## BURIED SERVICES INFORMATION CHECKLIST

YOUR REF	2019_30162	OUR REF	WES	S207495	
LOCATION	**OP** MUGA at Scott Park, Coniston Roa	ELR	BSW		
MILEAGE FROM	6.1150	MILEAGE TO	6.17	200	
Utility Company/Interna	I Source	Category	Enc	Notes	
Site Map		GIS Systems	Yes		
Hazard Directory		Hazard	Yes		
Civils WES		NRG	Yes		
eB		NRG	No	NIL RETURN - see below	

NetworkRail

NIL RETURN: After interrogating the information made available to us, no records containing buried services information have been returned for this worksite. However, reference must be made to the guidelines supplied with this buried services search, which contain important information on safe working practices.

Upon receipt can you please check that the information provided agrees with this listing and if there are any discrepancies please contact the Worksite Survey Team at:

National Records Centre, Audax Road, York. YO30 4US

WorksiteSurveyTeam@networkrail.co.uk

Checklist printed on: 08/10/19





# **GEO-RINM**

This material from the Rail Infrastructure Network Model (RINM) is a guide only and although every effort will be made to ensure that the information is correct you should be aware that the information may be incomplete, inaccurate or out of date. Network Rail shall not be liable for any loss or damage, which may arise from the use of any information, contained.



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#### Infrastructure Features

Tunnel Bore

Infrastructure Network Model

- Track Link

OS MasterMap

- Points

- General Feature, Positioned...
- General Feature, Positioned...

Height Control, Bench Mark

- · Historic Interest, Structure
- Inland Water, Culvert

Political Or Administrative, Boundary...

- · Rail, Structure
- · Roadside, Structure
- Structure,
- △ Structure, Triangulation Point Or Pillar
- + Terrain And Height, Spot Height
- Symbols
  - Bench Mark
  - -o Boundary Half Mereing
  - Direction of Flow
  - Switch
  - Road Related Flow
- Line Features
  - -- Building
  - Building
  - -- Building Overhead
  - General Feature Edge
  - General Feature

- -- General Feature Underground
- -- Top of Slope
- -- Bottom of Slope
- -- Bottom of Slope
- Narrow Gauge Railway
- Standard Gauge Railway
- -- Overhead Construction
- ---- Validate General Feature
- Rail
- · Mean High Water
- --- Mean High Water
- - Mean Low Water
- Mean Low Water
- Boundaries
  - --- Political Or Administrative, County
  - -- Political Or Administrative, District
  - --- Political Or Administrative, Electoral
  - Political Or Administrative, Parish
  - --- Political Or Administrative, Parliamentary
- Buried Services Network Rail

---- Historic Cable Route

- Land Information
  - Company Ownership
    - Freehold Ownership
       Leasehold Ownership
       Prohibitive Interest
       Bridge (Rail over Rail)
       Bridge (Rail over River)
       Bridge (Rail over Road)
       Bridge (Road over Rail)
       Level Crossing
       Tunnel



COPY	RIGH	ITS
	- 20	500 C

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Legend – Track Link	Structure, Triangulation Point Or	Building Overhead	- Validate General Feature	<ul> <li>Political Or Administrative,</li> <li>Parlamentari</li> </ul>		207495 Scott Park	
Points	Terrain And Height, Spot Height	<ul> <li>General Feature Edge</li> </ul>	- Rail -	<ul> <li>Historic Cable Route</li> </ul>			
General Feature, Positioned	Symbols	- General Feature	Mean High Water	Company Ownership			
Coniferous Tree General Feature, Positioned	+- Bench Mark	General Feature Underground	- Mean High Water	Freehold Ownership	Scale	1:2,500	
Nonconiferous Tree Height Control, Bench Mark	- Boundary Half Mereing	- Top of Slope	Mean Low Water	C Perimeter Sale			
<ul> <li>Historic Interest, Structure</li> </ul>	Direction of Flow	Top of Slope	- Mean Low Water	🐉 Leasehold Ownership		08/10/19 09:28	
<ul> <li>Inland Water, Culvert</li> </ul>	- Switch	Bottom of Slope	Boundaries	🗖 Bridge (Rail over Rail)	Plot Date	06/10/19 09.20	
Political Or Administrative, Boun	- Road Related Flow	Bottom of Slope	- Political Or Administrative, Coun	Bridge (Rail over River)			
Post Or Stone     Rail, Structure	Line Features	- Narrow Gauge Ratway	- Political Or Administrative, Distri	E Bridge (Rail over Road)	Printed By		
<ul> <li>Roadside, Structure</li> </ul>	•• Building	- Standard Gauge Railway	- Political Or Administrative, Elect	Eridge (Road over Rail)	8.53		
Structure.	- Building	Overhead Construction	- Political Or Administrative, Paris	Level Crossing	Output created fro	om GeoRINM Viewer	

