

DATED

05/04/2024

DEED OF AGREEMENT

between

THE TRUSTEES OF THE HEART OF ENGLAND COMMUNITY BOXING CLUB

and

THE TRUSTEES OF THE HINCKLEY TOWN CRICKET CLUB

This Agreement is dated 05TH APRIL 2024

Parties

- (1) Nicholas John Griffin, James Warren Gilder, Macolm Edwards and Yann Floch as Trustees of Heart of England Community Boxing Club, a Community Amateur Sports Club (CASC), (register number 11605) of Unit 1, Ashcroft House, 127 Upper Bond Street, Hinckley, Leicestershire, LE10 1RT (Boxing Club)
- (2) Trustees of Hinckley Town Cricket Club being John Tilley, Kim Barnes and Christopher Ruddle all c/o Hinckley Town Cricket Club Leicester Road Hinckley LE10 3DR; (Cricket Club)

1. Defined Terms

- 1.1 **Completion** means the date of Completion of the purchase of the site the subject of the Planning Application by the Boxing Club from the Cricket Club as defined in the sale agreement.
- 1.2 **Report** means the report by Labosport (LSUK.24-0049_CBA_V4) dated 27th March 2024 attached at Schedule 1.
- 1.3 **Plan** means the plan attached at Schedule 2 showing the location of the high ball-strike mitigation measures to be installed.

- 1.4 Planning Application** means Application Number 23/01135/FUL – two story boxing gym with associated parking, outdoor activity areas and landscaping at Land adj. Hinckley Rugby Club, Hinckley

2. Agreed terms

- 2.1 Provided always that Completion occurs, and provided that it is a condition imposed in connection with the Planning Application, the Cricket Club confirms that the Boxing Club is permitted to install and retain the ball-strike mitigation measures recommended in the Report in the locations identified on the Plan on land owned by Hinckley Cricket Club to enable it to discharge the planning condition.
- 2.2 The Boxing Club will be responsible for the costs of installation of the ball-strike mitigation measures recommended in the Report.
- 2.3 Should either the Cricket Club or the Boxing Club wish to relocate the ball-strike mitigation measures, they will work together in good faith to agree a new location for the mitigation measures. For the avoidance of doubt, such relocation must satisfy any requirements of the planning authority.

3. Maintenance

- 3.1 The Boxing Club and the Cricket Club agree that the cost of maintenance of the ball-strike mitigation measures installed by the Boxing Club will be met by the Boxing Club, save to the extent that maintenance is required arising out of damage caused by the Cricket Club, its employees, volunteers, members or spectators or by any player or person who has access to the Cricket Club's land.

4. Governing law and jurisdiction

- 4.1 This Agreement and any dispute or claim arising out of, or in connection with, it or its subject matter or formation (including non-contractual disputes or claims) are governed by, and construed in accordance with, the law of England and Wales.
- 4.2 Each party irrevocably agrees that the courts of England and Wales have exclusive jurisdiction to settle any dispute or claim arising out of, or in connection with, this Agreement or its subject matter or formation (including non-contractual disputes or claims).

This Agreement has been entered into on the date stated at the beginning of it.

Signed as a deed by the trustees of **Heart of England Community Boxing Club** by and.....

.....
Signature of trustee

Andand, in the presence of:

.....
Signature of trustee

.....
Signature of trustee

.....
Signature of trustee

Authorised signatories

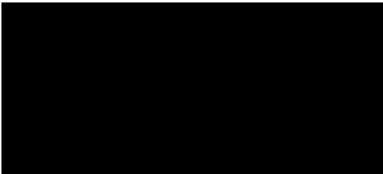
.....
Signature of Witness

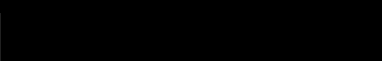
Name of witness:.....

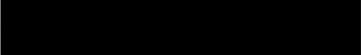
Address of witness:.....

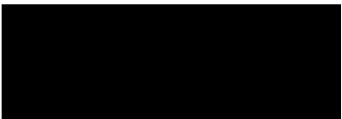
Occupation of witness:.....

Signed as a deed on behalf of the trustees of the **Hinckley Town Cricket Club** by .


