



DESIGN AND ACCESS STATEMENT

CONSTRUCTION OF A
NEW 3G ARTIFICIAL PITCH
AT

THE UNIVERSITY OF
READING

Job No. 2848

May 2019

For

The University of Reading

Sports Labs Ltd
1 Adam Square
Brucefield Industry Park,
Livingston
EH54 9DE

Contract Number: **2848**

Issued by: Sports Labs on behalf of
The University of Reading

For the development of

A new build synthetic turf 3G pitch accommodating primarily full-size rugby, football and lacrosse use. Pitch construction consisting of geo-grid, sub-base, asphalt base layer, performance shockpad and synthetic turf. The works inclusive of parallel pitch drainage system and SUDS soakaway, 8 column floodlighting system and all ducting, perimeter weld mesh panel fencing of 3m high, rising to 6m height behind each goal, 1.2m high spectator fencing, 3m wide spectator hardstanding, spectator stand, 3m wide footpath connecting main access gate to existing footpath network, external synthetic cricket square with 3no. bays incorporating steel cage and netting structures.

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Client approval:	For and on behalf of The University of Reading	
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1 INTRODUCTION

- 1.1 Sports Labs Ltd has been appointed on behalf of The University of Reading to develop an application for planning permission for a proposed new 3G artificial pitch within the grounds of The University of Reading, Whiteknights campus.
- 1.2 In order to assist in the approval of planning permission and the development of the proposed project, this document shall outline the scope of works and considerations within the local environs and to facility users and residents.
- 1.3 This statement shall discuss design and access considerations regarding layout and further considerations in relation to the wider scheme.

1.4 Site Address

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1.5 Applicant Details

University of Reading
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Project Lead - Elizabeth Jackson – e.jackson@reading.co.uk

1.6 Agent Details

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Consulting Engineer – Fraser Gilbert - fraser@sportslabs.co.uk

2 PURPOSE OF THIS DOCUMENT

- 2.1 The Design and Access Statement has been compiled as a short document to provide detail of the build proposals to accompany submissions to planning departments. This is outlined within The National Planning Policy Framework (NPPF)(Feb, 2019), which outlines the government planning policy and how this should be implemented based on the specifics of the site.
- 2.2 The report has been structured relative and relevant to the nature of the proposals and aims to relay the priorities considered within the design to maximise the benefits to The University and Its students within the local community.
- 2.3 The report has been published in line with government recommendations, whereby the design and access statement is a short report accompanying and supporting a planning application to illustrate the process that has led to the development proposal, and to explain the proposal in a structured way. The level of detail required in a design and access statement depends on the scale and complexity of the application, and the length of the statement varies accordingly. Statements must be proportionate to the complexity of the application but need not be long.

3 DESIGN & ACCESS STATEMENT

- 3.1 The Design of the new 3G Pitch facility has been carried out in a structured fashion in accordance with RIBA Plan of Work 2013. Regular progress meetings have been held between the Applicant, Agent and all stakeholders involved, and a RIBA Report published at the end of each key stage, along with meeting minutes and actions arising. Documents and drawings produced have been tightly regulated and detailed within a Document Control Register. To this end, it is seen that the design of the facility has been undertaken in-line with best practises for design of a new sports facility of this nature.

3.2 Facility Purpose

The facility is required to provide benefit of a new upgraded sporting facility for use by the University students, teams and local community. The pitch will be used primarily for full—size rugby and football use, with lacrosse markings in addition.

The University currently has three rugby men's teams and one women's team and it is anticipated that a new synthetic playing surface would double the number of teams to meet demand. With this development, the University will be able to support the junior and academy development programme of local team Rams Rugby as well as expanding its support for the Berkshire U20 team.

The University also requires the pitch to meet demand for football with it's current natural pitch setup. The University has 20 teams playing in the University Campus Sport 11-a-side league and could only take 40 of the 60 teams entered for the most recent 5-a-side league. The University has 4 men's teams and 2 women's teams playing in BUCS and provides facilities for two local junior football clubs on campus, Lauren Park FC and Whiteknights FC.

The University has a strong lacrosse programme with three teams entered in BUCS (two women's and one men's) and a partnership with Reading Wildcats Lacrosse Team. The new facility is required for both matches and training.

