

Equivalent Quality and Quantity Site Assessments (EQQA)

Client: Views (Holdings) Ltd

Project: Burnage Cricket Club & Cringle Playing Fields

Location: Burnage, Greater Manchester

Report date: 23/01/2025

Consultant: Joe Woodcock

Revision: C

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ISSUE INFORMATION

This report has been produced in good faith for exclusive use by Views (Holdings) Ltd in relation to the proposed residential development at the former Burnage Cricket Club site, Burnage, Greater Manchester. STRI accept no liability or responsibility whatsoever in respect of any use of this assessment beyond the scope of its application by any third party. The report is the property of STRI and may not be copied nor reproduced without prior written approval of STRI, except for the purposes of dealing specifically with the management and implementation of this project.

Client:	Views (Holdings) Ltd
Project:	Burnage Cricket Club & Cringle Playing Fields
Location:	Burnage, Greater Manchester
STRI Ref:	J007337
Doc Title:	Equivalent Quality and Quantity Assessment (EQQA)

REVISION RECORD

Revision record (Revision '0' being the original)

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1. EXECUTIVE SUMMARY

1.1. Introduction

STRI has been commissioned by Views (Holdings) Ltd to carry out an Equivalent Quality and Quantity Assessment (EQQA) for a proposed residential development at the former Burnage Cricket Club site in Greater Manchester. The development will result in the loss of a natural cricket pitch, necessitating a mitigation strategy to comply with planning policies. This strategy includes establishing a new cricket wicket and outfield at the nearby Cringle Playing Fields. STRI's assessment will exclusively evaluate the replacement cricket facility and will not address other sports pitches within the Cringle Playing Fields site.



Figure 1 Aerial image of the Cringle Playing Fields site where a new cricket wicket and outfield is proposed as part of the mitigation strategy.



Figure 2 Aerial image of the Burnage Cricket Club site – area to be developed

1.2. Summary Assessment of the former Burnage Cricket Club (existing playing field area to be lost as a result of the proposed development)

During the site appraisal, the following observations and conclusions were made regarding the former Burnage Cricket Club site.

- No cricket or other sports pitches were marked out on the site. The area was overgrown and had been neglected for several years.
- Aerial imagery confirmed that cricket had been played at the site in the past. However, the cricket square was oriented west-east, contrary to Sport England's recommendation for a north-south orientation to mitigate sun glare issues.
- The site was in poor condition due to prolonged neglect, with broadleaf weeds such as buttercups and rushes dominating the overgrown vegetation, indicating wet soil conditions. The playing field was deemed unsuitable for use in its current state.
- While the playing field had relatively flat gradients, there were visible surface deviations that could pose injury risks. Topsoil appeared to have been mounded in the northeast corner, reducing the usable playing area.
- The entire site is located in Flood Zone 1, indicating a low risk of flooding.
- The absence of maintenance within the site boundary confirmed that the site has not been recently or currently used.
- Laboratory analysis identified the topsoil as clay loam, characterised by a high proportion of fine particles and a low amount of coarse sand. Such soils are unsuitable for cricket outfield

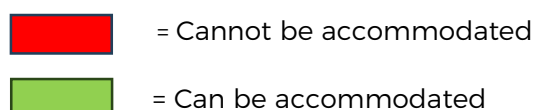
without a specialised drainage system due to their low infiltration rates, which hinder surface water removal.

- No evidence of a specialist sports pitch drainage system was found during the appraisal, leading to the classification of the site as a Type 1 (undrained) sports pitch according to Sport England's classification system.
- Without a drainage system, the quality of the outfield would likely deteriorate further with increased use, particularly during or before adverse weather.
- The cricket square was not clearly defined due to overgrown vegetation. It is assumed that the soil within the cricket square is similar to the rest of the site. Clay loam soil may be suitable for cricket square construction if its clay content, binding strength, and shrinkage properties allow for a firm surface with proper ball bounce characteristics.
- Due to the relatively small area of the site, it is thought that there is a risk of ball strike for the surrounding housing and road area therefore deeming the site further unsuitable for Cricket.
- Based on Figure 3 below, the site cannot accommodate a senior cricket pitch and a compliant outfield within its boundaries. The largest Cricket pitch that can be accommodated within the site is a under 15 pitch due to the interference of the building within the west of the site. The table below within Figure 3 shows what can and cannot be accommodated within both sites.

ECB Compliant Pitch Sizes (Mens)	Former Burnage Cricket Club Site	Proposed Cricket pitch at Cringle Playing Fields
Adult Matches		
Under 17		
Under 15		
Under 13		

ECB Compliant Pitch Sizes (Womens)	Former Burnage Cricket Club Site	Proposed Cricket pitch at Cringle Playing Fields
Adult Matches		
Under 17		
Under 15		
Under 13		

Figure 3 – Comparison table showing size of pitches that can be accommodated on each site.



1.3. Summary Assessment of Cringle Playing Fields site (area of land included within the proposed mitigation strategy)

During the site appraisal, the following observations and conclusions were made regarding the Cringle Playing Fields site.

- Three artificial cricket wickets were identified on the site. One of these concrete wickets was in poor condition and not in use. Additionally, three natural grass football pitches were marked out, but no natural grass cricket wickets were visible.
- The overall condition of the playing fields was satisfactory, with no observed drainage issues. Some broadleaf weeds, including daisy and chickweed were present indicating minor soil compaction. The grass on the football pitches was mown to approximately 25 mm, while areas outside the marked pitches had longer grass.
- Client-provided information indicated that a primary drainage system was installed in the northern area of the playing field (where the proposed cricket pitch will be located) around 2002/2003. This system is believed to include a secondary drainage component and is the primary reason the site remained dry at the time of the visit, despite the sandy clay loam topsoil, which typically exhibits poor drainage properties due to its high content of fine particles like clay and silt.
- The field's surface gradients showed an overall fall from east to west, with minor undulations identified in the topographical survey. These undulations were not sharp enough to pose safety risks to players.
- The site lies within Flood Zone 2, which indicates a medium risk of flooding. Any significant earthworks on the site would require a flood risk assessment.
- STRI has developed an indicative layout demonstrating the feasibility of providing an 8-wicket cricket square and a senior cricket outfield in the northern area of the site (refer to Appendix 3). The layout also shows the repositioning of existing football pitches and the inclusion of a Gaelic football pitch in the southern section of the site.