Signature of trustee


Signature of trustee


Signature of trustee


Signature of Witness

Name of witness:...

Address of witness

Occupation of witness



Signed as a deed by the trustees of **Heart of England Community Boxing Club** by

[Redacted signature]

And [Redacted] and [Redacted] in the presence of:

[Redacted signature]

Signature of witness

[Redacted signature]

Authorised signatories

Name of witness:...

Address of witness:...

Occupation of witness:...

[Redacted witness details]

Signed as a deed on behalf of the trustees of the **Hinckley Town Cricket Club** by
..... and.....
and, in the presence of:

.....
Signature of trustee

.....
Signature of trustee

.....
Signature of trustee

.....
Signature of Witness

Name of witness:.....

Address of witness:.....

Occupation of witness:.....

Schedule 1: The Report



HINCKLEY TOWN CC
CRICKET BALL STRIKE ASSESSMENT



BALL STRIKE ASSESSMENT– HINCKLEY TOWN CC – CRICKET PITCH

CLIENT	Corporate Architecture Limited
SITE ADDRESS	Hinckley Town Cricket Club Leicester Road Sports Ground Leicester Road, Hinckley Leicestershire LE10 3DR
CLIENT CONTACT	Jack Geary

REPORT NUMBER	LSUK.24-0049_CBA	
VERSION NUMBER & DATE	4.0	27/03/2024
REPORTED BY		Toby Smith Special Projects Consultant
APPROVED BY		Tom Would Consultant

INTRODUCTION	To assess the potential risk of cricket balls surpassing the boundaries of a cricket pitch at Hinckley Town Cricket Club, Labosport Ltd has reviewed the site distances and topography to analyse the risk of balls surpassing the site boundaries. The analysis uses a cricket ball trajectory model that has been developed by Labosport, in collaboration with the ECB. If required, the report will identify the height of any ball trajectory mitigation to minimise the potential risks. This iteration of the report seeks to minimise mitigation requirements by limiting protection to just the service road and not land beyond in order to protect cars travelling down the service road Note: This is a desk study, Labosport have not visited the site, taken measurements, or carried out a visual inspection. All measurement information has been provided by the client and any error in measurements are not the responsibility of Labosport. This assessment is undertaken on the basis of accurate data.
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Section 1 – Executive Summary of Conclusions