The University has evidence that the new facility will provide an expansion in the sport as the same facility for hockey has seen an increase in men's and women's teams in this area. As well as increased capacity for different sports, a floodlit all-weather facility will allow the University to have the use in evenings and fulfil fixtures in poor weather. The natural turf pitches in their current condition are often water-logged, un-usable during winter months/ adverse weather. This results in loss of game time, training time and inability to fulfil fixtures and meet the demands of the University. The new high-quality facility more suitable in meeting demand as outlined above, will replace an existing natural grass training pitch and cricket wicket which is currently under-used.

The proposal has been put forward to Sport England for consideration of the above and the considerable benefits of the new amenity outlined. This is backed up by a Sports Development Plan/ Business Case prepared by SportsPark, overseeing facility management of the University facilities.

3.3 Development Description

A new build synthetic turf 3G pitch construction accommodating primarily full-size rugby and football use. Pitch construction consisting of geo-grid, sub-base, asphalt base layer, performance shockpad and synthetic turf. The works inclusive of parallel pitch drainage system, 8 column floodlighting system and all ducting, perimeter weld mesh panel fencing of 3m high, rising to 6m height behind each goal, 1.2m high spectator fencing, 3m wide spectator hardstanding, spectator stand, 3m wide footpath connecting main access gate to existing footpath network, separate synthetic cricket square with 3no. bays incorporating steel cage and netting structures.

3.4 Site Description

The site is located on natural grass playing fields within the grounds of The University of Reading. Elmhurst Road can be seen at the North of site, linking to the A327 Christchurch Road. The site itself consists of a natural grass football pitch and cricket square. Surrounding the natural playing surface is an existing 5-a-side facility to the South enclosed by perimeter fencing, tennis facility to the North and East of site and carparking area/ changing facilities to the West of site. Mature trees have been identified within the proximity of site, and an outline 'root protection area' highlighted. An ecology report has been undertaken in this regard and will be made available as part of the submission. The design has taken account of these areas and the current proposed site layout agreed following a site dimensions and orientation exercise between all relevant parties.



3.5 Site Dimensions

The Synthetic playing area shall be 122.0m x 78.0m, with recess areas 2.5m deep for goal storage/ dugouts. An asphalt finish spectator hardstanding and footpath of 3.0m width shall be installed as indicated in contract drawings. The facility has been designed to comply with the requirements outlined in World Rugby Regulation 22 and The FIFA Quality Programme for Artificial Turf - Handbook of Requirements (2015).

The proposed synthetic turf cricket facility shall be 33.62m x 10.96m total length. The facility has been designed in accordance with England and Wales Cricket Board (ECB) and published guidelines on developing your school site, which outlines key considerations for schools and designers when planning indoor and outdoor cricket facilities in schools.

3.6 Site Topography

A topographical site survey was undertaken by Sports Labs Ltd on 19/02/2019. This captured information on ground levels and surrounding existing features such as footpath, utilities, street lighting, fencing etc. This information was aligned with ecology surveys provided by The University of Reading which outlined each tree located on site and root protection areas to be considered. Existing trees identified shall have protection measures in place and these shall be laid out within the Arboricultural Report undertaken by Challice, see Appendices.

The topographical survey indicates that levels for the new pitch are within the 1:100 maximum slope requirement for governing body certification of the pitch and therefore any cut & fill required to provide the formation level for the pitch is negligible. The playing fields currently fall naturally from North to South as a general pattern.

3.7 Ground Conditions

A Site Investigation has been undertaken over the site and a report commissioned on 25th March 2019. The investigation consisted of boreholes at 6 locations over the pitch area where CBR testing was carried out to find the bearing capacity of the soils, with a soil infiltration test carried out at one such location by the location of the proposed soakaway. The purpose of the report is to obtain information regarding the soils within the site to inform the design and extent of sub-base and geotextile/ geomembrane reinforcement required. The report would also provide information on ground conditions, useful to the soakaway design which will act as the drainage outfall for the pitch - The size of which will be calculated in accordance with BRE Digest 365 for Soakaway Design with consideration to soil infiltration rates.

3.8 Drainage Design

The pitch will consist of a lateral cross-pitch drainage system connecting into a carrier drain and SUDS soakaway located external to the synthetic pitch area. 80mm diameter lateral drainage at 10m centres across the width of the pitch will fall down (at a maximum 1:100 slope) towards and connect in to a carrier drain, which will be formed under the recess areas of the Eastern touchline and transport surface water run-off to a soakaway (30m³ in size) located outwith the synthetic area in the South East corner – in the area identified during site investigation. The soakaway shall consist of type 3 fill material enclosed by terram 1000 geotextile or similar. In addition to the storage capacity of the sub-base of the pitch which will naturally release surface water run-off into the subsoils beneath the pitch - The soakaway shall provide additional storage capacity for surface water run-off. Calculations as to the suitability of design capacity of the system have been undertaken in accordance with BRE Digest 365 with due consideration to soil infiltration rates resulting from ground investigation work. The soakaway shall be finished level with the surrounding natural grass and seeded/reinstated so as to match this surrounding area. See SUDS Drainage System Proposals document attached with submission for further details.

