hemstock design

Design & Access Statement

Revision 'A'

Rushford Park Sports Complex, Longsight

New 3G Pitches

for

Manchester Youth Academy Ltd

Client: BPG Contractors Ltd

Dated: 6th August 2020

Hemstock Design Ltd - *10A Dig Street, Ashbourne, Derbyshire, DE6 1GF*

David Hemstock, BSc.DipAgrEng.IEng & ***Dr Oliver Hemstock***

M: 07850 744957 ***E: david@hemstock.design***

INDEX

1.0 INTRODUCTION

1.1 PROPOSAL OUTLINE 3

1.2 STATEMENT OF NEED 7

1.3 EXISTING SITE OVERVIEW 9

1.4 PLANNING POLICY 16

1.5 LEVELS OF USE 19

2.0 EXISTING SITE & SURROUNDINGS

2.1 LOCATION & ACCESS 21

2.2 LIMITATIONS 29

3.0 THE PROPOSAL

3.1 DESIGN & ACCESSIBILITY 42

3.2 EARTHWORKS & CONSTRUCTION METHODOLOGY 51

1 Introduction

1.1 Proposal Outline

1.1.1 Executive Summary

1) Manchester Youth Academy have a long term ambition to create a vibrant community hub that is used and valued by local residents, building on football as a hook to attract a wide range of communities to participate in social and physical activities and achieve positive social change, in this relatively deprived area particularly short of sports facilities. MYAL have a 25-year lease for the site, running from 2014.

2) The original soccer academy on the Rushford Park site was formed in 1889, operating as the 'Manchester Boys', and producing a vast array of star soccer players, including Dennis Violett; Nobby Stiles, Peter Barnes, Brian Kidd, Nicky Butt and Wes Brown. The site has had a patchy history in recent times, with fluctuating success-to-failure being the problem.

Now known as the Manchester Youth Academy Ltd (MYAL), the management team at Rushford Park is proposing to improve the extent of the facilities at the site to help achieve the financial viability of running the soccer academy, for the long-term, and provide stability to the use of the site for soccer at youth level.

3) The operation, taken over by the current lessees in 2014, struggles to break even annually, with the playing facilities being a grass pitch and now ageing 3G STP soccer courts. The business model proposed in order to achieve a long-term viability requires an extension of the synthetic surfaces, which represent the significant money-earning side of the academy. The grass pitch tends to only break-even or actually cost money annually through the extensive maintenance programme it requires.

The proposal encompasses the development of a further STP synthetic turf pitch facility, to be divided into two 5-a-side and one 7-a-side playing areas, to make 5 courts altogether. These will be superimposed on a grass area currently used for two informal, small-sided junior or soccer grid training, an area not usable through most of the winter due to the clay soil surface. The new pitches are to be floodlit, fenced and covered with a safety netting to prevent balls exiting the courts; the same as the existing courts. Parking capacity will be extended and the internal path system modified, with landscaping features added.

4) The full scope of the proposals encompasses car-park extension and drainage, with relocation of the cricket nets for which the MYAL recently obtained planning permission, and at a later stage, improvements to cafe and other sports offers on site.

5) The pitch and parking part of the project has been designed by Hemstock Design Ltd, consultants specialising in outdoor sports facilities, in coordination with the MYAL. The scheme is based on the Academy's current needs and with future-proofing in mind, as the option that achieves the most satisfactory balance between:

- Accommodating the demand in the area for the soccer academy and all-weather pitches.

- Sensitivity to, and minimising the impact on the site surroundings.

- Sustainability based on the cost-benefit of synthetic versus clay soil-based natural grass.

- Conforming to national sports area planning policies.

- Academy use to include commitments to *Social Value* with, for example, a free 'Community Activation' day, and free booking for the new 7-a-side pitch for one week on selected days.

6) The new STP facility is urgently needed to enable the Academy to carry on the valuable work in an economically viable way, even more pressing to help maintain overall viability given the Covid-related losses that have been incurred in 2020.

The current grass surface does not provide a suitable playing surface, or the durability and weather resistance, and these can only be met by the introduction of a STP to compliment that inherited from the previous lessees, who also had problems maintaining the finances to stay in operation.This statement should be read in conjunction with the following drawings:

- Location plan
- Site Plan & Existing sports pitch, car-parking layout
- Proposals plan including intended car-parking layout
- Landscaping Plan
- Proposed & existing drainage

1.1.2 The Manchester Youth Academy

1) The Manchester Youth Academy Ltd is a registered charity and company limited by guarantee. The company comprises of three voluntary trustees acting to support MYAL to deliver regeneration, social and economic benefit from the facilities. The trustees established an 'Operations and Advisory Board' to ensure the targets of MYAL and partners are met.

2) The existing facilities at Rushford Park are accessed directly off Slade Lane, and include a pavilion building with small kitchen, a multi-use space, toilet and changing rooms, two secure container units for storage, one senior grass football pitch, two small sided 3G artificial grass pitches and a grass training area. The pavilion building is home to Manchester Athletic FC, Northend FC, Manchester Rovers FC and Parkway Villa FC who operate adult and junior football from existing football pitches.

A partnership exists with Manchester Vocational & Learning Academy (MVLA). They have exclusive use of facilities 8:00am to 3:00pm, Monday to Friday during school term time. MVLA have their own porta-cabins on-site for classroom delivery.

MYAL have a long term ambition to create a vibrant community hub for local residents, building on football use to attract a wider range of communities to participate in social and physical activities and achieve positive social change. To achieve this ambition, the MYAL has approached the Manchester City Council to work with members and wider community. There has been a detailed process of strategic planning, evidence review, feasibility work and stakeholder engagement to develop our proposal.

A particular target is to encourage a cricket element to the use of the site, through junior coaching on the existing playing area, with the possible inclusion of cricket nets

3) Location: The address of the site is:

Manchester Youth Academy Ltd , C\O Rushford Park (FAO Mr Abdul Qayum, Director), Manchester, M19 2AH

<u>Location details:</u>

Entrance point OS Grid Ref: E 386986 N 394720 (GRID REF:SJ 86986 94720)

Height AOD approximately 51m (centre point)

1.2 Statement of Need

1.2.1 Overview

1) MYAL have produced a business plan covering the need and feasibility of the proposed work, which is available from the Board of Directors (summary attached in the Appendices). This document also covers the overall strategy being pursued, and includes the planning context.

The following section summarises the information supporting the need for the additional synthetic pitches, with particular reference to the Manchester Playing Pitch Strategy. This highlights that many teams consider a lack of accessible and affordable floodlit training facilities as a key issue. Some currently use 3G pitches, making use of a number of sites, some with small-sized AGPs or indoor facilities.

2) The Council is refreshing Manchester's Football Facility Plan to assess the need for 3G pitch provision, including small-sided and recreational forms of football. Manchester's Draft Local Football Facility Plan (2017) identified a shortfall in small-sided 3G football provision to address demand for recreational football.

In the MCC-MPPS update of November 2018, Rushford Park is given 'medium' priority for *"(To) seek investment to improve pitch quality, increase small sided provision for juniors and improve associated car-parking facilities".*

In the Sports Specific Analysis, Appendix 1, the conclusions for soccer are that "when considering future demand, there will be shortfalls for all pitch types except adult pitches". There is an excess of senior, affiliated 3G pitches over the Borough, which to some extent may in future be used for junior soccer,

In a meeting of the Communities and Equalities Scrutiny Committee in Febuary 2020, key points discussed included:

- The loss of pitches to residential development
- Poor condition of pitches and pavilions
- Block-booking problems limiting pitch access to younger players
- Plans for new synthetic cricket facilities
- Support for under-represented groups

1.2.2 Future Development

1) Strategically, the area around Rushford Park is in a growth phase, with:

- ***The Manchester Housing Plan*** outlines a growth of 15,000 dwellings in Central Manchester area within the next 5 years. With an average of 3 persons per household, this equates to a population increase of around 45,000.
- ***Within the local catchment*** of Rushford Park, there are 9 full-size, 1 medium size 9v9 pitch, and 20 small 3G outdoor football pitches (MPPS source). The

majority are owned and operated by educational institutions and one commercial site, operating 14 of the 20 small sided pitches in the area. As such the public access is limited, especially during school hours when certain under-represented groups are more likely to be available, for example, parents and specifically females, disabled groups, pre-school children, retired and elderly people.

- ***Winter Demand*** - of course, demand problems are increased in the short daylight hours of winter, and with many grassed pitches incapable of supporting more than a few games per week before becoming damaged and muddy. Floodlit all-weather facilities ease the problem of :

  - ✓ Availability of playing areas in short daylight hours
  - ✓ Maintained, stable income through the year

- ***Supplementary to the MPPS data***, from the MYAL in-depth knowledge of the immediate area, there is insufficient all-weather, all-year 3G supply currently to meet local demand for recreational football to support informal football participation in the area we serve.

2) MYAL see an important link and inter-dependence between the grass and synthetic elements of the site. The grass pitch is currently poorly maintained through lack of funds for the necessary conditioning of the turf; decompaction, sand levelling, surface drainage maintenance, fertilising, over-seeding, etc.

However, play on grass is complimentary to the all-weather synthetic pitches, and the **synergy** between both is important, for range and quality of play, and for financial feasibility. The past and present break-even struggle for the Academy needs to change, the site must make a profit to then put into a sinking-fund for aspects such as:

- ✓ Grass pitch seasonal maintenance
- ✓ Repairs to fixtures and fittings
- ✓ Drainage system replacement - based on a 25-year lifespan
- ✓ Carpet replacement - based on a 7-10 year lifespan

Senior pitch - surface damage during winter play has to be undone in the spring/summer

1.3 EXISTING SITE

The site has two distinct playing areas; the grass senior pitch and training area alongside to the east, and the synthetic turf pitches to the north-east corner.

1.2.2.1 Grass Soccer

1) There are two grass playing areas to the south of the pavilion and 3G pitches:

- Senior Pitch - 88.5 x 60 m plus variable margins of 3 to over 6 metres
- Training area/Junior Pitches - 2 x approximately 40 x 30m junior pitches

  or as an 80 x 40m training area.

The senior pitch has a spectator rail to the north, east and west, within the grass margins.

2) **Soil pit excavations** revealed that the senior pitch has in the past been constructed and drained to a fairly high standard. During the site technical assessment in March 2020 by Hemstock Design, all facilities were inspected, including a subsurface investigation of the grass areas and proposed 3G pitches.

