

Acoustic South East



Assessment of Padel Tennis

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Project: J4061

Issue 2

Site: **Former Tennis Courts, Adjacent St Francis Swimming Pool**

Client: **Hurstwood Sports Group Limited**

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Issue 1	21/08/2025	Original Issue
Issue 2	14/10/2025	Revised Issue further to visit to Smash Padel

1 Introduction and Executive Summary

Acoustic South East have been appointed to undertake an acoustic assessment to support a planning application for a temporary padel tennis site. Specifically, it is proposed to utilise the dilapidated tennis courts for padel tennis and three courts are proposed.

Standards and guidance referenced for this assessment include:

- BS8233 (Sound insulation and noise reduction for buildings) 2014
- Sport England, Artificial Grass Pitch Acoustics, 2015
- National Planning Policy Framework (NPPF), 2024
- BSEN ISO9921:2003- *Ergonomics – Assessment of Speech Communication*
- Acoustics Ventilation and Overheating Guidance, 2020
- Building Regulations Approved Document O

Long term noise measurements were undertaken at Bowden Way located to the South West of the proposed site as well as Southdowns Park located to the North.

Knox Way/Buckle Lane located to the East is the noisier of the three receptor locations with regular passing traffic from the hospital site.

Noise modelling software has been used to construct the proposed Padel courts and consider the propagation paths across the site. The predicted external sound pressure levels in terms of both L_{Aeq} , and L_{Amax} have been considered against the measured site soundscapes and do not exceed the ambient noise levels for the majority of the time.

Whilst the noise impact from the proposed Padel will be at a similar or lower level than the existing soundscape, the noise from the courts is likely to be audible outside the most affected Noise Sensitive Receptors (NSR's). Notwithstanding this, contextually, the same would likely apply should the tennis courts be reinstated for tennis to be played, and this would not require any planning permission.

The predicted external sound pressure levels have also been assessed against internal sound pressure levels using both BS8233:2014 with a reduced internal criterion for the daytime period as well as using Building Regulations, Approved Document O to review L_{Amax} events.

A visit was also made to Smash Padel, adjacent to Haywards Heath rugby club in order to take sound pressure levels measurements. The measurements were made with 4 class 1 sound level meters and effectively validate that the data used within the noise modelling software represents a worst case.

In summary, it is shown that the Padel Courts are capable of being used without detriment to the local amenity and that planning consent should not be withheld on noise grounds.

2 Context, Noise Criteria & Noise Assessment Methodology

2.1 Context

A planning application has been made to Mid Sussex District Council (DM/25/1185) to refurbish 2 tennis courts and repurpose these into temporary Padel courts for a period of 36 months. The Padel Tennis is proposed only during daytime hours, 07:00-22:00 hours.

The tennis courts in question are vacant and have deteriorated over time without any use for the past 10 years, see Figure 1 below.



Figure 1. Current Tennis Courts

2.2 Site Location

The application site is detailed in red in Figure 1.

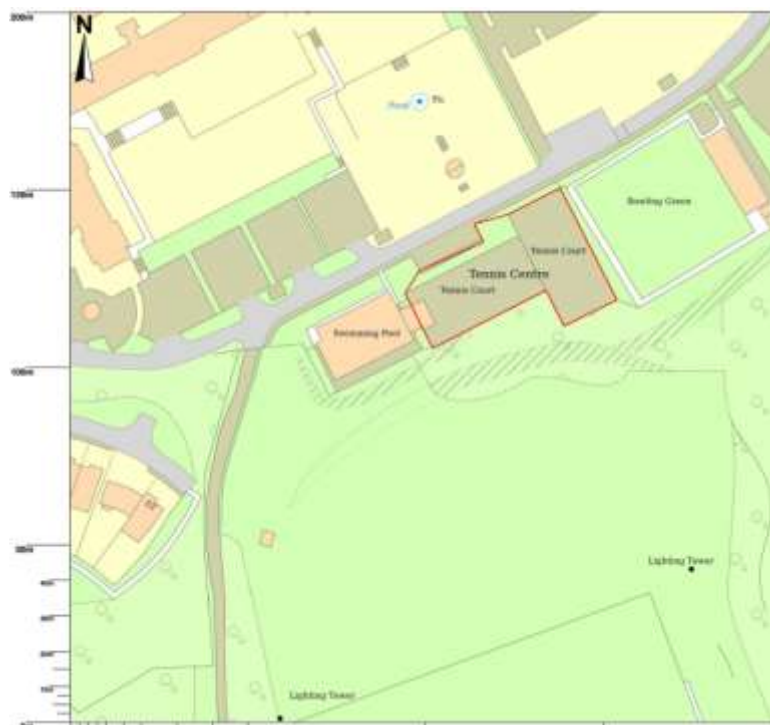


Figure 2. Site Location

To the North at approximately 80m is the former Haywards Heath hospital referred to as Southdowns Park which is now residential accommodation. Car parking to serve the residential blocks is also located to the immediate North of the site.

To the immediate West of the site is St Francis Swimming Pool and to the immediate East, the St Francis Bowls club. To the South are football/recreational fields

2.3 Proposed Layout



Figure 3. 3D Render of Proposed Layout

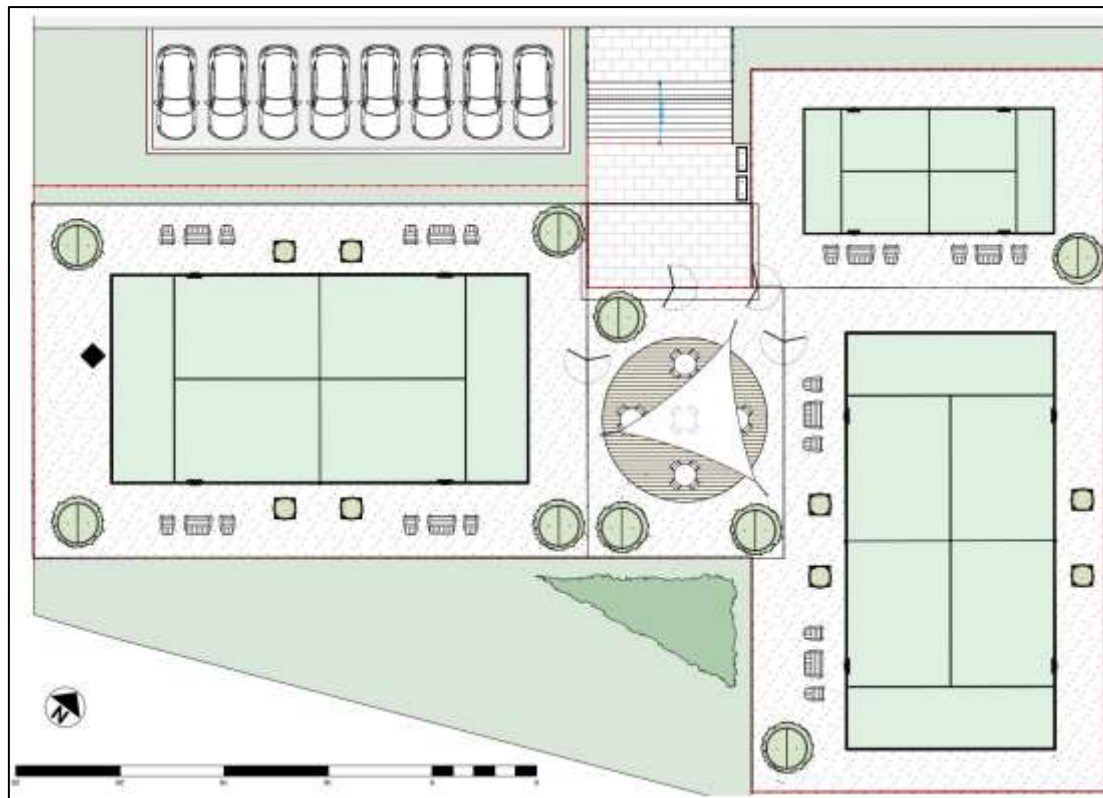


Figure 4. 2D Site Layout

2.4 Consultee Comments (Environmental Health)

Environmental Health as technical consultee to the local planning authority responded on 25th June indicating that a noise report was required in order to assess the impact to the nearby residential amenity. Hours of use were requested.