3.9 3G Pitch Construction

All the below elements of construction are subject to key stage inspections to be carried out by Sports Labs Ltd to confirm requirements against specification and stated tolerances. Each element where contractor is required to submit proposals shall be subject to approval by Sports Labs Ltd.

- 3.9.1 Sub-base - Type 1 stone material, modified with reduced fines top aid porosity.
- 3.9.2 Geo-grid – a tri-axial plastic grid such as a tensar TX150 or similar.
- 3.9.3 Asphalt Base Layer – Single layer open-textured porous asphalt
- 3.9.4 Shockpad – prefabricated considered, the contractor shall be asked to submit proposals during the tender submission. Prefabricated pads are made from various forms of expanded foam/ recycled materials delivered to site in rolls/ panels and fitted/ bonded together.
- 3.9.5 Synthetic Turf – 60mm pile height synthetic turf with sand stabilising & rubber performance infill which will conform with SAPCA code of practise for performance infill and shall be suitable for rugby, football & lacrosse. A valid laboratory certificate shall be provided by the contractor to confirm the validity of the system against governing body requirements.
- 3.9.6 Detox grids shall be placed at each access gate to the pitch along with boot brushes. This shall ensure that any rubber infill material leaving the playing surface is minimised. Do's and Don'ts boards shall also be erected at the facility to ensure proper conduct by facility users.
- 3.9.7 Key Stage Inspections are proposed for each stage of the construction as a way of ensuring quality control. This would consist of but not limited to testing the bearing capacity of the exposed formation and sub-base, planarity and porosity of asphalt layer and shockpad and performance testing in-line with governing body standards on the finish synthetic turf & system to achieve pitch certification.

3.10 Spectator Stand

A spectator stand is proposed for the facility, to be located on the Western touchline. The proposals consist of 1 no. lightweight steel framed grandstand accommodating 75 spectators with plastic seating. The proposed structure is 9.83m x 2.935m x 2.758m, laid on reinforced concrete foundations 10.21m x 4.0m x 0.175m. Please refer to drawing provided which illustrates 3D sections and construction details.

3.11 Perimeter Fencing

The new 3G pitch shall be enclosed within a ball-stop perimeter fencing system – please refer to contractual drawings provided for details of fence height. All fencing including gates shall be coloured green to RAL6005 and all supported by an intermediate post system. The colour is chosen in order to minimise the visual impact to the surrounding environment.

The fencing panels shall be weld mesh panels approximately 2.535m wide. Panels shall have welded mesh structures as a ball-stop rebound fence to 1.2m in height in a 50mm x 50mm x 8/6/8 mesh configuration as a general detail. The fence height from 1.2m in height upwards shall be a 200mm x 50mm x 6/8/6mm as a general detail.

Double gate access shall be provided for vehicular/ maintenance access to the pitch and single gates for pedestrian access/ ball retrieval. Noted in contract drawings provided.

It shall be ensured that all fencing is installed correctly to mitigate against noise generated, see Sport England section for full details.

3.12 Environmental Measures

Microplastic mitigation measures have been specified within this development as detailed below.

Detox grids and boot brushes shall be installed at each access gate to the facility. The detox grid will consist of a removable steel grate and tray system which will capture infill material at access points and minimise the likelihood of performance infill leaving the synthetic surface into the surrounding environ.

Kickboards of standard size shall be installed around the pitch where the perimeter of the synthetic surface is in direct contact with the perimeter fencing system. As above this will prevent performance infill from leaving the synthetic surface to the surrounding environment and remaining within the perimeter fence line. Any infill material which is moved to the spectator area can be brushed back into the playing surface during maintenance cycle.

3.13 Floodlighting System

The proposed floodlighting system shall consist of an 8-column system, each 15m in height supporting LED lighting fixtures. Please refer to supporting drawings for full details. There are no neighbouring properties affected by the proposals. The supply shall be drawn from a feeder pillar located adjacent to the pitch.

