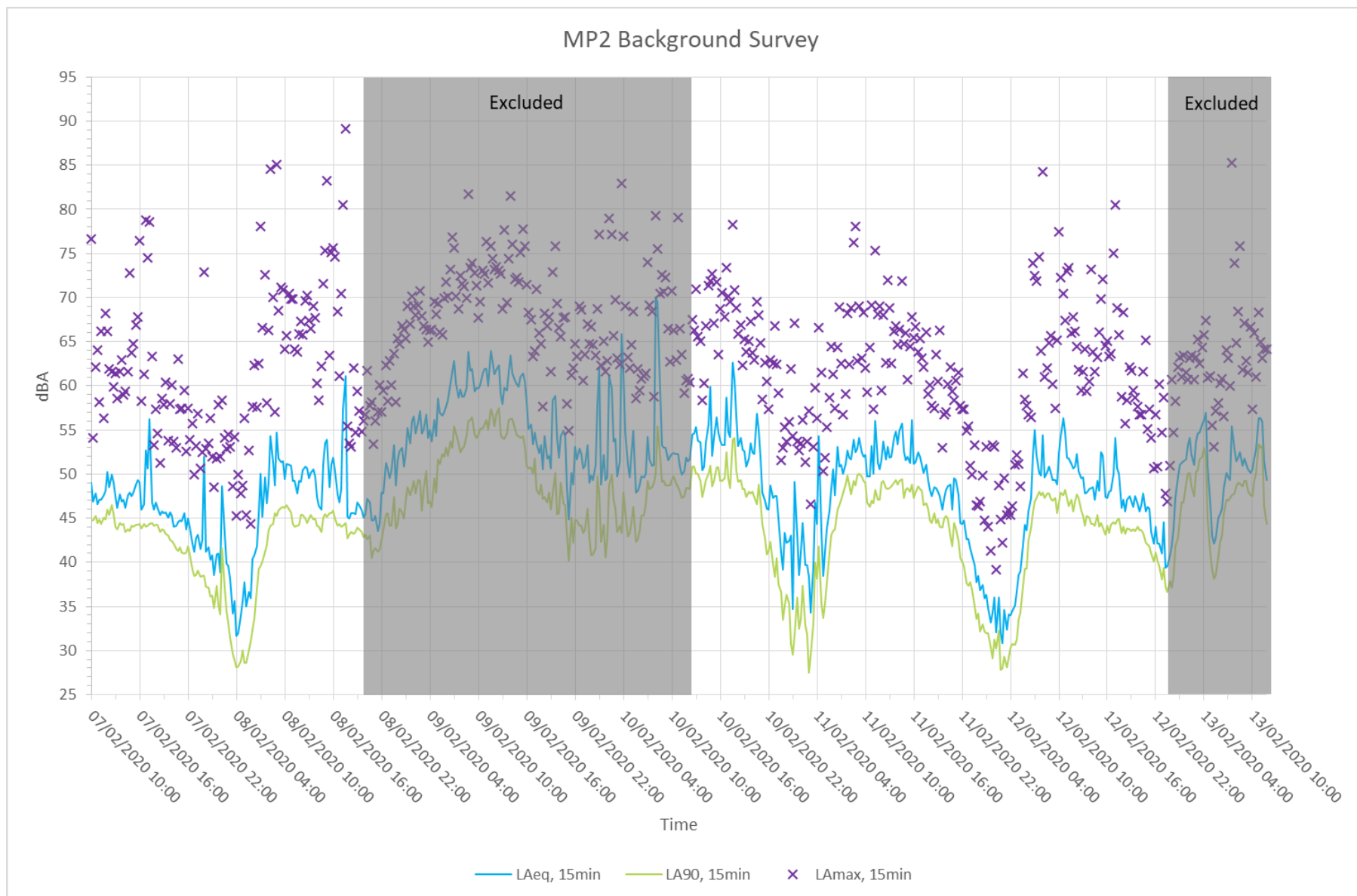


Figure 6 - Background survey results for MP2.

4.2 Character of the sound

The frequency content of the loudest attended measurements of sound at the side and end of the Padel court at Hurlingham and the tennis courts at Winchester racquets and Fitness are presented in Table 8 and 9 below.

Measurement position	Ambient noise level, dB L _{Aeq, T}							
	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Padel, AP2, end	55.8	53.3	53.5	51.0	48.4	46.8	42.5	35.8
Padel, AP5, side	58.6	59.1	61.5	61.6	63.8	57.0	52.1	44.1
Tennis	51.9	47	50.6	53.6	54.9	50.9	43.3	37.1

Table 8 - Frequency content of ambient noise levels of Padel and tennis

It can be seen from the table above that the levels of the frequency content of the measurements from the side of the Padel court is higher than that from the end of the Padel court.