A noise impact assessment was subsequently submitted by the client/club and further information was requested by Jane Cooper in her response to planners dated 10 July 2025.

Specifically, it was noted that measurements had been made over a short time period and that longer representative data is required.

This assessment overcomes the concerns of the Environmental Health department by monitoring taking place between 24th to 30th July 2025 and 11th to 15th August 2025 which deliberately included a weekend.

2.5 Padel and Sound Sources

Padel Tennis is played on a smaller court than a tennis court with a typical layout being 10 metres wide and 20metres in length.

A padel court consists of both glass edges and a metallic mesh area located at the centre of the court near to where the net separates the two playing halves. The areas are referred to as the window (glass area) and the cage (metal mesh area).

The glazed component of the court is effectively a U shape at each end of the court and measures 3metres in height and 4metres in length.

No roof is proposed at the application site.

A game of Padel will typically last between 1 hour and 1.5 hours and is played with 4 people.

The game is played using carbon fibre bats as opposed to tennis racquets and scoring can and does utilise a ball striking the inside surface of the courts, be this the window or cage area.

Sound sources specific to Padel are therefore as follows:

- Ball impacts against racquets and court walls
- Player vocalisations (shouts, calls and general communication)
- Footsteps and Player movement
- Equipment Operation (ie ball machines)
- Background music.
- A dwell area for participants waiting to go onto the courts is also noted in the middle of Figure 4. The client confirms that at maximum capacity, there would be 12 persons sat in the dwell area.

The client confirms that ball machines would only be used sporadically and that background music is not proposed at this stage.

2.6 Padel Vs Tennis

It is relevant to consider the difference between tennis and Padel as realistically, there are tennis courts present (albeit not used) which could be brought back into use at any time and would not require any planning consent to do so. The sound of tennis being played would likely be audible within the area.

In a White Paper by Clarke Saunders Associates dated August 2023 titled “Differences in Sound Characteristics of Padel and Tennis”, it is stated :

“It is clear that Padel features longer, more frequent extended rallies involving exchanges of volleys. Serving is always underarm in Padel, requiring less preparation and the contained court reduces time spent retrieving balls.

Tennis features more forceful hitting and more powerful serves, but less frequent impact sounds. Singles tennis features less frequent rallies of volleys than doubles. Padel is always played as a doubles sport by default.

Padel allows rebounds from the glass walls, and occasionally the ball is struck directly against the wall to rebound into play.”

2.7 Soundscape

The soundscape at the site is comprised of distant road traffic noise, bird song and aviation sounds as well as passing vehicles.

2.8 Nearest Residential Receptor Locations

The nearest residential properties are as follows:

- North – Southdowns Park, approximately 80m
- East – Properties 28/30 Buckle Lane, approximately 100m
- South West – 23 Bowden Lane, approximately 90m

It is recognised that there are three small bandstand type buildings located on the site. From numerous visits to site, these were never observed to have any individuals sat on them and it is questionable if these are to be considered as external amenity areas.

For the properties to the South West, there is no line of sight.



Figure 5. Receptor Locations

2.9 Relevant National Policy and Standards for Consideration

It is relevant to note that there are no current established standards for Padel Tennis.

2.9.1 Sport England- Design Guidance Note, Artificial Grass Pitch (AGP) – Acoustics, Planning Implications (2015)

The Sport England Guidance provides a comparison of the AGP noise against the existing noise climate and indicates a slight impact where there is an increase of less than 3dB.

“Where noise from the new source (the AGP) does not exceed the existing noise climate the increase in noise will be no more than 3 decibels. This is the minimum that can normally be perceived. The noise levels are both to be measured using the L_{Aeq} parameter over the same time period, T”

2.9.2 BS8233:2014 – Guidance on Sound Insulation and Noise Reduction for Buildings

BS8233:2014 is primarily associated with steady state and continuous/anonymouse sound. It is arguable that Padel Tennis might not necessarily be appropriate, albeit a reduced internal standard/worst case hour might be relevant for consideration.

2.9.3 Building Regulations Approved Document O – Overheating.

Building Regulations Approved Document O is primarily associated with whether bedroom windows are capable of being opened during the night time period. With regards to L_{Amax} events, these should not be more than 10 events above 55dB L_{Amax} per night.

The L_{Amax} criteria for ADO have been used in the absence of Sport England guidance on L_{Amax} values. ADO is only for bedrooms during the night time period, but, to err on the side of caution, the criteria have been adopted for this day time only assessment.

2.9.4 National Planning Policy Framework (Dec 2024)

The National Planning Policy Framework (Dec 2024) defines the Government's planning policies for England and how these are expected to be applied. It sets out the Government's requirements for the planning system only to the extent that it is relevant, proportionate and necessary to do so.

The following paragraphs are relevant within NPPF Section 15 (Conserving and enhancing the natural environment) states the following:

Paragraph 187(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, and

Paragraph 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 impact 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

Paragraph 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.

2.9.5 Planning Noise Advice Document Sussex (November 2023)

The Planning Noise Advice Document Sussex dated November 2023 does not discuss Padel and there are no specific codes of practice for Multi Use Games Areas.

2.10 Methodology

The methodology for the assessment has been as follows:

1. Attend site and carry out long term measurements at the nearest residential locations
2. Use noise modelling software to determine how sound is likely to propagate across the site.
3. Consider noise modelling predictions against the standards discussed above
4. Discuss and Conclude

3 Sound Surveys

A class 1 sound level meter was set up at a location representative of the closest properties at Bowden Way to the South West of the application site.