The light spill for the design system demonstrated that there is no spill directly impacting on neighbouring dwellings. Please refer to Sport England section for full details.

The following mitigation measures have been implemented to minimise the impact of the floodlighting system;

- The system shall use LED light fittings to use less energy
- To minimise the light spill and to eliminate upward light the floodlights selected are designed specifically for floodlighting sports fields. The fittings are mounted in a flat glass cut-off orientation with a mounting height specified to achieve angles from 0 degrees (flat glass) – 10 degrees. This orientation maximises the reduction of over spill and achieves 0% upward light ratio (sky glow).
- The mast heights have been calculated to achieve the optimum aiming angle resulting in flat glass angle orientation. The heights are a compromise to achieve the required minimum standard light level on the sports field whilst achieving the minimum impact on the surrounding area and reduction of glare (source intensity).

3.14 Facility Opening Hours

The proposed opening hours for the facility are as follows;

0700 – 2200 Monday to Friday

0900 – 2100 Saturday and Sunday

Floodlighting will only be operated during evenings as required during this period.

3.15 Facility Maintenance

The ongoing maintenance of the facility shall be the responsibility of the University's grounds team. General maintenance of the pitch shall be undertaken on a weekly basis as a minimum in order to maximise the lifespan of the new synthetic turf layer. On completion of the project, the pitch contractor will either undertake maintenance of the pitch for the one year following construction or offer to undertake a handover workshop to brief grounds staff on the maintenance required – and offer up any specialist maintenance equipment as necessary. This is at the University's discretion.

The facility will implement equal provision in terms of quality and quantity and in a suitable location to benefit the community and university providing access and opportunity for sport and recreation, making an important contribution to the health and well-being of communities.

3.16 Cricket Facility

A cricket facility is proposed within the same natural grass playing area to the North of the new pitch. The proposal consists of 3no. bays, each of 33.62m x 3.66m and each containing a steel cage & netting structure of 18.3m x 3.66m x 4.1m. The new facility will allow the University to retain informal cricket use outdoor, in addition to the primary cricket facility indoor.

3.17 Additional design considerations

All topsoil removed from the site during construction shall be removed from site and disposed of. As such, existing landscaping surrounding the facility shall be retained.

3.18 Site Access

The nearest car park to the facility is located to the West of the pitch accessed from Elmhurst Road, connecting to the A327. Pitch users will equally have access to car parks to the South of the pitch near the Sports Park building, access via Queens Drive from the A327.

There is an existing lit footpath connecting the two car parks and the new facility will provide a footpath to the pitch connecting to the existing network – see contract drawings.

It is expected that the existing car parking facilities will be adequate for the new pitch to accommodate vehicles during operational hours. Most sporting fixtures at the University are played on Wednesday afternoons and weekday evenings. Car Park 1A referenced was recently constructed to cater for demand, providing over 300 additional parking spaces on campus.

A site access plan will be required from contractors as part of their submission to confirm arrangement will take due consideration to the health and safety of pedestrian, vehicular and University users. A full traffic management plan shall be provided for approval to the client's agent prior to site start and adhered to throughout the construction phase.

No construction operations are anticipated to take place on Sundays or public holidays. HGV movements shall not be permitted outside the agreed workings hours without prior written approval from the Local Planning Authority.

The University has indicated that the Northern car park accessed via Elmhurst Road shall be utilised by the contractor for compound/ storage etc. It shall be ensured however that right of way is maintained across the car park with is generally a steady thoroughfare with the footpath to Queens Drive.

4 ASSESSMENT AGAINST SPORT ENGLAND POLICY

- 4.1 The proposed development has been considered with respect to Sport England's statutory role and policy. The site is considered to constitute playing field, or land used as playing field, therefore Sport England advises that this proposal would require statutory consultation, under the terms of the Town and Country Planning (Development Management Procedure)(England) Order 2015, at the formal planning application stage.
- 4.2 Sport England has considered the proposals affecting playing fields in light of the National Planning Policy Framework (NPPF) (in particular Para.97) and against it's own playing fields policy.
- 4.3 Following consultation with Sport England during the design process, the proposal is put forward to satisfy the following condition under Sport England Policy Exceptions Rule E5 which states;

'The proposed development is for an indoor or outdoor facility for sport, the provision of which would be of sufficient benefit to the development of sport as to outweigh the detriment caused by the loss, or prejudice to the use, of the area of playing field.'