1.4. Overall Summary

The desk-based and on-site appraisals confirm that it is feasible to re-provide the cricket pitch to be lost from the former Burnage Cricket Club site at the Cringle Playing Fields site.

- The former Burnage Cricket Club site is in very poor condition, with surface deviations across the entire area posing significant injury risks if simply mown and brought back into use. Usability is further limited by a mound of topsoil in the centre and northeast corner and the deposition of stone material along the eastern boundary, likely for car parking. These factors have considerably reduced the available space for cricket activities.
- Google time lapse confirmed that cricket had been played on the Burnage site in the past. However, the cricket square was oriented west-east, which does not align with Sport England's recommended north-south wicket orientation, making the site not fit for purpose.
- Broadleaf weeds such as buttercup and rushes observed at the Burnage Cricket Club site indicate wet soils, particularly in the southern area. Prolonged rainfall would likely lead to severe playability issues in the outfield, especially in the absence of a site-wide drainage system.
- As part of the mitigation strategy, it is feasible to accommodate an 8-wicket natural grass senior cricket square in the northern section of Cringle Playing Fields, complete with an outfield meeting ECB guidelines for cricket dimensions.
- Further design work is required to finalise the exact location of the proposed cricket square within the northern area of Cringle Playing Fields.
- The site appraisal revealed that the football pitches at Cringle Playing Fields were marked out and usable, with no major drainage issues observed. A primary drainage system, installed in the northern part of the site, supports current usability. It is recommended that no new primary drainage system is required for cricket pitch development, though this should be reviewed in the future as the existing drainage system approaches the end of its life cycle.
- The proposed cricket square must be constructed in line with ECB guidelines. This will necessitate the importation of specialist loam material to ensure the clay content meets the ECB's recommended minimum of 25%, as the current clay content is only 20%.
- The proposed new cricket pitch and outfield at Cringle Playing Fields would provide a larger and more functional cricket space compared to the former Burnage Cricket Club site. The outfield would also comply with ECB guidelines for dimensions.

1.5. Indicative Cost Estimates

The indicative capital costs for the development of natural turf cricket square at Cringle Playing Fields is set out below.

Site	Indicative Capital Construction Costs £ (including 10% contingency)
Cringle Playing Fields	£65,000.00

2. INTRODUCTION

2.1. Appointment Information

STRI has been appointed by Views (Holdings) Ltd (the client) to assess the former Burnage Cricket Club site and the proposed mitigation site at Cringle Playing Fields. The assessment aims to facilitate the site's redevelopment while considering Sport England's policy on the loss and replacement of existing playing fields, specifically in relation to the Sport England Exception Policy and Equivalent Quality Assessment.

2.2. Context

As part of the planning application process STRI understand that Sport England (SE), will consider the proposed residential development at the former Burnage Cricket Club site as a 'loss of part of the playing field', under their policy and guidance, unless one of five exceptions applies. Specifically, E4 states that an exception could be made where:

"The playing field lost would be replaced by a playing field or playing fields of an equivalent or better quality and of equivalent or greater quantity, in a suitable location and subject to equivalent or better management arrangements, prior to commencement of the development."

STRI understand that Views (Holdings) Ltd is working with Sports Planning Consultants (SPC) to develop a wider mitigation strategy to address this policy requirement. This report deals with proposals which are being considered as part of this overall mitigation strategy.

The assessment conducted by STRI aims to support and inform SPC's work by evaluating the overall quality of the playing facilities to be lost at the former Burnage Cricket Club site, as well as the areas within Cringle Playing Fields that are included in the mitigation plan.

This report provides a detailed analysis of the existing conditions and offers recommendations for developing the identified areas within the mitigation strategy to meet policy requirements effectively.

2.3. Aims and Objectives

STRI has been commissioned to prepare a report that includes:

1. A detailed evaluation of the current performance characteristics of the playing surfaces at the former Burnage Cricket Club site and the Cringle Playing Fields site, as outlined in the proposed mitigation strategy. This assessment is based on comprehensive desk-based research and on-site analysis.
2. An analysis of how the areas within the proposed mitigation strategy can be enhanced to meet planning policy requirements effectively.

2.4. On-site appraisal

The on-site appraisals were carried out by Joe Woodcock of STRI on the 16th of December 2024.

3. OVERVIEW OF AREAS INCLUDED WITHIN SCOPE

The following figures provide an overview of the areas within the former Burnage Cricket Club site and Cringle Playing Fields that are included in the scope of this report. Please note that the red line boundaries shown do not represent ownership or any other land demarcation but are intended solely to highlight the general areas covered by this report.



Figure 4. The area of playing field to be lost as a result of the residential development (Burnage Cricket Club).



Figure 5. Area within the proposed mitigation strategy (Cringle Playing Field).

The following table sets out the current areas of each site.

Site	Existing area (Ha)	Proposed
Burnage Cricket Club	0.88 Ha	N/A
Cringle Playing Fields	N/A	1.12 Ha

4. THE EXISTING PLAYING FIELD AREA TO BE LOST AS A RESULT OF DEVELOPMENT PROPOSALS

4.1. Desk Based Study

4.1.1. Location

Table 1 site location – Area 1

Site address:	Mauldeth Road
Site postcode:	M19 1AB
Site grid reference:	SJ 86365 92917
Local authority area:	Manchester City Council



Figure 6 Aerial photo of Burnage Cricket Club

4.1.2. Site Information

The following information has been obtained from publicly available sources including aerial photography, historical mapping, and Defra MAGICMap.