National



Hazard

Directory

#### **Terms and Conditions**

The National Hazard Directory (NHD) is issued by Network Rail to provide information on those hazards recorded as present on Network Rail's infrastructure. Its' purpose is to alert users to the typical hazards they may come across whilst working on Network Rail's Infrastructure. The National Hazard Directory is maintained by Network Rail to provide its employees and contractors with information on known hazards present on the infrastructure in order to assist in the identification of the associated risks working 'on or near the line'.

The records are updated regularly and therefore Network Rail believe that the contents are reasonably accurate at the time of issue, but some of the information can vary in age and accuracy so for that reason Network Rail will give no warranty as to the suitability of its use. It is recommended that all searches (in particular for buried services) should be conducted together with a site specific risk assessment/site visit, taking into account the requirements of the appropriate track safety rules, rule books/industry standards and so on. Network Rail will accept no liability in respect of the content or subsequent use of the National Hazard Directory or any of the information contained within.

Users of the Directory must note that when working on or near the line that the appropriate requirements of the Rule Book, especially the provisions of the track safety rules, must be applied as appropriate to the activity concerned.

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#### **National Hazard Directory**

#### **Customised Report**

Search Criteria: ELR(s) = BSW; Mileage From = 6.1150; Mileage To = 6.1700 Date: 08/10/2019

	16 Hazards found.							
ELR	ELR Name	Mileage From	Mileage To	Hazard Code	Hazard Description	Local Name	Track ID	Free Text
BSW	BRISTOL & SOUTH WALES UNION LINE	0.0205	16.1307	НВТ	Buried Telecommunication Cables		All/Multiple Tracks	©Note: There could be buried telecoms cables throughout this ELR. If details of cable location are known this cable MUST be identified first before any ground penetration work is carried out.@
BSW	BRISTOL & SOUTH WALES UNION LINE	6.0572	7.1232	HWR	Red Zone Working Prohibited	Patchway Up Tunnel & Exit	Up Main/Fast	Patchway Up Tunnel. Red Zone banned due to there being no position of safety <pos>. This includes the tunnel and the minimum 15 seconds sighting for the exit of the tunnel.</pos>
BSW	BRISTOL & SOUTH WALES UNION LINE	6.0836	8.0132	HWR	Red Zone Working Prohibited	Patchway Dn Long & Short Tunnel & Exit	Down Main/Fast	Patchway Down Long and Short Tunnels. Red Zone banned due to there being no position of safety <pos>. This includes the tunnel and the minimum 15 seconds sighting for the exit of the tunnel.</pos>
BSW	BRISTOL & SOUTH WALES UNION LINE	6.0902	6.1232	HBE	Buried Electrical Cables	Gloucester Road Bridge	Up Main/Fast	25kV LIVE insulated ATF feeder cables in troughing in the cess. Extra precautions should be taken when working in this area.
BSW	BRISTOL & SOUTH WALES UNION LINE	6.0979	6.1573	HBF	Buried Foul Water Service	Patchway	Down Main/Fast	ST 606818-172 M105210 Wessex Water refers to 1200 mm surface water pipe for the purpose of piping existing stream on downside cess to 6m51.75ch and from 6m51.75ch- 6m71.5ch a 1050 mm surface water pipe with 9 x manholes.See attached plan
BSW	BRISTOL & SOUTH WALES UNION LINE	6.0990	6.1469	нт	Hazard-Tripping	Patchway	Up Main/Fast	Earthwork monitoring system, yellow poles with tilt sensors and camera. Workers must avoid contact with the RCM or making sudden changes to the ground conditions being monitored, as this may result in false readings from the RCM. When performing any work where interference is likely workers must inform the operator using contact details found on the adjacent signage, or contact route control. Tripping hazard on track due to RCM being installed at ground level to monitor ground movement.
BSW	BRISTOL & SOUTH WALES UNION LINE	6.0995	6.1496	нт	Hazard-Tripping	Patchway	Up Main/Fast	Earthwork monitoring system, yellow poles with tilt sensors and camera. Workers must avoid contact with the RCM or making sudden changes to the ground conditions being monitored, as this may result in false readings from the RCM. When performing any work where interference is likely workers must inform the operator using contact details found on the adjacent signage, or contact route control. Tripping hazard on track due to RCM being installed at ground level to monitor ground movement.