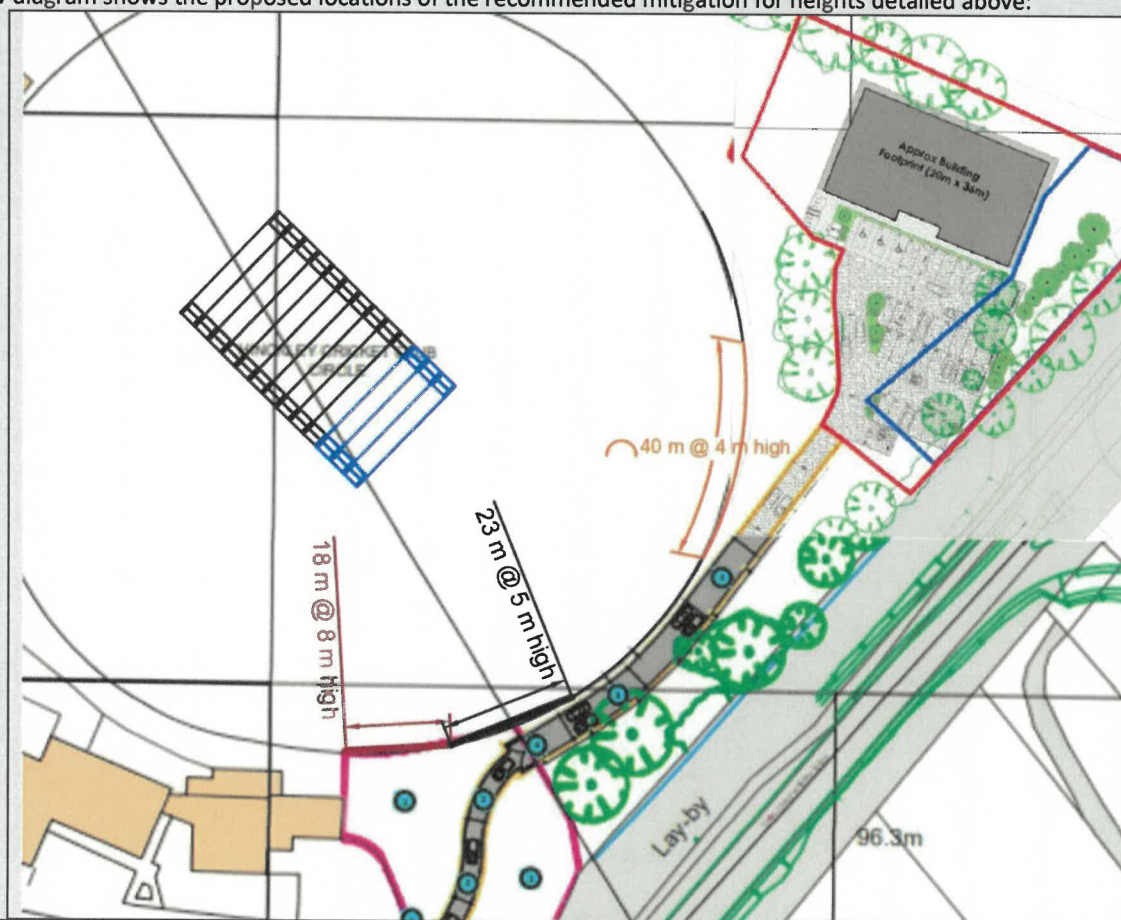
Executive Summary of Conclusions

This report has been prepared to assess the potential risk of cricket balls surpassing the boundaries of a cricket pitch at Hinckley Town Cricket Club and advise on the height and location of mitigation recommended to provide a suitable level of protection.

Orientation	Recommended mitigation height (based on recreational cricket on pitches 1 to 10)
East	4 m
South	8 m

Please Note: This may not stop all shots from landing beyond the site boundary, but it is believed from the assessment of the ball trajectory it will significantly reduce their frequency.

The below diagram shows the proposed locations of the recommended mitigation for heights detailed above:

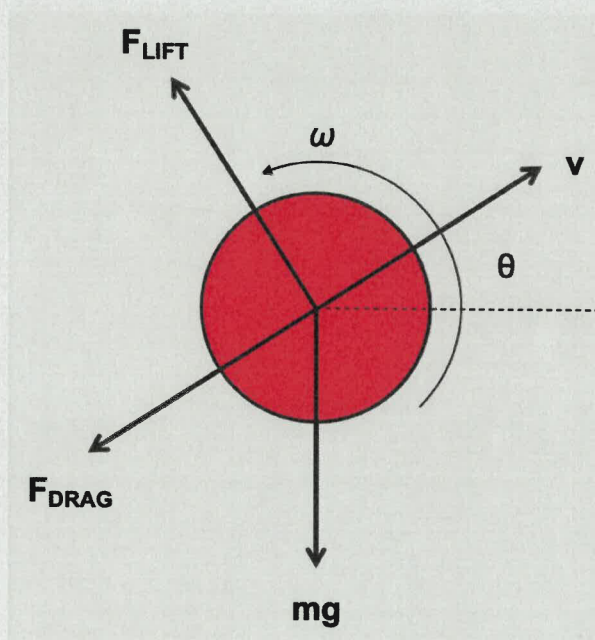


Section 2 – Cricket Ball Trajectory Model

Trajectory Model Overview

Previous work undertaken by Labosport for the England and Wales Cricket Board (ECB) led to the development of a sophisticated trajectory model to estimate the distance a ball would travel, and its trajectory given a specific velocity, angle, spin rate and atmospheric conditions (i.e. altitude).

The trajectory model uses aerodynamic principles and Newtonian physics to predict the ball flight path whilst accounting for the effect of air resistance. The model uses aerodynamic coefficients taken from published wind tunnel studies on cricket balls at different velocities.