Measurement position	Maximum noise level, dB L _{Amax, T}							
	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Padel, AP2, end	65.2	62.4	60.2	63.5	59.9	58.5	52.0	41.1
Padel, AP5, side	63.9	68.5	74.1	75.1	77.1	72.2	65.3	54.6

Table 9 - Frequency content of maximum noise levels of Padel

It can be seen from the table above that as before the levels of the frequency content of the measurements from the side of the Padel court is higher than that from the end of the Padel court. Maximum frequency measurements were not undertaken of the tennis courts.

In the tables above there is a noticeable increase between 250 Hz and 2 kHz for the measurement taken from the side of the Padel court, as this includes the sound of the racquets hitting the ball. This compares well to the increase in noise levels from tennis in Table 8, suggesting that the noise levels are similar in character.

Figure 7 presents part of the 1 second time trace measured at the Hurlingham Club during the Padel match, in between two aircraft movements. Hits of the ball on the racquets can be seen, in addition to one 'double peak' at 13:09:04, where the ball hit the glass wall and was immediately hit back.

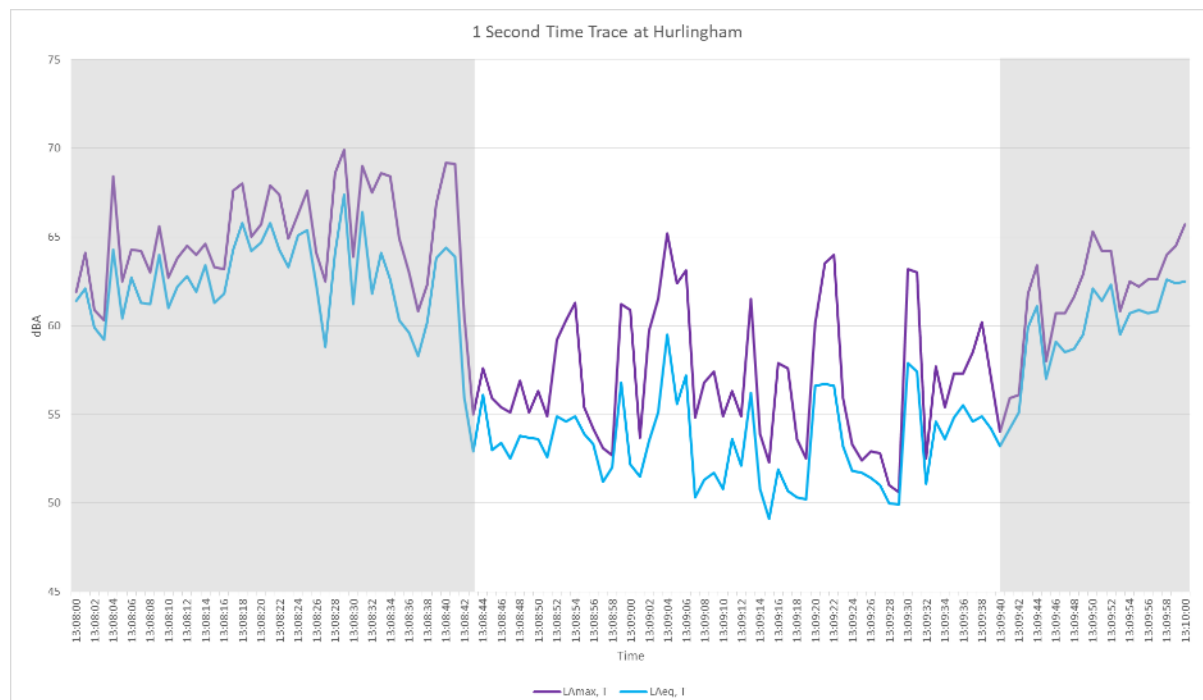


Figure 7 - 1 second time trace at the Hurlingham Club.



5 DISCUSSION

It was apparent on our previous observations of a Padel game at the Hurlingham club, that in general the character of the noise is not dissimilar to that of a tennis match. The ball used in Padel is very similar to a tennis ball but it has a lower pressure, and the Padel racquets are solid but perforated and made of ethylene-vinyl acetate which is covered in plastic or carbon depending on the quality. The velocity of the ball is therefore lower than in tennis, and serving is conducted underhand.

One area in which the character of the noise in Padel varies from tennis is the impact of the balls on the glass perimeter walls, which increases the number of impulsive “thudding” sounds generated during a game. However, from our observations this is no louder than a Padel racquet hitting a ball, and quieter than a tennis racquet hitting a ball. However, on occasion a player may hit the ball directly into the glass wall on their own side of the court to hit over to the other side of the court. This is a part of the game, and the loudest event noise during play, however this is a reasonably infrequent event during rallies. These events are included in our measurements and impact assessment.