Table 2 Site information – Area 1

Existing land use:	Unused playing field.
Existing sports facilities:	No sporting facilities – site is overgrown.
Historic land use:	Historically, STRI understand that the site has accommodated a natural turf Cricket square and outfield.

4.1.3. Site Access

The site is accessible through a gate located to the west, directly off Kingsway Road, providing access for both pedestrians and vehicles.

4.1.4. Climate

The following information has been obtained from the Met office website using data from Rochdale, the nearest official Met Office climate station, approx. 9 miles from the existing playing field site, covering the period from 1991 – 2020.

4.1.4.1. Annual Rainfall (mm)

Table 3 Annual rainfall – site wide

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
119	97	90	68	66	83	97	100	98	117	124	139	1197
England average												870

The information obtained confirms that the average rainfall experienced at the former Burnage Cricket Club site is above the England average.

4.1.5. Hydrology

The following information has been obtained from publicly available sources including aerial photography, the WWF Rivers Map, and the Environment Agency Statutory Main River Map.

Table 4 Hydrology

Main rivers:	No main rivers are located close to the site boundary.
Water bodies near site:	No water bodies are located near site.
Water bodies within site boundary :	No water bodies within the site boundary.
Distance to coastline:	N/A

4.1.6. Topography

A topographic survey was conducted during the site appraisal to assess the surface levels and gradients across the former Burnage Cricket Club site.

The site has a slope of approximately 1:100 in all directions, making the topography relatively flat without a consistent gradient in any specific direction. According to ECB guidelines, having a slight slope is beneficial, preferably directed away from the centre of the square where possible. However, in all cases, the slope should not exceed 1:50.

4.1.7. Existing Usage

STRI understands that the site is currently unused for any sporting activities and has become an overgrown wasteland. It was previously used for cricket when it was maintained. The outfield would have been classified as a Type 1 surface based on the Sport England pitch classification system, as no drainage was found during the site visit, and no indications of drainage were observed when reviewing historical aerial imagery.

Table 5 Summary of Sport England pitch classifications

Pitch Type	Adult Hours of Use	Maintenance
1 – Undrained	Under 2	Aeration and sand dressing when conditions allow.
2 – Pipe drained	2-3	Aeration and sand dressing when conditions allow.
3 – Pipe drained with mole drains	2-4	Aeration when conditions allow. Sand dressing not essential, but beneficial. Re-moling every 3 – 5 years.
4 – Pipe drained with sand grooves	3-6	Aeration and regular sand top dressing (approx 60 - 80 tonnes per annum). Higher drainage rates mean that some irrigation may be necessary during dry periods.
5 – Pipe drained with slit drains	3-6	Aeration and regular sand top dressing (approx 60 - 80 tonnes per annum). Higher drainage rates mean that some irrigation may be necessary during dry periods.
6 – Pipe drained with topsoil and drainage layer	3-6	Some increase in maintenance required. Aeration and sand dressing essential. Increased requirement for irrigation.
7 – Pipe drained with suspended water table	4-6	Higher levels of fertiliser and irrigation to maintain hard-wearing turf. Top dressing with rootzone compliant material. Surface aeration work. Artificial upper rootzone reinforcement can be installed for greater durability.

The figures in the table above serve as a general guide and assume the playing surfaces are being used as winter sports pitches. The playability of a natural grass surface depends on various factors, including prevailing weather conditions, the physical characteristics of the soil profile, maintenance efforts and the overall agronomic condition.

4.1.8. Utilities

A full utilities search was not included within the scope of this report.

4.2. On-site Assessment

4.2.1. Surface Levels

4.2.1.1. Topography and Surface Gradients

In addition to the desk-based review of the topographic survey data, general surface levels were also assessed visually during the on-site appraisal. The site's overall topography was relatively flat, though it appeared that topsoil had been piled and dumped in the northeast corner. As a result, the usable playing field area had been significantly reduced compared to when the site was previously used for cricket.

4.2.1.2. Surface Evenness

It was apparent during the site walk that the surface levels were very poor, with severe dips and hollows observed throughout the area. These dips and hollows are believed to have been caused by vehicles driving across the site, as visible tire marks were seen. The uneven surface would pose an immediate injury risk to players, making the site unsuitable for use.

4.2.2. Existing Vegetation

Table 6 Existing vegetation – Area 1

General:	The turf across the site was described as an unmanaged wasteland and was in poor condition at the time of the visit. Broadleaf weeds, such as buttercup (<i>Ranunculus</i>) and rushes (<i>Juncus</i>), dominated the surface. Some finer grass species, including perennial ryegrass (<i>Lolium perenne</i>) and bentgrass (<i>Agrostis</i>), were present, but Yorkshire fog (<i>Holcus lanatus</i>) also largely dominated the area.
Agronomic condition:	Agronomically, the turf was in very poor condition, with no evidence of any agronomic maintenance practices being carried out on the site. It was determined that the site has not been maintained for cricket use for several years.
Invasive species:	There were no invasive species identified.

4.2.3. Trees

Mature trees were located along the southern boundary of the site.

4.2.4. Ground Conditions

At the time of the appraisal, the ground conditions were soft, especially in the southern part of the site. Soft conditions were also observed in areas where surface water had accumulated in low-lying sections across the site.

4.2.5. Site Soil Conditions

4.2.5.1. Visual Assessment

A series of trial pits were excavated using hand tools at various locations to confirm the nature of the underlying soil profile. In summary, the topsoil depth was consistent within the site boundary, with an average depth of 140 mm.

When visually observing the topsoil, it was clear that a shallow dark-brown clay loam material was present. Roots were penetrating to a maximum depth of 80 mm, which is considered shallow for this environment and is linked to the shallow topsoil depth. No large stones greater than 25 mm were observed in the excavated trial pits.