Further to a review of the datasets, it was observed through attended measurements that the Southdowns Park façade may well be quieter. For this reason, a long-term unattended sound level meter was left in situ at the Southdowns Park façade between 11-15th August 2024 to provide a more robust understanding of the site soundscape. The positions can be seen in Figure 5 below

Survey(s) carried out by	Scott Castle BSc(Hons) Env Health, MCIEH CEnvH MIOA
Equipment Used	Svantek Mirus 971 Class 1 Sound Level Meter – Mounted on Monopole (Bowden) Norsonic 118 Class 1 Sound Level Meter – Mounted on tripod, (Southdowns Façade)
Equipment Used	Castle Acoustic Calibrator – Serial No. 041173
Locations	Svantek Mirus 971 – 2.5m above ground level (curl.define.boom) Norsonic 118 – 1.8m above ground level (button.exchanges.sushi)
Duration	Bowden Close – (24 th July to 30 th July 2025) Southdowns Park (11-15 th August 2025)

Table 1. Survey Data

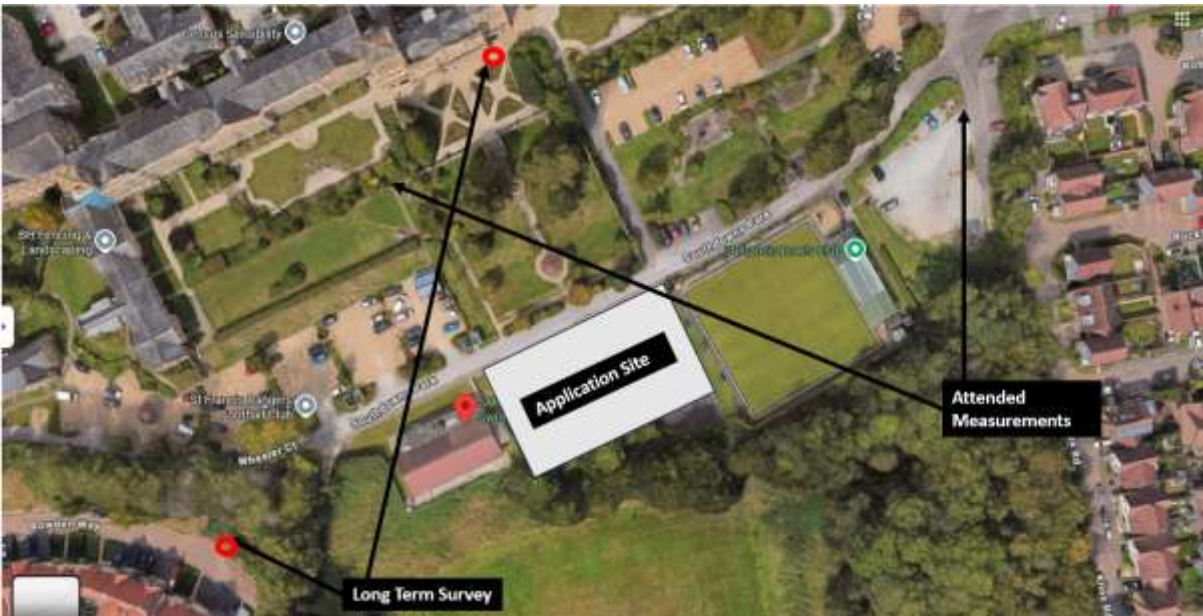


Figure 6. Survey Locations

4 Measured Data

The measured data was made into measured 1-hour periods to account for the daytime periods from 07:00 to 22:00 hours when Padel is proposed. Empty cells are where data was not recorded.

4.1 Bowden Way

Bowden Way						
Time	Fri	Sat	Sun	Mon	Tue	Wed
07:00-08:00	39	40	43	43	43	42
08:00-09:00	42	44	44	43	44	45
09:00-10:00	44	44	49	46	48	43
10:00-11:00	44	44	44	41	50	40
11:00-12:00	44	42	68	45	52	43
12:00-13:00	47	50	62	46	41	41
13:00-14:00	48	49	46	45	43	44
14:00-15:00	47	51	45	42	43	46
15:00-16:00	46	49	46	43	50	50
16:00-17:00	46	46	45	47	49	47
17:00-18:00	49	45	41	50	44	49
18:00-19:00	48	41	40	49	44	45
19:00-20:00	43	44	43	43	43	52
20:00-21:00	44	41	41	40	42	51
21:00-22:00	47	39	46	37	40	42
All data is $L_{Aeq, 1 \text{ hour}}$ dB(A) and Fast Time Weighted						

Figure 7. Bowden Way, $L_{Aeq, 1 \text{ hour}}$

Bowden Way- L_{Amax}							
Time	Fri	Sat	Sun	Mon	Tue	Wed	Thu
07:00-08:00		49	51	53	53	56	55
08:00-09:00		54	58	54	56	55	57
09:00-10:00		55	56	63	60	56	54
10:00-11:00		54	57	56	51	59	50
11:00-12:00		57	51	75	57	62	53
12:00-13:00	62	59	65	71	57	51	56
13:00-14:00	55	63	64	56	56	54	59
14:00-15:00	53	58	71	54	55	55	63
15:00-16:00	56	54	63	62	57	63	
16:00-17:00	58	57	59	55	60	66	
17:00-18:00	61	63	58	55	64	56	
18:00-19:00	59	60	54	55	62	57	
19:00-20:00	70	52	62	58	54	57	
20:00-21:00	62	56	54	53	48	59	
21:00-22:00	55	58	49	61	44	49	

Figure 8. Bowden Way 1 hour- L_{Amax}

4.2 Southdowns Park

Southdowns Park					
Time	Mon	Tue	Wed	Thu	Fri
07:00-08:00		43	44	44	44
08:00-09:00		45	43	44	49
09:00-10:00		46	49	42	45
10:00-11:00		41	56	46	42
11:00-12:00		42	45	44	52
12:00-13:00		42	43	59	44
13:00-14:00		43	42	44	
14:00-15:00		43	44	47	
15:00-16:00		46	46	47	
16:00-17:00	51	45	48	47	
17:00-18:00	45	44	47	49	
18:00-19:00	43	44	45	46	
19:00-20:00	42	42	43	44	
20:00-21:00	45	42	42	43	
21:00-22:00	39	41	40	43	
All data is $L_{Aeq, 1 \text{ hour}}$ dB(A) and Fast Time Weighted					

Figure 9. Southdowns Park, 1 hour L_{Aeq} .

Southdowns Park					
Time	Mon	Tue	Wed	Thu	Fri
07:00-08:00		56	63	58	60
08:00-09:00		71	63	58	76
09:00-10:00		65	64	60	63
10:00-11:00		60	78	71	59
11:00-12:00		59	65	61	82
12:00-13:00		63	62	83	63
13:00-14:00		60	66	63	
14:00-15:00		62	63	65	
15:00-16:00		63	61	67	
16:00-17:00	79	61	77	68	
17:00-18:00	66	58	69	73	
18:00-19:00	63	60	61	63	
19:00-20:00	61	63	63	61	
20:00-21:00	65	61	60	63	
21:00-22:00	60	57	59	61	
All data is L_{Amax} dB(A) and Fast Time Weighted					

Figure 10. Southdowns Park. 1 hour L_{Amax}

4.3 Attended Measurements

Attended measurements were made at the public car park adjacent to Knox Road to determine how the site soundscape differed. These were made on 30th July and 15 August 2025. These showed that the Buckle Way/Knox Road was the noisiest of the 3 receptor sites, due to passing traffic from the larger hospital site.

Comparison of Short Term and Long Term Simultaneous Readings							
Date	Duration	Time Period	Long Term Survey	L _{Aeq,T}	Attended Surveys	L _{Aeq,T}	Difference in Sound Pressure Levels
30/07/2025	30mins	13:38-14:08	Bowden	43.4	Adj Knox Road	53.5	10.1
					13:38-14:08		
					Southdowns Park	L _{Aeq,T}	
30/07/2025	30mins	14:18-14:48	Bowden	47.1	14:18-14:48	39.4	-7.7
					Adj Knox Road		
15/08/2025	15mins	12:45-13:00	Southdowns Park	44.9	12:45-13:00	50.7	5.8

Figure 11. Comparison of Attended and Long-Term Data

The data in Figure 11 identifies that Knox Road to the East of the site is noisier than both Bowden and Southdown Park receptor locations.