It is important to note that the game is not similar to squash, where playing off of the walls is integral to the game.

In summary, maximum levels appear to be lower in Padel despite the glass walls due to the lower velocity of play, however average noise levels are louder due to generally more vocal participants and a build-up of reverberant noise between the glass walls.

This study has investigated the noise generated by Padel tennis, and the impact on nearby residential to the three proposed courts. The key results to note are those in Table 7, where the impact of Padel and tennis has been compared to the ambient daytime and evening noise levels.

Here it can be seen that at Bereweek Court Care Home the impact of Padel is predicted to be 1.7dB less than the impact of tennis that exists currently. This is a net improvement in the noise level, largely due to the courts being screened from the highest windows of the building by the glass walls, and therefore the introduction of the three Padel courts can be interpreted as an improvement for the residents. This achieves the expectations of the NPPF and NPSE to where possible improve things.

At Pinehurst Place it can be seen that the introduction of the padel courts is predicted to increase the noise impact by 2.7dB. Ignoring the change in character between Padel and tennis, which is very minor, this would be a barely noticeable change in noise level. It is important to consider however that Pinehurst Place has a tennis court to the north which considerably closer to it than the proposed Padel courts; at 9 meters compared to 19 metres. The noise level of this court is therefore expected to be at least 3dB higher than the courts being replaced, therefore the overall noise levels at the façade of Pinehurst Place are expected to remain similar. This achieves the expectations of the NPPF and NPSE and limits the impact from none to low.

At Bereweek Close the noise levels following the introduction of the padel courts are predicted to increase by 3.4dB. As for Pinehurst Place, ignoring the change in character between Padel and tennis, this would be a barely noticeable change in noise level. It is important to note however that the increased noise level from Padel is within 1dB of the typical ambient daytime and evening noise levels. This achieves the expectations of the NPPF and NPSE and limits the impact to low.

It is also important to consider the general character of the area. Each of the identified residential properties has been bounded by facilities of Winchester Racquets & Fitness which has offered different forms of racquet sport for many years, therefore noise from sports is part of the character



of this area and so to be expected by local residents. This assists to reduce the adverse effect of the noise generated.

Overall it is considered that the noise from the proposed Padel courts may well be audible at times, but it is not expected to be so unacceptable as to reach intrusive levels. In addition, apart from the change in character the difference in noise level between the current tennis courts and the proposed Padel courts is predicted to be minimal. This can be characterised as a **low adverse impact (or LOAEL)**.

The character of the noise from Padel is not dissimilar to the noise of tennis courts, as whilst there are more impulsive impact sounds due to impacts on the glass surrounding the court, the impacts are quieter than the sound of a tennis racquet hitting a ball, and the game itself is similar. It is also important to note that our assessment has considered the worst case where doubles matches are played consecutively across all three courts, which would not be the case at all times.

6 RECOMMENDATIONS

We do not consider the introduction of Padel tennis to this area of the Winchester Racquets and Fitness site to be out of character for the area with regards to noise and it should not be expected to be detrimental to the quality of life of residents, causing no more than a low adverse impact. However, we recommend to minimise that impact as far as practicable that the trees and large shrubs planted along the perimeter of the club are maintained to visually screen the view of the Padel courts. This will have a limited objective acoustic benefit but it will have a beneficial psychological effect on the residents, as the noise from Padel will not be as noticeable to them if they cannot see the courts, and some masking noise may be caused by movement of the vegetation under a breeze.

We recommend that the club consider adding more trees and large shrubs to the boundary facing Bereweke Court Care Home and Pinehurst Place as this will also have a beneficial impact, though we do not consider it essential.

We also recommend that signage is installed around the courts asking for participants to be respectful of their neighbours, particularly in the evening, and keep noise from calling out scores or exclamations to a minimum.

Currently the indoor tennis courts next to the proposed Padel courts are used until 22:30 and floodlit outdoor courts are used until 22:00. It is therefore not out of character for the area for the Padel courts to continue play until 22:00.

It is expected on the current non-floodlit courts that play can continue until close to 22:00 when it would then become too dark to continue in the summer months.

7 UNCERTAINTY

It is important to consider the uncertainty of the assessment. Only one Padel match was assessed, therefore different players may play marginally louder or quieter than what was witnessed. In addition the Padel game was not witnessed in isolation, as during the measurements planes were flying overhead and there were between zero and two games of tennis happening within 50m of the court.

Meteorological effects such as wind direction or a damp court may also marginally change the character of the noise, a damp court or ball may reduce the noise levels, whereas wind blowing directly at residential properties from the direction of the proposed courts may increase the noise level, however this effect is not likely to be significant at these distances.