The underlying subsoil was a clay material with an orange colour. The shallow topsoil along with the underlying clay material with negatively impact rooting and drainage potential for the site.

The cricket square was not visible at the time of the appraisal due to the overgrowth, however it is assumed that the topsoil conditions are consistent across the site.

4.2.5.2. Laboratory Soil Analysis

With the topsoil conditions being consistent across the entirety of the former Burnage Cricket Club site, one representative sample of topsoil was collected for particle size analysis to determine the mineral and organic matter composition of site topsoil. Full particle size analysis reports are included in Appendix 1.

Table 7 Laboratory soil analysis – site wide

Sample location:	Representative topsoil sample
Laboratory reference number:	A20992/2
Soil texture:	Clay loam
Sand (%)	47
Silt (%)	27
Clay (%)	26
LOI (loss of ignition)	17

Laboratory analysis confirms that the site topsoil falls into the clay loam textural classification. The soil has a high proportion of fine particles ('fines') comprising of 27% silt and 26% clay. There was a low proportion of larger very coarse sand (0.8%), coarse sand (3%) and medium sized sand (16%) particles. The relatively high proportion of fine particles and the general distribution of particle sizes means that the hydraulic conductivity of the indigenous topsoil is likely to be limited.

4.2.6. Drainage

Table 8 Drainage summary – Area 1

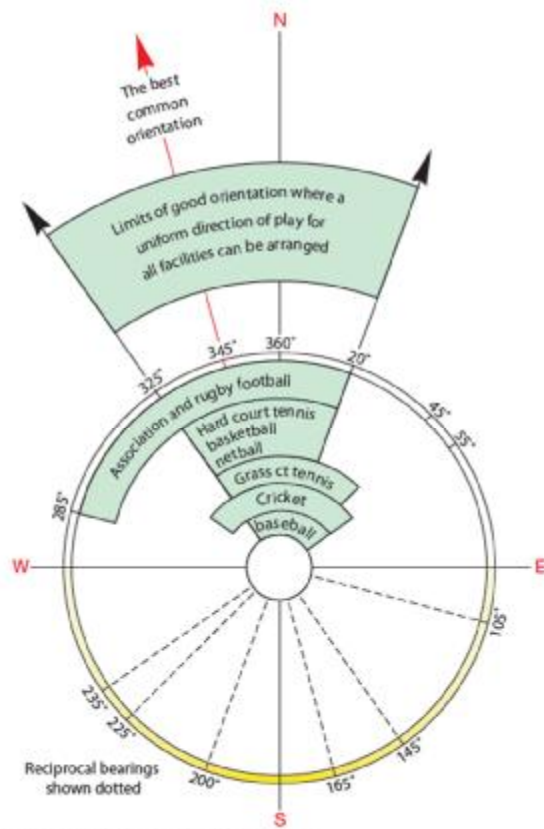
Surface conditions:	The playing surfaces were soft underfoot particularly within the south of the site.
Existing drainage features:	Based on recent and historical aerial imagery, there does not appear to be any existing formal drainage pipework within the area. During the appraisal, STRI consultants did not identify any formal pipe drainage, such as droughted or stimulated grass growth over drainage lines.

4.2.7. Orientation

Sport England has provided guidance on the optimal pitch orientations to reduce the impact of sun glare. For cricket squares, the recommended orientation range is between 315° and 50°. An analysis of the former layout of Burnage Cricket Club showed that the cricket wicket did not comply with Sport England's gradient guidelines. The previous wicket was oriented approximately west-east. A historic aerial image, shown in Figure 7 below, depicts the former layout of the cricket pitch.



Figure 7 Layout of the former Burnage Cricket Club site



Recommended pitch orientation

Figure 8 Recommended orientation for sports pitches. Source: Sport England

4.2.8. Existing structures

A building was situated in the southwest corner of the site, thought to be the former social club linked to the cricket club.

4.3. Discussion

When considering the existing condition and general quality of the sports surfaces at the former Burnage Cricket Club, the following points should be considered:

- Overall, the former Burnage Cricket Club site has not been maintained for a number of years and has become overgrown and unusable. The surface deviations across the site have made the surfaces unplayable due to health and safety concerns.
- The size of the outfield does not comply with ECB guidelines regarding dimensions for adult play. According to ECB guidance, the boundary should be at least 45.72 metres (50 yards) from the centre of the pitch in use.
- The topsoil at the former Burnage Cricket Club site was very shallow, overlaying an orange clay subsoil. The shallow depth of the topsoil limits drainage potential, as the underlying clay subsoil material within 140 mm of the surface and has poor drainage properties. Additionally, the shallow topsoil inhibits deeper rooting, which would be detrimental to overall grass health.
- During the site visit, it was observed that a large pile of topsoil had been deposited in the northeast corner of the site, which was approximately 5 feet high. This discarded topsoil has significantly reduced the usable playing field area compared to when cricket was played on the site historically. Additionally, stone material has been deposited along the eastern boundary of the site, which appears to have been used for car parking, according to analysis of aerial imagery. This further decreases the available playing field area.
- The surface gradients across the site were relatively flat; however, significant deviations were noted throughout the entire area.
- The former cricket pitch outfield could be classified as a Type 1 (undrained) construction under Sport England's pitch classification system, capable of withstanding less than two hours of adult usage per week when it was used in previous years.
- No primary or secondary drainage systems were discovered at the time of the visit.
- The average rainfall in the Manchester area is well above the England average, which would further impact the usability of the playing field area, especially during periods of persistent rainfall.

5. THE AREA OF LAND WITHIN THE PROPOSED MITIGATION STRATEGY – AREA 2

5.1. Desk-Based Study

5.1.1. Location



Figure 9 Aerial photo of Area 2.

5.1.2. Site Information

The following information has been obtained from publicly available sources including aerial photography, historical mapping, and Defra MAGICMap.