The aerodynamic forces of drag (F_D) and lift (F_L) are proportional to the ball's velocity relative to the air flow, frontal area, air density and the drag coefficient respectively lift coefficient. The forces are defined as:

$$F_D = \frac{1}{2} C_D \rho V^2 A$$

$$F_L = \frac{1}{2} C_L \rho V^2 A$$

where C_D and C_L are the non-dimensional drag and lift coefficients, ρ is the air density in kg/m^3 , V is the air stream velocity in m/s and A is the frontal area of the ball in m^2 . Due to the complexity of the flight dynamics, the trajectory can only be resolved by using a numerical time step approach whereby the ball conditions are calculated at small timesteps throughout the trajectory. The conditions at time step 1 are used to calculate the conditions at time step 2; the conditions at timestep 2 are used to calculate the conditions at time step 3 and henceforth. A timestep of 0.001 seconds was used to generate high-resolution trajectory data.

Trajectory models are known to exhibit high accuracy and Labosport have undertaken extensive experimental validation of this trajectory model to refine its accuracy. However, it is not possible to simulate the full complexity of the real world and this model does not account for variations in bat/ball restitution or wind (speed and direction). Due to these limitations, the model is regarded as an indicative prediction tool.

Trajectory Scenarios

The hit angles and velocities are estimated from in-game action to cover a range of 'typical' shots ranging from 20 degrees to 50 degrees and 20 m/s (45 mph) to 50 m/s (112 mph). The exact frequency of shots resulting in a cricket ball being hit into adjacent areas is unknown and impossible to predict with certainty (player skills, type of game and many other factors can influence this) hence a proportionate approach needs to be taken to provide safety to users. In reality, there may be a "freak" shot that will result in a further than expected trajectory; however, the implications of planning for this type of worst-case approach could result in the closure of hundreds of cricket grounds across the country and hence a balanced risk mitigation strategy needs to be implemented that is proportionate. Indeed, there are risks associated with many everyday activities, but plans need to be developed to reduce risk following good practical health and safety principles including a combination of likelihood and severity.

Trajectories at an angle to the pitch

In scenarios where the direction of the trajectory is perpendicular to the direction of the pitch (or within 45 degrees of perpendicular), the analysis considers one trajectory scenario. This scenario is a ball trajectory played from the closest batting crease in the trajectory direction.

Trajectories parallel to the pitch

Where the direction of the trajectory is parallel to the direction of the pitch (or within 45 degrees), the analysis considers two trajectory scenarios; 1) a trajectory played from the closest batting crease, and 2) a trajectory played from the furthest batting crease. The type of cricket batting shots required to hit the ball from closest stumps are 'late cut' and 'late glance' shots and these do not achieve the same velocity as a 'straight drive' from the furthest batting crease. A greater emphasis is therefore placed on trajectories from the furthest batting crease.

Previous Work

Labosport Ltd have undertaken this type of boundary risk assessment for a great many other cricket grounds over the past 5 years when there have been perceived problems with cricket balls exceeding the boundary, or the potential influence of a new adjacent development to an existing club. Through this work, Labosport Ltd have developed significant expertise that supports our judgements in these matters.

Section 3 – Site Specifics

Playing Standard of Cricket on the Site

Labosport have investigated the level of cricket that is played on this site. We have been advised that recreational and junior level cricket is played on this site.

For recreational level cricket the basis of the shot velocity is 40 m/s. For recreational level cricket the basis of the 'late cut' or 'late glance' type shots is 30 m/s

For junior level cricket the basis of the shot velocity is 30 m/s.

It is on this basis that the recommendations in this report have been made.

Existing Mitigation

There is currently no existing mitigation around the facility.

This report does not account for any existing, or planned planting (trees, hedges etc). It is our informed opinion that planting cannot be relied upon to provide protection against ball trajectories. The planting may not be sufficiently dense to stop the ball, nor homogeneous across the length. The planting may change during the seasons, or indeed be cut back or removed.

Site Measurements and Topography



Note that we are now going to measure, report and account for any topographical changes greater than 1 metre.

Orientation of Risk

At the instruction of the client, this boundary risk assessment only evaluate possible ball trajectories in an easterly and southerly direction towards the proposed development and access road. The focus on the analysis is based on the shortest distances from the closest cricket pitches to the potential area of risk.

Labosport have been advised that recreational pitch is only played on the 10 most northerly pitches (highlighted in the above image in black), with the remaining pitches to the south being used for Junior only (highlighted in blue in the above image). The report has been drawn up based on this information.

