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FORMER GLOSSOPDALE COMMUNITY COLLEGE, TALBOT ROAD PLANNING APPEAL

HPK/2024/0481

PROOF OF EVIDENCE BY STELLA RIXON, BSc (HONS), MBPR

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PART 1: INTRODUCTION

Qualifications and experience

1.1 I am a senior turfgrass agronomist with over 25 years' experience working in the sports turf industry, advising on all aspects of the playing quality and maintenance of grass sports surfaces. I graduated from Plymouth University in 1995 with a BSc (Hons) degree in Biological Sciences, specialising in ecology. I have worked in the sports turf industry since 1997 as a technical advisor for 2 commercial companies before joining the Sports Turf Research Institute (STRI) in 2002. I was made a Senior Agronomist in 2017. I am a member of the Basis Professional Register (MBPR).

1.2 The Sports Turf Research Institute Group is a global design, engineering and management consultancy with head offices and research grounds in Bingley, UK and bases in 5 other countries. STRI has an interdisciplinary team with expertise in venue and surface design, masterplanning, construction, agronomy and strategic management. We work with a wide range of clients including local authorities and schools, golf courses, football, rugby, tennis and cricket clubs, racecourses and National Governing Bodies of Sport such as Sport England, UEFA and British Horse Racing Authority (BHA).

1.3 Within STRI, I work within the Agronomy and the Design/Consultancy teams. I advise turf managers on management and maintenance of their facilities as well as provide technical expertise into designs and undertake construction monitoring and advising on aftercare. My clients include 'grass roots' clubs and facilities, as well as those of international standard.

1.4 I would be regarded as having expert knowledge of agronomically assessing all types of sports turf surfaces, measuring performance and playing quality standards and making recommendations for improvement, including infrastructure such as drainage, irrigation and ongoing maintenance.

Background to involvement

1.5 STRI was approached by Carter Jonas LLP (on behalf of their client, Derbyshire County Council) in February of this year to assist in this planning appeal by reviewing the Talbot Road site that is proposed for redevelopment for housing. STRI assessed the existing conditions and viability of the site for playing field use both in historical (school playing field) and existing (derelict land) contexts.

1.6 My colleagues George Walton – Consultant, James Podesta – Director of Development, and Ian Lacy - Senior Consultant undertook the agronomic and playing quality review of the Talbot Rd site on the 24th February 2026.

1.7 More recently, STRI were asked to review the playing fields at Glossopdale School & Sixth Form in Hadfield and look at the feasibility of incorporating a Rugby Union pitch in the

southern section of the grounds, which has been put forward by the Appellant as mitigation. My colleague Joe Woodcock – Consultant, undertook the site visit on 30th June 2026. The findings of this feasibility study are presented in Appendix A. At the same time, STRI were asked to look at the playing field area to the north of the school buildings and comment on the findings of the Pitch Power report in relation to the quality and recommended maintenance of this area. STRI's findings and comment are provided as a Consultants Advice note in Appendix B.

1.8 I became involved in the project as a Senior staff member with previous experience of Planning Inquiries. I initially reviewed the site information and discussed with colleagues and will undertake a site visit in due course.

Scope of evidence

1.9 In this Proof of Evidence, I firstly outline our observations of the Talbot Rd site from the site visits and present the laboratory test results for particle size analysis (to confirm soil type). I then summarise how the site previously compared to industry playing quality standards (PQS) when it was in use and now that it is derelict. I also consider the improvement work that would need to be considered to bring it back into use.

1.10 Any objections/issues not relating to the quality of the playing pitches are not applicable to myself and are therefore not covered in any detail in this Proof of Evidence. Quantitative assessment is addressed in the Proof of Evidence of Mr Neil Allen.

Declaration

1.11 I declare the evidence that I have prepared and set out in this Proof of Evidence is true and has been prepared and is given in accordance with the guidance of my professional institution. I confirm that the opinions expressed are my true and professional opinions.

PART 2: SITE OBSERVATIONS & PLAYING QUALITY ASSESSMENT

2.1 Ahead of mine and my colleagues site visits, we undertook desktop studies of the Talbot Rd site to identify aspects that might affect playing field performance and development such as geology and soil type, topography, historic records of landfill/ made ground and a review of historical Google Earth images. Information sources were The British Geological Survey (BGS), The Coal Authority, Environment Agency Flood Risk Maps, Environment Agency Statutory Main River Map, The Land Information System (LandIS), Scalgo and Google Earth Pro. Relevant findings are presented below.

2.2 On 24th February 2026, my colleagues George Walton – Consultant, James Podesta – Director of Development, and Ian Lacy - Senior Consultant undertook the agronomic and playing quality review of the Talbot Rd site to record conditions relating to playing quality on site and sample the underlying soil profile. The weather preceding this visit had been exceptionally wet with higher-than-average rainfall. This is useful in site assessments to highlight drainage issues.

2.3 The industry standard for conducting technical site appraisals and assessing quality of outdoor natural grass surfaces is outlined in the Sport England's Natural Turf for Sport 2025 (NTfS) documents which details playing quality assessments and Performance Quality Standards (PQS) that surfaces should be rated against. This was used as the basis for assessing the sites. PQS were originally developed by a voluntary technical consortium comprising representatives from the Sports Turf Research Institute (STRI), National Playing Fields Association (NPFA) and the Grounds Management Association (GMA) and provide a mechanism for objectively benchmarking the quality and performance of natural turf sports surfaces. Sport England have adopted these standards and promote their use as key criteria for assessing natural grass sports provision and to inform improvement, design and construction of natural turf sports pitches to ensure that they are constructed and maintained to an acceptable standard against a defined benchmark for a particular level of play. A summary of PQS information is presented in Sport England's NTfS document, Part D – Appendices (see Core Document 5.25). For ease, NTfS Part D - Appendices, Table D4, p32 is copied into the Appendix of this document and represents selected key minimum criteria for football, rugby and cricket.

2.4 The key PQS considerations for assessing the playing field areas of the Talbot Road site are as outlined below, namely, the size of usable area available for sports allowing for safety run-off margins, gradients/ slopes, and assessment of drainage (via analysis of soil type, geology and topography), as well as possible and known contaminants. These need to be given high importance as they more significantly affect the playing quality of a site and also the necessary improvement works required i.e. levelling and drainage works.

Former Glossopdale Community College, Talbot Lane

2.5 The area proposed for housing development is the former Glossopdale Community College site (shown in Figure A) which predominantly incorporated school buildings and carparking in the northern half and recreational areas in the southern half of the site that consisted of hard surfaces and grassed areas. The site has been unused since its closure in 2018. The grassed areas now consist of uncut, mixed grass species and weeds.

Figure A: Google Earth image dated Jun 2018 of Talbot Rd site when still in use showing the Redgra area in the south with its running tracks and rounders markings, 2 x long jump areas evident on the right side, and some evidence of athletics on the marginal grass areas.

Figure B: Google Earth image dated Sept 2023 of Talbot Rd site post demolition.

Figure C: Drone photograph courtesy of Derbyshire County Council of former Glossopdale Community College site post demolition (view south) shows much of the area is covered with demolition rubble.

Historic Sports Use

2.6 Review of historic Google Earth imagery revealed the Talbot Road Playing Field previously had a number of hard surface sports areas and marginal grass areas. Due to the topography and limited size of the grassed areas available, they were only used for some summer athletics, but they would not have conformed to sporting guidance for gradient: For throwing sports like hammer, shot put and javelin, official bodies such as World Athletics and Sport England require the throwing circles to be approximately level, while the landing sectors must have a maximum downward gradient of 1:1000 (0.1%) in the throwing direction to ensure fair, gravity-neutral competition.

2.7 I understand that Leanne Pace, Physical Education staff member at the former Glossopdale Community College (Glossop) site (now based at the Glossopdale School, Hadfield) confirmed to Sports Planning Consultants that the grassed areas were not used for winter sports provision. My professional view is consistent with this information due to the strongly sloping site topography, poor drainage and restricted space available (at most a single mini pitch would fit alongside the NW edge of the Redgra area catering for U7/U8's but would still be outside of sporting guidance for gradients). Each of these elements is discussed separately below.

Slopes

2.8 Topography data (Figure D) shows the whole Talbot Road site has a relatively strong fall across it typically from the NE corner towards the SW. The northern section of the site that was previously school buildings and carparks has slopes ranging from 1:6 to 1:25. This would be too steep to accommodate pitches that conform to Sport England (SE) Playing Quality Standard (PQS) guidelines of a max. of 1.25% (<1:80) in direction of play and 2% (<1:50) across a pitch. Ref: Natural Turf for Sport (NTfS 2025), Part D Appendices, Table D4, p32, copied in the Appendix of this document.

2.9 The Redgra area is the only section of the site that has been levelled to create a suitably level platform for sport. It is level in an E-W direction and has a cross fall of 1:70 which conforms to Sport England guidance.

Figure D: Glossopdale Community College topography survey data (provided by Concertus in Nov 21) shows a notable gradient across the whole site falling from NE to SW. The surface gradients on the natural grass areas (formerly used for some summer athletics) were not compliant with the guidelines set out by Sport England which allows for maximum of 1.25% (<1:80) in direction of play and 2% (<1:50) across play for playing field areas. The existing areas are much steeper than this, ranging from 1:40 to 1:6.

2.10 To note, the Redgra area has been built up above the natural ground level on the southern side which results in steep banking that reduces usable space in the grassed

playing field area to the south of it. In addition, the southern embankment steepness is calculated to be ~24% which exceeds recommended guidelines of 33% (1 in 3) for safe and effective maintenance. Safety fencing around the SW corner of the Redgra platform would be recommended if the area was used for sport/ spectators.

Redgra Surface

2.11 Redgra is an all-weather, self-binding material made of fine stone and red clay. Sports surfaces made of Redgra are still found in the UK but it is now widely considered outdated and it is not advised for use by Sport England for modern outdoor sports pitches or athletic areas due to higher risk of injury (reputation for skin abrasion, too hard with lack of shock absorption, generates red dust when dry, can be slippery in frost). While once very common for football, hockey, and running tracks, since the 1990's many schools and councils have upgraded Redgra surfaces to modern synthetic surfaces like 3G artificial turf for pitches and polymeric surfaces (bound rubber) for outdoor running tracks, as recommended by Sport England/ UK Athletics (Ref: Artificial Surfaces for Outdoor Sport 2013 in Core Documents).