4.4 Sport England – Confirmation of Queries Raised

The following serve to satisfy points raised for clarity by Sport England Planning Team, ensuring the proposed development meets the requirements of E5 as outlined above.

- 4.4.1 **Q:** It would be helpful to understand where and when the cricket pitch is to be replaced, how many wickets and if they are all to be grass or if there is to be a non-turf wicket as part of the relocation. Are the grass tennis courts to be replaced?
- A:** The new cricket training facility shall consist of an outdoor synthetic turf with a steel cage structure enclosing each wicket in netting. Each bay shall consist of a synthetic turf bay 33.62m in length by 3.66m in width adjacent to one another. The cage netting structure shall be 18.3m in length by 3.66m in width by 4.1m in height. The design of the cricket facility has been undertaken in accordance with 'England and Wales Cricket Board (ECB) Guidance on Outdoor Cricket Facilities. The existing grass tennis courts will not be affected by the proposed development and will remain in their current condition.
- 4.4.2 **Q:** Is there any community use of the disused grass tennis courts and cricket pitch? If so how, is it to be accommodated if there is no replacement proposed for the tennis and in the short term for cricket if the replacement is not to take place immediately.
- A:** The site is confined solely to the existing natural grass playing field, as such the grass disused tennis court facility shall remain unaffected by the proposed development. Facility users can also utilise the existing indoor cricket facilities during this period – In this regard the facility is seen as an additional facility over and above current use. Cricket facilities at the University currently are not in such high demand, and therefore this will enhance the current facility and will not reduce availability short term.
- 4.4.3 **Q:** How does the proposed AGP relate to the network of AGPs within the city?
- A:** Other local community facilities have not been a main consideration as part of this study as this facility is needed predominantly to develop the universities sporting programme and meet the needs of the students. Albeit within the business plan there is a wish to engage and open up usage to the local community and there will be a drive to do this in conjunction with the facilities opening.

4.4.4 **Q:** I assume the university is proposing some community use. Have any discussions taken place with the likes of Reading Lacrosse club and Berkshire Renegades? Is there a proposed usage programme available yet?

A: The University has a rugby partnership with Rams Rugby and both parties want to expand this programme for the benefit of the University teams and the local community. The University currently has three men's teams and one women's team, and it's anticipated a 3G would double the number of teams to meet demand. Rams Rugby are no longer able to proceed with their own 3G and the University would support their junior and academy development programme. The University would also be able to extend its support for the Berkshire U20 team. Further enhancement of the local clubs will be sought during the first 12 months of the operations of the facility as the programme of use is clarified and further developed. Similarly, in football it is impossible to meet demand by just having grass pitches: we already have 20 teams playing in our inter-University Campus Sport 11-a-side league and could only take 40 teams out of 60 entered for the 5-a-side league. The University has four men's and two women's team playing in BUCS. The University also provides facilities for two local junior football clubs on campus, Lauren Park FC and Whiteknights FC. The University has a strong lacrosse programme with three teams entered in BUCS (two women's and one men's) and a partnership with Reading Wildcats Lacrosse Team. The 3G will be needed for both matches and training.

4.4.5 **Q:** Has the university considered a hybrid pitch rather than a 3G AGP?

A: In looking at options to develop the sporting provision there was a consideration for a hybrid pitch option instead of a 3G one. However, on review of the data available the usage hours and maintenance requirements did not stack up against the usage demands of the university. For instance, the Xtragrass hybrid system states a weekly usage of 20 hours a week and on review of the current university profile of usage this would exceed these playing hours and thus would not be a feasible or sensible option and investment.

4.4.6 **Q:** Not having been to the site, where are the changing rooms in relation to the proposed pitch and do you have any details of the number of changing rooms and is there a social area?

A: Between the Sports Park and the sports pavilion there is more than adequate changing available to service the sports pitches. There are 6 full sized changing rooms complete with ancillary areas all fully accessible.

4.4.7 **Q:** What measure of acoustic attenuation are you proposing to use to protect the residents? They may be students, but they are protected by EH legislation. Please see attached our planning guidance on AGPs. You may have to consider carrying out an acoustic survey.

A: The facility has been designed with due consideration to Sport England Guidance on Artificial Grass Pitch Acoustic – Planning Implications (2015), along with The National Planning Policy Framework and Local Planning Authority Planning Policy. As such the facility aims to result in a well-designed sports facility that meets the needs of sports and is a pleasure to use.