3) It appears that the senior pitch was constructed with a 5-metre pipe drainage system with sand-slit topsoil layer over a medium-fine sand layer. The lateral pipes run across the pitch, east to west, visible on historical aerial imagery.

Senior pitch centre-circle trial pit - soil overlying a sand layer. Note the poor grass cover and capped surface soil

Very compact topsoil to 100mm depth, limited rooting, over sand layer

Sand layer at around 150mm depth is of a good quality medium-fine sand

4) The Senior Pitch, with this high level of construction, should be capable of reliably supporting around 4 senior games per week, possibly more, through the winter, whilst maintaining good turf quality. However, the lack of maintenance in recent times is obvious, with the very compact top layer restricting grass vigour, rooting depth and resilience to wear.

The grass cover is poor, there is a broad-leaved weed problem, and the original sand-slits are ineffective due to being capped over with soil (accelerated through lack of sand top-dressing over the years).

Since the natural soil is a clay loam, easily damaged when wet and with a tendency to restricted drainage if not treated, maintaining properly is key to keeping the wear capacity and quality of turf up to a good standard.

5) The senior pitch is seen as a very valuable part of the Academy. Players need to experience natural grass as well as synthetic. It has had a considerable investment in the past, and could be a premium, top-class pitch in the area with more inputs, which would be available within the new operational model planned.

6) The junior training area was also assessed for soil and drainage characteristics.

The lateral pipe drainage system appears to extend across this area towards the railway line. However, the area does not have a sand layer below the topsoil. The clay loam topsoil is around 200- 250mm deep, with a firm yellow-brown clay subsoil.

The junior soccer training area with 3G court in the background

The junior soccer training area, soil pit where the new 3G's are proposed to go

Topsoil of approximately 200 to 250mm of clay loam, over a stiff yellow-brown subsoil

7) **IMPORTANT NOTE:** Strictly speaking, installing the new 3G pitches represents a situation where grass pitch area is lost. However, the level of use is minimal, limited to junior training, given the natural grass on clay-loam topsoil, and a very rudimentary drainage system. This does severely limit winter use in particular, which would not be the case with the all-weather 3G surface.

Grass Pitch Increased Wear Capacity - In addition, with the new 3G pitches generating income, the grass senior pitch could be renovated and maintained to a higher level to double its current winter carrying/wear capacity.

1.2.2.2 Synthetic Turf Soccer

1) The existing synthetic pitch area was apparently constructed in 1998 as a 7-a-side sand-based synthetic pitch, subsequently upgraded to a 3G surface, and then divided into two 5-a-side pitches by MYAL.

2) The 40 x 32m 3G court is fully fenced with two access gates west and south, and 6 floodlight to the north and south sides. There is a central dividing fence and an overhead net to prevent balls leaving the court and potentially endangering the railway lines.

The court is positioned approximately 8 to 10 metres from the retaining wall of the eastern railway line, and the playing surface is approximately 2 metres below the level of the tracks.

The existing 3G court with railway lines in the background

3G court surface and floodlighting in the background. 4m fence and 7metre masts

Southern side of the court with access path, looking towards the entrance

3) The two small sided 3G pitches are at capacity during peak times, 18.00 to 22.00, and are open to the public for booking from 8am to 11am, and 17.00 to 23.00, 7 days per week. They are little used during the daytime. The pricing of the courts is approximately 50% of that of other local courts.

The pitches are also used for walking football £2.50 per hour per person.

4) Noise - To date, the MYAL have not received any complaints about noise from play, from the neighbouring properties. Historically, the site was once a school playing field, and has therefore always generated the sounds of sports in play.

1.2.2.1 Other Uses

1) The pitch area is used for community events from time to time. It has been a Levenshulme Festival venue, and for charity events (e.g One Nation fundraising).

2) MYAL has invested in the pavilion building, which has included the upgrade of two changing rooms for use by football teams and conversion of further changing space into an open plan multi-function room, for use by education, community and event space. The works to develop the multi-function space have occurred courtesy of grants from One Manchester and Neighbourhood Investment Fund.

3) In May 2018, Manchester Youth Academy secured planning permission to build a new single storey community cafe and ancillary facilities on site. The project did not come to fruition due to lack of funding. This will be included in future strategic proposals.

1.2.2.2 Longevity of the Existing 3G Pitches

The intense use of the existing all-weather pitch affects the maintenance and longevity of the carpet. Intensely used synthetic pitches demand a very high level of maintenance; cleaning, brushing, sand fill renovation, etc, to achieve a reasonably good and sustainable lifespan.

After a period of use, the existing surface needs replacing. Having an additional STP surface to allow rotation during maintenance and carpet replacement would be another strategic advantage for MYAL in its overall management of playing surfaces and sports facilities.

1.2.2.3 Inherent Limitations of Natural Turf

Use of the grass pitches is limited by the difficulties of maintaining natural grass on clay; drainage and compaction problems limit winter use in particular.

The soil type on site reaches a saturated 'field capacity' condition from mid-November to early April, on average, limiting play when water-logged, and also severely limiting the quality of play when the surface turns pitted and 'poached', or muddied.

In addition to the drainage problems, wear and tear on the grass and the limited re-growth in the colder months results in periods when the grass pitches cannot be used fully, or without damage to the turf which is then expensive to remediate. Visiting soccer players look for a reliable venue, the lack of which impacts long-term on MYAL's financial viability. With set of 3G pitches, soccer would be cancelled only when the area is snow-covered or when the weather is too harsh for play.

1.4 Planning Policy

1.3.1 Planning policies relevant to this proposal are as follows:

NATIONAL:

1) National Game Strategy for Participation and Development 2015-2019, The FA
2) ECB's Cricket Unleashed 5-year plan 2016-2021 and ECB's Inspiring Generations January 2020
3) Towards an Active Nation 2016-2021, Sport England
4) Public Health England, Everybody Active Every Day
5) The Football Foundation

Of particular note from the above targets are the following:

1) **The FA - "Better Playing and Training Facilities** – "FA investment in new and improved facilities, through the Football Foundation" Particular focus on developing 100 new 3G Football Turf Pitches and improve quality of 2,000 grass pitches, increasing junior and youth football played on 3G FTPs and increasing sustainability of football facility sites"

2) **The ECB** - Stated targets relevant to Rushford Park are to "*Grow and Nurture the Core, Make Cricket Accessible, Engage Children and Young People and Support our Communities - use our purpose to connect communities and improve lives more broadly across society".*

3) **Sport England** - More people from every background regularly and meaningfully engaging in sport and physical activity; A more demand-led sport sector that welcomes everyone; Improved financial efficiency;

LOCAL:

1) MPPS - Manchester Playing Pitch Strategy 2017
2) The Manchester Strategy 2015-2025
3) Manchester Sport and Physical Activity Strategy 2017 - 2027
4) Draft Manchester Local Football Plan 2017
5) Response to Childhood Obesity: Plan for Action, GreaterSport 2015
6) LCF/ ECB - Engaging South Asian Communities
7) Manchester Population Health Plan 2018-2027
8) A Healthier Manchester - Local Care Organisation Prospectus - 2018 - 2028

1) **The MPPS** - Manchester's Playing Pitch Strategy is a key local authority strategy, formally adopted by the Planning Authority and used as a planning tool to support the determination of future playing field sites. The strategy applies an evidence based supply and demand assessment of playing pitch stock in-line with Sport England's recommended process.

The Playing Pitch Strategy aims to:

- Promote a sustainable approach to the provision of playing pitches and management of sports clubs;
- Ensure that there are enough facilities in the right place to meet current and projected future demand;
- Ensure that all clubs have access to facilities of appropriate quality to meet current needs and longer term aspirations.

The Playing Pitch Strategy (PPS) recognises the need for investment into key sites, identified for their strategic importance and for their potential to support growth in nominated sports and their contribution to increasing participation in sport. Specific aims for football are:

- Address overplay on sites that have poor quality pitches
- Improve pitch quality, reconfigure pitches and increase access to school sites for community use.
- Work to meet unmet demand for access to more 3G pitches to satisfy demand for football training.

Specific aims for 3G facilities related to Rushford Park site are:

- Ensure current supply is maintained regularly and rigorously as required to ensure continued quality for use.
- Review quality of pitches and ensure they are of sufficient quality to pass testing or certification renewal.
- Encourage providers to have a mechanism in place which ensures the long term sustainability of provision, such as sinking fund for repairs or resurfacing formed over time.
- Consider possibilities to create multi-pitch (potentially multi-sport) hub sites where 3G provision is able to support grass pitches as a broader, sustainable, all-in-one community offer.
- Secure sufficient access to capacity to deliver non-formalised football participation, including for small sided football, walking football and partnership delivery.
- Secure increased capacity to allow for the establishment of new formats of competitive football

Manchester's Playing Pitch Strategy Action Plan identifies Rushford Park as a key centre for provision of outdoor sport within the City, with the aim to enhance the site as a medium priority.

Specific aims in the Rushford Park section of the Action Plan are to:

- Seek to improve pitch quality through improved maintenance and remedial works to improve capacity and eliminate overplay.
- Maintain quality of AGPs. Explore opportunities to further develop small sided AGPs on site to grow capacity and increase community usage.

OTHER:

1) The National Planning Policy Framework (NPPF) is not a 'statutory' development plan document but it does represent up-to-date government planning policy and is a material consideration that must be taken into account where it is relevant.

2) Statutory consultees include Sport England, through the "*PLAYING FIELDS POLICY AND GUIDANCE: Sport England's policy and associated guidance on planning applications affecting playing fields*", August 2018.

As stated in this document, a proposal for a new artificial grass pitch on an existing area of playing field which forms part of, or is capable of forming part of, a playing pitch would not meet with the Exception 4 of this document, and would therefore be assessed under Exception 5, where "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".

Exception 5:

76. **Artificial grass pitches or multi-use games areas may be able to sustain more intensive use than natural grass playing pitches**. However, they will not be preferred in relation to Exception 5 purely for this reason. This is because a proposed artificial grass pitch or multi-use games area may be unsuitable to accommodate some grass pitch sports or the standards of play or grades of competition required for some sports. Also, they may not be sufficiently flexible to readily accommodate changes in demand for playing pitch types & sizes compared to the current area of playing field.

77. Sport England will therefore assess the benefit to sport of a proposal, alongside the impact on those sports that need natural grass pitches, when assessing whether proposals for artificial grass pitches or multiuse games areas meet with this exception. This assessment will include reviewing local information and advice provided by the national governing bodies of sport.