2.12 The existing Redgra surface is unplayable and beyond repair as it is grown over with vegetation to the point that it is not visible and its surface levels have deteriorated. It would not be possible to remove the vegetation without removing a good deal of the material.

2.13 The Redgra levelled platform size is not sufficiently large to support recommended minimum pitch sizes for U13 to U18 and adult age groups allowing for sufficient 3m safety margins around all sides, which would require a total area of 97 x 61m. Even if the platform area could be resurfaced to bring it into use, it could only safely cater for age groups of U12 and under.

2.14 In summary, it would be recommended to remove/redevelop the Redgra platform area if it was to be considered for sports use for the reasons outlined above, namely:

- It is an outdated surface type prone to higher injury risk.
- The Redgra surface is of poor quality and cannot be restored.
- The platform size restricts the usage for winter sports to younger age groups only.
- The platform has overly steep banking around the southern edge for safe maintenance/ pitch run-off.

Geology & Soil Type

2.15 The LandIs and BGS GeoIndex applications identify the soil type (superficial deposits) across the site as glacial drift with clay-rich material in the topsoil and subsoil and naturally poor drainage. This was confirmed by trial pits dug on site as shown below and reference STRI report 260306 – Carter Jonas - Former Glossopdale Community College - Site Assessment Report.

Photo 1: Trial pits around the site found brown clay loam in the topsoil and grey-brown heavy clay in the subsoil at 260-310mm depth with gleying present indicating prolonged saturation. Stone content was variable with some areas having high natural stone content, as well as brick/ demolition rubble.

Photo 2: Drainage work (associated with neighbouring housing) on the SE corner of site shows the impervious underlying grey-brown clay that is holding surface water.

2.16 Laboratory Particle Size Analysis (PSA) confirms that the topsoil analysed from the site falls into the clay loam textural classification. The soil has a high proportion of fine particles ('fines') comprising 11% very fine sand, 31% silt and 26% clay. The high proportion of fine particles (68%) and general particle size distribution suggests that the hydraulic conductivity of the topsoil is low and the soil has high-water holding capacity.

2.17 Trial pits and soakaway testing undertaken by HSP Consulting in their Phase 2 Geo-Report undertaken in March 2022 also confirmed the clayey soil type and poor drainage. Soakaway tests (to 1.75-2.5m depths) were carried out over a 24hr period in 3 different test areas on site. The results showed very slow water infiltration, and the deeper subsoil was deemed to be practically impervious strata.

2.18 In summary, this soil type is not desirable for sports use due to its poor drainage severely limiting usage in the wetter months (winter sports season) and the fact that it bakes hard in summer and becomes very droughty and difficult to manage and maintain good grass cover and safe hardness limits in the summer months, particularly for pre-season or early autumn football/ rugby use.

Stone Content & Contaminants

2.19 Much of the northern half of the site is covered in crushed aggregates from the demolition of the college and associated car parking which would need to be removed if the whole site was to be brought into use as playing field.

2.20 Furthermore, some contaminants and hazardous waste (asbestos and petrochemicals) were identified in the Phase 2 Geo-Report by HSP Consulting in March 2022 (Core Document 1.20) undertaken within the previously built on areas in the northern half of the site. This would need to be removed if these areas were proposed for use for sport/ allotments, etc.

2.21 Even in grassed areas that have never been built on, some of the trial pits identified a large quantity of natural stone within the topsoil, varying in size up to 70mm in diameter. Stones of >20mm diameter exceeds sporting guidelines and would need to be removed/ buried satisfactorily so as not to affect the surface for sport. High stone content makes regrading the area difficult as stones will be brought to the surface.

Drainage

2.22 The poor draining nature of the soil was evident on the site with waterlogged areas observed and the topsoil in all the trial pits was wet with evidence of seasonal waterlogging and worm activity noted within the non-built on areas. It would be expected that the grassed areas would regularly become saturated and unsuitable for winter school use. This was highlighted by the surface water ponding observed during the site visit, as shown in Photo 3 below.

2.23 There is no known formal drainage such as pipe drains evident, other than drainage associated with the Redgra area which has inspection chambers along its southern edge.

2.24 The sloped topography allows the site to shed water downhill and therefore site drainage is better than its underlying soil type would allow. However, the site cannot

accommodate winter sports pitches in its current format due to the lack of space and steep topography, If the site was to be levelled via cut and fill to enable sports compliant playing field area, it would certainly require intensive drainage, especially if it is to be used for winter sports.

2.25 Without drainage, this soil type would have an infiltration rate of <5 mm/hr (as required to attain Sport England PQS) and a carrying capacity of less than 2hrs use/ week for ages >15yrs. In reality, there would be prolonged periods through the winter months that pitches would be unplayable without a suitably intensive and well-maintained sports pitch drainage system that would require ongoing investment.

Photo 3: Surface waterlogging on the west of the site at time of the visit (February 26).

Underground Services

2.26 A culvert is noted on drawings of the site (Ref: LDA Design, copied below), identified in a utility survey search. The depth of this feature is not recorded but it is likely that it would potentially need to be re-routed, adding additional cost, if the site was to be levelled (via cut and fill) to accommodate SE compliant playing field area.

Figure E: Site development drawings show a culvert marked through the southern section of the site (shown in pink). This would need to be taken into account if relevelling the land for sports use.

PART 3: SUMMARY

2.27 The site was historically used for some school sports but the grassed playing field areas available were very limited in size, enabling only some summer athletics use on sloping ground that was not compliant with sporting guidelines in terms of size or gradient.

2.28 The former Redgra area had suitable levels for sporting use but its size, surface type and steep southern drop off would have limited its use for multi sports.

2.29 The site is unusable in its current state due to demolition rubble, hazardous contaminants in previously built areas and deteriorated and overgrown historic recreational areas. In addition, drainage is inherently poor and there are long periods of time when the ground is saturated in winter and would be too wet for winter sports use.

2.30 Significant earthworks would be required to bring the site into a usable and safe condition and create Sport England compliant playing field or pitches. Necessary works would be extensive, time consuming and likely cost prohibitive and include extensive and significant excavation, removal of material, importation of suitable material and earthworks and shaping. In addition, winter sports areas would require intensive drainage to be useable in the football/ rugby season.

2.31 The costs for required improvement works are set out below. Detailed costs and Bill of Quantities in the Appendix B. This figure does not include costs of additional survey works, detailed design, permissions or any diversion of services.

Item	Quantified cost ex VAT
Development works to produce usable natural grass playing field platform in the southern portion of site (9676.81m^2) including: Drain line top-up 12-months maintenance	Detailed breakdown in Appendix
Total	£848,661
Ongoing Maintenance Cost per annum (all works contracted out) Additional sand banding required every ~ 5yrs	£20 - £23,000 £26,000 per full-sized pitch area

2.32 If the northern portion of the site (demolition material) requires remedial works, this would bring the above total into the £1.75m to £2.5m.

2.33 It should be noted that any proposed works would not guarantee a well-performing playing surface in the long-term due to underlying soil type and risk of surface water flooding. There would need to be suitable ongoing investment to maintain the necessary drainage system in good order.

2.34 To summarise, there are major obstacles that affect the viability of this site to provide natural grass playing fields or sporting areas. These are:

- Steeply sloped site topography.
- Spatial arrangement and available suitable sized areas.
- Poorly draining soils requiring intensive drainage and ongoing maintenance.
- Prohibitive costs required for works to produce safe and usable playing fields.
- Additional potential issues that would add further cost such as the underground culvert which may affect the feasibility of undertaking the required cut and fill to create suitable gradients for sports pitches.

2.35 In conclusion, it should be recognised that the site is not usable for sport in its current state and although there was some sporting use by the former school, it was very limited and on areas that did not conform to sporting guidance. The site could not be made usable for sport without significant, cost-prohibitive works.

APPENDIX A:

FEASIBILITY STUDY FOR RUGBY PITCH AT GLOSSOPDALE SCHOOL

APPENDIX B:

STRI COMMENT ON PITCH QUALITY & MAINTENANCE ON NORTH FIELD, GLOSSOPDALE SCHOOL

Carter Jonas
STRI Ltd, St Ives Estate, Bingley,
West Yorkshire, BD16 1AU

T. +44 (0) 1274 565131

F. +44 (0) 1274 561891

Executive Summary – Northern Playing Field

STRI have reviewed the PitchPower report produced in February 2025 for the Glossopdale School and Derbyshire FA. STRI's review was conducted to assess the suitability and practicality of the report's recommendations with respect to the Performance Quality Standards (PQS) recorded. It should be noted that STRI's site visit (30/06/2026) found that the playing field remained in a poor agronomic condition, which would correlate to the PQS recorded in the 2025 PitchPower report.

STRI are confident that undertaking the below maintenance practices on an annual basis would constitute a marked improvement in the natural grass playing surfaces. The maintenance methodologies provided in the PitchPower report are detailed and sufficient to implement. Further guidance on undertaking the maintenance operations below.

Background and Context

The natural grass playing field to the north of site was originally constructed as part of the wider redevelopment at Glossopdale School in 2020, following the demolition of the previously existing teaching block. The playing field has most recently been used as two 9-a-side junior football pitches and were assessed as such in the PitchPower report.