ELR	ELR Name	Mileage From	Mileage To	Hazard Code	Hazard Description	Local Name	Track ID	Free Text
BSW	BRISTOL & SOUTH WALES UNION LINE	6.1144	6.1265	HBF	Buried Foul Water Service	Patchway	All/Multiple Tracks	ST606818-172 Agreement 112210 Wessex Water refers to construction of the tunnel Frome Valley Relief sewer at Patchway with 1830mm sewage pipe crossing under track between 6m52.25ch- 6m57.25ch.See attached plan.
BSW	BRISTOL & SOUTH WALES UNION LINE	6.1230	6.1230	HNR	Radio Antenna Exclusion Zone	Patchway New/Short	All/Multiple Tracks	Do not work inside site specific exclusion zone without isolation of the transmitter. For emergency outages contact Stoke TEC GSM-R desk on 0800 389 4459, quoting site reference 9467. For all planned works outage requests. Access Request Notification to be applied for through the Telecoms Disconnection process.
BSW	BRISTOL & SOUTH WALES UNION LINE	6.1232	6.1232	HST	Hazard Associated With Tunnel	Patchway	All/Multiple Tracks	ST605819-172 Railtrack Patchway New Tunnel - East portal. Up Tunnel Single Bore. Steps between split levels of railway. Tunnels - RAR Code: HST - HAZARD V.10
BSW	BRISTOL & SOUTH WALES UNION LINE	6.1232	7.1232	HST	Hazard Associated With Tunnel	Patchway New	All/Multiple Tracks	ST605819-172 Railtrack Tunnels - RAR Code: HST - HAZARD V.10
BSW	BRISTOL & SOUTH WALES UNION LINE	6.1496	7.0990	HST	Hazard Associated With Tunnel	Patchway Old1246	All/Multiple Tracks	ST603821-172 Railtrack Tunnels - RAR Code: HST - HAZARD V.10
BSW	BRISTOL & SOUTH WALES UNION LINE	6.1501	6.1501	HST	Hazard Associated With Tunnel	Patchway	All/Multiple Tracks	ST603821-172 Railtrack Patchway Old Tunnel - East portal. Down Tunnel Single Bore. Tunnels - RAR Code: HST - HAZARD V.10
BSW	BRISTOL & SOUTH WALES UNION LINE	6.1501	6.1501	HNR	Radio Antenna Exclusion Zone	Patchway Old 2	All/Multiple Tracks	Do not work inside site specific exclusion zone without isolation of the transmitter. For emergency outages contact Stoke TEC GSM-R desk on 0800 389 4459, quoting site reference 9432. For all planned works outage requests. Access Request Notification to be applied for through the Telecoms Disconnection process.
BSW	BRISTOL & SOUTH WALES UNION LINE	6.1606	7.0022	HBT	Buried Telecommunication Cables	Patchway	All/Multiple Tracks	ST601822-172 British Telecom Cables under land along/over NE side of Patchway New Tunnel. Telecom Cable - RAR Code: HOT or HBT - HAZARD V.10
BSW	BRISTOL & SOUTH WALES UNION LINE	6.1694	6.1694	HSF	Hazard Associated With Shaft	Patchway New Tnl	All/Multiple Tracks	ST599824-172 Railtrack Patchway New Tunnel - Shaft. Shaft <confined space=""> - RAR Code: HSF - HAZARD V.10</confined>

From:Morris Lee on behalf of NRG EnquiriesSent:02 October 2019 08:23To:OP Buried Services EnquiriesSubject:WES207495-Response

Thank you for your recent enquiry for buried services records from the NRG.