78. **Sport England will normally expect community use** of any sports facility as part of the benefits that may enable it to meet with Exception 5.

1.5 LEVELS OF USE

In this case, the existing grass junior training area over which the new 3G pitches are proposed to be placed, accommodates approximately:

A) Grass:

Pitch 1, 5 hours per week, 40 weeks/year = 200 hours

" 2 hours per week, 12 weeks/year = 24 hours

Pitch 2, 5 hours per week, 40 weeks/year = 200 hours

" 2 hours per week, 12 weeks/year = 24 hours

TOTAL: 448 hours/annum

For the proposed new pitches on the same area, which includes community use during the day, term-time, and commercial bookings outside of these periods:

B) 3G:

Pitch 1, 5-a-side - 40 hours per week, 52 weeks/year = 2080 hours

Pitch 2, 5-a-side - 40 hours per week, 52 weeks/year = 2080 hours

Pitch 3, 7-a-side - 40 hours per week, 52 weeks/year = 2080 hours

TOTAL: 6,240 hours/annum

NB - This total has an in-built 70% overall use factor for each court over the theoretical maximum hours per annum.

3) Regarding the main grass pitch, it is estimated that the current average of 2 games or 3 hours of senior soccer use per week will be at least doubled with improved maintenance to 6 hours use per week, reliably through winter and with better turf quality through the year.

The senior grass pitch use per annum is therefore expected to **increase from approximately 156 hours to 312 hours per annum.**

This will be achieved by decompaction work to the topsoil, annual sand topdressing, and a programme of overseeding and comprehensive fertiliser application.

1.3.2 MCC Planning Department Liaison

MYAl have a close relationship with MCC, as lessees to the Council, and have liaised regularly with the Planning Department since taking over the site.

A meeting was held on site to outline the proposals for the development of playing facilities on the 13th March 2020 with Senior Planner Steve McCoombe of Planning and Building Control, Development Management (North Area), Manchester City Council.

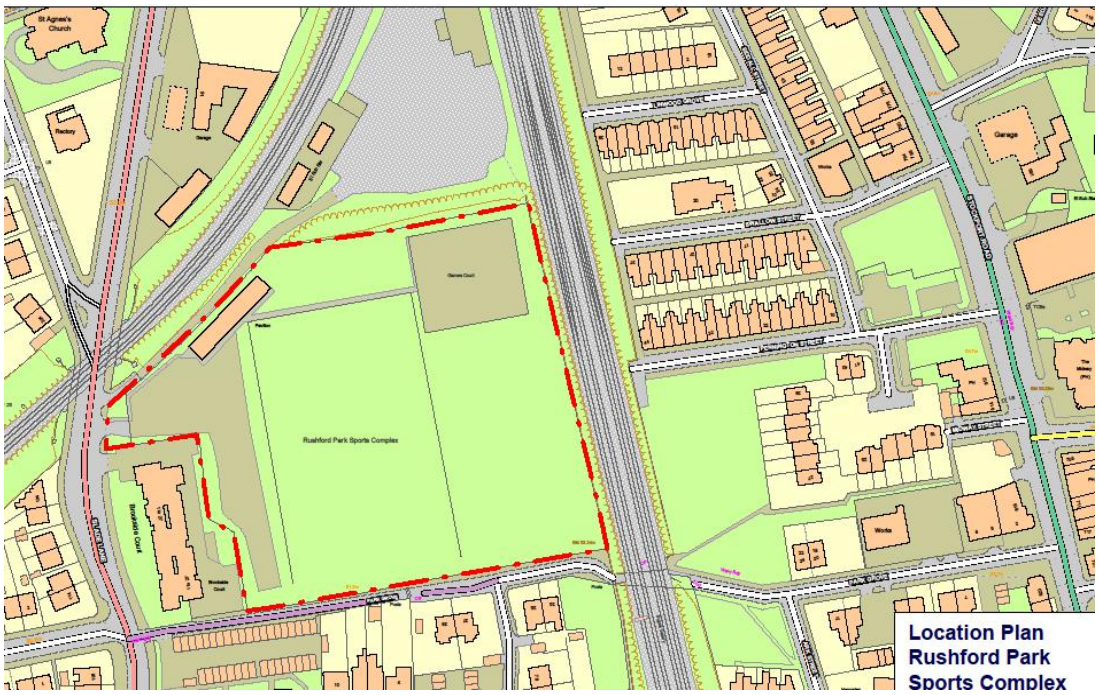
Points to address in the planning application were listed in a subsequent e-mail from the MCC management side.

This Design & Access Statement revision (A) includes additional information requested on the transport statement section, traffic flows/existing/proposed parking details; the conclusion of the Acoustic Assessment (submitted to the MCC Planning Portal on 6/8/2020), and various other updates.

2 Existing Site & Surroundings

2.1 Access & Transport Statement

1) Location - The site location is given below:



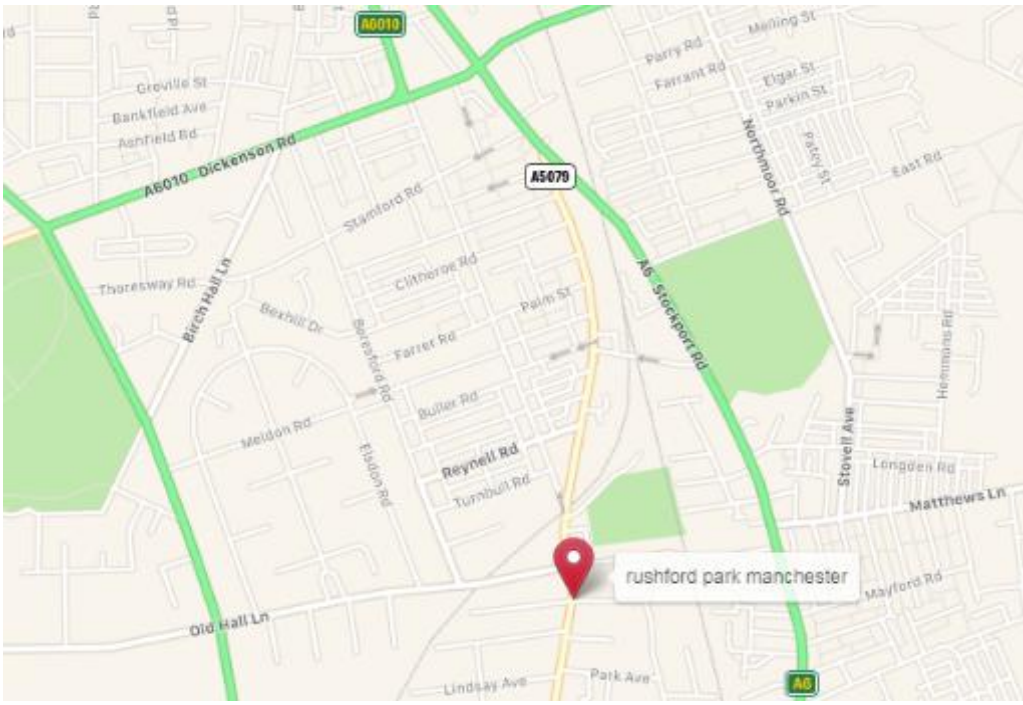
The existing site, Google Earth 2019 & OS Location with boundary line

2) Access - The main and only vehicular site access is directly off Slade Lane, the A5079, close to the 'Y' junction with Hamilton Road (which leads north to the A6010 Dickenson Road, and then A6).

3) The main road features - at the Rushford Park access point has three lanes, two north-southbound lanes along Slade Lane with an additional left turning lane north onto Hamilton Road. The width of the road at the centre-point of the access is approximately 11 metres; 3m for the left slip road and and centre Slade Lane northbound lane, and 5m for the Slade Lane southbound lane.

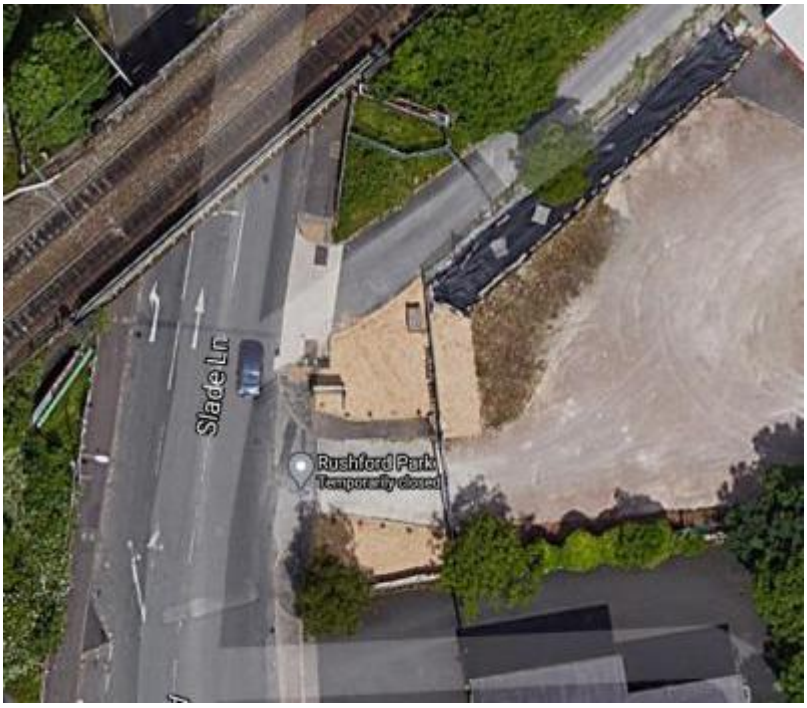
4) The junction with Hamilton Road is managed by traffic lights just north of the railway bridge, which reduces traffic speeds overall in this section of road. There are no single or yellow lines along this section of the road.

5) There is an access immediately to the north and south ford Park access, to the north for industrial units, to the south for Brookside Court, which has 27 apartments. Visibility left and right is good, being approximately 100m left for northbound traffic, and 50 to 60 metres right for southbound traffic.



The road system in the vicinity of Rushford Park Sports Complex (OS Map)

The access point on the A5079



The access point on the A5079 with lane system

The access gate to the car-park

View to & from the car-park to the access gate

View left and right on exiting the car-park

5) The immediate access road off Slade Lane is approximately 9 metres from road kerb to the access gates, allowing for parking off the Lane until the gate is opened.