Table 9 Site information – Area 2

Existing land use:	Sports playing field	
Existing sports facilities:	Football pitches were marked out at the time of the visit. 3 artificial Cricket wickets were also observed along with a Gaelic football pitch to the south of the site.	
Historic land use:	Playing field use	
Land based designations:	Area of outstanding natural beauty	No
	Local nature reserve	No
	National nature reserve	No
	Moorland line	No
	National park	No
	RAMSAR site	No
	Proposed RAMSAR site	No
	SSSI	No
	Special area of conservation	No
	Special protection area	No
	Community Forest	No
	Biosphere reserve	No
	Nitrate vulnerable zone (NVZ)	No
	World heritage site	No
	Registered battlefield	No
	Registered parks and gardens	No

5.1.3. Site Access

The site can be accessed by pedestrians and vehicles from the northeast corner, directly off Crossley Road. This is also where the changing room facilities are situated.

5.1.4. Climate

Refer to Section 2 above.

5.1.5. Flood Risk

According to the Environment Agency Flood Risk Maps, some areas within the Cringle playing fields site are categorised as Flood Zone 2, which indicates a medium probability of flooding.

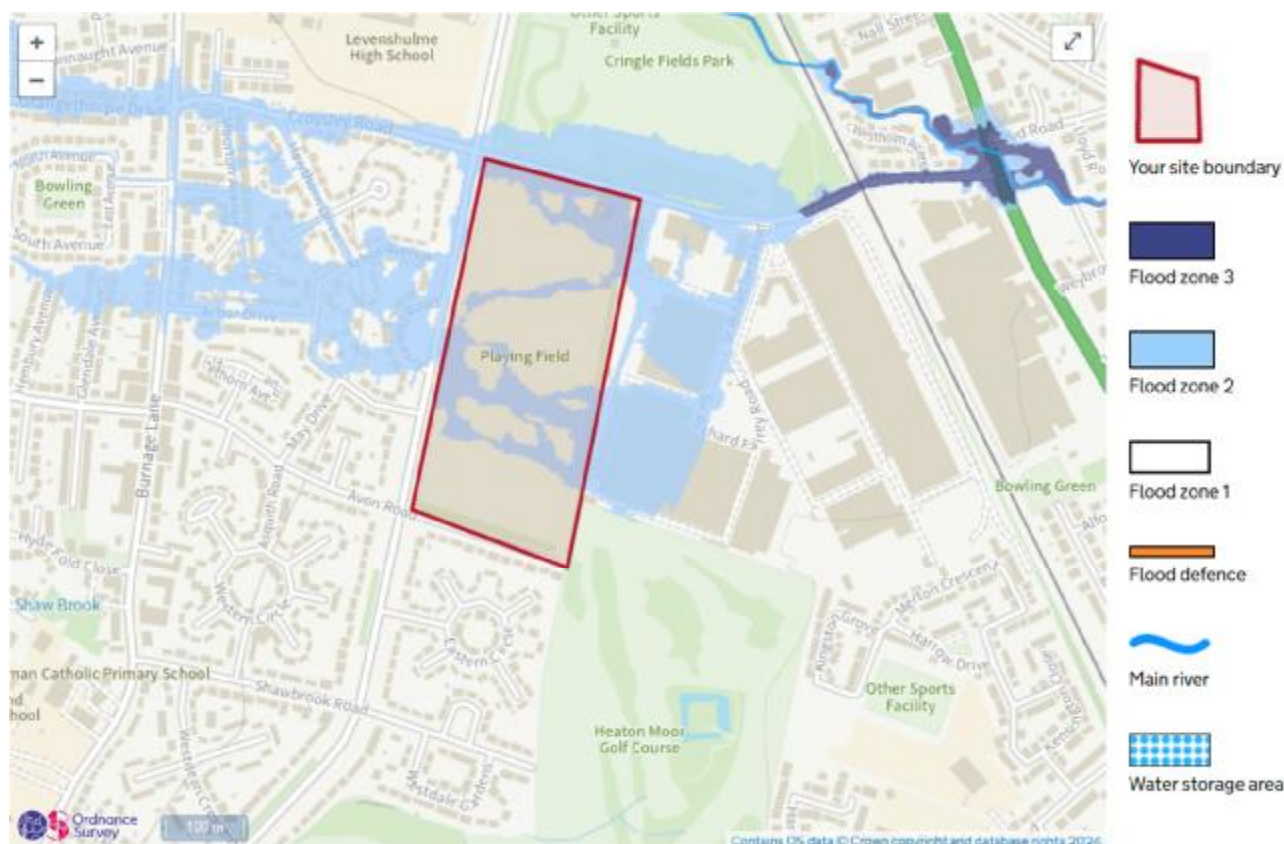


Figure 10 Flood risk map for planning. Source: Environment Agency

5.1.6. Geology

5.1.6.1. Made Ground

The BGS mapping indicates that no made ground is present within the Cringle Playing Fields site.

5.1.6.2. Superficial Deposits

The BGS mapping indicates that Till, Devensian – Diamicton deposits are present across the area.

5.1.6.3. Bedrock

The BGS mapping indicates that Collyhurst Sandstone formation and Halesowen formation are present.

5.1.7. Previous Ground Investigations

No previous ground investigation reports have been made available to STRI for this report.

5.1.8. Hydrology

The following information has been obtained from publicly available sources including aerial photography, the WWF Rivers Map, and the Environment Agency Statutory Main River Map.

Main rivers:	No main rivers are located close to the site boundary.
Water bodies near site:	No water bodies are located near site.
Water bodies within site boundary :	No water bodies within the site boundary.
Distance to coastline:	N/A

5.1.9. Topography

A topographic survey was conducted during the site appraisal to assess the surface levels and gradients across the entirety of the Cringle Playing Field site.

The area generally slopes from the eastern boundary to the western boundary, with an average gradient of approximately 1:75 (1.3%) across the playing field. However, the gradient is not uniform, with noticeable variations in the northern area, where it dips and rises. In contrast, the southern part of the playing field features a more consistent gradient. If a cricket square is to be developed at the Cringle Playing Fields site, the square should be oriented roughly north-south to align with ECB guidelines.