There are no residential properties within the site boundary. The nearest surrounding property is on the other side of Elmhurst Road, with further acoustic protection from the University site boundary and the boundary of each property. The nearest property to the proposed site is >40m distance to the nearest edge of the synthetic surface. As such, in accordance with Sport England sections detailing typical noise contours from an artificial pitch, the nearest property will have a noise emission level of <50dB_LAeq(1 hour).

Therefore, the facility meets the requirements of The World Health Organisation's 'Guidelines for Community Noise' – where the determining noise criteria for AGP's proximity to residential properties, to avoid moderate annoyance in the daytime and evenings is set as = 50dB_{LAeq(1 hour)}, upper noise limit external to residential properties and within external living areas.

Sport England Guidance found that over a number of studies, the most significant noise impact of AGP's is generally derived from the voice of the players as opposed to ball strikes from perimeter fencing. As such, the impact will be largely attributed to further use of the facility in the daytime which is what the development aims to encourage.

The following measures will minimise the noise impact from the facility installation;

- Weldmesh panel fencing shall be securely clamped with resilient fittings to avoid vibrations.
- Team shelters shall be located within recess areas to reduce the risk of impact
- The facility shall be managed and operated so as to keep the facility secure and discourage antisocial behaviour – floodlighting shall be turned off at set times each evening as outlined previous.

Noise management is an ongoing process and includes maintenance of the noise control measures as well as managing the use and operation of the pitch. Good practise should be applied to the operation of AGP's and maintaining long-term relationships with neighbours. It is seen that with suitable noise mitigation measures outlined above, acceptable noise levels can be achieved for the majority of AGP sites and will operate without adversely affecting neighbouring residential properties.

5 PLANNING STATEMENT

5.1 Planning Commitment

Development Management must be undertaken in accordance with The National Planning Policy Framework (NPPF) and Reading Borough Council local plan policy documents.

5.2 Planning Considerations

As set out in Reading Borough Council Site and Detailed Policy Document (2012), the development has been considered in line with the core strategy vision outlined – “The vision is to maintain and improve the quality of life in Reading, embracing the challenges of a dynamic, inclusive urban community of the 21st century. Everyone will have the opportunity to benefit from all that Reading can offer. Everyone has a part to play in shaping its future”.

The development has also been designed with consideration to core objectives including;

- Strengthen the role of Reading as the regional hub for the Thames Valley
- Improve the quality of life for those living, working, studying in and visiting the Borough
- Ensure new development is accessible and sustainable, in accordance with LDF sustainability appraisal objectives
- Maintain and enhance the historic, built and natural environment of the Borough through investment and high-quality design

5.3 Sustainable Development

The proposal aims to contribute to the following areas;

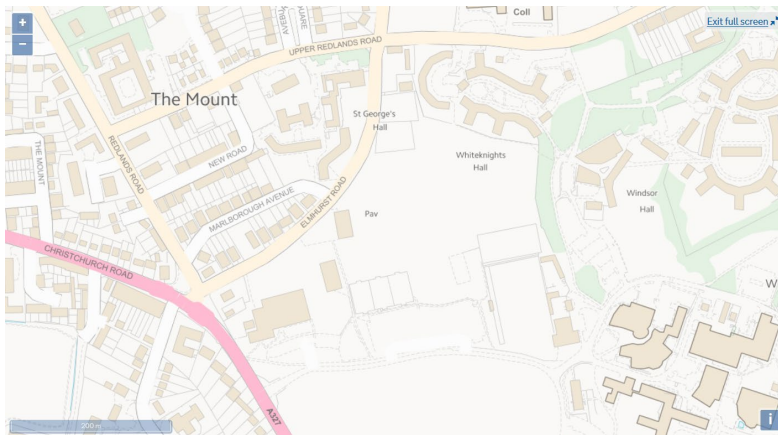
- Social role – providing modern facilities that will encourage the maximum football developmental outcomes with the benefits to health and wellbeing associated with this.
- Environment role – ensuring that the existing natural environment is not harmed and that facilities are designed to conserve and reduce energy wastage wherever possible

In a sporting context, the proposal aims to;

- Provide opportunity for the university, local community and sporting organisations to participate in sport and physical activity for health continued physical activity and sporting development
- Operate in line with the national agenda for sport taking into account nationally adopted strategies
- Generate positive attitudes in sport and physical activity in young people, encouraging continued participation in sport in an inclusive environment
- Increase the number of participants and facility users including people with disabilities
- Use the facilities to encourage expansion of existing university links with sports clubs
- Contribute to national governing body objectives for grass roots participation in sports and development
- Ensure the artificial grass pitch subject to performance testing on completion receives certification and is added to the relevant national approved lists for play