6) Traffic peak movements and parking requirements on site if all players use their own cars are:

- 2 x 5-a-side pitches = **20 cars**
- Senior Grass Pitch 22 players plus 3 officials plus team support = **30 cars**

- Spectators - not normally over **10 cars**
- Junior soccer training - is not normally held at the same time as the senior games, with car movements equating to the seniors.
- Total parking requirement is for around 60 cars in the 'average' worst-case scenario, including MYAL staff, etc.
- Disabled Parking - currently not demarcated

Overspill for one-off events and prestige games is accommodated along the industrial unit access road, since this is little used after 4pm and at weekends, when such events tend to occur.

7) **Peak traffic movements access and egress** - the peak for traffic movements onto and off of the site occurs when players and others are arriving for an 11-aside game, when this coincides with the end or start of a 3G pitch session. There are no recorded incidences of traffic problems at the junction of the site access and Slade Lane in the recent past.

The numbers of cars accessing the site during a typical day are:

3G Pitches - peak use after 6pm, combined 20 players using both pitches, arriving 10 to 15 minutes prior to a booked pitch, play starts on the hour for 1 hour. Egress tends to be within 5 to 10 minutes maximum after the game.

On average around 75% car use - car sharing reduces the total actual number of cars from the maximum of 20 to around 15 to 16.

Grass Pitches - Peak use on a Saturday afternoon, with 22 players, officials, coaching team, substitutes, spectators arriving up to 30 minutes prior to the game and leaving around the same time, 30 minutes maximum after finishing. Total of approximately 40 persons and 75% of potential total cars used, parking needed for 30 cars.

Additional space for bigger games and more spectators is currently catered for by parking on the adjacent industrial unit area.

Other - Traffic generated by the school and other uses of the Pavilion tends to be during the day through the working week, approximately 10 cars maximum at any one time, arriving and departing randomly through the day, and occasional coaches/mini-buses.

Traffic Management - has never been required for the site. The open nature of the first section of the car-park allows cars to enter and the manoeuvre to park, without blocking the entrance gate area.

8) A Transport Statement produced by MYAL has been submitted on ther MCC Planning Portal, hiving additional information to the above.

9) Total area of the site with the key surface areas are as follows:

Rushford Park - MYAL	Existing	NOTES
AREA: (All approximate)	***Sq.m***	
Site Area (Ownership Boundary)	***20,200***	
Buildings	***600***	
Car Park Area	***1,700***	
3G Pitches	***1,280***	**New 3G pitches of 2,816 sq.m**
Grass pitches and margins	***11,400***	
Landscape Margins, paths,	***5,220***	
TOTAL:	***20,200***	

10) The boundary of the site is demarcated by chain-link fencing to the northern, southern and western boundaries, and a stone retaining wall with steel palisade fence to the east, with the railway line boundary.

The northern boundary with Styal Line railway embankment/Slade Hall Road

Eastern boundary retaining wall to the Manchester-Crewe railway lines

Southern boundary with Park Grove footpath

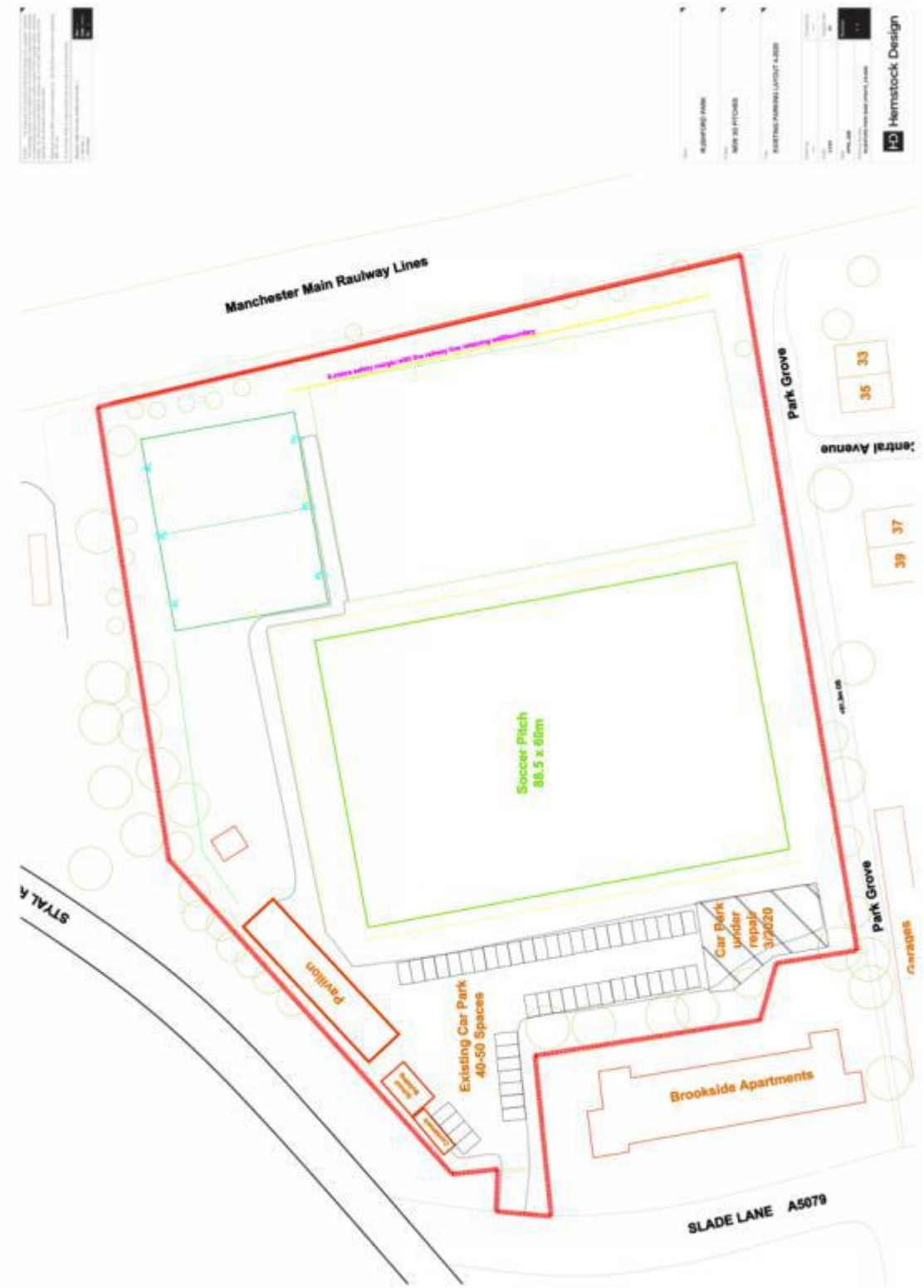
Western Boundary with Brookside Court

11) The layout of pitches currently consists of:

- Existing senior soccer pitch of approximately 7,000 sq.m including margins; north-south orientation.
- Junior soccer training area of approximately 3,750 sq.m; east-west orientation.
- 2 x 30 x 20 3G pitches, north-south orientation

12) The existing playing field slopes downwards from the north east corner to the south west corner. The overall change in level is approximately 1 metre across the diagonal, well within the recommended gradients.

13) Parking - There are currently around 60 to 80 parking spaces on site according to MYAL, depending on the status of the southern section, which is currently under repair. These bays are unmarked on the ground, but extend from the pavilion area along the west side of the grass pitch area down almost to the southern boundary with Park Grove walkway, and up to the western boundary with Brookside Court.



The demarcated car-park area. The southern section is currently unusable;

40 to 50 car-parking spaces, no cycle rack, coaches 'by appointment'

2.1.1 Site Location - Immediate Surroundings

1) Rushford Park Sports complex lies just to the north of the Rushford Park Conservation Area. The site is overlooked by several properties within this zone.

2) Informal liaison with several overlooking residents has been initiated in the pre-planning application stage.

3) There has also been liaison with Network Rail over the safety margins to be employed, and safety measures to prevent balls flying onto the tracks.

4) Liaison with Brookside Apartments is ongoing, particularly with respect to surface water issues.

5) No issues have been recorded by MYAL over noise levels from the site, other than from one incident arising from the pavilion use, not the pitches.

6) Network Rail - Have been contacted and informed of the intended scope of the new pitches with design notes pertinent to the safety issues; form submitted on 4/8/2020.

2.2 Limitations

2.2.1 Playability of the Pitch Area

As covered in more detail in this statement, the clay saoil type present on site significantly limits the overall annual level of use that the field can support.

An effective land drainage system is essential to the adequate wear capacity of a natural grass playing field. An industry ‘rule-of-thumb’ lifespan for land drainage is 25 years before replacement is needed. However, the grass pitches already have a limited use due to restricted drainage and the lack of funds to renovate. The playing surface is regularly water-logged and permanently muddy in high wear areas through winter, and cannot be used reliably from November to March every year, when the soil reaches ‘field capacity’, or saturated soil water content.

2.2.2 Inclusive Accessibility

Access for all is good, with a bound stone surface leading from the pavilion to the 3G pitches. Paths are sufficiently wide for vehicular and maintenance access.However, in wet conditions the grass fields are not accessible for wheelchair users.

2.2.3 Arboricultural Stewardship

The site has trees on every side of the boundary. A large proportion of trees within the site are reaching their early-mature or mature stage. Some arboricultural maintenance intervention is required. None has been carried out since MYAL took over the site due to the lack of funds for this type of work.

2.2.4 Existing Changing Facilities & Fixtures

The existing changing pavilion located towards the central-northern boundary is functionally adequate to provide changing and toilet facilities. Plans are in hand to renovate and extend use of the building in order to help maintain a comprehensive source of income with the new synthetic pitches.