5.1.10. Existing Usage

At the time of the appraisal, three natural grass football pitches were marked out in the northern and middle sections of the site, and three artificial wickets were also observed. The football pitches appeared to be used regularly, with stud marks and reduced grass cover visible. No cricket outfielders were marked out during the visit, likely due to the time of year the site appraisal was conducted. There were no natural grass cricket squares present.

5.1.11. Utilities

A full utilities search was not included within the scope of this report. A full utilities search should be carried out to determine the presence of any underground utilities. There were no overhead utilities observed at the time of the appraisal.

5.2. On-site Appraisal

5.2.1. Surface Evenness

Upon walking over the Cringle Playing Fields site, there were no sharp deviations present, which could pose a risk of injury to users of the site.

5.2.2. Existing Vegetation

Table 10 Existing vegetation – Area 2

General:	The turf across the area would be described as managed amenity turf, with various grass species present, such as perennial ryegrass (<i>Lolium perenne</i>) and Yorkshire fog (<i>Holcus lanatus</i>). Broadleaf weeds, including chickweed (<i>Stellaria media</i>), minor buttercup (<i>Ranunculus</i>) in the northern part of the playing field site, and ribwort plantain (<i>Plantago lanceolata</i>), were also observed. The presence of these broadleaf weeds suggests a degree of compaction across the playing field area.
Agronomic condition:	Agronomically, the turf was in relatively good condition within the marked-out football pitch areas, with grass cover measuring approximately 40%, indicating that these areas are heavily used. In contrast, the area outside the marked football pitches sustained better grass coverage, which is linked to the lack of usage in those areas.
Invasive species:	There were no invasive species identified within Area 2 at the time of the appraisal.

5.2.3. Trees

There were mature trees located along all boundaries of the site. No mature trees were located within the boundary of the playing field site.

5.2.4. Ground Conditions

The ground conditions across the entire playing field area were relatively dry and firm for the time of year, with no signs of waterlogging or standing water observed during the appraisal.

5.2.5. Site Soil Conditions

5.2.5.1. Visual Assessment

When visually observing the topsoil, it was clear that a dark-brown sandy clay loam material was present. Roots were penetrating to a maximum depth of 100 mm therefore indicating that there was no significant compaction issues present detrimental to root development. No large stones greater than 25 mm were observed within the excavated trial pits.

The underlying subsoil was an orange-coloured clay material which was hard to dig through using hand tools due to the presence of granular material.

5.2.5.2. Laboratory Soil Analysis

With the topsoil conditions being consistent across the entirety of the Cringle Playing Fields site, one representative sample of topsoil was collected for particle size analysis to determine the mineral and organic matter composition of site topsoil. Full particle size analysis reports are included in Appendix 1.

Sample location:	Representative topsoil sample
Laboratory reference number:	A20992/1
Soil texture:	Sandy clay loam
Sand (%)	53
Silt (%)	26
Clay (%)	21
LOI (loss of ignition)	8

Laboratory analysis confirms that the site topsoil falls into the clay loam textural classification. The soil has a high proportion of fine particles ('fines') comprising of 26% silt and 21% clay. There was a low proportion of larger very coarse sand (1%), coarse sand (5%) and medium sized sand (19%) particles. The relatively high proportion of fine particles and the general distribution of particle sizes means that the hydraulic conductivity of the indigenous topsoil is likely to be limited. The topsoil will be prone to compaction.

5.2.6. Drainage

Table 11 Drainage summary – Area 2

Surface conditions:	The playing surfaces were relatively firm underfoot with no saturated ground conditions observed at the time of the site visit.
Existing drainage features:	No drainage features were observed at the time of the visit and no drain lines in the form of droughted turf lines were observed when assessing aerial imagery.
Potential drainage outfall locations:	No drainage outlets were located at the time of the visit with no existing chambers/manholes visible and no watercourses within the site boundary that could be used as a potential drainage outlet point.

5.2.7. Existing Structures

A structure was located in the northeast corner of the site and is thought to be the main changing facility for the Cringle Playing Fields site.

5.3. Discussion

When considering the Cricket pitch development at Cringle Playing Fields as part of the proposed mitigation strategy, the following points should be considered:

- At the time of the appraisal, no natural turf Cricket squares were observed at the Cringle Playing Fields site.
- Spatially, it would be feasible to accommodate an 8-wicket natural turf cricket square, along with an outfield, that aligns with ECB guidelines for adult play. The senior cricket square would be located in the north of the Cringle Playing Fields site, with a proposed north-south orientation. The proposed layout for the new cricket pitch can be seen in Appendix 3 of this report.
- A water supply would be needed for the proposed natural turf cricket square which would require an irrigation pipeline to provide water to the square. This supply is most likely to come from the changing facility building located in the northeast corner of the site, where a borehole is situated.
- Certain areas of the Cringle Playing Fields site are classified as Flood Zone 2, which could pose a constraint if earthworks are required. However, the overall gradient of the playing field aligns with ECB and Sport England guidelines, meaning major earthworks would not be necessary to create a level pitch platform. Some earthworks would be required for constructing the cricket square, but the extent of these will be determined during the detailed design phase. The construction of the cricket square is not expected to result in any significant changes to surface levels.
- At the time of the appraisal, no saturated ground conditions or waterlogged areas were observed in any part of the playing field. The dry ground conditions are thought to be linked to the presence of a primary drainage system within the northern area of the playing field area therefore no additional drainage would be required. Care should be taken to ensure the existing drainage network is not damaged during the installation of the cricket square. There may be a need to re-route some drainage pipework if there is a requirement to remove sections as part of the cricket square construction.
- Laboratory analysis confirmed that the existing topsoil falls within the sandy clay loam textural classification, with 21% clay content. However, ECB guidelines state that a minimum of 25% clay is required for the construction of a cricket square. It is recommended that a specialist loam material be used to construct the new cricket square in order to meet the ECB's recommended guidelines for clay content. This is essential to create a suitably firm surface with appropriate ball bounce properties.
- Vehicular construction traffic can access the site from the entrance off Crossley Road within the northeast corner of the site.
- A suitable level of ongoing maintenance should be carried out to ensure that performance quality is to a reasonable standard and player safety is not compromised in any way. Good maintenance practices will also ensure the longevity of the surface.
- It is recommended that an ECB approved non-turf (artificial) pitch is installed on the edge of the natural grass cricket square to increase the usage potential of the site.