#### In reference to \*\*OP\*\* MUGA at Scott Park, Coniston Road, Patchway, Bristol

#### No records have been found

Kind regards, National Records Group

The information contained in these records is indicative only and should not be relied on for any purpose. No warranty or guarantee is given as to its accuracy or completeness and no liability is accepted by Network Rail for any errors or omissions or for the consequences of reliance on this information for any purpose. The actual position of infrastructure, plant, equipment and boundaries must be verified on site and the position of any underground cables or service pipes verified by cable detector or other suitable means. This information is confidential and should not be divulged to any other person or used for a purpose other than the purpose for which it was requested. The document may not be reproduced, stored in a retrieval system or transmitted in any form or by any means without the permission of Network Rail.

Appendix 2 Drawing ST08B



# Appendix E Planning Consent



# TOWN AND COUNTRY PLANNING ACT 1990 PERMISSION FOR DEVELOPMENT

Nicholas Morley Architects Ltd (Warmley) Unit 10 Corum 2 Corum Office Park Crown Way Warmley South Gloucestershire BS30 8FJ

APP REF: DATE VALID: DECISION DATE: PARISH:

PT18/1557/F 16th July 2018 5th June 2019 Patchway Town Council

## NOTICE OF DECISION

South Gloucestershire Council in pursuance of powers under the above mentioned Act hereby PERMIT:

APPLICATION NO: PT18/1557/F

**DESCRIPTION OF DEVELOPMENT:** Removal of existing hard-court pitch. Construction of artificial turf pitch, including installation of 6no. floodlights and erection of perimeter fence. Erection of artificially turfed cricket nets (Resubmission of PT17/2903/F).

APPLICANT: Patchway Town Council

In accordance with the application and accompanying plans, subject to the conditions specified below:

#### CONDITIONS

1. The development hereby permitted shall be begun before the expiration of three years from the date of this permission.

#### Reason

To comply with the requirements of Section 91 of the Town & Country Planning Act 1990 (as amended).

Strategic Planning, South Gloucestershire Council, Department For Environment And Community Services, PO Box 1954, Bristol, BS37 0DD Telephone: 01454 868004 Email: planningapplications@southglos.gov.uk

PT18/1557/F

LOCATION: Norman Scott Park Coniston Road Patchway South Gloucestershire BS34 5JR



2. No pitch hereby permitted shall be used until the floodlights have been installed in accordance with the approved lighting documents (Proposed Floodlighting plan and Lighting Impact Assessment - received 09.05.2019; Floodlight Details, Luminaire/source Intensity plan, Proposed Floodlighting plan and Morley correspondence - received 30.05.2019). Thereafter, all floodlighting associated with the development shall be switched off between the hours of 22:00hrs to 09:00 Monday to Sunday, including Bank Holidays.

#### Reason

To protect the amenities of the occupiers of nearby dwelling houses, and to accord with Policy PSP21 of the South Gloucestershire Local Plan: Policies, Sites and Places Plan (Adopted) November 2017; and the provisions of the National Planning Policy Framework 2019.

3. All works must proceed in strict accordance with the approved arboricultural documents (Barton Hyett, November 2018).

#### Reason

To ensure the works are carried out in an appropriate manner and in the interests of the health and visual amenity of the retained trees, and to accord with Policy PSP3 of the South Gloucestershire Local Plan: Policies, Sites and Places Plan (Adopted) November 2017; Policy CS1 and CS9 of the South Gloucestershire Local Plan: Core Strategy (Adopted) December 2013; and the provisions of the National Planning Policy Framework 2019.