5 Measured Padel Activity (24 July 2025)

The Triangle Club at Burgess Hill was visited on 24th July 2025 to measure a Padel game using three class 1 simultaneous sound level meters.

Unfortunately, this was a family of three individuals and the ambient noise levels were very high due to children playing in the adjacent grounds, the adjacent external swimming pool being used and the site being set up for a corporate event which included the testing of a PA system.

The measured data was not consistent (significantly lower) with other Padel reporting and the data was not used within the assessment.

6 Computer Noise Modelling

In order to see how noise varies at different positions around the proposed development it is possible to produce a noise contour map. A computer noise model has been completed using the computer package IMMI. Drawings of the area have been used to complete the noise models and the topography of the location recreated. IMMI faithfully implements the propagation method of ISO-9613:1996; Acoustics – Attenuation of sound during propagation outdoors.

The noise modelling software predicts freefield and A weighted dB values.

A noise model was run for both L_{Aeq} , and L_{Amax} propagation.

6.1 Noise Model Inputs

The following noise model inputs were incorporated into the computer noise modelling:

1. In the absence of the attended data described above in section 5, an Institute of Acoustics (IoA) CPD presentation from Peninsular Acoustics was used with the maximum figures worked into the IMMI noise modelling software.
2. Glass windows at 3m in height above ground level were placed to form the ends of each court. These were entered as solid barriers.
3. The middle of the courts, ie wire mesh was left as acoustically transparent, allowing the match play to propagate across the site.
4. For the dwell area, 5 individual speakers were placed into the space, each speaking at normal volume with one individual per table (this is calibrated at 60dB L_{Aeq} , at 1metre).
5. Two models were run, one with L_{Aeq} parameters and one with L_{Amax} parameters
6. For the L_{Amax} model, a point source was placed at 2.5m above ground level at centre court to replicate a volley shot being played. This was true of each of the three courts being played on. The point source was entered as 103 dB L_{WA} . This equates to 75dB L_{Amax} at 5m from the centre line.
7. For the L_{Aeq} and L_{Amax} model, this assumed that all three courts were in simultaneous play/operation.
8. For calibration of the L_{Aeq} , model, this was measured at 5m from the centre line and the horizontal and vertical sound sources calibrated to 60dB ($L_{Aeq,T}$). For the rear screened areas, these were also calibrated at 5m in distance and calibrated to 57dB $L_{Aeq,T}$.
9. The heights of the swimming pool building and the bowls club building were taken from site plans provided by the client.
10. The residential receptor buildings at Bowden, Southdowns and Knox were 9m, 12m and 9m above ground level respectively.

6.2 Noise Model Outputs

The 2D noise contours generated are shown below.