The existing pavilion building

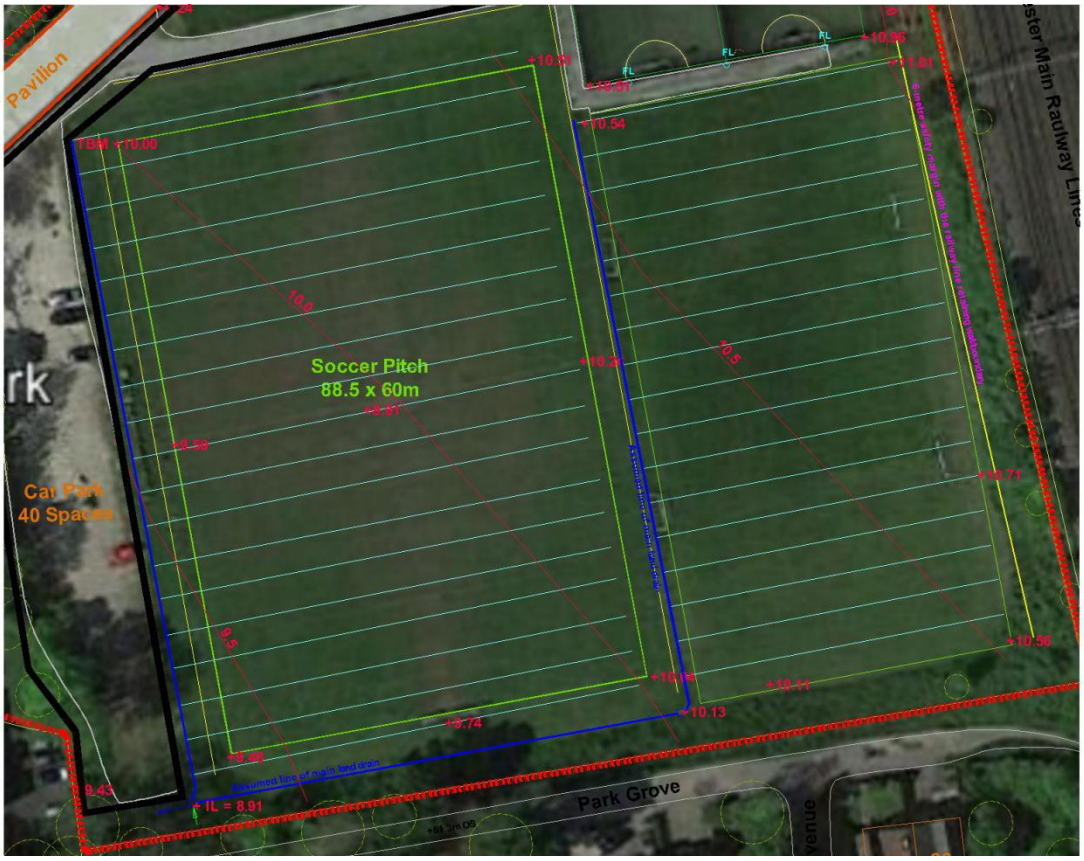
2.2.5 Existing Sportsfield & Car-Park Drainage

1) The site appears to have been drained at around 2009, with a car-park extension being formed around the same time. The car-park has a loose stone surface, and is not macadam finished from the entrance gate onwards into the site. Spoil from the trenching work has been formed into low grass mounding along the southern boundary, and sections of the western and eastern boundaries.

2) From the site assessment and historical satellite imagery, it is possible to follow the lines of the land drains. These appear to run across the grass pitches, east to west,

into two 150mm main pipes, and then to the outfall chamber. Laterals are approximately 5m spaced.

3) Although no chamber could be located on the day, it is assumed that the existing 3G pitches drain from the low point in the south-west corner to the main drain between the senior and junior grass pitches. No chambers could be found for any car-park drainage, but a sump has been installed at the southern end to hold water temporarily during storms. Excess water flows towards the southern corner, and is held by the bunding there. A gap was made to release water into the neighbouring land, but has since been closed off again.



The sportsfield drainage layout, deduced from site investigations & satellite imagery

The drains and sand-slits in the grass pitch are capped over by compacted soil, reducing infiltration capacity and increasing runoff in peak storm events.

Mounding from drain trench spoil along the west and south boundary sections.

This corner floods from time to time

Junior grass pitch drain chamber - running to the main chamber in the distant corner

Main outfall chamber location, south-west corner - centre of image

Outfall chamber installed with the pitch drainage, on spoil from the drain trenches

The outfall chamber cover with land drains :

Top-left - 80mm inflow from Park Grove footpath

Top-right - 225mm outflow towards Slade Lane

Bottom-right - 150mm main from the grass pitch drainage

Bottom - left 150mm main from the grass pitch drainage

Sump formed at the southern end of the car-park to help alleviate flooding problems

4) Problems with minor flooding in the south-west corner appear to be caused at least partly be runoff from the senior grass pitch . The surface of the pitch on the day of the assessment was very compact, limiting the capacity for water infiltration. Any water running off the pitch and car-park gathers in the bunded south-west corner, since there is no positive outlet for it.

5) The outfall pipe invert is approximately 550mm below the level of the south-west corner of the senior pitch surface. The pipe is assumed to flow to the surface water system in Slade Lane, possibly via Park Grove. Historically, water may have run into the Nico Ditch which was present on the southern boundary. If this was the case, then presumably the ditch was piped at some point, this pipe arrangement possibly still being used to the present day.

Problems with the drainage system in Park Grove have been reported to Manchester City Council Drainage Department by members of the public who were concerned with flooding and a 'sink-hole' that appeared in the footpath.

MYAL are party to these discussions. Further liaison is planned, and potentially the excavation of a trial pit downstream of their main drain chamber, with CCTV tracing to establish the route and condition of the pipe, when the current lockdown condition eases sufficiently.

6) **To summarise the drainage status of the site -** there has been a history of surface water problems in the south-west, outfall corner, but these appear to be linked with:

- Limited infiltration into the senior grass pitch due to compaction/lack of funds for decompaction work
- Lack of formal surface water catch-pit in the car-park connected to the main drain
- Possible blockage of the main drain to Slade Lane due to tree roots or other damage.

During the intervening period since first submission of the D&AS, a drain survey has been carried out by Dynarod, with various blockages having been found within the Rushford Park site, these having been treated using a £1000 funds obtained from local sources.

It is understood that the condition of the drainage into Park Grove, an unadopted track/footpath next to the southern boundary of the site, could also be giving problems in the vicinity.

2.2.4 Ground Conditions & PRA

1) A desktop study of the history of the site with regards to land use has been carried out, investigating potentially contaminated land as required by MCC Planning department. This is also known as a Contaminated Land Risk Assessment or Preliminary Risk Assessment (PRA), to assess the potential risk (if any) to the end user, groundwater or habitats.

2) The PRA work was carried out in conjunction with a site walk to look for any obvious, significant features on site. The boundaries were walked and a photographic record made. No significant features were identified. The mounding present around parts of the western, eastern and southern sections of the boundary appear to be formed from top and subsoil mixed, arising from previous land drainage trenching works.

3) Historical mapping indicates that the Rushford Park site was originally parkland, part of the Slade Hall Estate (the Hall constructed in 1585), the southern boundary with Rushford House being the current southern fence-line with Park Grove. Rushford House dated from the late Georgian era. At around 1820, Hawthorn Cottage was constructed, shown on the map below with open farmland or parkland from the cottage along the east of Slade Lane.

4) Nico Ditch, an ancient defensive earthworks constructed against the Danish invasion, formed the original boundary that is present today.

5) Development of Rushford Village took place between 1835 and 1903. At some point between these dates, the parkland was converted into a cricket ground, with pavilion accessed from the east side of the Manchester-Crewe railway line.

6) Styal railway line was opened in 1909. In the late 20th century the original buildings in the area to the south-west of the site were replaced by a block of flats and garages.

7) In conclusion, there appears to have been a continuous use of the site from pre-Victorian times to the modern day, as a grass-covered area, protected as estate land and then sports ground from any dumping of mining activity. The potential for contamination appears to be minimal, although trial pits were to be excavated as a check, prevented due to the lock-down that has been imposed since March 2020.

Rushford Park circa 1835

Rushford Park circa 1920. Styal Railway Line opened in 1909

(From OpenStreetMap)

8) Hydrogeology - The underlying geology of Greater Manchester is dominated by rocks from three main periods from the geologic time scale; Carboniferous, Permian-and-Triassic, and Quaternary. Most of Manchester, and its suburban fringe is located on Permian sandstones and red Triassic sandstones and mudstones, mantled by thick deposits of clayey till and pockets of sand and gravel deposited by glaciers at the end of the last glacial period, some 15,000 years ago.

The oldest rocks, from the Upper Carboniferous period, are sandstones and shales of Millstone Grit present as outcrops and uplands in the north-east of Greater Manchester. These rocks are overlain by shales, mudstones and thin coals of Coal Measures upon which the towns of Oldham, Rochdale, Bolton and Wigan are located. An outcrop of Coal Measures extends southwards down through Tameside and into Hazel Grove.

9) The site is effectively isolated from any groundwater contamination effects. Water is obtained from the main supply. The grass pitches are not irrigated, and do not currently need water for this purpose.

10) The site is within a low flood risk area.The greenfield runoff rates have been calculated below for the site, with a resulting Qbar of 12.59 l/s average, and 24 /l/s peak flow for the 30 year return period, including climate change factor. A more detailed hydrological assessment is due to be carried out once further site infomation is fixed, on the exact nature of the outfall arrangement to the ultimate outfall, etc:

HR Wallingford
Working with water

Greenfield runoff rate estimation for sites

www.uksuds.com | Greenfield runoff tool

Calculated by:	David Hemstock
Site name:	Rushford Park
Site location:	Manchester

This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance "Rainfall runoff management for developments", SC030219 (2013) , the SuDS Manual C753 (Ciria, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be
the basis for setting consents for the drainage of surface water runoff from sites.

Site Details

Latitude:	53.44940° N
Longitude:	2.19593° W
Reference:	220218264
Date:	Jun 05 2020 14:56

Runoff estimation approach IH124

Site characteristics

Total site area (ha): 2

Methodology

Q_{BAR} estimation method:	Calculate from SPR and SAAR
SPR estimation method:	Calculate from SOIL type

Soil characteristics

	Default	Edited
SOIL type:	4	4
HOST class:	N/A	N/A
SPR/SPRHOST:	0.47	0.47

Hydrological characteristics

	Default	Edited
SAAR (mm):	878	878
Hydrological region:	10	10
Growth curve factor 1 year:	0.87	0.87
Growth curve factor 30 years:	1.7	1.7
Growth curve factor 100 years:	2.08	2.08
Growth curve factor 200 years:	2.37	2.37

Notes

(1) Is Q_{BAR} < 2.0 l/s/ha?

When Q_{BAR} is < 2.0 l/s/ha then limiting discharge rates are set at 2.0 l/s/ha.

(2) Are flow rates < 5.0 l/s?