4. No pitch hereby permitted shall be used until the mitigation measures set out in Section 8 of the Noise Impact Assessment (Red Twin Limited, March 2019) have been implemented in full and thereafter permanently maintained.

#### Reason

To protect the amenities of the occupiers of nearby dwelling houses, and to accord with Policy PSP21 of the South Gloucestershire Local Plan: Policies, Sites and Places Plan (Adopted) November 2017; and the provisions of the National Planning Policy Framework 2019.

5. The development shall be implemented strictly in accordance with the following plans:

Received 05.06.2018: Proposed Cricket Net Cage Elevations (NSPCC004 Rev A) Proposed Cricket Net Layout Plan (NSPCC003 Rev A)

Received 16.07.2018: Multi Use Games Pitch Existing Elevations (ST06A) Multi Use Games Pitch Proposed Elevations (ST05B)

Received 08.11.2018:

Strategic Planning, South Gloucestershire Council, Department For Environment And Community Services, PO Box 1954, Bristol, BS37 0DD Telephone: 01454 868004 Email: <u>planningapplications@southglos.gov.uk</u>



Existing Block Plan 1:500 (ST01B) Proposed Block Plan 1:500 (ST02B) Existing Pitch Floor Plan (1:100) (ST03B) Proposed Pitch Floor Plan (1:100) (ST04A) Existing Site Plan including Football Pitches (1:200) (ST07A) Proposed Site Plan including Football Pitches (1:200) (ST08A)

Revcived 22.01.2019: Site Location Plan (LC01B)

Reason For the avoidance of doubt.

# IN ACCORDANCE WITH ARTICLE 35 OF THE TOWN AND COUNTRY PLANNING (DEVELOPMENT MANAGEMENT PROCEDURE) ORDER 2015. POSITIVE AND PROACTIVE STATEMENT:

In dealing with this planning application the Local Planning Authority have worked with the applicant in a positive and proactive manner by requesting amendments to overcome statutory consultee and officer concerns.

#### ADDITIONAL INFORMATION

- 1. This permission shall not be construed as granting rights to carry out works on, or over, land not within the ownership, or control, of the applicant.
- 2. You must obtain the prior written consent of the owner and occupier of any land upon which it is necessary for you to enter in order to construct, externally finish, decorate or in any other way carry out any works in connection with this development including future repairs/maintenance, or to obtain support from adjoining property. This permission does not authorise you to take such action without first obtaining this consent. Your attention is also drawn to the Access of Neighbouring Land Act 1992 and Party Wall Act 1996.
- 3. This Decision Notice grants planning permission. You are advised that it does not imply compliance with Building Regulations and it is essential that you contact the Council's Building Control Manager with regard to your proposals before proceeding.
- 4. Construction Sites
- 1. Any existing buildings on site shall be assessed for asbestos materials prior to demolition. Any asbestos must be removed in full consultation with the Health & Safety Executive and safely disposed of providing a full audit trail of waste disposal.

Strategic Planning, South Gloucestershire Council, Department For Environment And Community Services, PO Box 1954, Bristol, BS37 0DD

Telephone: 01454 868004 Email: planningapplications@southglos.gov.uk



- 3. All plant and equipment shall be suitably chosen, sited, operated and serviced so as to minimise noise, vibration, fumes and dust. Best practical means shall be employed to minimise potential nuisance to neighbouring properties. All plant should be turned off when not in use.
- 4. Pneumatic tools shall be fitted with an integral silencer and/or purpose made muffler, which is maintained in good repair.
- 5. In periods of dry weather, dust control measures shall be employed including wheel washing and damping down. Any stockpiles of materials which are likely to give rise to windblown dust, shall be sheeted, wetted or so located as to minimise any potential nuisance. Lorries carrying waste material from the site shall be covered or sheeted at all times.
- 6. Where the site is adjacent to residential or business premises, all waste materials shall be removed from site and suitably disposed of. No burning of waste material is permitted.
- 7. Radio noise shall not be audible at the boundary of the nearest neighbouring property.
- 8. Any temporary oil storage tanks shall be safely and securely sited so as to prevent pollution in the events of spills or leakage. It is also strongly recommended that any oil storage tank should be surrounded by an impervious oil/watertight bund having a capacity of at least 110% of the tank.
- 9. Neighbouring residential premises shall be advised of any unavoidable late night or early morning working which may cause disturbance. Any such works shall be notified to the Environmental Services Department on (01454) 868001 prior to commencement.