6.2.1 L_{Aeq} Model

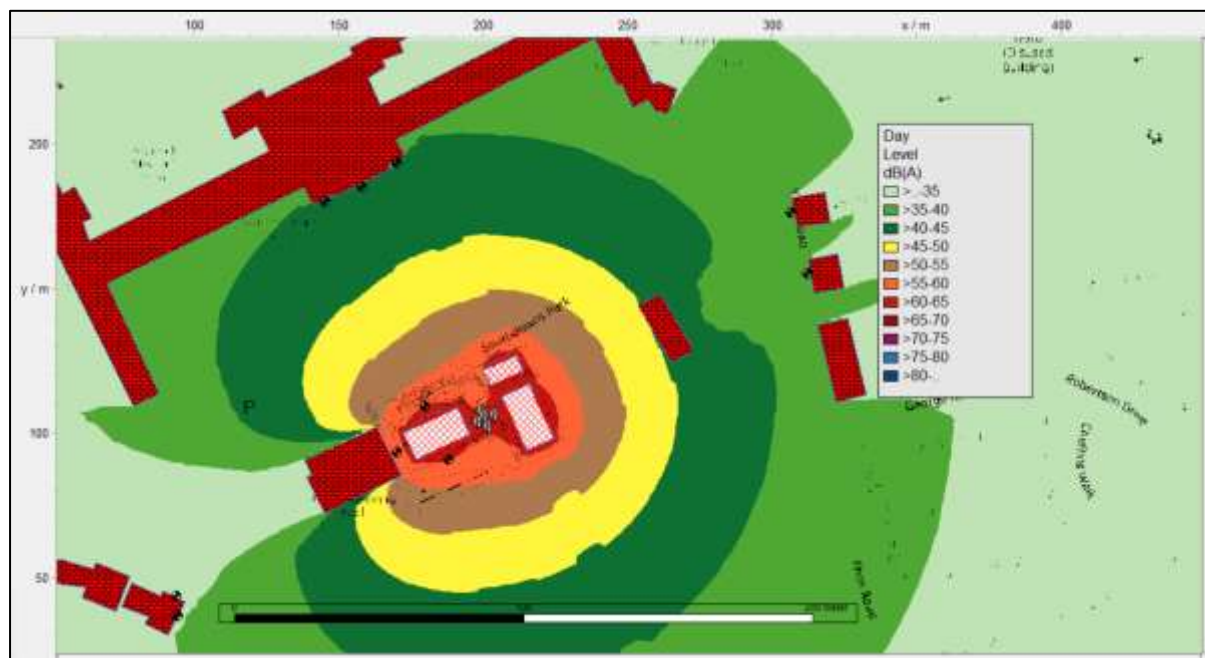


Figure 12. 2D Noise Contours $L_{Aeq,T}$

6.2.2 L_{Amax} Model

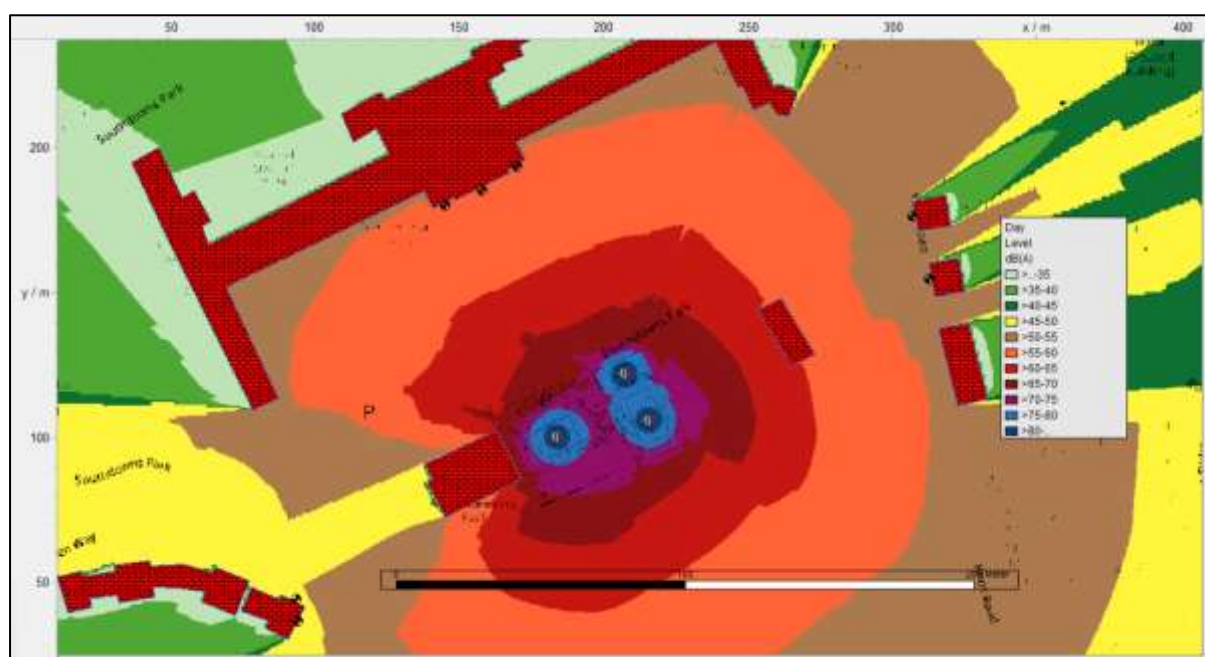


Figure 13. 2D Noise Contours, $L_{Amax,T}$

6.3 Noise Modelling Predictions

It is recognised that screenshots from the modelling can often be difficult to read, therefore the model outcomes have been summarised below in Figure 14. Note that column two relates to L_{Aeq} and column three L_{Amax} predictions. These are all external freefield predictions and consistent with a robust methodology have also considered upper storeys of the receptor locations.

Location	Predicted External Freefield SPL- $L_{Aeq,T}$	Predicted External Freefield SPL- L_{Amax}
23 Bowden North GF	33.0	48.9
23 Bowden North FF	33.7	49.9
23 Bowden East GF	33.9	48.7
23 Bowden East FF	34.5	49.7
32 Buckle Lane GF	35.2	51.7
32 Buckle Lane FF	37.1	53.0
28/30 Buckle Lane GF	32.9	50.4
28/30 Buckle Lane FF	36.3	53.1
Southdowns Park GF	39.6	56.2
Southdowns Park FF	40.4	56.9
Southdowns Park SF	41.1	57.4
Southdowns Park TF	41.7	58.0
Southdowns Park2 GF	40.0	56.6
Southdowns Park2 FF	40.8	57.2
Southdowns Park2 SF	41.5	57.8
Southdowns Pk3 GF	39.3	56.3
Southdowns Pk3 FF	40.4	56.9
Southdowns Pk3 SF	41.0	57.5
Southdowns Pk3 TF	41.7	58.1

Figure 14. Noise Model Predictions

6.4 Worst Case Modelling Predictions

The worst case external freefield noise modelling predictions are as follows:

- 34dB $L_{Aeq,T}$ at Bowden Way
- 37dB $L_{Aeq,T}$ at Buckle Lane
- 42dB $L_{Aeq,T}$ at Southdown Place

In terms of L_{Amax} values, these relate to the worst-case overhead volley shot. Therefore, there could be several events at this level. The worst case external freefield predictions are as follows:

- 50dB $L_{Amax,T}$ at Bowden Way
- 53dB $L_{Amax,T}$ at Buckle Lane
- 58dB $L_{Amax,T}$ at Southdown Place

7 Discussion

It is worth noting that at the current site, whilst the tennis courts are derelict, there will be other activity happening. This is reported by the client as follows:

1. Swimming Pool Traffic – Around 1,000 visitors per month.
2. Football Matches – Held on the playing fields below:
 - Schedule: Wednesdays (6–10 PM), Saturdays & Sundays (9 AM–3 PM).
 - Expected Traffic: 60–70 cars per match.
 - Noise Sources: Vehicle arrivals/departures, crowd noise, referee whistles, and general match activity.
3. Football Training Sessions – Conducted on:
 - Days/Times: Mondays & Thursdays (6–10 PM), including floodlight use.
 - Expected Traffic: Up to 20 cars.
 - Noise Sources: Coaching instructions, player activity, and general training noise.

7.1 Context

As discussed, the proposed Padel is to be played only during daytime hours, 07:00-22:00 hours. The facility will be closed promptly after the last players have departed the courts at 22:00 hours.

The Bowden Way receptors located to the South West of the site will not have any line of sight to the tennis courts.

As stated, the fact remains that tennis could be played on the courts without any planning application being made and would generate some sound.

7.2 Sport England Artificial Grass Pitch Assessment - L_{Aeq}

As stated, it is advocated within the Sport England Guidance that the measured vs predicted soundscape is an acceptable way to proceed on the basis that there is not more than a 3dB increase in the ambient sound pressure levels.

This works by adding (logarithmically) the worst case Padel predictions to the baseline ambient noise levels and then determining if a 3dB change has occurred.

To consider this, the measured soundscape for the two quieter receptors, Bowden and Southdowns have been processed into hourly data.

The resulting noise change of the combined padel and baseline are detailed in Figures 15 and 16 below.

Noise Change - Bowden Long Term Baseline						
Time	Fri	Sat	Sun	Mon	Tue	Wed
07:00-08:00	1	1	1	1	1	1
08:00-09:00	1	0	0	1	0	0
09:00-10:00	0	0	0	0	0	0
10:00-11:00	0	0	0	1	0	1
11:00-12:00	0	1	0	0	0	0
12:00-13:00	0	0	0	0	1	1
13:00-14:00	0	0	0	0	0	0
14:00-15:00	0	0	0	1	0	0
15:00-16:00	0	0	0	1	0	0
16:00-17:00	0	0	0	0	0	0
17:00-18:00	0	0	1	0	0	0
18:00-19:00	0	1	1	0	0	0
19:00-20:00	1	0	0	0	1	0
20:00-21:00	0	1	1	1	1	0
21:00-22:00	0	1	0	2	1	1

Figure 15. Bowden Way - Noise Change Assessment

For Bowden Way, none of periods are less than the predicted 34dB $L_{Aeq,T}$. (see Figure 15 above).

For Southdown Park, only 4 hours of data are apparent which are above a 3dB noise change. Unsurprisingly. The majority of these occur during the latter part of the evening period at 21:00-22:00 hours.

Noise Change-Southdown Park - Long Term Baseline					
Time	Mon	Tue	Wed	Thu	Fri
07:00-08:00		3	2	2	2
08:00-09:00		2	2	2	1
09:00-10:00		1	1	3	2
10:00-11:00		4	0	2	3
11:00-12:00		3	2	2	0
12:00-13:00		3	2	0	2
13:00-14:00		3	3	2	
14:00-15:00		2	2	1	
15:00-16:00		2	2	1	
16:00-17:00	1	2	1	1	
17:00-18:00	2	2	1	1	
18:00-19:00	3	2	2	1	
19:00-20:00	3	3	3	2	
20:00-21:00	2	3	3	3	
21:00-22:00	5	4	4	3	

Figure 16. Southdown Park - Noise Change Assessment

7.3 Sport England – L_{Amax}

For the Bowden Way long term survey, the predicted worst case L_{Amax} level is lower than all of the 1 hour L_{Amax} values, with the exception of 5 out of the 93 measured 1-hour periods. These are the early morning and late evening periods.

For the Southdown Park long term survey, the predicted worst case L_{Amax} level is lower than all of the 1 hour L_{Amax} values, with the exception of 2 out of the 87 measured 1-hour periods. These are also the early morning and late evening periods.