Where flow rates are less than 5.0 l/s consent for discharge is usually set at 5.0 l/s if blockage from vegetation and other materials is possible. Lower consent flow rates may be set where the blockage risk is addressed by using appropriate drainage elements.

(3) Is SPR/SPRHOST ≤ 0.3?

Where groundwater levels are low enough the use of soakaways to avoid discharge offsite would normally be preferred for disposal of surface water runoff.

Greenfield runoff rates

	Default	Edited
Q_{BAR} (l/s):	12.59	12.59
1 in 1 year (l/s):	10.95	10.95
1 in 30 years (l/s):	21.4	21.4
1 in 100 year (l/s):	26.18	26.18
1 in 200 years (l/s):	29.83	29.83

This report was produced using the greenfield runoff tool developed by HR Wallingford and available at www.uksuds.com. The use of this tool is subject to the UK SuDS terms and conditions and licence agreement , which can both be found at www.uksuds.com/terms-and-conditions.htm. The outputs from this tool are estimates of greenfield runoff rates. The use of these results is the responsibility of the users of this tool. No liability will be accepted by HR Wallingford, the Environment Agency, CEH, Hydrosolutions or any other organisation for the use of this data in the design or operational characteristics of any drainage scheme.

11) Further assessment is required on the need for additional drainage element; attenuation related to SUDS. However, it is believed that the new scheme will not impact on peak flows, but help reduce the current peak.

12) The grass pitches theoretically have a storage capacity for attenuation of peak flows within the pipe and permeable fill. So too the sand layer and sand-slits.

    The estimated temporary water storage capacity is as follows:

    - Main Drains - 260 lin.m = 10 cu.m drainable porosity/surcharge storage.
    - Lateral Drains - 2000 lin.m = 40 cu.m drainable porosity/surcharge storage.
    - Sand Layer - at 200mm depth = 350 cu.m drainable porosity/surcharge storage.
    - Existing 3G Pitches - drains + stone layer = 70 cu.m drainable porosity/surcharge storage.

    TOTAL = Approximately 470 cu.m (This excludes any topsoil water storage)

13) **If the surface infiltration into the topsoil, sand layer and drains below is limited,** then storm water will flow over the surface rather than being held in the subsurface. In effect, compacted pitch surface behaves more like a hard surface when heavily compacted. This is why decompaction, apart from being essential for good grass and root growth, is important for runoff control.

2.2.5 Floodlighting on Site

1) The site currently has floodlighting for the two 3G pitches in the north-east corner. The pitches have 6 floodlight masts of approximately 7m height, 3 north and 3 south, fitted with 3 lamps each, set outside of the 4m high ball-stop security fencing. No design details of the existing floodlighting system has been forwarded at this point.

- A European Standard exists covering minimum sports lighting levels EN 12193:2007. Many sports governing bodies also provide separate specific lighting requirements, divided into classes of play:
  - Class I - Top Level Competition.
  - Class II - Intermediate Level Competition.
  - Class III - Lower Level Competition & Supervised Training.

The Class III lighting specification for soccer is:

Em Lux	***Uo Min/Average***
75	***0.5***

With a Glare Rating of 55. Sport England give the following guidance for MUGA floodlighting levels, based on measurements taken after dark at ground level:

Type 1, Type 2 and Type 3 MUGAs - maintained average illuminance >400 lux uniformity (min/ave) >0.7

Type 4 MUGA - maintained average illuminance >200 lux
uniformity (min/ave) – full lighting >0.7
maintained average illuminance – secondary level lighting for training >200 lux

Type 5 MUGA - maintained average illuminance >350 lux
uniformity (min/ave) – full lighting >0.7
maintained average illuminance – secondary level lighting for training >200 lux

- The minimum levels of performance should be in accordance with FIFA's Class II i.e. a maintained average illumination of 200 lux

2) The site has no other formal lighting; no illumination of car-park or pavilion.

The existing 3G Pitches with fence and floodlights

Existing 3G & grass area, where the new 3G pitches are proposed to be constructed

3) The final layout of the new pitches and floodlighting positions remains to be fixed. It is possible that the 5 & 7-a-side pitches will be turned through 90-degrees in order to minimise the width that the overhead netting needs to span to approximately 32-35m.

2.2.6 Acoustic Study

MCC Planning Department have indicated that an acoustic study is required. An assessment has been carried out by Consultants Nova Acoustics in June 2020, the report having been submitted to the MCC Planning Portal on 6/8/2020.

The sound map showing the specific sound level emissions from the Proposed Development can be seen below in Figure 3.0.

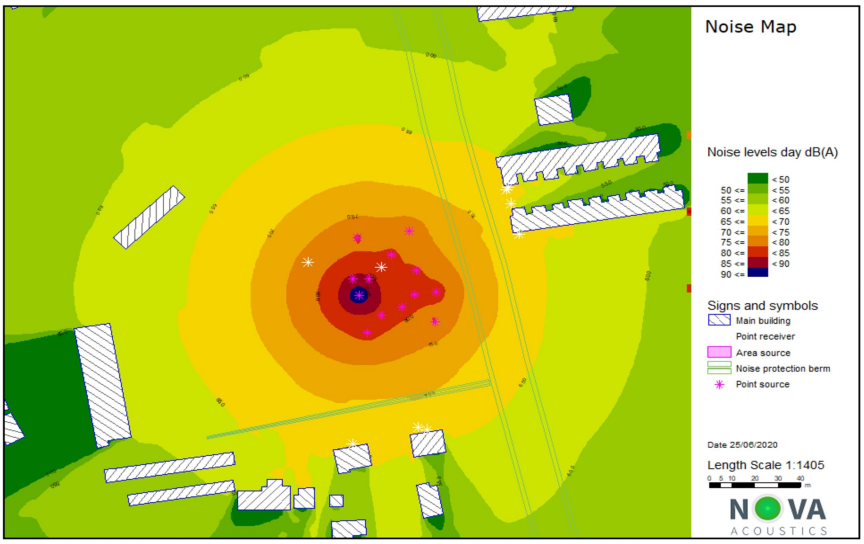


Figure 3.0 – Specific Sound Level Map – L_{Amax} Levels

3 The Proposal

3.1 Design & Accessibility

3.1.1 Design Principles

In alignment with relevant planning policies, the local environment and overall sustainability, several key design principles have been identified to ensure that the scheme provides an overall enhancement:

- The new design will help enable Manchester Youth Academy to sustain the viable operation of the site by extending the income potential beyond the historical, break-even situation that they and other lessees have struggled with.
- The income generated will also allow the grass pitch to be used more fully and to be properly maintained, and build a fund for future repairs and replacement.
- Floodlighting design to minimise light overflow effects to residents nearby.
- Drainage remediation to include positive drainage for the car-park, and improvements to the infiltration rate and attenuation capacity of the main grass pitch.
- Improved access internally with pathway upgrading.
- Landscaping improvements and formation of an ecology area next to the site of the historic Nico Ditch.
- The new 3G pitches are part of a long-term strategy to not only improve viability, but to greatly increase the inclusion of the local community with sport and non-sport facilities; the two acknowledged as being closely linked.
- A 6-metre safety margin with the Network Rail retaining wall is incorporated into the design, with overhead ball-stop netting.

3.1.2 Existing & Proposed Area Schedule

1) The new scheme will increase overall site carrying capacity for soccer, both synthetic and grass-based.

Rushford Park - MYAL	Existing	Proposed	NOTES
AREA: (All approximate)	***Sq.m***	***Sq.m***	
Site Area (Ownership Boundary)	***20,200***	***20,200***	
Buildings	***600***	***600***	
Car Park Area	***1,700***	***3,100***	
3G Pitches	***1,280***	***4,096***	**New 3G pitches of 2,816 sq.m**
Grass pitches and margins	***11,400***	***7,000***	
Landscape Margins, paths,	***5,220***	***5,404***	**Loss to parking/paths mitigated by new 900 sq.m ecology area**
TOTAL:	***20,200***	***20,200***	

2) Incorporated into the design are several landscaping improvements, including new tree planting, better management of the existing trees and margin areas, and formation of an ecology area which may, potentially, include a small water-feature, if this is considered to be appropriate and safe.

3) Car-parking will be extended to adequately cope with the increased numbers of cars to be parked, whilst maintaining a non-disruptive traffic flow. Other similar enterprises operate a staggered booking system, to reduce the traffic peak flow.

Allowing the booking of the existing 5-a-side 3G pitches on the hour, and the new 5-a-side pitches to the half hour means that it is only the new 7-a-side pitch that could add to the peak traffic flow. This could also be managed by adding 20-minute instead of 30 minute interval booking slots.

3.1.3 Proposed Scheme

3.1.3.1 Plans & Drawings

The following drawings are included in this Design & Access Statement:

- ***Existing Site***

- *Site boundary on an OS based image*
- *Location*
- *Existing site layout with levels*
- *Drainage*
- *Existing parking space drawing*

- ***Proposed New Pitches***

- *General layout of the new pitches*
- *New car parking arrangement*
- *Drainage amendments*
- *Floodlighting details*
- *Landscaping - trees to be planted and new ecology area*

3.1.3.2 ***Elements of the Proposed Scheme***

The proposed overall scheme includes the following elements:

- Extended car-park area to accommodate 119 cars with disabled bays.
- Renovation of the existing site outfall pipe as required, in liaison with MCC.
- Installation of a surface water drainage outfall to the car-park.
- Construction of a new, wider path from pavilion to the synthetic pitches.

- 3 new synthetic pitches, two 5-a-side & one 7-a-side, with fencing, floodlighting, dividing nets and covering netting to prevent ball escape.
- Disposal of arising topsoil and re-location of perimeter bunding to the eastern/south-eastern margins of the site.
- Planting to improve ecological diversity and further tree management.
- Operational management aspects - booking programme to manage traffic and parking, overflow parking strategy.
- Improved grass pitch annual maintenance programme.
- Strategised approach to balancing usage levels with maintenance costs and holding a sinking fund for carpet replacement.
- Although soccer-academy based, the intention by MYAL is to increase the range of sports and leisure opportunities on the site.

NB: BOUNDARY - No changes to the boundary fencing or other treatments are intended as part of this scope of works. The new pitches will be fenced, but positioned outside of the required Network Rail safety zone.

3.1.4 Site Accessibility

1) This development proposal will address and preserve the low-impact traffic implications of Rushford Park by extending the parking and managing peak access and egress through booking time management. Special events will have a management policy to manage traffic flow.