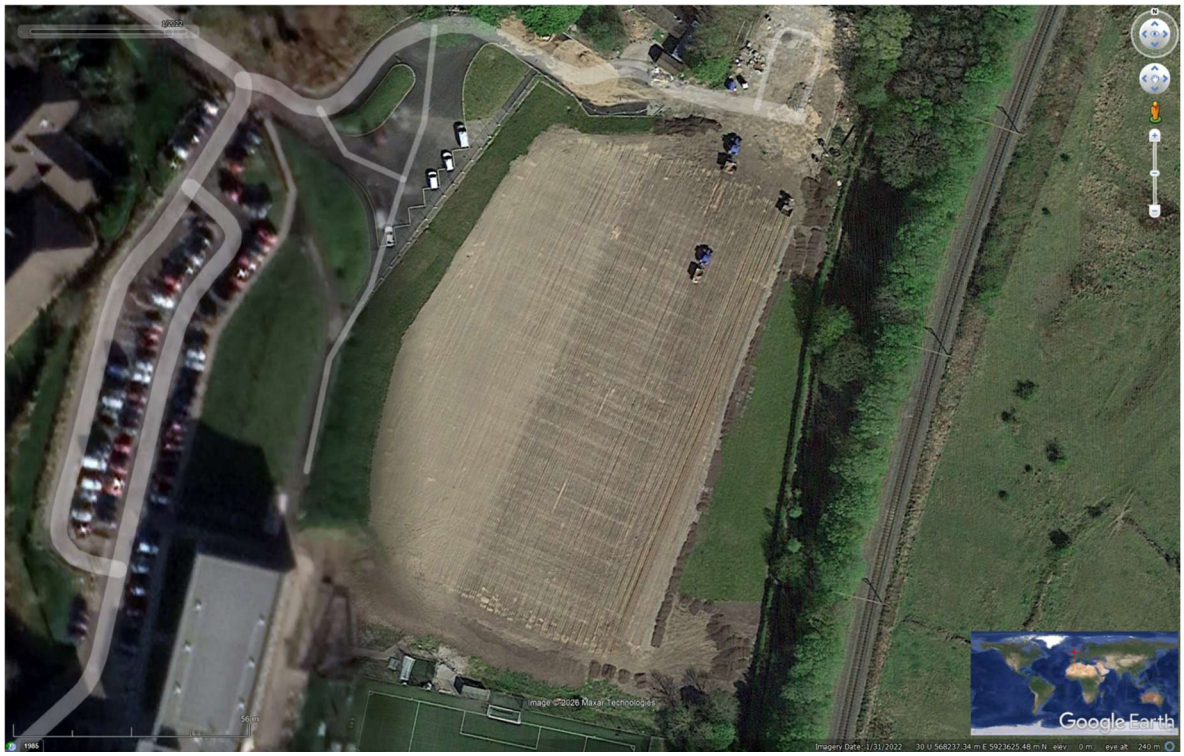


Figure 1 - Satellite imagery taken from Google Earth showing playing field construction. Imagery dated 24/04/2020

The playing fields have subsequently received limited maintenance since construction, ultimately leading to the poor agronomic condition and PQS recorded in the PitchPower report.

Performance Quality Standards (PQS)

Both of the 9-a-side football pitches contained within the northern playing field were assigned a PQS score of Poor. Pitch 1 achieved a score of 41%, Pitch 2 achieved a score of 30%.

Figure 2 - Image from PitchPower report showing location of both 9-a-side football pitches

The primary elements affecting the scores were noted to be:

- Grass cover (%)
- Weed cover (%)
- Thatch depth (mm)
- Line marking

Recommendations

The notable factors leading to Poor PQS scores can be addressed through a number of targeted maintenance operations to increase grass cover, mitigate broadleaf weed ingress, reduce thatch, along with improving drainage performance and line marking quality.

In addition to the PQS-based recommendations, pest management was listed as a significant issue across the entire playing field. Mole hills are disruptive, affect visual quality and can present safety issues with an uneven playing surface.

The below table (from STRI CA001) shows the PitchPower maintenance recommendations along with updated costs and comments.

Maintenance Operation	PitchPower Report Cost (March 2025)	STRI Expected Cost (June 2026)	Comments
Scarification	£600	£600	In line with current market rates.
Sand topdressing (1 application)	£2,500	£6,000–£7,000	PitchPower estimate is considered low due to increased material costs.
Overseeding	£2,200	£2,200	In line with expectations.
Aeration	£700	£700	Appropriate current cost.
Fertiliser (2 applications)	£1,000	£2,000	Higher cost reflects increased fertiliser prices since 2025.
Selective herbicide application	N/A	£600	Selective herbicide to address excessive weed content
Total annual cost estimate	£7,000	£12,000-£13,000	Increases in material and fuel costs have led to a higher overall annual cost for maintenance

The differences identified for sand topdressing and fertiliser applications are attributed primarily to increases in material and fuel costs since the PitchPower report was prepared in March 2025.

STRI would also recommend undertaking a selective herbicide application (highlighted green) to further address the high broadleaf weed content recorded in the PQS and observed during the STRI site visit. It is important to follow a selective herbicide application with the recommended overseeding to mitigate a repeated ingress of weed content into bare soil.

It should be noted that any selective herbicide applications would be carried out in accordance with current legislation and following COSHH regulations.

Signed:

George Walton BSc MBPR
Consultant
t. +44 (0)7790 562272
e. george.walton@strigroup.com

APPENDIX C – ADDITIONAL RESEARCH REFERENCES

1. Playing Quality Standards for Sports Areas – Ref: Sport England's NTfS 2025 document, Part D Appendices, Table D4, p32 (Core Documents 5.25)

Table D4 Performance Quality Standards for football, rugby and natural turf playing fields in general [1]

Element	Requirements	Method of test
Ground cover	>70% for 25-30 mm grass height >80% for 30-35 mm grass height	BS 7370 : P3 A6
Broad-leaved weeds	<10%	BS 7370 : P3 A6
Grass height	20-60 mm for growing season 20-75 mm for non-growing season	BS 7370 : P3 A3
Thatch depth	<5 mm	BS 7370 : P3 A7
Hardness	35-200 gravities	2.25 kg Clegg impact hammer from a drop height of 0.45 m
Water infiltration rate [2]	>5 mm/h	BS 7370 : P3 A8
Evenness	<20 mm beneath a 2m straight edge	BS 7370 : P3 A4
Slopes [3]	<1.25% (<1 in 80) in direction of play <2.0% (<1 in 50) across direction of play	BS 7370 : P3 A5
pH value	5.5-7.5	ISO 10390
Maximum stone size in upper 50 mm	<20 mm diameter	TBC

[1] The PQS information contained within this table constitutes selected key minimum criteria.

[2] It should be noted that infiltration test results from assessments conducted in dry conditions, particularly on clay-dominated soil, can produce spuriously high results due to the presence of shrinkage cracks. It is essential that test results are interpreted appropriately in the context of likely performance in winter.

[3] Slope values are expressed as maximums that will avoid the slope having an adverse effect on play, but should be regarded as the preferred values in terms of surface drainage. However, in some locations with heavy annual rainfall, these figures may need to be exceeded.

2. Detailed Costings for Work to Bring Site back into Usable State

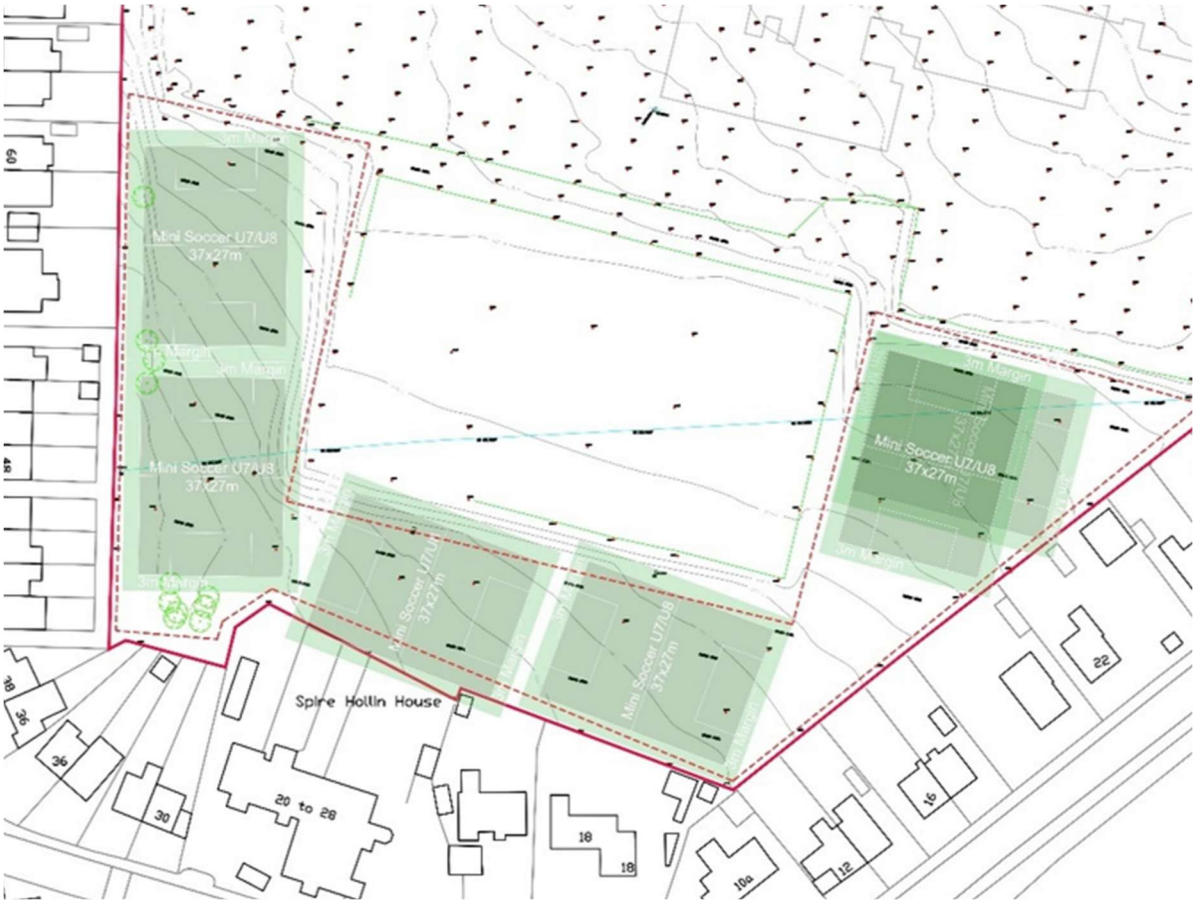
Glossopdale Bill of Quantities				
New natural grassed playing field area				
Total playing field area	9676.81	m2		
Preliminaries (Site set up & staff welfare for duration of works)	1	Item	75000	£75,000.00
Levelling				
Removal of clinker and Redgra	1500	m3	300	£450,000.00
Cut	3319.93	m3	3.5	£11,619.76
Fill	3320.82	m3	3.5	£11,622.87
Topsoil Import to replace the Redgra/clinker	1500	m3	89	£133,500.00
Drainage & Establishing Grass Surface				