- They may be a requirement for a ball strike assessment to be carried out as part of the next stage of the works to assess the requirement for any mitigation measures such as fencing or netting to prevent balls leaving the site. This is particularly relevant for the northern, eastern and western boundaries.

5.4. Summary Risk Register

The following information provides a summary of the risks associated with the development of a natural grass cricket square and outfield within the Cringle Playing Fields site. The following does not constitute a designer risk register, instead it is intended for information purposes to assist in assessing the current condition of the site and the constraints to the development.

Table 12 Summary risk register – Area 2

Low risk		Medium risk	High risk		
Risk No.	Risk Description	Detail	RAG	Notes	
1	Existing land use	Amenity turf		N/A	
2	Historic land use	Previously used for sports and recreation.		N/A	
3	Land designation	No land designations known.		N/A	
4	Site access	Current site is accessed from the north east.		N/A	
5	Climate	Above average annual rainfall.		Works should be carried out during the spring, summer and autumn period. Sports pitch drainage system already present and appears to be functional.	
6	Flood risk	Site located in Flood Zone 2.		Medium probability of flooding. Not anticipated to be any significant change to surface levels as a result of the proposed works.	
7	Geology	No made ground within the site.		N/A	
8	Hydrology	No nearby hydrological features.		N/A	
9	Topography	Current surface gradients are within Sport England gradient guidelines.		N/A	
10	Ground conditions	No waterlogged areas or soft ground conditions .		N/A	
11	Contaminated land	Greenfield site		N/A	

12	Proposed usage	Proposed usage levels unknown.		Information required on proposed usage levels to ensure appropriate cricket square design.
13	Existing vegetation	Existing amenity grass area. No invasive species present.		N/A
14	Trees	Trees around site perimeter of the site.		N/A
15	Site soil conditions	Sandy clay loam topsoil.		Site topsoil is not optimal for the development of a cricket square. Requirement to import specialist cricket loam material. Sports pitch drainage system already present across the north of the site.
17	Existing structures	No existing permanent structures within playing field boundary.		N/A
18	Utilities	Presence of utilities unknown.		Full utilities search to be undertaken.
19	Drainage discharge locations	No drainage will be proposed as part of the Cricket pitch development		N/A

5.5. Recommendations

The following section provides recommendations for the works required within the Cringle Playing Field site to ensure that proposed natural grass Cricket square and outfield is of an appropriate quality and complies with ECB/Sport England requirements. The following section is based on the detailed desktop and on-site appraisals summarised above. The following is not a specification and should not be used for tendering or construction purposes. Further investigations and design work is required to develop the exact specification and construction methodology.

An indicative layout option is included within the appendices. This layout is based on a senior cricket square. It should be noted that a detailed earthworks model has not been developed for natural grass square, and this may influence the exact location of the pitch within the Cringle Playing Fields site. The purpose of this exercise is to illustrate that it is possible to accommodate the square and outfield, taking into account the spatial constraints of the site.

5.5.1. Recommended Construction Methodology of the natural grass cricket square

5.5.1.1. Construction of the natural grass wicket

The exact cricket wicket construction and methodology will largely be dependent on the proposed level of use and standard required. The below items would be required as part of the new cricket square construction as a minimum.

- Remove the surface vegetation from the proposed cricket square area.
- Remove the topsoil from the proposed cricket square area and stockpile.
- Trim exposed sub soil to produce a uniform surface, free from ruts, humps and depressions.
- Respread layer of stockpiled topsoil and dispose of any remaining topsoil.
- Import suitable cricket loam for the standard of play envisaged.
- Spread a layer of the imported loam and lightly cultivate into the upper 25 mm of the existing topsoil to provide a compatible interface layer using a power harrow, stone rake or other approved cultivation implement.
- Add the remaining loam in two layers and consolidate before the next layer is added.
- The finished level of the cricket square should sit circa 50 mm higher than the surrounding outfield. Hand raking should be carried out to produce an evenly firmed, true surface corresponding with the pegs. Alternatively use a laser-guided blade grader.
- Marry the edge of the cricket pitches with the outfield.
- Add pre-seeding fertiliser.
- Seed with a blend of three approved cultivars of perennial ryegrass.

5.5.1.2. Seeding

- Once a suitable seed bed has been prepared then the square should be sown out with a seed mixture containing hard wearing cultivars of Perennial ryegrass (*Lolium perenne*). The seed mix for the square would be dominated by perennial ryegrass. Selection of the appropriate cultivars should be based on recommendations in the annual publication Turfgrass Seed, published by the BSPB/STRI

5.5.1.3. Water supply to the square

A watering point next to the wicket would be desirable. If an irrigation system were to be installed it should normally be capable of applying 4 mm to 6 mm of water to the square in any 24-hour period and conform to local water authority and electricity regulations and satisfy BLTIA minimum standards. Typically, the irrigation system would include a storage tank and for the size of the square a minimum usable capacity of 2.5 cu.m is appropriate. The tank would be fitted with incoming supply pipe and fittings meeting the requirements of the local water authority, including an appropriate fluid category air gap. The storage tank would also need a pumping unit, either surface mounted in a suitable housing, or a submersible unit installed within the tank. The hose point would normally be installed 1 m outside the square.