Section 4 – Site Measurements

Site Measurements

The above diagram illustrates the minimum distances from the cricket square to the site boundaries. Note as this is a risk assessment the worst-case scenarios are considered; consequently, the shortest measured (and calculated) distance is used for the study. The following distances have been used to calculate the projected height of the ball for different shot conditions as specified below:

Measured Distance	Shortest Boundary (m)
East – Closest Junior stump to site boundary	Circa 53.46 m
East – Closest Recreational stump to site boundary	Circa 61.06 m
South – Closest Junior stump to site boundary	Circa 49.32 m
South – Closest Recreational stump to site boundary	Circa 58.00 m

Section 5 – Estimated Ball Height

Estimated Ball Height (Using the Projection Modelling Tool)

East Orientation

Estimated Ball Height @ 53.46 m		Angle (degrees)						
		20	25	30	35	40	45	50
Velocity (m/s)	20	0	0	0	0	0	0	0
	25	0	0	0	0	0	0	0
	30	0	0	0	0	0	0	0
	35	0	0	1.4	3.6	4.4	4.2	0
	40	0	4.3	8.1	11.0	13.4	15.0	14.3
	45	4.5	8.5	12.5	16.0	19.5	22.1	23.4
	50	7.3	11.4	15.7	19.9	23.9	27.4	30.2

Estimated Ball Height @ 61.06 m		Angle (degrees)						
		20	25	30	35	40	45	50
Velocity (m/s)	20	0	0	0	0	0	0	0
	25	0	0	0	0	0	0	0
	30	0	0	0	0	0	0	0
	35	0	0	0	0	0	0	0
	40	0	0	1.7	3.7	4.9	4.2	0
	45	0	4.8	8.1	11.5	14.2	14.9	13.2
	50	4.6	9.1	13.3	17.3	20.7	23.0	23.0

South Orientation

Estimated Ball Height @ 49.32 m		Angle (degrees)						
		20	25	30	35	40	45	50
Velocity (m/s)	20	0	0	0	0	0	0	0
	25	0	0	0	0	0	0	0
	30	0	0	0	0	0	0	0
	35	0	1.8	4.6	6.9	9.2	9.5	8.7
	40	2.8	6.3	9.9	13.3	15.9	18.4	19.1
	45	5.8	9.8	13.7	17.4	21.0	24.1	26.4
	50	8.1	12.1	16.2	20.4	24.5	28.5	31.9

Estimated Ball Height @ 58 m		Angle (degrees)						
		20	25	30	35	40	45	50
Velocity (m/s)	20	0	0	0	0	0	0	0
	25	0	0	0	0	0	0	0
	30	0	0	0	0	0	0	0
	35	0	0	0	0	0	0	0
	40	0	1.3	4.1	6.9	8.9	8.7	5.3
	45	2.5	6.2	10.0	13.8	16.8	18.4	17.6
	50	5.7	10.1	14.3	18.6	22.2	25.2	26.4

See Appendix A for example trajectories.

Section 6 – Risk Assessment Discussion**Risk Assessment Discussion**

This report has been prepared to assess the potential risk of cricket balls surpassing the boundaries of a cricket ground at Hinckley Town Cricket Club and to advise on the height and location of mitigation recommended to provide a suitable level of protection.

Mitigation Recommendations – East Orientation

	Distance	Distance to boundary	Mitigation height (majority of risk removed)	Mitigation height (vast majority removed)	Overall mitigation height recommendation
	Closest Junior stump to site boundary @ 30 m/s	53.46 m	0 m high	0 m high	0 m high
	Closest Recreational stump to site boundary @ 40 m/s	61.06m	4 m high	5 m high	4 m high

Please Note: This may not stop all shots from landing beyond the site boundary, but it is believed from the assessment of ball trajectory it will significantly reduce their frequency.

Mitigation Recommendations – South Orientation

	Distance	Distance to boundary	Mitigation height (majority of risk removed)	Mitigation height (vast majority removed)	Overall mitigation height recommendation
	Closest Junior stump to site boundary @ 30 m/s	49.32 m	0 m high	0 m high	0 m high
	Closest Recreational stump to site boundary @ 40 m/s	58.00 m	8 m high	9 m high	8 m high

Please Note: This may not stop all shots from landing beyond the site boundary, but it is believed from the assessment of ball trajectory it will significantly reduce their frequency.