80 mm lateral drains (perforated plastic)	2747	m	17	£46,699.00
150 mm main drain (perforated plastic)	186	m	32	£5,952.00
80 mm/150 mm junctions	39	no	65	£2,535.00
225 mm outlet pipe (unperforated twin wall plastic)	10	m	65	£650.00
Silt chamber (900 x 600 mm)	3	no	850	£2,550.00
Total area for cultivation/seeding	11114.26	m2	1.25	£13,892.83
Area of sand amelioration/sand top dressing (25 mm)	9676.81	m2	2.76	£26,708.00
Area of Sand Banding	9676.81	m2	3.5	£33,868.84
Drain line Top Up (contingency)	2747	m		£6,000
Maintenance for 1 year post works				
Area to be maintained during 12-month maintenance period (see details in Table below)	9676.81	m2	2.9	£28,062.75
			Total Excl. VAT	**£848,661.03**

12 Months Maintenance Details by Contractor				
Mowing	30	Item	325	£9,750.00
Fertiliser	4	Item	715.81	£2,863.24
Herbicide	1	Item	803.57	£803.57
Overseeding	1	Item	1867	£1,867.00
Decompaction	2	Item	828.75	£1,657.50
Pest & Disease control (if required)	1	Item	3070.19	£3,070.19
Sand dressing (80t/ha)	1	Item	6971.25	£6,971.25
Line marking	1	Item	1080	£1,080.00
				£28,062.75

3. Talbot Rd site layout plan

As shown in the CAD drawing below, it is only possible to fit a single U7/U8 mini pitch of FA recommended size (including appropriate safety margin run-offs) into the top left (NW) corner around the Redgra surface. However, the topography is non-compliant for sports use.



4. Pitch Usage study

This is the full research study from which formed the basis for industry guidance e.g. usage levels quoted in Sport England's NTfS 2025 document. This study shows how sites with different soil types have different carrying capacity. The 'N' pitches (Nottingham) with their sandy loam soil type have good natural drainage compared to the 'W' pitches (Warrington) with clayey soil (which is applicable to the Talbot Rd site). It can be seen that the W pitches with pipe drainage can only accept 2 hrs use/week compared to 3.5-4hrs/week for the N pitches without drainage. It is only once the W pitches have been pipe-drained and slit drained ('secondary drainage') that they can have similar usage. Drainage systems become less effective over time due to soil contamination as a result of worm activity and wear. Ongoing sand topdressing (min. 60t/ha) is recommended to protect drains and maintain/ improve surface drainage and quality.

An STRI research study of pitch usage

Pitch	Location	Level of use (adult-equivalent hours of play per week)					
		Proposed		1988/89		1989/90	
		Ave.	Max.	Ave.	Max.	Ave.	Max.
Undrained	N	3.5-4.0	4	3.9	5.1	3.9	6
Pipe Drained	W	2	4	0.8	1.6	0.9	2.8
Slit Drained	N	4.5-5.0	6	4.4	6.1	4.4	6.8
Slit Drained	W	4.5-5.0	6	2.7	4.4	4.3	7.8
Sand Carpet	W	6	9	6.5	10.3	8.3	11.4
Suspended Water Table	N	6-8.5	12	8.4	13.8	5	6.3

It is calculated these usage figures can be doubled for users <15yrs. In addition, late spring to early autumn use may be higher when growth is good.
The research assumes a reasonable maintenance programme in place to include deep decompaction, fertiliser, overseeding and topdressing.

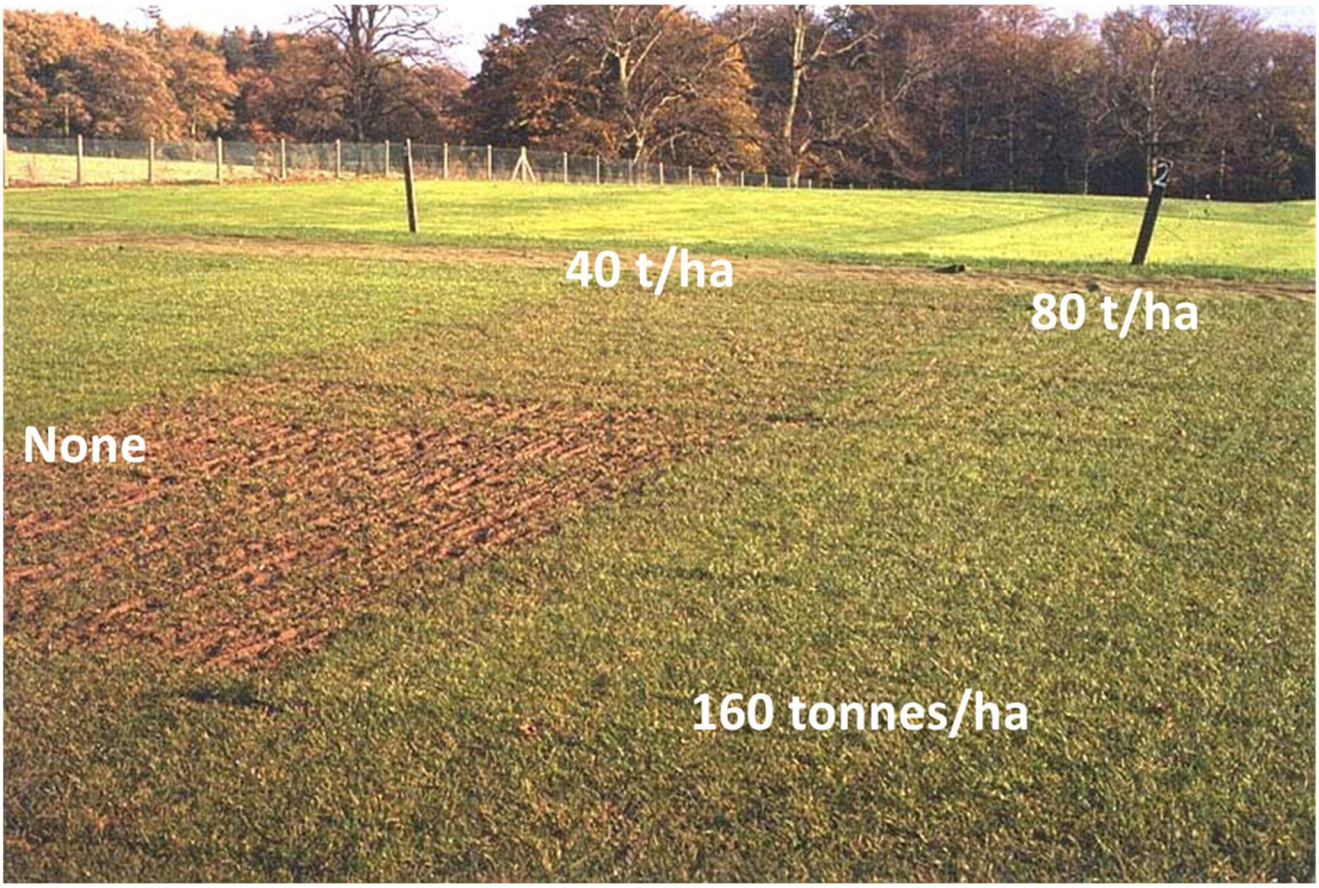
Ref: Gibb and Baker (1989b) Journal of STRI and also later Ref: Journal of STRI Vol 68 (1992) p20

N = a sandy loam soil wth good natural drainage
W = clay soil, poor drainage

Table 1: STRI Research study of sustainable usage for winter sports pitches. The research was conducted over 4 playing seasons and levels of play recorded against sporting body performance quality standards including grass cover, surface levels, hardness, traction, and ball roll distance.

5. Importance of Topdressing

The photograph below is from STRI's trials grounds showing the effect of sand topdressing on trial plots of natural sandy loam soil exposed to simulated football use. The sand dressing helps to mitigate for worm casting and protects installed drainage from contamination (fine particles smeared over the top). Common problems for grass roots clubs are budget for sand and quality control (e.g. using the wrong type of sand, particularly cheaper options).



6. Pitch Sizes

Table of recommended pitch sizes as used in the PPS. The recommended pitch sizes as found in The FA Handbook 2025/26 (copied below) are shown in the red column.

Pitch size guidance					
Age	**Format (maximum format but can play smaller numbers)**	**FA recommended pitch size (metres)**	**Pitch size (metres) guidelines**	**Maximum Goal Size (feet)**	**Pitch size (yards)**
U7	5 v 5	37x27	27x18 to 37x27	12 x 6	30x20 to 40x30
U8	5 v 5	37x27	27x18 to 37x27	12 x 6	30x20 to 40x30
U9	7 v 7	55x37	46x27 to 55x37	12 x 6	50x30 to 60x40
U10	7 v 7	55x37	46x27 to 55x37	12 x 6	50x30 to 60x40
U11	9 v 9 (Primary Schools 7 v 7)	73x46 55x37	64x37 to 73x46 46x27 to 55x37	16 x 7 to 21 x 7 (12 x 6)	70x40 to 80x50 (50x30 to 60x40)
U12	9 v 9	73x46	64x37 to 73x46	16 x 7 to 21 x 7	70x40 to 80x50
U13	9 v 9 or 11 v 11	91x55	82x46 to 91x55	21 x 7 to 24 x 8	90x50 to 100x60
U14	9 v 9 or 11 v 11	91x55	82x46 to 91x55	21 x 7 to 24 x 8	90x50 to 100x60
U15	9 v 9 or 11 v 11	100x64	82x46 to 100x64	24 x 8	90x50 to 110x70
U16	9 v 9 or 11 v 11	100x64	82x46 to 100x64	24 x 8	90x50 to 110x70
U17	11 v 11	100x64	82x46 to 100x64	24 x 8	90x50 to 110x70
U18 / Adults	11 v 11	100x64	82x46 to 100x64	24 x 8	90x50 to 110x70

Note: This table excludes safety margin run-offs which should be an additional 3m on all sides.