8 CONCLUSION

An assessment of the proposed Padel courts at Winchester Racquets & Fitness has been completed by Sustainable Acoustics. The assessment not only considered noise level, but also the character of the existing soundscape and the impact upon it. These were observed and measured at a demonstration game, which was staged for a previous assessment and included all aspects that would be expected to occur in a typical Padel game.

It is our conclusion that based on our assessment, the Padel tennis courts at Winchester Racquets and Fitness may be audible at a similar noise level to the current tennis courts, but due to the character of the area this will cause only a **low adverse impact level (LOAEL)** which is unlikely to have a negative effect on the quality of life of the residents. This achieves the expectations of the NPPF and NPSE.

It is concluded to be below levels that might be considered to have the potential to cause a nuisance, and levels are not expected to be significantly different from the current situation. We have recommended that signage is installed to remind players that they are in a residential area, and that the partial visual vegetation barrier is maintained or extended.

Provided our recommendations are implemented, which could be required by adding conditions, it is concluded that there are no technical noise grounds on which to object to this application.



APPENDIX 1

Calculations



Distances for the tennis courts are taken from the centre net, whilst distances for Padel are taken from the boundary of the court. This results in a worst case scenario being assessed.

For Bereweke Court Care Home two noise sources were considered for Padel; the combined level from inside the court which is screened, and the end noise level from the end of the courts, resulting in a worst case noise level.

Tennis

Bereweke Court Care Home LAeq				Bereweke Court Care Home LAmax			
Distance (m)	Attenuation (dB)	Screening (dB)	Result (dB)	Distance (m)	Attenuation (dB)	Screening (dB)	Result (dB)
15	2	0	60	15	-10	0	70

Pinehurst Place LAeq				Pinehurst Place LAmax			
Distance (m)	Attenuation (dB)	Screening (dB)	Result (dB)	Distance (m)	Attenuation (dB)	Screening (dB)	Result (dB)
37	-6	0	52	37	-6	0	74

Bereweke Close LAeq				Bereweke Close LAmax			
Distance (m)	Attenuation (dB)	Screening (dB)	Result (dB)	Distance (m)	Attenuation (dB)	Screening (dB)	Result (dB)
57	-10	-5	43	57	-10	-5	65

Table 10 - Calculation of noise levels from tennis courts.



1 Padel court

Berewecke Court Care Home LAeq				Berewecke Court Care Home LAmax			
Distance (m)	Attenuation (dB)	Screening (dB)	Result (dB)	Distance (m)	Attenuation (dB)	Screening (dB)	Result (dB)
8	-4	0	50	8	-4	0	61
16	-10	-5	51	16	-10	-5	64
TOTAL			53				66

Pinehurst Place LAeq				Pinehurst Place LAmax			
Distance (m)	Attenuation (dB)	Screening (dB)	Result (dB)	Distance (m)	Attenuation (dB)	Screening (dB)	Result (dB)
21	-12	0	54	21	-12	0	67

Berewecke Close LAeq				Berewecke Close LAmax			
Distance (m)	Attenuation (dB)	Screening (dB)	Result (dB)	Distance (m)	Attenuation (dB)	Screening (dB)	Result (dB)
37	-17	-5	44	37	-17	-5	57

Table 11 - Calculation of noise levels from 1 Padel court.



3 Padel courts

Berewecke Court Care Home LAeq				Berewecke Court Care Home LMax			
Distance (m)	Attenuation (dB)	Screening (dB)	Result (dB)	Distance (m)	Attenuation (dB)	Screening (dB)	Result (dB)
8	-4	0	50	8	-4	0	61
8	-4	0	50	8	-4	0	61
8	-4	0	50	8	-4	0	61
16	-10	-5	51	16	-10	-5	64
16	-10	-5	51	16	-10	-5	64
16	-10	-5	51	16	-10	-5	64
TOTAL			58				70

Pinehurst Place LAeq				Pinehurst Place LMax			
Distance (m)	Attenuation (dB)	Screening (dB)	Result (dB)	Distance (m)	Attenuation (dB)	Screening (dB)	Result (dB)
43	-19	-5	43	43	-19	-5	56
32	-16	-5	45	32	-16	-5	58
21	-12	0	54	21	-12	0	67
TOTAL			55				68

Berewecke Close LAeq				Berewecke Close LMax			
Distance (m)	Attenuation (dB)	Screening (dB)	Result (dB)	Distance (m)	Attenuation (dB)	Screening (dB)	Result (dB)
62	-22	-5	39	62	-22	0	57
50	-20	-5	41	50	-20	-5	54
37	-17	-5	44	37	-17	-5	57
TOTAL			47				61

Table 12 - Calculation of noise levels from 3 Padel courts.