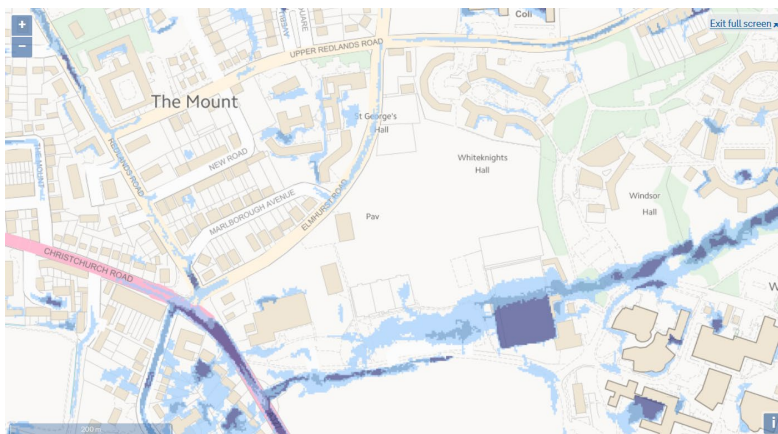
5.4 Flood Risk – UK Gov Flood Warning Information Service

5.4.1 Flood Risk from Rivers and Sea



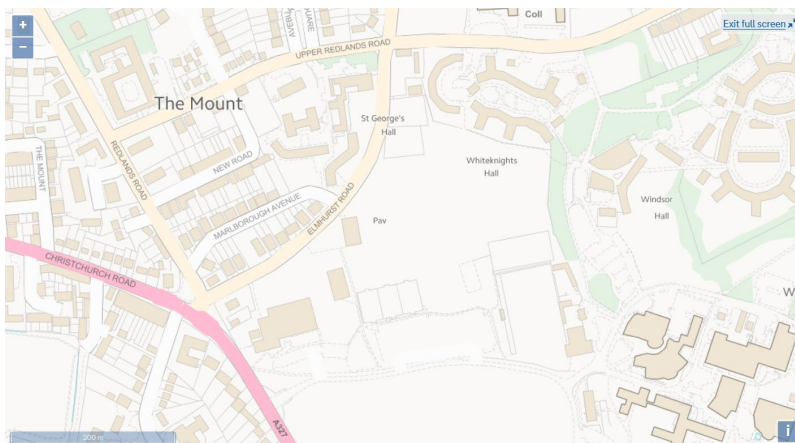
Very low risk at this location. This means that each year this area has a chance of flooding of less than 0.1%. This takes into account the effect of any flood defences in the area. These defences reduce but do not completely stop the chance of flooding as they can be overtopped, or fail.

5.4.2 Flood Risk from Surface Water



Very low risk at this location. This means that each year this area has a chance of flooding of less than 0.1%.

5.4.3 Flood Risk from Reservoirs



Very low risk at this location. This means that each year this area has a chance of flooding of less than 0.1%

- 6.1 In view of the proposals outlined herein assessed against relevant planning policies and considerations, we request that the proposal be accepted with the following key points;
- The new artificial grass facility will provide an all-weather evening and weekend use pitch allowing increased participation, expansion and development of University teams, strengthening of links already in place with local sports teams./ The proposal in line with Section 8 – Promoting Healthy Communities of the National Planning Policy Framework (2012).
 - The proposal ensures that surface water run-off is adequately managed and does not increase the flood risk, already noted as very low for the facility. See SUDS drainage system proposals for full details and specification of soakaway drainage system proposed.
 - The proposal ensures that the performance of floodlighting system complies with local planning conditions for residential areas and in accordance with Section 11 – Conserving and enhancing the natural environment of the NPFF (2012).
 - The proposal satisfies relevant sections of Reading Borough Council Planning Policy.
 - The proposal satisfies Sport England's E5 – The proposed development is for an outdoor sports facility, the provision of which would be of sufficient benefit to the development of sport.
 - The new artificial grass pitch will not result in an unacceptable impact upon the character, appearance or visual amenity of the surrounding area. The proposal will compliment the existing university facilities and will not appear inappropriate to any view looking into the university grounds.
 - The proposal would not result in an unacceptable impact to any residential amenity.

7 ABORICULTURAL REPORT

An Aboricultural Report has been undertaken to satisfy the local list of information requirements provided by the Local Authority. The report has been undertaken by Challice Consulting Ltd. And is made available as supporting documentation with this application.