2) Management of traffic internally will be improved by a fixed parking bay layout, and addressing the periodic surface water problems that have limited maximum parking capacity in the past.

3.1.5 Operational Strategy

1) MYAL intend to operate the site for both income from the pitches and for the benefit of the community. The intended use of the site with the new pitches is broken down as follows:

- **Community Use** - Targeting good 'Social Value' is part of the MYAL strategy. Manchester Vocational and Learning Academy (MVLA) Secondary PRU School have exclusive use of facilities from 8:00 to 15:00, Monday to Friday during school term -time. MVLA have their own Porta-cabins on-site for classroom delivery.
- There is to be 10 hours free community use per week. The pitches will be, in the current comparison, 50% cheaper for community bookings compared to other local providers.
- **3G Pitch Use** - To be available for booking from 8:00 to 23.00, with peak bookings between 18.00 and 22.00, 7 days per week.
- **Main Grass Pitch Use** - to be used for up to 4 x 90-minute games per week through the season, with training sessions. Summer use to include junior cricket training using the pitch wing areas and roll-out cricket pitches, such as the 'Flicx Pitch' product.

2) **Traffic Flow** - The potential peak use of the site is as follows, including both daytime/term-time community use and commercial bookings outside of these periods:

- Pitch 1, 5-a-side - 40 hours per week, 52 weeks/year = 2080 hours
- Pitch 2, 5-a-side - 40 hours per week, 52 weeks/year = 2080 hours
- Pitch 3, 7-a-side - 40 hours per week, 52 weeks/year = 2080 hours

TOTAL: 6,240 hours/annum

NB - This total has an in-built 70% overall use factor for each court over the theoretical maximum hours per annum.

More information on this aspect is presented in the MYAL Business Plan, to be read in conjunction with this D & AS.

3.1.6 Surface Water Management

1) The management of the existing site surface water is intended to be improved by:

- Installing a surface water drainage system in the car park, consisting of catch-water drains with permeable fill to the surface along the low sides, connecting these positively to thew main site outfall point.

- Increasing the infiltration rate of storm-water into the grass pitch profile to store peak flows within the attenuation capacity of the drainage system of the pitch.

2) The new 3G pitches are effectively going to use the same 5-metre spaced lateral drainage as the grass junior pitch on which they will be built. However, attenuation capacity is expected to be greater than the grass pitches because of the drainage layer under these new pitches, area 3,825 sq.m, which could temporarily store around 250 cu.m of storm water or more, releasing it in a controlled way through a 100mm main pipe connection into the main system.

3) Future Maintenance - Reference is made in the main body of this statement to the importance of keeping the grass pitch surface decompacted and maximising infiltration rate. This is intended to be an integral part of the new strategy, where the 3G pitches will generate income to pay for this type of work

Other regular maintenance work to be included are:

- Periodic cleaning of the car-park surface water drains to maintain infiltration.
- " " of silt chambers in the main drain system

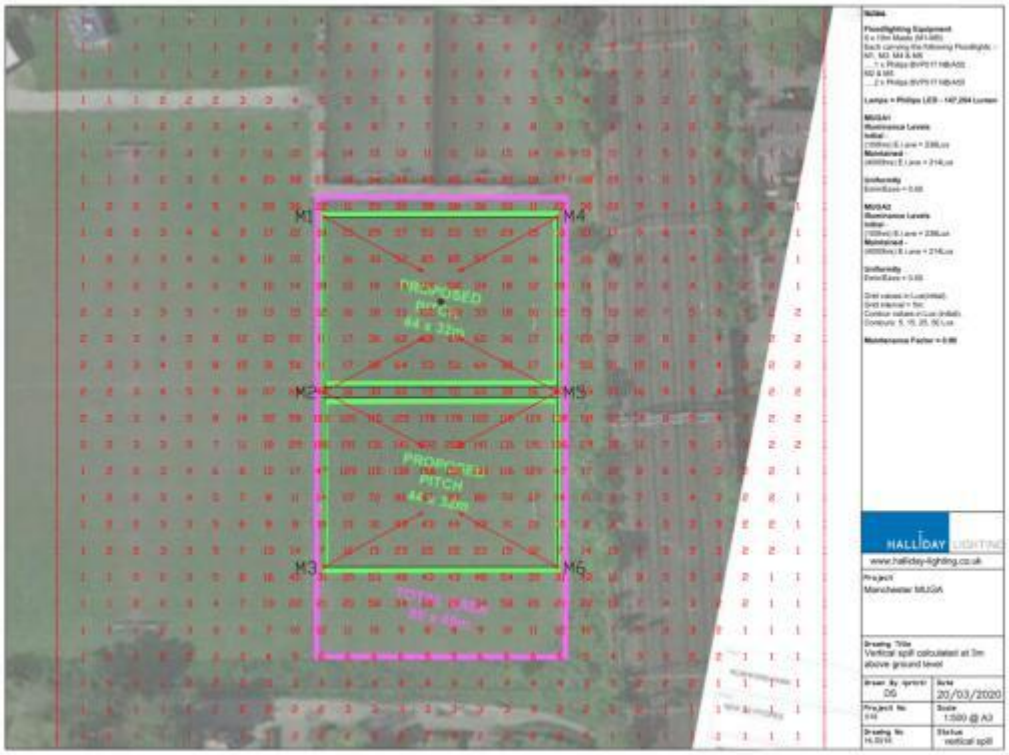
3.1.7 Lighting Design

1) MYAL recognise the importance of the character of the area and the proximity of neighbouring residential properties. Therefore, this application includes provision for sensitive floodlighting design using the latest technical developments to minimise light overspill effects.

2) An initial light-lux contour analysis has been carried out by Halliday Lighting Ltd. The proposed draft scheme indicates that at a distance of approximately 10 metres from the new pitches, light lux levels vertical spill at 3m height will be at 5 lux or less. This drawing is based on an alternative layout of pitches, which minimises the span of netting required. A alternative option is shown on the main proposal drawings.

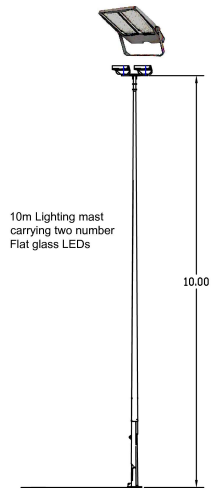
3) The layout of the floodlighting is yet to be fixed. This is partly dependent on final orientation of the new pitches within the demarcated area on plan, to ensure a cost-effective option for installing the overhead ball-stop netting.

4) Consideration is being given to adding lighting to the parking area, but at present no fixed design has been produced. The intention is to discuss this with MCC Planners if it is to be included.



Light lux drawing of the proposals - Option 1

Layout of the proposed 6 x light masts of 10 metres height, 3 lamps per mast.



Notes:

HALLIDAY LIGHTING

www.halliday-lighting.co.uk

Project

Drawing Title
10m Lighting mast carrying two number flat glass LEDs

Drawn By (print) JM	Date 18/03/2020
Project No	Scale 1:10 @ A4
Drawing No	Status 10m Mast

PHILIPS Lighting

OptiVision LED gen3 – Smart area and recreational sports lighting

OptiVision LED gen3

The Philips OptiVision LED gen3 floodlighting system provides a complete lighting solution for the simplest through to the most complex area and recreational sports lighting applications. The high-efficiency floodlight comes with a single piece die cast housing, hosting 2 and 3 LED engines respectively, which also function with an external driver box – separate for use at a distance from the floodlight (BV), or pre-fixed onto the mounting bracket of the floodlight (HGB) for ease of installation and lower initial cost. It meets the highest performance standards, provides outstanding light, quality, uniformity and ensures safety and visual comfort. OptiVision LED offers new possibilities to reduce energy consumption and increase flexibility (instant start, programmable lighting levels) when used in conjunction with Interact Sports lighting management system, dedicatedly designed for recreational and training facilities. The floodlight is also compatible with other external control systems through DALI.

OptiVision LED gen3

Benefits

- The wide range of optics ensure maximum optical efficiency and enables highly precise light distribution with minimum spill light
- 0-tilt allows for low sCx value for projects that want to re-use installed pole structures to minimize required investment. 0 tilt option further increases comfort and minimizes complaints on light trespass from residents
- When combined with Philips controls or Interact Sports lighting management system, the floodlight enables additional energy savings (up to 65%) in different area lighting applications
- Equipped with Service tag, a QR-based identification system that makes each luminaire uniquely identifiable and provides maintenance, installation and spare part information

Features

- Single piece pressure die cast housing, with a protection level of IP66 against dust and water
- Wide range of ambient temperature tolerance making it suitable for a variety of sports applications
- Option to add additional accessories to have the best in class spill light, 0 tilt, glare and up-light control
- Single High-power driver with IP66 protection pressure die cast housing and 10kV surge protection
- Programmable DALI Driver making it suitable to connect to lighting management systems like Interact Sports

Application

- Logistics areas (Ports)
- Apron lighting (Airports), Parking and Industrial areas
- Recreational sports lighting applications (Football, Hockey, Basketball, Golf, Tennis, etc)

Specifications

Ambient Temperature	-40 to +45 °C
Beam spread luminaire	38° - 21° × 96°, 50° - 16° × 116°, 70° - 54° × 112°
Dimming	Yes
Driver	Power supply unit with DALI interface (Power supply unit with DALI interface)
Driver failure rate at 5000 h in %	0.15% per 5000 hours
Initial correlated color temperature	4000, 5700 K 4000, 5700 K
Initial input power	945, 1051, 1415, 1500, 1580 W
Initial luminous flux	89000, 91000, 93000, 103000, 107000, 109000, 111000, 113000, 136000, 142000, 142200, 155000, 161000, 163000, 170000 lm
Input frequency	50 to 60 Hz
Input voltage	230-400 V

Inrush current (A)	20 A
Light source color	740 neutral white, 757 cool white
Material	Gear box: Pressure Die cast housing
Material	Housing: aluminum
Optical cover	Polycarbonate Polycarbonate
Remarks	Driver box EVP500 is ordered together with floodlight (BVP517/527) either pre-fitted on bracket (HGB) or Separate (BV) version. Floodlight and driver box are delivered inside the same packing as a complete set.
Type	BVP517 BVP527 BVP517 BVP527

3.1.8 Traffic & Parking - Transport Statement

1) The MYAL Transport Statement has been submitted to the MCC Planning Portal on 6/8/2020.