7.4 Sport England Analysis and Summary

Using the 3dB change assessment for the quieter of the two receptor locations, it is apparent that for the L_{Aeq} and L_{Amax} for the majority of the time, there should not be any concern.

As might be expected, the quieter hours are likely to be either early morning or later during the evening, ie 21:00-22:00 hours, and the client acknowledges this within their noise management plan.

7.5 BS8233:2014 – Guidance on Sound Insulation and Noise Reduction for Buildings

Whilst sections 6.1 and 6.2 above indicate the external noise levels and any change in soundscape, it is also relevant to review how the received sound pressure level might be perceived internally.

While BS8233:2014 is considered for continuous and anonymous sound it is possible/practicable to also consider a worst-case hour or use a reduced internal criterion. Given that the BS8233:2014 table 4 value is 35dB for the daytime period, it is reasonable to consider 30dB $L_{Aeq, 16 \text{ hour}}$ internally. Figure 16 below details the outcome of an open window using the industry standard (Acoustics, Ventilation and Overheating Guidance, 2020) of 13dB for sound attenuated through a partially open window.

Assessment of $L_{Aeq,T}$				
Receptor Location	Worst Case External Freefield SPL	Open Window	Reduced Internal Criterion	Achieved
Bowden Way	34	21	30dB $L_{Aeq,16 \text{ hour}}$	Yes
Buckle Lane	37	24	30dB $L_{Aeq,16 \text{ hour}}$	Yes
Southdown Place	42	29	30dB $L_{Aeq,16 \text{ hour}}$	Yes

Figure 17. BS8233:2014 Internal Assessment

The outcome shows that the internal sound pressure levels from the predicted L_{Aeq} are all below the reduced criterion of 30dB $L_{Aeq,16 \text{ hour}}$ inside the nearest residential receptor locations.

7.6 Approved Document O – Overheating (L_{Amax} Assessment)

Building Regulations Approved Document O is primarily associated with whether bedroom windows are capable of being opened during the night time period. With regards to L_{Amax} events, these should not be more than 10 events above 55dB L_{Amax} per night.

The ADO uses an open window for thermal comfort to provide 10dB of attenuation between outside freefield levels to inside reverberant sound pressure levels.

Assessment of Worst Case External $L_{Amax,T}$				
Receptor Location	Worst Case External Freefield SPL	Open Window (10dB subtraction)	ADO Internal Criterion	Achieved
Bowden Way	50	40	55dB $L_{Amax,T}$	Yes
Buckle Lane	53.1	43.1	55dB $L_{Amax,T}$	Yes
Southdown Place	58.1	48.1	55dB $L_{Amax,T}$	Yes

Figure 18. ADO Assessment - L_{Amax} Worst Case External Events

8 Attended Data (9/10/2025) – Smash Padel – Cuckfield

At the request of the client, a monitoring visit was made to Smash Padel adjacent to Haywards Heath Rugby Club on 9th October 2025. The weather conditions were ideal for noise monitoring and this was reinforced with an onsite weather station. Windspeeds did not exceed 1m/s and the temperature was 12-14degrees C.

The Padel courts are covered and have three courts adjacent to one another. The Padel layout is consistent with other Padel courts, in that the end U Shaped sections are glazed with the middle net area remaining a caged section with metal mesh fencing.

To the South of the Padel courts is an acoustic fence line, to the North the rugby club building and to the West, rugby pitches. To the East was open parkland popular with dog walkers.

4 class 1 sound level meters were set up to measure sound pressure levels at the site.

These included one at 35m from the Eastern end of the site (to replicate the distance to the nearest potential bandstand at Southdowns Park), as well as a single sound level meter at 5m from the West, North and Eastern elevations. All sound level meters were synchronised with the same clock settings and calibrated before and after the assessment without any drift observed.

Sussex fit for life had a block booking on the courts and all three courts were in play with 4 players in each padel court. The sound level meters were set to run for a period without any play and notes were made when the padel play commenced.

The takeaways were as follows:

8.1 35m East of Courts

Bandstand 2 (Southdowns Park) as the closest structure to the courts was predicted in the noise modelling software to be 48.2dB.

When measured on site at 35m from Smash Padel, this was 47.7dB.

This is half a dB quieter than as modelled for the proposed padel courts. Shows that the steady levels as originally measured (that were used to calibrate the model) are similar to the levels measured at the Smash padel courts

At 35m from courts, a 3.4dB difference in sound pressure levels between padel not occurring and being played. The smallest change noticeable to the human ear is 3dB. Therefore, only slightly noticeable at 35m. In terms of L_{Amax} levels only a 3.9dB change in noise levels, again between padel not occurring and occurring. The difference between Padel occurring and not occurring is however specific to the noise climate at Smash padel, as road traffic noise was noticeable as was distant construction noise.

Aside from the bandstand, the nearest receptor (Southdowns) is 80m in distance. This would equate to a further 7.2dB reduction, above that measured at 35m.

8.2 L_{Aeq} (Continuous Average Measured Sound Pressure Levels)

Based on Padel data, in terms of L_{Aeq} , from published data, we can normally expect at 5m from the middle of the court is a sound pressure level of 60dB $L_{Aeq,T}$ and the glazed ends, 57dB (ie a reduction due to the glazed ends).

What was measured was 59dB at the side (North -1dB less) and 57dB at the Eastern end and 61dB at the western end. The increased amount at the Western façade was inevitably a result of the school's rugby matches/training happening.

The values effectively validate those used within the noise modelling software.

8.3 L_{Amax} Events

In terms of L_{Amax} sound pressure levels, from published data, also at 5m from the net edge, a maximum sound pressure level of 65dB to 75dB is to be expected.

In terms of what was measured, this was 65dB rounded, again within the range offered within published data and again validating the noise model used.

The noise model used in the report was calibrated to 75dB at 5m from the centre net line.

The measured L_{Amax} values at Smash Padel are therefore less than were modelled.

8.4 Summary

The visit to Smash Padel validates the noise model and demonstrates that the modelling applied represents a worst-case scenario.

9 Client Noise Management Plan (NMP)

The Noise Management Plan (NMP) issued by the client is appended in Appendix A and shows the controls that the client proposes. The plan also recognises that both early and late play could well occur during quieter hours and that controls will be in place to mitigate the noise concerns.

10 Conclusion

Long term noise measurements were undertaken at Bowden Way located to the South West of the proposed site as well as Southdowns Park located to the North.

Knox Way/Buckle Lane located to the East is the noisier of the three receptor locations with regular passing traffic from the hospital site.

Noise modelling software has been used to construct the proposed Padel courts and consider the propagation paths across the site. The predicted external sound pressure levels in terms of both L_{Aeq} , and L_{Amax} have been considered against the measured site soundscapes and do not exceed the ambient noise levels for the majority of the time.