5.5.1.4. Grass establishment

5.5.1.5. Maintenance during the grow in period – natural grass cricket square

Maintenance would have to be carried out to a high standard during the grow in period. The main operation would be as follows:

- Mowing.
- A suitable fertiliser programme for the square.
- Seeding in the early autumn would be the optimum time. If the seeding were to be in the spring, there is greater risk of the newly established grass being affected if there was a period of drought and overseeding may be necessary.
- Before the square is brought into use, it will need light verti-cutting to control any build-up of surface organic matter and top dressing with the same cricket loam used in the construction phase to improve levels and control organic matter.
- A programme of pre-season rolling will be required before the square is brought into use with the aim being to gradually consolidate the square.

A minimum period of 12 months is required to bring the square into play.

5.6. Indicative Cost Estimates

The following indicative capital cost estimates are based on the current rates for similar works carried out by specialist sports turf contractors and are indicative only and intended to provide a rough estimate of project capital costs.

Option	Indicative Capital Cost plus 10% contingency (£)
Natural turf Cricket wicket construction (including irrigation)	£38,000.00
12 month maintenance period	£17,000.00
Non-turf cricket wicket (artificial)	£10,000.00

NB: All costs are subject to tendering, material price fluctuation and market conditions at the time of engaging with a contractor and may vary largely depending on supply and availability.

No allowance for sports equipment, goals, flags, team shelters etc.

5.7. Additional Investigations and Surveys

The following table summarises any further investigations required to fully assess the feasibility of the proposed natural grass Cricket wicket and outfield pitch within Cringle playing fields and to inform the next phases of the project.

Table 13 Additional surveys and investigations – Area 2

Further investigations	Required?	Comment
Topographic survey	No	Existing topographic survey available.
Flood Risk Assessment (FRA)	No	No major earthworks proposed.
Geotechnical investigation	No	N/A
Infiltration testing	No	No drainage proposed.
Arborocultural survey	No	N/A
Utility search	Yes	Required to ascertain whether there are underground utilities present within the proposed working area.
Ball strike assessment	Yes	Subject to design and further guidance.

5.8. Health and Safety

The following potential hazards are typical of sports surface development and maintenance works and have been identified during the site appraisal and in the preparation of this report.

- The presence of any underground and/or overhead services should be confirmed before commencing any pitch development works.
- Delivery and haulage of bulk materials on site.
- Movement of construction plant and maintenance machinery.
- Confirmed spaces.
- Dust.
- Excavations.

These hazards are common to most sports pitch development work, but this does not constitute a complete list, and any additional issues should be identified before commencing work. It is recommended that a Designer Risk Assessment is carried out as part of the next stage of the project.

6. PHOTO RECORD OF SITE CONDITIONS

Former Burnage Cricket Club



Photo 1: View looking east.



Photo 2: View looking south.



Photo 3: Mounded area within the centre of the site.



Photo 4: Broad leaf vegetation.



Photo 5: Surface deviations.



Photo 6: Vegetation.



Photo 7: Wet ground conditions.



Photo 8: Excavated test pit.



Photo 9: Excavated soil.



Photo 10: Surface deviations.

Cringle Playing fields



Photo 11: View looking south west.



Photo 12: Existing vegetation.



Photo 13: Artificial Cricket wicket.



Photo 14: View looking east.



Photo 15: Reduced grass cover.



Photo 16: View looking north.



Photo 17: View looking north east.



Photo 18: Excavated topsoil.



Photo 19: Excavated test pit.



Photo 20: Excavated test pit.



Photo 21: View looking North.



Photo 22: Tarmac Cricket wicket.



Photo 23: Site access.



Photo 24: Changing facilities.

APPENDIX 1 - LABORATORY ANALYSIS RESULTS



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SOIL PARTICLE SIZE ANALYSE

CLIENT:	VIEWS	DATE :	02/01/25
	BURNAGE CRICKET CLUB	RESULTS TO :	JW
DESCRIPTION:	TOPSOIL	SAMPLE NO :	A20992/2

CATEGORY	DIAMETER mm	%
Stones	>8	6
Coarse gravel	8-4	1
Fine gravel	4-2	T

Particle size distribution of mineral matter smaller than 2mm

Very coarse sand	2-1	1
Coarse sand	1.0-0.5	3
Medium sand	0.50-0.25	16
Fine sand	0.250-0.125	17
Very fine sand	0.125-0.050	11
Silt	0.050-0.002	26
Clay	<0.002	26
Loss on ignition (% of oven-dry fine earth)		13.6
Calcium carbonate	%	NIL
SOIL TEXTURE		CLAY LOAM

T = TRACE

THESE RESULTS PERTAIN ONLY TO THE SAMPLE(S) SUBMITTED AND TESTED



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SOIL PARTICLE SIZE ANALYSIS

CLIENT:	VIEWS	DATE :	02/01/25
	CRINGLE PLAYING FIELDS	RESULTS TO :	JW
DESCRIPTION:	TOPSOIL	SAMPLE NO :	A20992/1

CATEGORY	DIAMETER mm	%
Stones	>8	T
Coarse gravel	8-4	T
Fine gravel	4-2	1

Particle size distribution of mineral matter smaller than 2mm

Very coarse sand	2-1	1
Coarse sand	1.0-0.5	5
Medium sand	0.50-0.25	19
Fine sand	0.250-0.125	17
Very fine sand	0.125-0.050	11
Silt	0.050-0.002	26
Clay	<0.002	21
Loss on ignition (% of oven-dry fine earth)		7.6
Calcium carbonate	%	NIL
SOIL TEXTURE		SANDY CLAY LOAM

T = TRACE

THESE RESULTS PERTAIN ONLY TO THE SAMPLE(S) SUBMITTED AND TESTED

APPENDIX 2 – EXISTING SITE SURVEY (BURNAGE CRICKET CLUB)



APPENDIX 3 – PROPOSED CRICKET PITCH LAYOUT - CRINGLE PLAYING FIELDS