2) The revised, proposed parking layout without the overspill area gives 63 standard parking bays, 8 disabled, and space for 2 coaches or 14 more cars. See below, also submitted to the MCC Planning Portal:

c

3) For special events, further overspill parking is expected to be available in the industrial unit area immediately to the north of the site.

4) Peak traffic flow is to be managed by a staggered booking programme, the intention being not to increase the peak access and egress for the site.

3.1.9 Improving Ecology & Bio-diversity

The Rushford site has a very low flora and fauna value at present. The intention is to improve the ecological value of the site and to preserve the albeit limited plant value.

The grassed areas around the boundary and beyond the pitch margins will be retained as a meadow grass/wild flora mix rather than informal sports-turf grass. The proposed ecology area to the south-east corner is intended to be planted with indigenous wildflowers and understorey species, to develop an integrated invertebrate hibernacula or refuge, potentially fenced-off and accessed only for educational purposes, with information boards on the Nico Ditch historical aspect.

3.1.9 The Synthetic Turf Pitch

The profile of the pitch construction will be as shown in the cross-section below, carpet and shock-pad laid over a dynamic stone or macadam base. The depth of the permeable fill or drainage layer is to be calculated to provide for the required peak flow water storage.

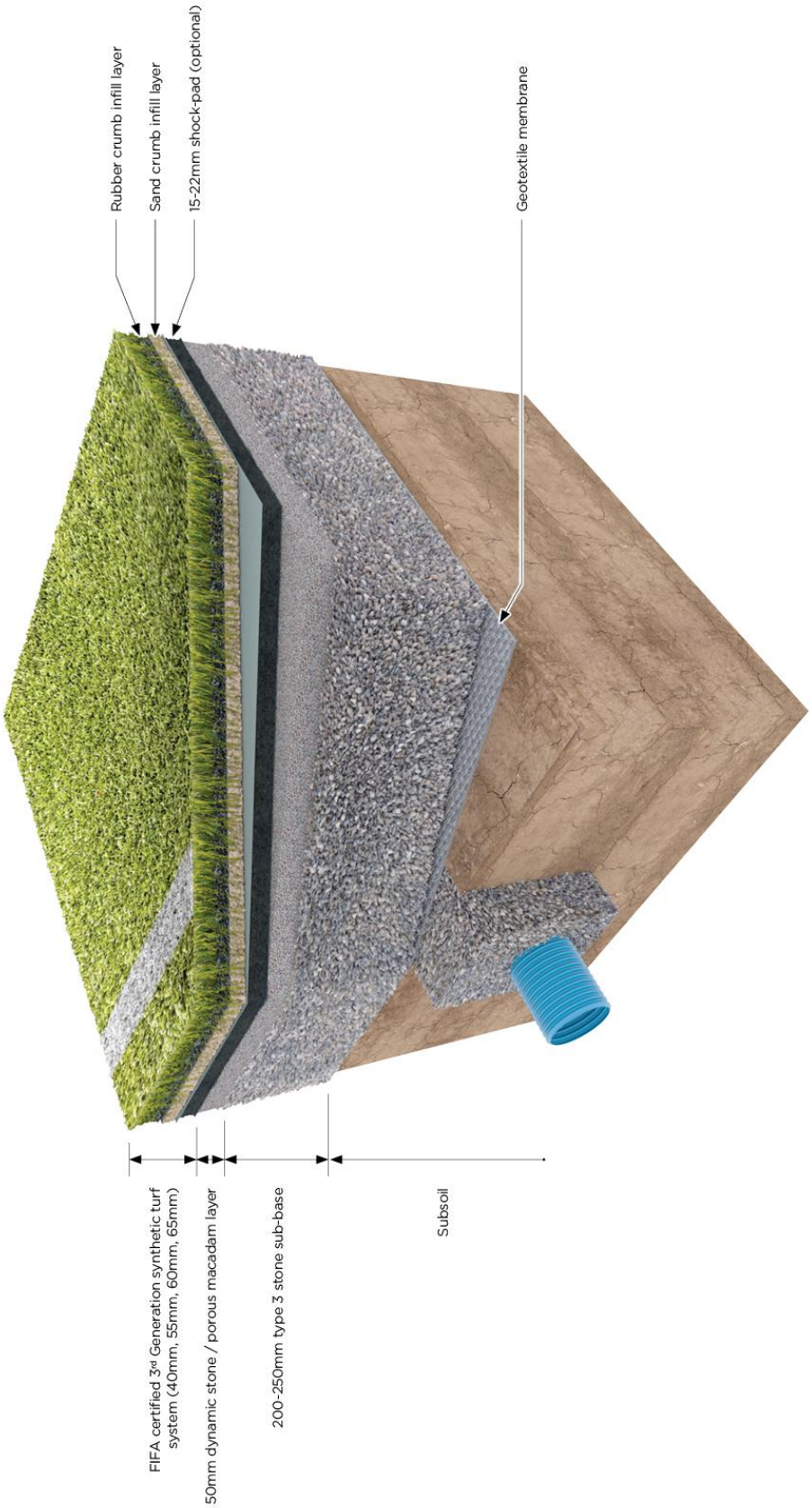
3.1.10 Waste Management Plan

MYAL have signed a contract with Viridor for emptying of the bins on site, twice weekly before noon. Bins are to be stored to the rear of the pavilion, between the building and the northern boundary fence, accessed from the new car-park route between allotted bays. Waste from the site consists of recyclable materials, glass, plastic bottles primarily, and general waste from food sales and items brought onto the site by players.

Grass clippings are cut and chopped and returned to the pitch surface as fertiliser, clippings are not collected.

3.1.11 Security Measures

Security of the site is provided by the fenced boundary, the secondary fencing to the synthetic turf pitches, and locked main gates. The site does not suffer serious security problems



Proposed 3G pitches - cross section

3.2 Earthworks & Construction Methodology

3.2.1 Overview of Construction

1) Earthworks- The proposals include for re-location and re-shaping of the perimeter mounding to increase parking area and prevent a bund that retains water. Additional bunding will be formed to the northern boundary to accommodate topsoil stripped from the new 3G pitch area. No major earthworks is planned, apart from soil strip and bunding within the site.

2) Approximately 800 cu.m of topsoil will be stripped from:

   - The new 3G pitch are
   - The access path alongside these new pitches
   - The widened & re-located main access from Pavilion to all 3G pitches

   The intention is to retain all topsoil on site.

3) Drainage - The proposed pitches will include an effective 5-metre spaced lateral drainage system below. Arisings from the trenching work for 14 runs of 80mm lateral pipe, replacing the same system believed to be under the grass pitch area, is expected to total around 30 to 40 cu.m of subsoil. This is to be placed in a bund on the perimeter of the site before being covered with topsoil and seeded.

4) Construction Materials - materials to be imported to the site will include:

   - Stone permeable fill for drainage/drainage layer - approx.1,500 tonnes
   - Path materials - approx.
   - Drainage materials
   - 3G Pitch base material
   - Shock-pad
   - Carpet & infill material
   - Fencing
   - Floodlighting masts

- Car-park stone finish - 500 sq.m of new parking area; 180 tonnes of crushed stone
- Car-park reinforced grass product - 700 sq.m
- Miscellaneous items - concrete, fixtures & fittings, etc.

5) The above items are expected to be delivered in one or two truck loads, apart from the stone for the new pitches and car-park extension. To control truck movements, suppliers/hauliers will be requested to deliver materials using three or four deliveries per day maximum, building up a stockpile of stone on site, rather than delivering all stone in one uncontrolled period

3.2.2 Construction Management Plan

The proposed levelling, drainage and pitch installation work methodology is as follows:

Stage 1 - Access and Drainage

- Services location and marking. Resident notification, set-up of temporary access storage, Contractor's parking area, etc.
- Renovation of the outfall pipe.
- Installation of new main drainage within the site.

Stage 2 - Earthworks

- Install wheel-wash tank plus pressure washer, new access point. Water supply needed. Sump to hold silt in the south-west corner.
- Road sweeper - depending on ground conditions/rain, regular operation to keep the roadways clean.
- Dust suppression - water-bowser to be used if required for dust suppression in the car-park area, to be stationed on site for the duration of the earthworks.
- Tree root extent demarcation (car-park extension area).

- 20 tonne 360-degree tracked excavator to load topsoil into dumpers for internal soil movements, new pitches, paths and car-park; expected to take one week.
- Formation of the sub-grade of the pitch area.
- Controlled import and stockpiling of stone material
- Arboricultural assessment of tree root extent and protection through progress of the works

Stage 3 - Drainage and STP Installation

- Installation of lateral and cut-off land drainage pipes and permeable fill layer.
- Installation of the macadam/dynamic layer and levelling.
- Installation of the shockpad and synthetic carpet, plus infilling.
- Installation of fencing & floodlighting
- Stone laying and compacting for the car-park extension and new paths
- Re-seeding of margin and bunded areas with grass/flora mix
- Removal of temporary works items; fencing, tracks, etc. & renovation.

Stage 4 - Supplementary works

- Planting for the proposed ecology area.
- Tree planting to the margins (November to March)
- Tree-surgery as required
- Waste Management - all waste materials are to be re-used on site (excavated hardcore from paths/parking, topsoil, etc.)
- Packaging and other delivery materials are to be taken to an official tip site.

Stage 4 - Maintenance Aspects

1) 3G Pitches - The synthetic turf pitches are intended to be maintained to a very high level, to maximise the life-span and the day-to-day quality of play when under intensive use.

2) Keeping the surface clean will maintain the infiltration rates and therefore the attenuation versus run-off characteristics, as well as supporting the above aims.

3) Preventing fines build-up in the carpet will reduce infiltration problems that can also give rise to mould and moss problems, often controlled chemically, which MYAL wishes to avoid completely.

.

4) Drainage

Importance of maintaining attenuation over run-off is the primary aim of a regular drainage maintenance programme, including cleaning-out of silt chambers and maintenance of the outfall ditch to the northern boundary, keeping this free of leaf-mould build-up, and periodically jetting-out the main pipe(s) as required.

hemstock design

D K Hemstock, BSc.DipAgr.IEng & O D Hemstock, PhD, MA (Design)

Hemstock Design Ltd, 10a Dig Street, Ashbourne, Derbyshire DE6 1GF

M: 07850 744957 E: david@hemstock.design

EIGCA EUROPEAN INSTITUTE OF GOLF COURSE ARCHITECTS

Engineering Council

GREEN PLANET SILVER MEMBER ARCHITECTS