PLEASE NOTE: The development hereby permitted must be implemented in accordance with plans hereby approved and any conditions specified above. The conditions may specify that works are to be carried out or details are required to be submitted for further approval, before all or part of the development is otherwise commenced. For further information regarding the discharge of Planning Conditions and the relevant forms please view "compliance with conditions" on our website, <u>www.southglos.gov.uk</u> If the permission is commenced without these requirements being fully met, or in any other manner, the development may be unauthorised and the permission invalidated. The council holds a definitive copy of this planning decision notice. You should be aware of the risk that subsequent copies of the decision notice may be subject to unauthorised alteration and if Strategic Planning, South Gloucestershire Council, Department For Environment And Community Services, PO Box 1954, Bristol, BS37 0DD

Telephone: 01454 868004 Email: planningapplications@southglos.gov.uk



necessary you are advised to refer to the council for verification. The definitive copy can be viewed via the council's planning website.

DEVELOPMENT MANAGER;

DATE: 5th June 2019

Strategic Planning, South Gloucestershire Council, Department For Environment And Community Services, PO Box 1954, Bristol, BS37 0DD Telephone: 01454 868004 Email: <u>planningapplications@southglos.gov.uk</u>

#### PLANNING PERMISSION THE NEXT STEPS

Your Decision could be subject to conditions. It is essential that you comply with these conditions in order to protect your planning permission. If you have conditions requiring details to be submitted prior to the commencement of development then failure to discharge these conditions could invalidate your planning permission and result in enforcement action being taken against the development.

#### HOW TO APPLY TO DISCHARGE CONDITIONS ON YOUR PLANNING PERMISSION

If the condition requires you to agree something in writing with the Authority before development commences then you will need to consider submitting these details at least 8 weeks prior to starting work. In order to submit your application, you can do so by one of the following options:

- Submit an online application using the Planning Portal online application service www.planningportal.gov.uk/
- Complete an application form online via the Planning Portal online Application service, <u>www.planningportal.gov.uk/</u> printing it off and enclosing it with the correct plans, fee and details before sending it to Development Services.
- Download a copy of the application form from the South Gloucestershire website on <u>www.southglos.gov.uk/planning</u>.
- Request a paper copy from our PT&SE Customer Contact Centre by calling 01454 868004.
- Visit one of the Council One Stop Shop receptions to collect a paper copy of the application form.

The fee amount is £34 per request relating to 'householder' applications and £116 for any other full planning applications.

The fee is payable for each submission (a single submission may be for more than one condition to be discharged).

#### **COMMUNITY INFRASTRUCTURE LEVY (CIL)**

If this application has been identified as being liable to CIL you should not commence development until the requirements and obligations under CIL have been established. If we require further information we will write to you requesting this. Where we already have clear information about the proposal and assumed liability we will issue a liability notice shortly. Further information can be found on our website at www.southglos.gov.uk/environment-and-planning/planning/community-infrastructure-levy

#### **BUILDING REGULATIONS**

You might require separate Building Control approval and you can also secure this through the Council. For advice on development requiring Building Regulations approval please visit the Planning Portal or contact our Team on 01454 863451

#### **ACTING AS AN AGENT?**

Please forward the full copy of this decision to your client and advise them of any conditions. The Council continues to be involved with enforcement action taken against applicants who claim not to have been passed the decision by their Agent.