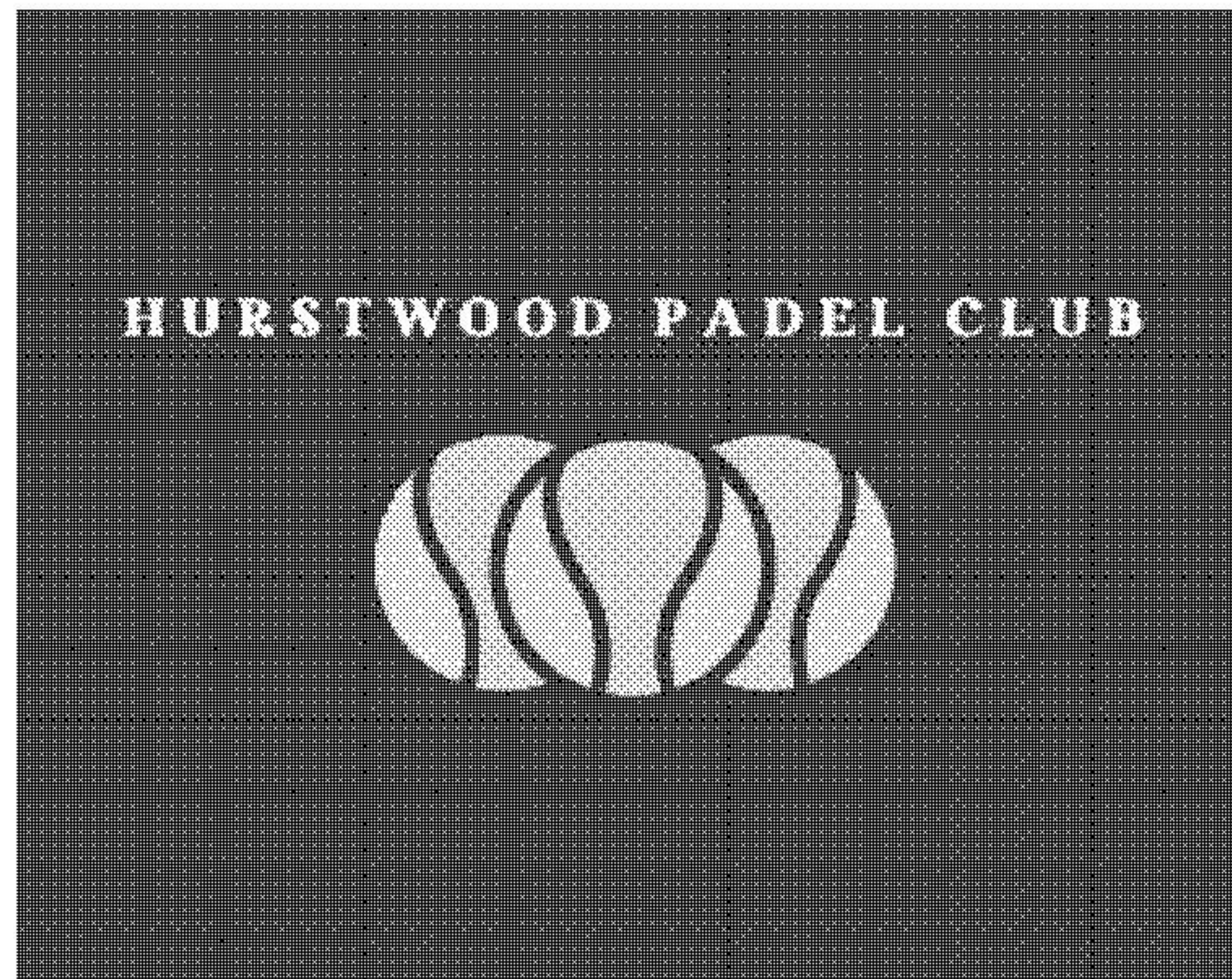
Whilst the noise impact from the proposed Padel will be at a similar or lower level than the existing soundscape, the noise from the courts is likely to be audible outside the most affected Noise Sensitive Receptors (NSR's). Notwithstanding this, contextually, the same would likely apply should tennis courts be reinstated for tennis to be played, and this would not require any planning permission.

The predicted external sound pressure levels have also been assessed against internal sound pressure levels using both BS8233:2014 with a reduced internal criterion for the daytime period as well as using Building Regulations, Approved Document O to review L_{Amax} events.

A visit was also made to Smash Padel, adjacent to Haywards Heath rugby club in order to take sound pressure levels measurements. The measurements were made with 4 class 1 sound level meters and effectively validate that the data used within the noise modelling software represents a worst case.

In summary, it is shown that the Padel Courts are capable of being used without detriment to the local amenity and that planning consent should not be withheld on noise grounds.

11 Appendix A – Client Noise Management Plan



Noise Impact Assessment & Noise Management Plan for **Hurstwood Padel Club**

Location: St Francis Tennis Courts, Princess Royal Hospital, Lewes Road,
Haywards Heath, RH16 4EX

Operator: Hurstwood Sports Group Ltd

Operating Hours: 6:00 AM – 10:00 PM (Daily)

Distance to Nearest Residences: 81 meters

1. Introduction

This Noise Impact Assessment (NIP) & Noise Management Plan (NMP) outlines the measures we will implement to minimise disturbance to the neighbouring residents of Hurstwood Padel Club. It ensures proper understanding and control of noise at the facility while maintaining operational efficiency.

2. Noise Sources & Potential Impacts

The main sources of noise at the facility could include:

- **Ball impact** (against walls, floors, and racquets)
- **Player vocalisations** (shouts, calls, and general communication)
- **Footsteps and player movement**
- **Equipment operation** (e.g. ball machines)
- **Background music**

These activities may contribute to noise levels.

To ensure minimal disturbance to nearby homes (located 81m away) and in the absence of existing sound barriers, noise levels will be closely monitored and controlled.

3. Noise Mitigation Measures

A. Operational Controls

- **Restricted Play Hours:**
 - High-intensity play (including ball machine use) will not be permitted before **8:00 AM** or after **9:00 PM**.
 - Quieter warm-up sessions will be encouraged during early morning and late evening hours.
- **Scheduled Quiet Periods:**
 - **Quiet Intervals:** Players will be encouraged to maintain 5-minute quiet periods between sets, with reduced noise levels during water breaks.
- **Noise Monitoring & Awareness:**
 - A designated staff member will monitor noise levels and remind players to minimise vocal volume during sensitive hours.

B. Player Guidelines

Noise Awareness Signage

- Clearly visible signage will be installed to remind players to:
 - Minimise shouting and avoid profanity during play
 - Adhere to quiet-time protocols during scheduled breaks

Member Education

- All members will receive guidance on noise etiquette, with particular emphasis on respectful play during early morning and late evening hours.

C. Court Modifications (If Feasible)

- **Sound-Absorbing Landscaping:**
 - Planting dense shrubs or trees along court perimeters to act as natural noise buffers.

D. Monitoring & Compliance

- **Noise Audits:**
 - Regular sound level checks at the property boundary to verify compliance with permissible noise limits.
- **Community Liaison:**
 - A dedicated contact (phone/email) will be provided for noise-related complaints, with a guaranteed response from the Hurstwood Sports Group committee within **24 hours**.

4. Contingency Measures

Should noise complaints continue despite mitigation efforts, the following actions will be implemented:

- **Revised Operating Hours:** Potential adjustment of opening times to **7:00 AM** or earlier closure by **9:30 PM**.
- **Reduced Court Capacity:** Fewer courts may be made available during early morning and late evening sessions to further minimise noise.

5. Review & Continuous Improvement

- **Quarterly Noise Assessments:**
Regular evaluation of noise logs and complaint records to refine mitigation strategies as necessary.
- **Annual Community Consultation:**
Scheduled meetings with local residents' representatives to discuss concerns and improve noise management collaboratively.