7.1 Summary

The aboricultural impact of the proposed scheme is noted as minor as no trees are to be removed as a result of the proposed development. There are no incursions into the root protection areas (RPAs) of the retained trees within this scheme. This has carefully been considered throughout RIBA design stages with consultation between the design team and stakeholders on the best location and orientation within the grounds for the new pitch. This process has been undertaken with respect to 'root protection areas' identified during environmental topographical surveys of the surrounding treeline and wider site.

Existing retained trees can be afforded an appropriate degree of protection in accordance with BS 5837. Protective fencing and appropriate signage shall be used in these areas during the construction phase to ensure existing retained trees are safeguarded. A full list of general site precautions during construction can be found within the full Aboricultural Report provided.

Minimal pruning is also noted as required if applicable to enable construction works to be undertaken. The impact of the proposed development is found to be in accordance with the principals set out in British Standard 5837

The full Aboricultural Report shall always be maintained on site and be made available to site personnel.

8 ECOLOGY REPORT

8.1 An ecologist's report has been undertaken by Ecological Planning & Research Ltd. The full report will be included within the submission and made available alongside the design and access statement. The outcomes are outlined below.

8.2 Key Findings

8.2.1 Based on the results of the ecological appraisal, no further assessment work is recommended.

8.2.2 Recommendations for Impact Avoidance and Mitigation and Opportunities for Net Biodiversity Gain are as follows;

- The new 3G sports pitch is angled to avoid planted trees and small woodlands, with a buffer zone of 15m to avoid compaction to root systems
- Floodlighting is designed to minimise light spill through;
 - o Minimum mast heights for the necessary lighting
 - o Selecting floodlights that reduces the overspill of light and sky glow
 - o Provision of cowls at the rear, front or side of lights
 - o Controlling the lighting system with a smart control unit to ensure that curfew times are adhered to

For full details of recommendations to protect the ecology of surrounding environment, please refer to the Ecology Report.

8.3 Conclusion

8.3.1 With the proposed mitigation in place, the ecological impacts of the proposals outlined in Appendix 1 are considered to have no significant effect on the important ecological features within the Zone of Impact and the proposals will comply with applicable nature conservation related legislation and policy. Impacts to Species of Principal Importance for Nature Conservation (s41 species) are considered to be not significant.

8.3.2 Mitigation as part of the design and suggested enhancements are listed above, and with these in place the effects of the proposals on the ecology of the site are considered to be neutral or positive.

9 ARCHAEOLOGICAL REPORT

9.1 An Archaeological report has been carried out undertaken by Wessex Archaeology. The report was originally undertaken for car park 1a, immediately adjacent to the proposed facility on the same plot of land and is therefore with consultation with the authors of the report is applicable in this case. The reporting is divided in two parts;

- A Written Scheme of Investigation
- Site watching brief

9.2 The full report will be included within the submission and made available alongside the design and access statement. The outcomes are outlined below.

9.3 Report Findings

9.3.1 Not further action is recommended as part of this project.

9.3.2 Only two finds in number were recovered from the site, both came from made ground deposit (102) and therefore are unstratified. The find consists of one shared (8g) of red ware post-medieval pottery that cannot be closely dated and a broken waste flake of flint (4g) that is not chronologically distinctive.

9.3.3 These artefacts have no further potential and as they are unstratified it is recommended that they are discarded (in line with WA discard policy, section 8.5)

9.4 Environmental

9.4.1 One bulk environmental sample (sample 1) was taken from the upper deposit (104) of the paleochannel 103. The deposit is undated, and the bulk sample was taken in the belief that it could elucidate the context formation process as well as landscape history of the deposit. As it is a bulk sample, it is not suitable for geoarchaeological description which can only be done through monoliths or core samples, or by observing the deposit insitu. As the deposit is undated and because the deposit was not well sealed (the made ground layer 102 physically overlay it), it has been decided not to process the sample as it would not provide useful paleoenvironmental information.

9.4.2 It is therefore recommended that the bulk environmental sample should be discarded.

9.5 Conclusion

9.5.1 The archaeological investigations on the site did not uncover any archaeological features and deposit.

9.5.2 An undated natural paleochannel feature was identified in the central part of the site. It was at least 6m wide and may have followed a North-East to South-West orientation, although it's true extent and orientation is uncertain.

9.5.3 Considering the results of the archaeological investigations, no further work is proposed.