38 - GOALPOST AND PITCH SIZES AND LINE MARKING

1. GOALPOST AND PITCH SIZES

The FA receives many enquiries around pitch and goal sizes suitable for all age groups and therefore recommends the following should be applied where possible:-

AGE GROUPING	TYPE	RECOMMENDED SIZE OF GOALPOSTS (HEIGHT X WIDTH) FT		MAXIMUM RECOMMENDATION WITHOUT RUNOFF (LENGTH X WIDTH) YDS		RECOMMENDED SIZE INCLUDING RUNOFF (SAFETY AREA AROUND PITCH) (LENGTH X WIDTH) YDS	
Mini-Soccer U7/U8	5 v 5	6	12	40	30	46	36
Mini Soccer U9/U10	7 v 7	6	12	60	40	66	46
Youth U11/U12	9 v 9	7	16	80	50	86	56
Youth U13/U14	11 v 11	7*	21*	90	55	96	61
Youth U15/U16	11 v 11	8	24	100	60	106	66
Youth U17/U18	11 v 11	8	24	110	70	116	76
Over 18 Senior Ages	11 v 11	8	24	110	70	116	76

Note: County FAs and Leagues may have defined rules for their own competitions and reference should always be made to their handbooks for additional guidance and compliance.

The FA recommends that run-off's for natural grass pitches should be a minimum of 3 yards (or 3 metres) all around the pitch. For those clubs playing in the football pyramid the minimum safety run off is 1.83 metres (6 feet) but ideally at least 2 metres. If a new ground is to be constructed at least 3m should be provided.

The run-off must be of natural grass and must not be of tarmac or concrete construction, with no barriers or obstructions evident within the run-off area. If Football Turf (3G) is to be used as a run-off, this should be constructed to meet the performance standards of full size pitches and be green in colour.

Where pitches neighbour others within a confined area, the minimum run-off between both pitches should ideally be 6 yards to allow for spectators watching either match.

Copied from The FA Handbook 2025/26.

STRI Ltd, St Ives Estate, Bingley, West Yorkshire, BD16 1AU
t. +44(0) 1274 565131 f. +44 (0) 1274 561891
e. enquiries@strigroup.com
www.strigroup.com

SOIL PARTICLE SIZE ANALYSIS

CLIENT:	CARTER JONAS, GLOSSOPDALE COMMUNITY COLLEGE	DATE :	04/03/26
		RESULTS TO :	GW
DESCRIPTION:	SOIL	SAMPLE NO :	A21477/1

CATEGORY	DIAMETER mm	%
Stones	>8	0
Coarse gravel	8-4	4
Fine gravel	4-2	3
Particle size distribution of mineral matter smaller than 2mm		
Very coarse sand	2-1	4
Coarse sand	1.0-0.5	6
Medium sand	0.50-0.25	10
Fine sand	0.250-0.125	12
Very fine sand	0.125-0.050	11
Silt	0.050-0.002	31
Clay	<0.002	26
Loss on ignition (% of oven-dry fine earth)		7.8
Calcium carbonate	%	NIL
SOIL TEXTURE		CLAY LOAM

T = TRACE

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

STRI Ltd, St Ives Estate, Bingley, West Yorkshire, BD16 1AU

t. +44(0) 1274 565131 f. +44 (0) 1274 561891

e. enquiries@strigroup.com
www.strigroup.com

SOIL CHEMICAL ANALYSIS

CLIENT:	CARTER JONAS, GLOSSOPDALE COMMUNITY COLLEGE
DATE RECEIVED:	24/02/2026
RESULTS TO:	GW

Lab No.	Source	pH	P_2O_5 (mg/l)	K_2O (mg/l)
A21477/1	SOIL	6.6	1	52

Mr M A Baines, Soil Laboratory Manager

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

STRI Group
St Ives Estate, Bingley
West Yorkshire BD16 1AU
t +44 (0)1274 565131
e enquiries@strigroup.com

strigroup.com

delivering inspirational environments

Feasibility Report

Client: Carter Jonas

Project: Glossopdale School

Location: Hadfield, Derbyshire

Report date: 10/07/2026

Consultant: Joe Woodcock

Revision: 0

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ISSUE INFORMATION

This feasibility report has been produced in good faith for exclusive use by Carter Jonas and other stakeholders in relation to the development of a potential new Rugby Union pitch at Glossopdale School. STRI accept no liability or responsibility whatsoever in respect of any use of this report 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:	Carter Jonas
Project:	Glossopdale School
Location:	Hadfield, Derbyshire
STRI Ref:	J008165
Doc Title:	Feasibility Report
Date of Inspection	30/06/2026

REVISION RECORD

Revision record (Revision '0' being the original)

Revision Record			
Revision Number	Date of Issue	Reason for Revision and Comments	
0	10/07/2026		
Author	Joe Woodcock	Checked By	Stella Rixon
Date	10/07/2026	Date	20/07/2026

Signed

Joe Woodcock
Design Consultant
t. +44 (0)78806663653
e.joe.woodcock@strigroup.com
www.strigroup.com

1.0 INTRODUCTION

1.1 Appointment information

STRI has been appointed by Carter Jonas to undertake an initial feasibility assessment of the playing field area at Glossopdale School to determine whether a full-size Rugby Union pitch can be accommodated within the existing site constraints.

1.2 Aims and objectives

The site appraisal combined a series of desk-based and on-site appraisals aimed at assessing the technical and practical issues associated with the proposed development of the grass field area to the south of the school buildings.

The objectives of the site appraisal were as follows:

- To determine any technical constraints to the proposed development.
- To determine any practical constraints to the proposed development.
- To provide recommendations for further investigation.
- To provide recommendations for the works required.
- To provide guidance on the timescales associated with the recommended works.

2.0 DESK-BASED STUDY

2.1 Site Location

Site address:	Newshaw Ln, Hadfield, Glossop
Site postcode:	SK13 2DA
Site grid reference:	SK 01942 95283
Local authority area:	High Peak Borough Council

Figure 1 - Aerial photo of the assessed

2.2 Site information

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

Existing land use:	School grounds – grass	
Existing sports facilities:	No winter sports pitches or summer sports were marked out at the time of the visit	
Historic land use:	School playing field	
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
	Biosphere reserve	No
	Nitrate vulnerable zone (NVZ)	No
	World heritage site	No
	Registered battlefield	No
	Registered parks and gardens	No

2.3 Site access

Site access was gained through the main school building at the time of the visit. However, access for maintenance equipment was understood to be gained through the north-west corner of the site, via a gap between the existing school buildings. This route provides access through to the front car park located to the north of the school building.

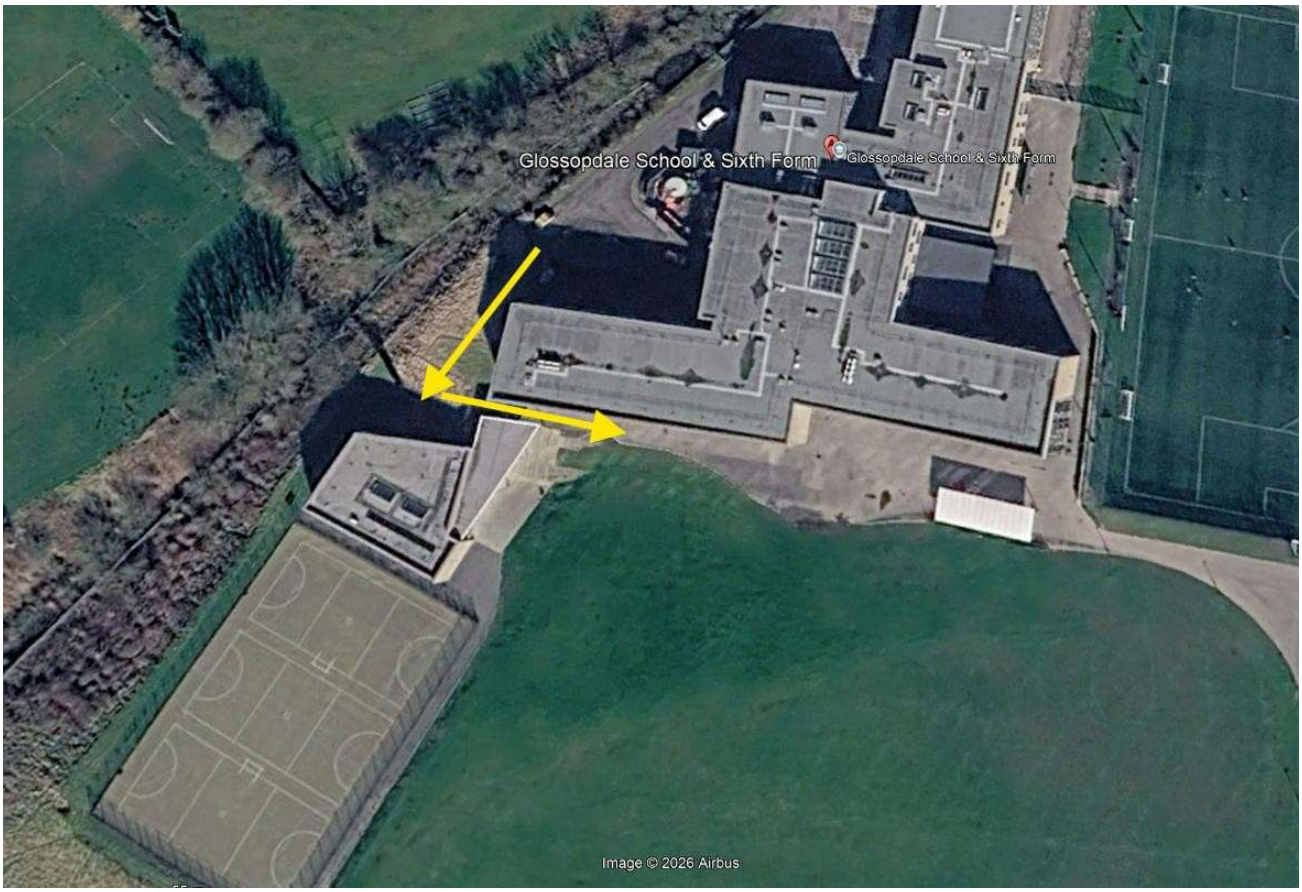

Figure 2 – Site access

2.4 Climate

The following information has been obtained from the Met Office website using data from Glossop, the nearest official Met Office climate station, approx. 5 miles from the site, covering the period from 1991 – 2020.