6. Conclusion

This Noise Management Plan demonstrates Hurstwood Padel Club's commitment to responsible operations and neighbour-friendly practices. Through proactive mitigation measures, ongoing monitoring, and responsive adjustments, we will maintain an optimal balance between sporting activity and community harmony.

The National Planning Policy Framework (NPPF) identifies planning decisions should 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; and
- 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, amongst other things.

Having regard to the Government's Noise Policy Statement for England (NPSE), it seeks to provide guidance on what significant adverse impacts on health and the quality of life means in practice. It notes:

“It is not possible to have a single objective noise-based measure that defines SOAEL (Significant Observed Adverse Effect Level) that is applicable to all sources of noise in all situations. Consequently, the SOAEL is likely to be different for different noise sources, for different receptors and at different times. It is acknowledged that further research is required to increase our understanding of what may constitute a significant adverse impact on health and quality of life from noise. However, not having specific SOAEL values in the NPSE provides the necessary policy flexibility until further evidence and suitable guidance is available.”

In this case, the recorded noise levels show a maximum of 56 dB which is below the noise level associated with a slamming car door which registered at 75 dB. As such, there is no risk of the development giving rise to significant adverse impacts on health and the quality of life as per paragraph 198 of the NPPF referred to above. In light of this, and subject to a suitably worded planning condition securing the measures out in this document, there is no reason for the Council to refuse this planning application on noise grounds.

Prepared by: [REDACTED] Hurstwood Padel Club

Date: 2nd July 2025

Appendix One

Hurstwood Sports Group Initial Noise Evaluation

Baseline Noise Assessment

The ambient noise level at the existing tennis courts was measured at **40 dB** (site level, access road height). This reading represents an average of five measurements taken at midday at intervals along a 25-meter stretch of the tree-lined access road.

Site Characteristics

- A natural bund rises from the access road toward the nearest residential properties (**81.3 meters away**), with parking bays integrated into its slope
- The northern side of the access road is bordered by mature trees, which may provide partial sound attenuation.



Padel Noise Impact Assessment

Methodology:

To evaluate potential noise disturbance, we conducted controlled gameplay simulations including:

- Ball impacts on tarmac surfaces and vertical plastic barriers
- Player vocalisations (including competitive calls like "good shot")
- Movement and footwork patterns

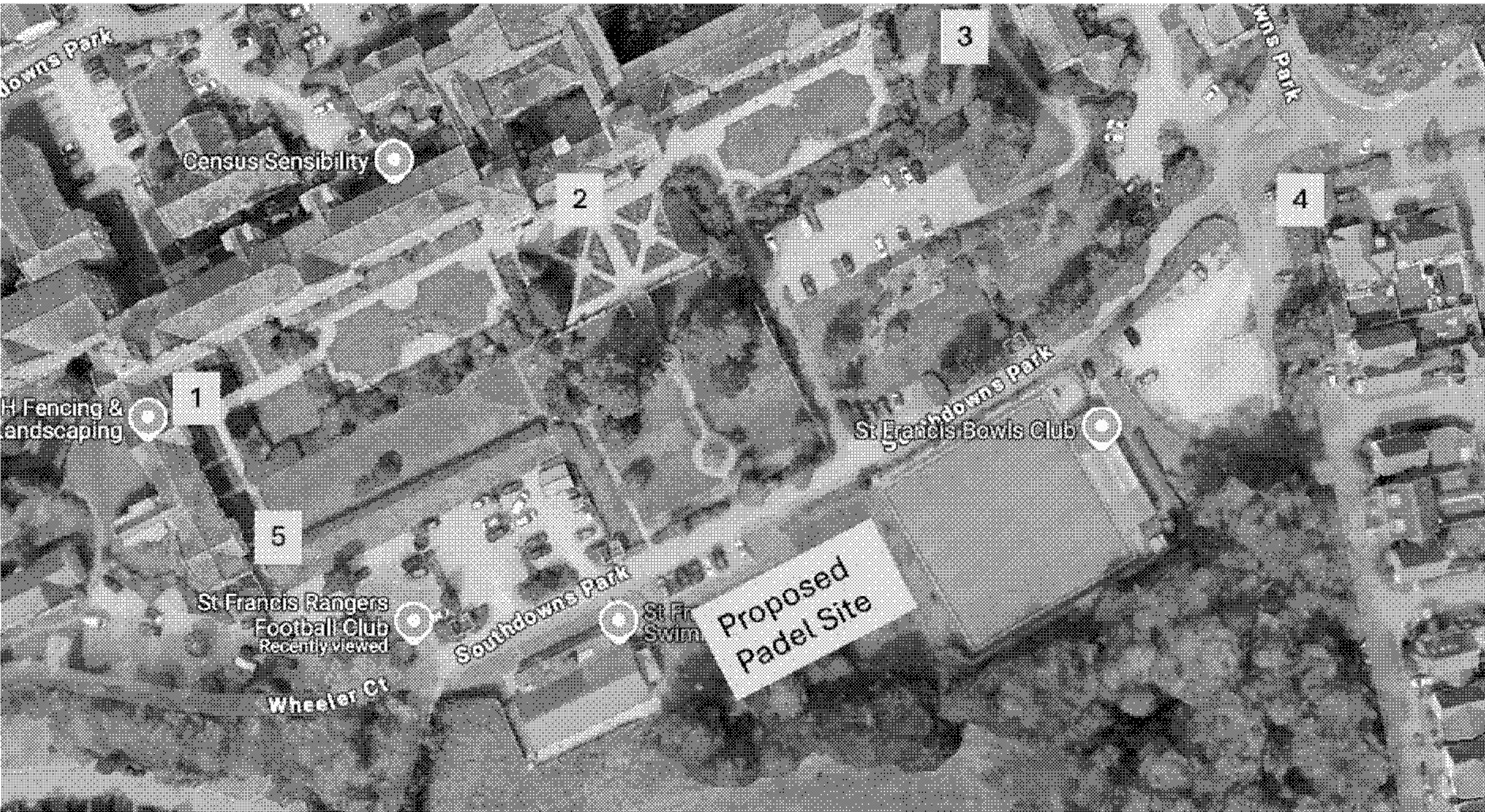
Monitoring Protocol:

Sound level measurements were recorded at five strategic monitoring points along the boundary with Southdowns Park residential properties. The results captured both:

- 1. Baseline ambient noise levels
- 2. Peak noise levels during active padel simulations

Monitoring Point	Ambient Noise (dB)	Peak Noise During Play (dB)	Delta (Δ)	Time of Measurement
SP-1 (NW corner)	37	48	+11	11:15
SP-2 (North mid)	43	47	+3	11:22
SP-3 (NE corner)	39	49	+10	11:30
SP-4 (West corner)	40	56	+16	11:38
SP-5 (NW corner)	39	50	+11	11:45

Please see the image below to demonstrate where these points above are located geographically:



Key Observations:

- The tests provided realistic acoustic modelling of actual match conditions
- All measurements were taken under controlled conditions to ensure data reliability
- Results account for worst-case scenarios during high-intensity play

This assessment forms the basis for our proposed mitigation measures in Section 3.

Notes:

- All measurements taken with [Brand] Class 1 sound meter.
- Weather: Sun and no wind.