Further Notes

This report does not recommend the specific design of a mitigation system, however options could include;

- Ball stop netting
- Rigid panel fencing
- Permanent or temporary fencing structures

It is recommended the client discuss design options with the relevant stakeholders including the LPA, the ECB and the cricket club.

In addition, the client may wish to consider alternative mitigation options such as the location and orientation of the cricket square, controlling the level of cricket played on the site, or defining the location of junior and senior cricket pitches. It is recommended that the client discusses any such plans with the ECB and other relevant organisations along with the club to ensure that plans are suitable in mitigating the risk but also practicable for the cricket club's day to day use.

Section 7 – Conclusions

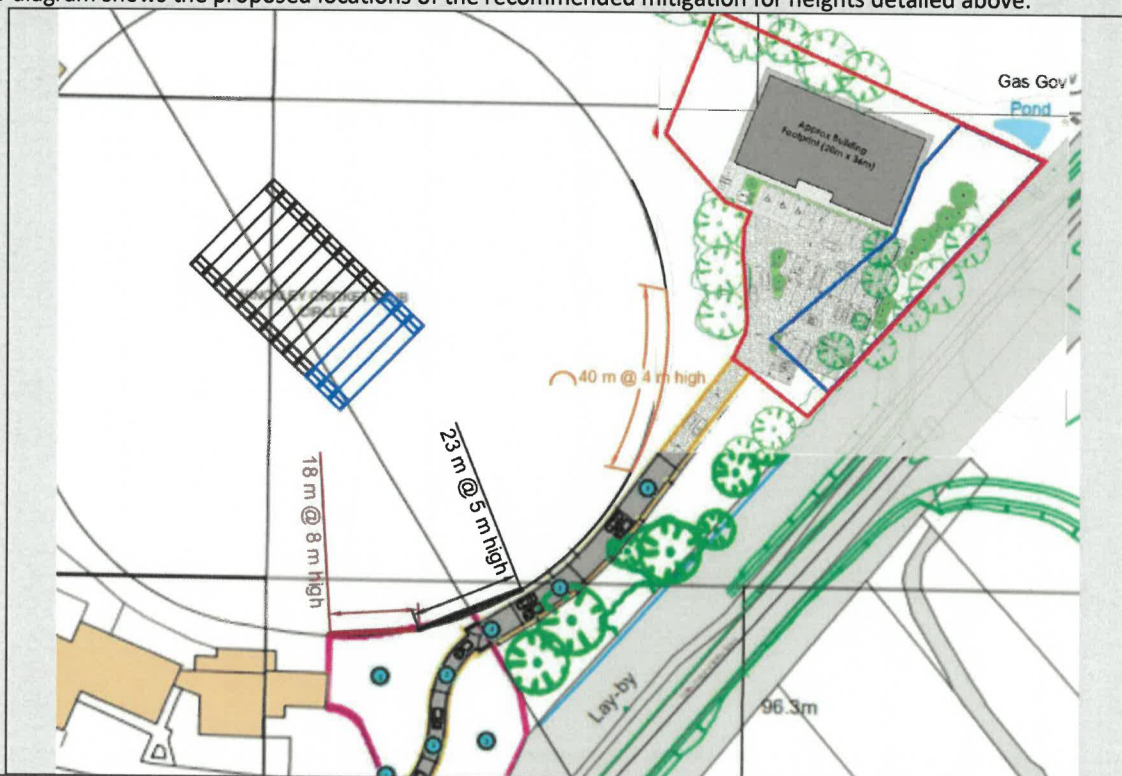
Conclusions

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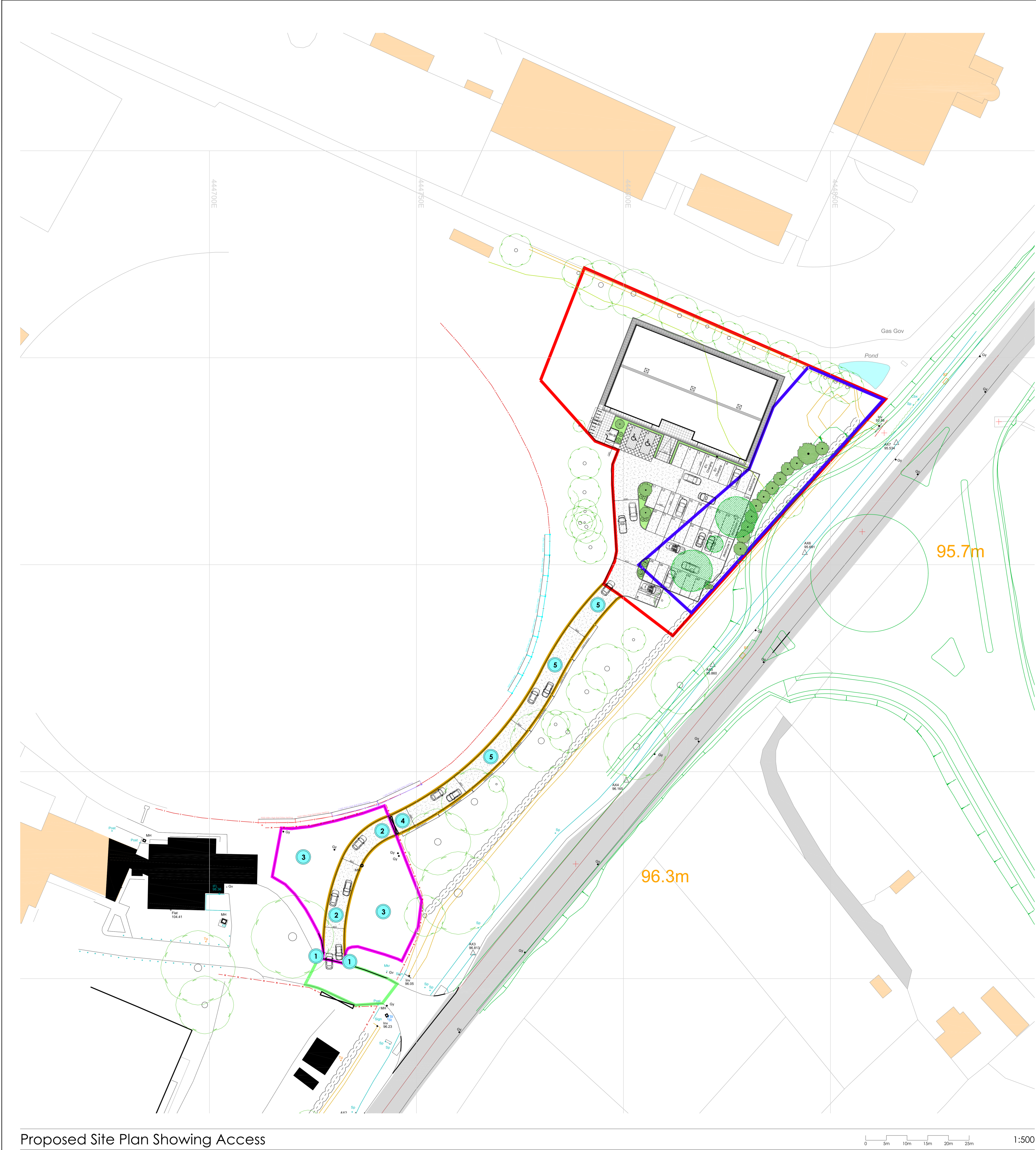
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East	4 m
South	8 m

Please Note: This may not stop all shots from landing beyond the site boundary, but it is believed from the assessment of the ball trajectory it will significantly reduce their frequency.