2.4.1 Annual rainfall (mm)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
118	93	108	84	90	97	112	129	125	144	139	133	**1372**
											England average	870

2.5 Flood risk

The following information has been obtained from Environment Agency Flood Risk Maps (see Figure 3 and 4). Figure 3 shows that the playing field area is within Flood zone 1 which is very low risk (1:1000 annual chance) of flooding from waterways/ sea. Figure 4 shows the risk of surface water flooding from land run-off. The only area potentially impacted by surface water flooding is the MUGA within the north-west corner of the site. Figure 5 shows predicted surface water flow across the site according to topography.

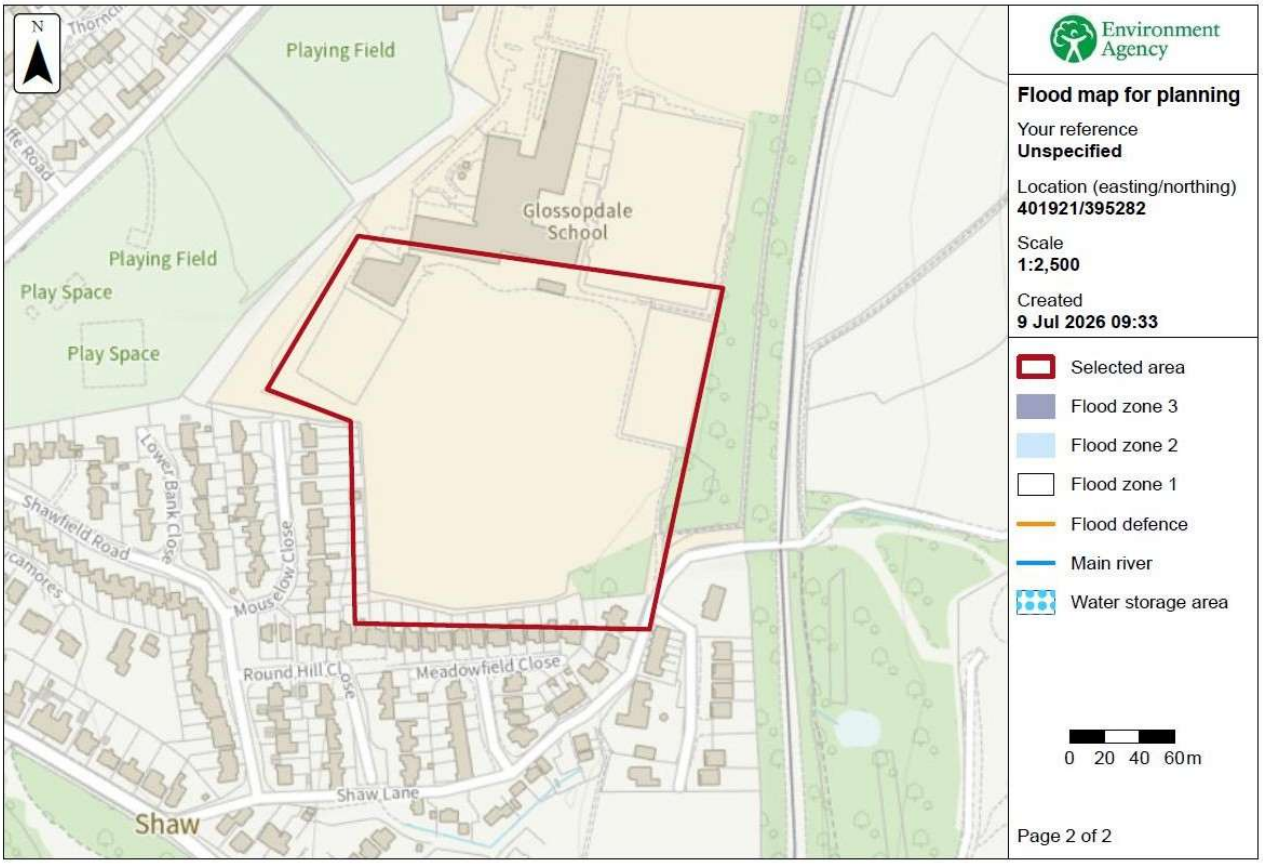

Figure 3 – Flood risk – minimal risk

Figure 4 – Surface water risk of flooding only on the MUGA

Figure 5 – Surface water mapping using Scalgo shows surface water flow across the site flowing from the east to the west down with the natural fall of the land. The surface water flood risk on the MUGA comes from flow from higher ground and woodland to the NE of site.

2.6 Previous ground investigations

No previous ground investigations have been made available to STRI.

2.7 Geology

The following information has been obtained from the British Geological Survey (BGS) online Geology Viewer and LandIs (The Land Information System).

2.7.1 Made Ground

The BGS mapping does not indicate any Made Ground on site.

2.7.2 Superficial deposits

The BGS mapping indicates Till – Devensian-Diamicton alluvium, which consists of a heterogenous mixture of clay, sand, gravel, and boulders varying widely in size and shape (diamicton). Commonly known as boulder clay.

The classification of the soil type via LandIs describes the topsoil as slowly permeable, seasonally wet acid loamy and clayey soils with impeded drainage. Observations on site confirmed this – see 3.5 below.

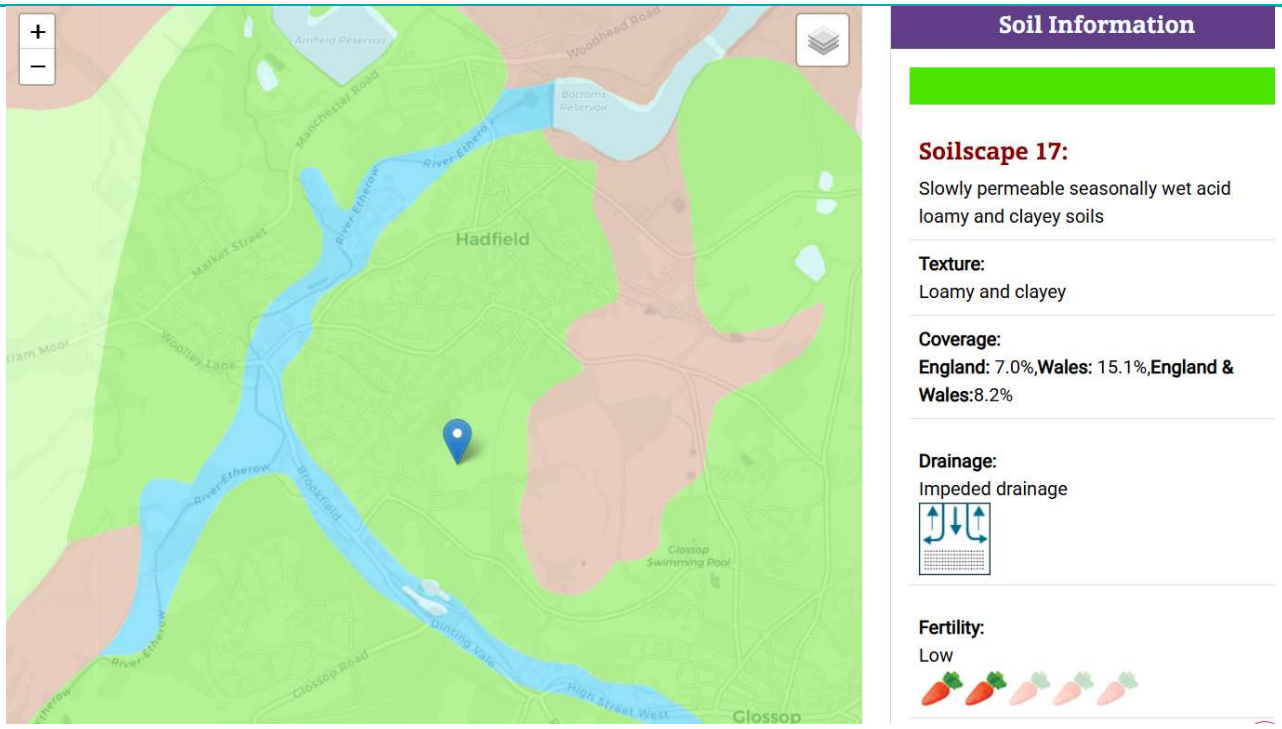

Figure 6 – LandIS soil map classification for the Glossopdale School site.

2.7.3 Bedrock

The BGS mapping indicates that the Marsden Formation – mudstone and siltstone is the bedrock underlying the southern field area.

2.8 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:	The River Etherow lies 850m to the East and Glossop Brook lies to the south and south-east of site and is 518m at its closest point.
Water bodies near site:	A lake is sited 486m to the south
Water bodies within site boundary:	No water bodies are located within the site boundary.
Distance to coastline:	N/A

2.9 Topography

A desktop study of the site levels using topographical data obtained from LiDAR shows a fall from east to west across the field of between 1:36 (2.8%) to 1:32 (3%) with the land gradually sloping uniformly towards the western boundary, as was confirmed by observations on site. The field is level in a North - South orientation. The gradient is relatively consistent and free from significant changes in level or any steep sections.

If a winter sports pitch is to be accommodated within the field area, it is recommended that the pitch is orientated north-south to align with the more favourable existing gradients and to support compliance with Sport England pitch gradient guidelines.

Sport England guidelines recommend that playing surfaces should be no steeper than 1:80 – 1:100 along the line of play and 1:40 – 1:50 across the line of play so as to avoid slope having adverse effect on play, whilst still retaining some fall to assist with drainage. A pitch orientated N-S would comply with the in-the-line-of-play gradient but be just outside of the recommended across-play gradient. However, the Sport England gradient guidelines allow for some slight deviation in areas of high rainfall where slopes might need to slightly exceed recommendations in order to aid drainage.

Figure 7 – Site topography (obtained from LiDAR data) for Glossopdale School southern field.

2.10 Contaminated land appraisal

STRI understands that the existing eastern playing field area is greenfield land, i.e., a piece of land which has not previously been built on. As such land contamination issues would not be anticipated.

A review of the Mining Remediation Authority data shows there is no record of any coal mining within this site.