The below diagram shows the proposed locations of the recommended mitigation for heights detailed above:



Schedule 2: The Plan

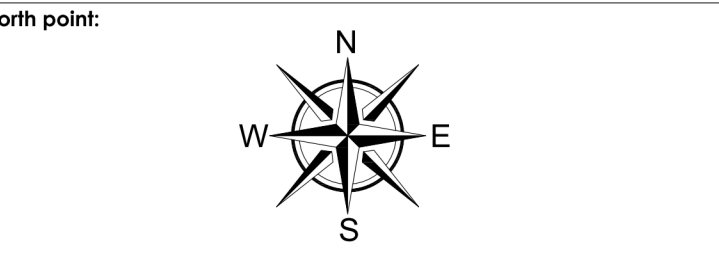


Proposed Site Plan Showing Access

Legend:

- Existing Tree (approximate Location TBC with topographical survey)
- Existing Tree to be removed subject to any existing TPO orders.
- Proposed Tree / Soft Landscaping shown indicatively for context only.
- Proposed block paving to disabled bays. Brett Beta Block Paving Colour Silver Haze. Use white marker block pavers to distinguish bay.
- Proposed gravel hard standing parking/driveway. Hardwearing limestone chipping by Breedon Aggregates or similar approved. Colour to be iron grey / Shierglas Silver or similar. Laid over permeable plastic grate retaining system with weed barrier. To gravel parking, use white plastic inserts. To edge of access driveway use Flat Top Edging Concrete Kerb. Final spec TBC by civils engineer.
- Soft landscaping scheme by specialist designer. New shrubs/bushes etc to be designed.
- Washed gravel margin to perimeter of proposed building between DPC & path.
- 600mm x 600mm x 50mm square paving slabs by Tobermore. Mayfair range Colour: Silver. Associated Kerbs to be Tobermore Fusion Kerb Colour: Silver
- 600mm x 600mm x 50mm Concrete textured flag paving slabs. Associated Kerbs to be Flat Top Edging Concrete Kerbs by Marshalls.
- Mansfield Semi-Domed Top Illuminated 980mm high x 156mm diameter External Parking Bollard Light.
- Timber hit and miss fence enclosure to bin store.
- Proposed Hinckley National Rail Freight Interchange Roundabout Construction Boundary. Approx 1063m².
- Extent of Proposed Site Boundary (Land Acquisition) with an Area of 3644m² (based on OS Ordinance Data).
- Proposed access road required over land outside of site boundary. Ownership of road retained by Rugby/Cricket Club. Road constructed & maintained by Boxing Club.
- Right of access required over land.
- Right of access required over existing hand standing. Hardstanding maintained by Cricket Club.

Do not scale from this drawing. Work to given dimensions. All dimensions to be checked on site. Any discrepancies with this drawing to be reported and clarified prior to commencing work on site, if in doubt - Ask. Corporate Architecture Ltd accept no responsibility for works not undertaken fully in accordance with this drawing and relevant specifications. Copyright © Corporate Architecture Limited



Notes:

1 New Signage "Do Not Block Driveway" to either side of entrance.



2 New 4.8m wide two lane access road matching spec of access road to maintain emergency vehicle access.

3 Existing gravel hard standing overflow carpark to remain.

4 Existing Lockable Double Security Gates (Held-Open @180 degrees)



5 New 4.8m wide two lane access road

Revision Log:			
P9	Ball Strike Netting Updated in line with V4 Labosport Report.	JG	28.03.24
P8	Ball Strike Netting Added As Per LABOSPORT Specialist Report. Final Settling out to be agreed.	JG	20.03.24
P7	Site plan updated include ramped access to main entrance. Parking numbers updated to align with LHDG requirements (35 total required based on D2 use).	JG	22.02.24
P6	Site plan updated to show building footprint and overhang of roof. Access road updated to reflect topo survey. Updated to increase width of access road to dual lane through existing carpark to 4.8m. 2No. EV Charging zones added.	JG	09.02.24
P5	Site plan updated to increase parking provision & cycle provision in-line with D2 requirements.	JG	17/01/24

Rev:	Description:	By:	Date:
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Project:
Land Adjacent to Hinckley Rugby Club
Hinckley
Leicestershire

Client:
Heart of England Community Boxing Club
Nick Griffin [HOECBC] & Louise/Caspur Hobbs

"The Christian Hobbs Boxing Gym"

Scale:
0 5m 10m 15m 20m 25m 1:500

Drawn by:	Checked:	Date:	Paper Size:
JG		July 2022	A1

Drawing Title:
Proposed Site Plan With Access Road

Drawing Status:
TENDER ISSUE

Drawing Number:	Revision Number:
4594/HOECBC/21/101	P9



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