2.11 Usage levels

The current and proposed usage of the field was unconfirmed at time of writing. There were no sports areas marked on the field. School pupils are reported to predominantly use the 3G pitch on site and use of the grass field is restricted to informal recreation at lunchtimes, when ground conditions are suitable.

It has been proposed that the field could be used for community use with Glossop Rugby Club expressing an interest and need for additional grass pitch areas.

3.0 ON-SITE APPRAISAL

3.1 Surface Levels

3.1.1 Surface gradients

In addition to the desk-based appraisal of the general topographic information, general surface levels were assessed visually during the on-site appraisal for the existing southern field area only.

3.1.2 Surface evenness

Surface evenness was visually assessed throughout the site visit. It was noted that no significant surface deviations were present that exceeded 25 mm or that would be considered detrimental to the health and safety of users accessing the field.

3.2 Existing vegetation

General:	The existing vegetation comprised a mixed grass sward consisting of Yorkshire fog (*Holcus lanatus*), fescue species (*Festuca spp*.), Annual meadow-grass (Poa annua), and perennial ryegrass (*Lolium perenne*). Minor broadleaf weeds were observed, predominantly daisy (*Bellis perennis*); however, these were not considered prevalent across the field area.
Agronomic condition:	The agronomic condition of the field was considered acceptable for its use as a school recreational facility. No significant grass clipping accumulation was observed that would restrict grass growth or smother the existing sward. Thatch levels were also noted to be minimal. However, it is considered that the field is predominantly maintained through routine mowing only, with no evidence of wider agronomic maintenance. If sports use was to be envisaged, then a regular and more intensive maintenance programme would need to be implemented to include fertilising, aeration, sand topdressing, scarification, and selective herbicide and include overseeding.
Invasive species:	There were no invasive species identified within the site at the time of the visit.

3.3 Trees

Mature trees were located along the eastern, southern and western boundaries. Any Tree Root Protection Areas (RPAs) shall be identified prior to commencement of any proposed works. All works should be planned and undertaken to avoid encroachment into designated RPAs, in accordance with relevant arboricultural guidance and protection measures.

3.4 Ground conditions

Ground conditions were dry at the time of the site visit as the assessment was undertaken during the summer months, following a prolonged period of limited rainfall and elevated temperatures, with temperatures regularly reaching approximately 30°C.

It has been reported by school staff that the field experiences saturation and waterlogging during the winter months, resulting in the area becoming unusable. Therefore, the conditions observed during the site visit should be considered representative of dry summer conditions only and would not reflect the performance of the site during periods of prolonged rainfall or wetter ground conditions, especially if subjected to winter sports use.

3.5 Site soil conditions

The LandIS Soilscapes Viewer (see Fig. 6 above) indicates that the native topsoil on-site falls under Soilscape 17. This is classified as: "Slowly permeable seasonally wet acid loamy and clayey soils." Samples taken for soil analysis confirmed tat the topsoil is clay loam (see Appendix 2).

3.5.1 Soil profiles

3.5.1.1 Visual assessment

A trial pit was excavated by hand to confirm the nature of the underlying soil profile.

The topsoil was observed to comprise a brown, compact clay silty topsoil, overlying a brown clay subgrade. The topsoil and underlying subsoil are considered to exhibit poor drainage characteristics due to their cohesive nature and limited permeability. The average measured topsoil depth was approximately 180mm, with a moderate stone content observed. No stones exceeding approximately 32mm in diameter were recorded within the topsoil layer. Rooting was observed to extend to a depth of approximately 80mm. No contaminants were identified during the inspection, with no evidence of inclusions such as glass or pottery noted.

3.6 Drainage

3.6.1 Existing drainage features

At the time of the site visit, there were no obvious signs of a primary pipe drainage system, such as droughted turf lines, visible across the playing field area. However, a review of historical Google Earth imagery identified evidence of pipe drain lines during previous dry periods.

Figure 8 – Google Earth image dated March 2025 of southern field showing pipe drainage lines at approx. 6m spacings. These same lines are apparent in a Google Earth image dated 2003 – see below.

Figure 9 – Google Earth image dated 2003 showing same pipe drainage lines at approx. 6m spacings. However, further development of the site to include a larger 3G on the east side and a new MUGA of the west side would likely have disrupted the existing pipe network.

The imagery indicates that a primary drainage system is apparent throughout the field at approx. 6m centres and is historic, dating to pre-2003. Pipe drainage systems become less effective over time, particularly if maintenance has been minimal. A system would be expected to have a ~20-25yr effective lifespan if suitably maintained. In addition, following further site development and construction of new artificial pitches, it is highly likely that some of the system was compromised. The school PE staff (Leanne Pace) confirmed to the client that there had not been any drainage installed in the past 18 years whilst she had been at the school.

A manhole chamber was also identified within the north-west corner of the site, which is considered likely to be the outfall for some of the drainage system. The manhole was not opened during the site visit; therefore, the condition, configuration, and connectivity of the existing drainage system could not be confirmed at this stage.

3.7 Existing structures

No existing structures were located within the site boundary.

3.8 Utilities

A full utilities search was not included as part of this feasibility study report.

4.0 DISCUSSION

The following points should be considered following the site assessment findings for the development of new Rugby Union pitch at Glossopdale School.

- It is feasible to accommodate a full-size Rugby Union pitch within the existing southern field area at Glossopdale School. A proposed indicative layout is provided within Appendix 1 of this report, which demonstrates that the pitch can be orientated in a north-south direction, in line with Sport England's preferred orientation for sports pitches.
- The proposed layout also retains an area to the south of the field, which could accommodate youth sports pitches/ training areas during the winter months if required. In addition, an area to the west of the field is maintained for general recreational use.
- However, it is understood that the playing field would primarily be required for winter sports use during the winter period, and therefore no additional recreational space is anticipated to be required for morning and lunchtime break activities during this period.
- During the site visit, the site topography and existing levels were visually assessed and through a desktop study. It is considered unnecessary for significant cut and fill earthworks to be undertaken to accommodate a full-size Rugby Union pitch, as:
    - The existing playing field is considered to be within Sport England's pitch gradient guidelines (allowing for a slightly increased cross fall as it is an area of high rainfall; and
    - Any proposed earthworks would require the formation of associated embankments and transition slopes, which would reduce the overall usable playing field area.
- A visual assessment of the underlying soil conditions was undertaken through the excavation of a trial pit within the playing field area. The trial pit identified a clay silt soil profile with some medium stone content; however, no significant large stones were observed.
- Due to the inherently poor drainage characteristics of the existing soil, it is recommended that any new primary drainage system is supported by a secondary drainage system in the form of sand/gravel slits. These secondary drainage measures would assist in improving surface water movement through the upper soil profile and provide additional drainage capacity across the playing field area to support winter sports usage.
- It was noted that a historic primary drainage system is apparent across the field area. However, based on client feedback and Google Earth imagery, it is understood to be >20yrs old and is at the end of its anticipated service life. Regarding the winter performance of the field, it is considered that surface water is not effectively reaching or being removed through the existing drainage system.
- Further investigation and information gathering are recommended to better understand the existing drainage infrastructure, including confirmation of the system's age and original installation details if possible.
- A CCTV drainage survey is recommended from the existing manhole chamber located within the north-west corner of the site to establish the condition, connectivity, and eventual outfall location of the existing drainage system. This information will help inform any future drainage improvement works, with any proposed new primary drainage system likely to either connect into the existing manhole arrangement or bypass the existing system through the installation of a new chamber at an appropriate location.
- Rainfall data for the Hadfield area indicates that the location receives approximately 400 mm more rainfall than the England average. This suggests that the site is subject to higher levels of precipitation compared with surrounding areas, which is likely to further exacerbate existing drainage challenges and increase the risk of waterlogging during wetter periods.

- As part of any proposed drainage improvement works to ensure the development of a fit-for-purpose Rugby Union pitch at Glossopdale Community College, it is recommended that the entire field area is considered for drainage improvements rather than only the proposed pitch footprint.

- Providing a comprehensive drainage system across the full field area would create a more consistent and uniform drainage performance, while reducing the risk of isolated areas of waterlogging developing outside of the pitch area.

- 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. Any maintenance programme should evolve over time depending on the level of use and the agronomic condition and performance of the playing surface. With a higher level of use, additional maintenance inputs would be required.

5.0 RECOMMENDATIONS

5.1 Drainage Improvement Works for the Playing Field Area

5.1.1 Selective herbicide application to reduce broadleaf weed content

Selective herbicide applications shall be undertaken using an appropriate UK-approved selective herbicide product, applied by a suitably qualified operator in accordance with the manufacturer's recommendations and current legislation. Applications shall be targeted to control broadleaf weed species while minimising impact to the existing grass sward. Spraying shall only be undertaken during suitable weather and ground conditions, avoiding periods of heavy rainfall or drought stress, with all application records maintained as required.

5.1.2 Pipe drainage installation

It is recommended to install a primary drainage system consisting of lateral drains running across the playing field area, all connected to main carrier drains. The pipes should be joined using purpose-built junctions.

The lateral drains should be positioned at specified intervals across the pitch to effectively collect and discharge surface water. Drain trenches should be excavated using a chain trencher or tractor-mounted wheel-type trencher, typically 500–600 mm deep.

The main collector drains for this type of system should generally consist of 150 mm diameter uPVC perforated land drainage pipes. Once the pipes are laid and connected, the trenches should be backfilled with clean 2-6 mm grade drainage aggregate, followed by backfilling to the surface with an imported rootzone mix (a blend of sand and soil).

The drainage design should incorporate silt chambers and inspection chambers at key locations along the main collector drains. A sealed outlet drain should also be installed, extending toward the designated outfall location.

Subject to the proposed level of use, it may be necessary to supplement the primary drainage system described above with a secondary drainage network of sand slits.

5.1.3 Secondary drainage System

It is recommended that the primary pipe drainage system is supplemented by a secondary drainage system of sand/gravel slits to connect with the permeable drainage aggregate in the underlying lateral drains. When considering the installation of secondary drainage systems, it is important to note that the long-term effectiveness of secondary drainage systems such as sand/gravel slits is subject to a suitable level on ongoing maintenance including periodic sand topdressing to maintain a hydraulic connection between the surface and underlying drainage channels.

The excavation of the primary and secondary drainage systems would generate a volume of spoil which would require removal off site to a licensed tip or disposed in an approved location on site where it could be landscaped.

5.1.4 Seed bed preparation

An application of a pre-seed fertiliser with an N-P-K composition of 8-12-8 or similar should be applied.

5.1.5 Seeding

Once a suitable seed bed has been prepared, this would then be sown out with a seed mixture containing hard wearing cultivars of Perennial ryegrass (*Lolium perenne*).

5.1.6 Initial maintenance

Thereafter, regardless of the final scope of works and methodology, it is recommended that the initial maintenance during the establishment period (3 months) is carried out by a specialist sports pitch contractor. During the initial 3-month maintenance period it is recommended that the following maintenance operations are included in the maintenance programme.

- Stone removal
- Mowing
- Fertiliser application
- Overseeding (provisional)
- Aeration
- Sand top dressing
- Topping-up of Drain Lines – (provisional) - If required, any sunken drain lines arising after settlement should be topped up using a high-sand content rootzone or sand topdressing. The material should be lightly compacted and levelled with the rest of the pitch, with care given not to over-compact. If required, the resulting surface should then be overseeded with a similar grass seed mix as above.
- Temporary Irrigation – (provisional) - If extended dry periods are expected during the germination/establishment period of the grass sward, allowance should be made for temporary irrigation measures to prevent damage to the young sward. This could include supply of water bowsers, travelling sprinklers or hand-watering. Local water provider regulations should be followed to ensure compliance with any Temporary Use Bans (TUBs) if experiencing drought conditions.

5.2 Additional investigations and surveys

The following table summarises any further investigations required to fully assess the feasibility of the proposed Rugby Union pitch and to inform the next phases of the project.

Topographic survey	Yes	For detailed design work.
Flood Risk Assessment (FRA)	No	
Geotechnical investigation	No	
Infiltration testing	No	Potential wider scheme connection.
Arboricultural survey	Yes	If any works impact RPA's.
Ball strike risk assessment	Yes	If the layout moves further south towards the residential housing.
Utility plans	Yes	Required as the design develops.
Drainage CCTV survey	Yes	To understand the existing pipe drainage system

5.3 Next steps

Will the proposed development require further design work?	Yes	A detailed design should be developed as part of the next stages of the works regardless of the finalised scope.

5.4 Summary project risk register

The following information provides a summary of the project risks. The following does not constitute a designer risk register, instead it is intended for information purposes only to highlight potential risks and significant constraints to the project which should be considered at this early feasibility stage.

Low risk	Medium risk	High risk

Risk No.	Risk Description	Detail	RAG	Notes
1	Existing land use	Playing field		
2	Historic land use	Playing field		
3	Land designation	No land designation known.		
4	Site access	Site access gained in the north-west of the site.		
5	Climate	Above the England average rainfall.		Works should be carried out in dry periods.
6	Flood risk	The proposed areas of development are located in Flood zone 1.		
8	Hydrology	No waterbodies located within the site.		
9	Topography	No earthworks required.		
10	Ground conditions	Ground conditions were dry at the time of the visit.		
11	Contaminated land	No contaminated land.		
12	Proposed usage	Amateur Rugby club use – exact usage unknown.		
13	Existing vegetation	Existing vegetation was acceptable and mown.		Good level of maintenance should be carried out in the future.
14	Trees	Trees located around the perimeter of the playing field area.		Root protection areas required limiting the extent of the works.
15	Site soil conditions	Clay silty topsoil material present.		Sports drainage system recommended due to high silt and clay content within the topsoil material.
17	Existing structures	No existing structures.		
18	Utilities	Presence of utilities unknown.		Utilities survey to be identified.
19	Drainage outfall	Potential existing manhole connection.		Further CCTV work required.

6.0 OUTLINE MAINTENANCE OPERATIONS

The following maintenance operations should be considered as part of an ongoing maintenance regime for the site. The timing of the maintenance operations is critical for the successful maintenance of natural turf pitches. Working in poor weather conditions can reduce the effectiveness of all treatments but particularly for soil aeration work which can result in an increase in soil compaction rather than alleviating the problem.

6.1 Mowing

Cut the grass frequently, maintain the height of cut within a reasonable height range. Avoid scalping the grass and allow the grass clippings to fly. This would typically require mowing once per week during the growing season. Do not allow the grass to grow too long and clippings should not be allowed to smother the grass. The grass should be cut with a well sharpened mower, correctly adjusted to achieve a uniform cut. No more than one third of the leaf blade should be removed in any one mowing operation.

6.2 Fertiliser

Maintain nutrient levels in the soil by the application of fertiliser suitable for the time of year using higher nitrogen products in the summer months and lower nitrogen in the autumn as the temperatures drop.

A minimum of 1 - 2 fertiliser applications is desirable during the spring and summer months. A single winter feed should also be applied. If the playing fields are used more frequently some additional fertiliser may be required to sustain the turf in good condition.

Fertilisers should generally be applied according to the manufacturers' recommended rates, although this can be adjusted according to the nutrient status of the soil, preferably confirmed by soil analysis as well as the prevailing condition of the turf. The analysis of the fertilisers applied, and the rate of application can be adjusted according to the conditions at any given time.

It is essential that the fertiliser is applied evenly over the whole of the surface with an appropriate spreader, preferably during showery weather to break down and wash the fertiliser into the soil.

6.3 Soil Aeration

Soil aeration work will help to alleviate soil compaction and also maintain good infiltration.

Verti-Draining should be carried out when the soil is just moist enough to allow the tines to penetrate and to achieve the optimum soil shattering or loosening.

A number of treatments may be required to deal with excessive soil compaction. The depth of the aeration work can be varied, starting with shallower treatments and gradually increasing the depth to reduce compaction and to improve water movement through the full depth of topsoil. A minimum of 2 – 3 Verti-Drain treatments per year is recommended, concentrating on the late spring and late autumn months.

6.4 Sand Topdressing

It is important to apply medium fine top-dressing sand evenly over the whole playing surface to ensure good porosity in the upper layer of the topsoil. Over time this topdressing will build up and create a drier surface which will improve overall performance of the pitch. Regular sand top dressing is also critical in ensuring the primary and secondary drainage systems continue to perform as designed and prevent them from capping over.

6.5 Overseeding

Overseeding should take place at the end of the season using a disc or dimple type seeder using 100% *Lolium perenne* grass seed mix. High wear areas should be overseeded with the same seed mix during the playing season if required.

6.6 Weed Control

Apply selective herbicide to control any broad-leaved weeds as required during the growing season. This should be applied in accordance with current legislation and COSHH regulations.

6.7 Topping-up of Drain Lines

If required, any sunken drain lines arising after settlement should be topped up using a high-sand content rootzone or sand topdressing. The material should be lightly compacted and levelled with the rest of the pitch, with care given not to over-compact. If required, the resulting surface should then be overseeded with a similar grass seed mix as above.

7.0 INDICATIVE COSTS

It is assumed that the works would be undertaken by a specialist sports ground contractor who would have the necessary plant and experienced personnel to undertake the work. The indicative cost estimates for the works are based on the current rates for similar works carried out by specialist contractors. The following are indicative only and are intended to provide a rough estimate of project costs. Contractors' actual rates may vary and will fluctuate depending on material and labour costs at the time of pricing. Exact costs shall be determined by the scope of works and the finalised design, which has yet to be developed.

Based on costs received for similar projects, our indicative cost estimates for the various improvement works are set out below.

Item	Indicative cost estimates
Contract preliminaries, transport & general requirements	£10,000.00
Selective herbicide application, primary drainage installation, secondary drainage installation, seeding and 3-month management and maintenance plan.	£218,000.00
Sub -Total (Including 10% contingency fee)	**£250,800.00**

It should be noted that the above costs would be exclusive of VAT.

The above costs do not include the installation of any attenuation measures which would be subject to infiltration/ soakaway testing (typically approximately £2-3k).

The above costs do not include detailed design and formulation of specification of works and drawings.

8.0 HEALTH AND SAFETY

The following potential hazards are typical of sports 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.
- Confined 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.

9.0 RECORD OF SITE CONDITIONS

Photo 1: View looking south

Photo 2: Vegetation cover

Photo 3: View looking south-east

Photo 4: Excavated trial pit

Photo 5: Excavated topsoil

Photo 6: Manhole cover

Photo 7: View looking north

Photo 8: View looking east

APPENDIX 1 – PROPOSED LAYOUT

APPENDIX 2 – SOIL ANALYSIS

STRI Ltd, St Ives Estate, Bingley, West Yorkshire, BD16 1AU
t. +44(0)1274 565131 f. +44 (0)1274 561891
e. enquiries@strigroup.com
www.strigroup.com

SOIL PARTICLE SIZE ANALYSIS

CLIENT:	CARTER JONAS,	DATE :	09/07/26
	GLOSSOPDALE	RESULTS TO :	JW
DESCRIPTION:	SOUTHERN PLAYING FIELD TOPSOIL	SAMPLE NO :	A21659/1

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

Particle size distribution of mineral matter smaller than 2mm

Very coarse sand	2-1	3
Coarse sand	1.0-0.5	8
Medium sand	0.50-0.25	14
Fine sand	0.250-0.125	13
Very fine sand	0.125-0.050	10
Silt	0.050-0.002	28
Clay	<0.002	24
Loss on ignition (% of oven-dry fine earth)		7.6
Calcium carbonate	%	NIL
SOIL TEXTURE		CLAY LOAM

T = TRACE

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

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t. +44(0)1274 565131 f. +44 (0)1274 561891
e. enquiries@strigroup.com
www.strigroup.com

SOIL CHEMICAL ANALYSIS

CLIENT:	CARTER JONAS, GLOSSOPDALE
DATE RECEIVED:	02/07/2026
RESULTS TO:	JW

Lab No.	Source	pH		
A21659/1	SOUTHERN PLAYING FIELD TOPSOIL	6.9		

Mr M A Baines, Soil Laboratory Manager

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

STRI Group
St Ives Estate, Bingley
West Yorkshire BD16 1AU
t +44 (0)1274 565131
e enquiries@strigroup.com

strigroup.com