Appendix F Flood Lighting Information (Planning Condition 2)

Proposed Floodlighting plan

Lighting Impact Assessment

Floodlight details

Morley correspondence





# Patchway Sports Association Pitch Floodlighting Lighting Impact Study/Overspill Readings

Project Ref: 02765

Report By - JS

27/04/2018



#### Introduction

This report has been commissioned by Halliday Lighting to examine the proposed floodlighting installation at Patchway Sports Association. The proposed floodlighting consists of six number Osram Siteco FL20 MAXI LED floodlights to light the artificial areas for recreational play and general games to allow safe playing conditions in the winter months.

The report has been produced by Halliday Lighting, a specialist Sports Lighting Contractor with over 50 years of experience in Sports Lighting Engineering.

#### Site Location

The sports pitch is located Bristol and is indicated on the aerial view below.

The surrounding land consists mainly of residential housing. The nearest surrounding residential property is to the East, South and West of the Muti Use Games Area.





#### Summary

The floodlighting proposals have been assessed using the design guidance outlined in the *Sport England Artificial Sports Lighting Guidelines 2012* installation for a Multi-Use Games Area. This recommends a maintained average lighting level of 200 Lux, with uniformity (min/ave) of 0.60. Details of how to calculate the optimum mast height are also shown and this should be 10m for a Multi-Use Games Area of this size.

In order to ensure compliance with recommended light containment limitations the *ILP 'Guidance notes for the reduction of obtrusive light'* have been consulted. This document categorises the environment into five zones according to the degree of urbanisation and background illumination. The environmental zones categories are shown in Table 1 along with the allowances for spill light and glare in Table 2.

Zone	Surrounding	Lighting Environment	Examples
E0	Protected	Dark	UNESCO Starlight Reserves, IDA Dark Sky Parks
E1	Natural	Intrinsically dark	National Parks, Areas of Outstanding Natural Beauty etc
E2	Rural	Low district brightness	Village or relatively dark outer suburban locations
E3	Suburban	Medium district brightness	Small town centres or suburban locations
E4	Urban	High district brightness	Town/city centres with high levels of night time activity



Environment al Zone	Sky Glow ULR [Max %] <sup>(1)</sup>	(into W	ntrusion indows) ux] <sup>(2)</sup>	Luminaire Intensity I [candelas] <sup>(3)</sup>		Building Luminance Pre-curfew (4)	
			Pre <del>-</del> curfew	Post- curfew	Pre- curfew	Post- curfew	Average, L [cd/m <sup>2</sup> ]
EO	0	0	0	0	0	0	
E1	0	2	0(1*)	2,500	0	0	
E2	2.5	5	1	7,500	500	5	
E3	5.0	10	2	10,000	1,000	10	
E4	15	25	5	25,000	2,500	25	

The site at Patchway Sports Association is in an rural area with High district brightness, the recommendations for an environmental zone E2 have therefore been applied.

#### **Proposed Lighting System**

The proposed floodlighting system has been designed using floodlights manufactured by Osram. The floodlights we propose to use are Siteco FL20 LED sports floodlights which features flat glass style optics designed to reduce upward waste light and overspill.

The lighting design details are shown on Halliday report Ref HLS02765/REV2. The drawing shows the proposed mast locations, floodlight orientation, pitch lighting levels and overspill predictions.

The proposals have been designed are using an independent lighting software package Calculux and confirmed as producing 99.999% correlation to the SI Standard Calculation.

The proposed masts are 10m high in line with the calculated optimum resulting in floodlight beam elevations of between 5° and 10° which complies with the ILP recommended maximum of 70°.

#### Conclusion

The proposed lighting system has been designed to meet the specific lighting requirements for recreational play of large ball sports, whilst ensuring that nationally recognised environmental lighting standards are adhered to. Sufficient measures are put in place and are adhered to.

The proposed system will therefore allow participants to play in safety whilst maintaining the amenity of neighboring properties.

For and on behalf of

Halliday Lighting



#### **Standards and Guidance**

The following lighting guides and documents have been used for reference.

ILP 'Guidance notes for the Reduction of Obtrusive Light' 2011

The Society of Light and Lighting(CIBSE), Lighting Guide 4 "Sports Lighting" 2006

BS EN 12193 'Sports Lighting'.

Clean Neighbourhoods and Environment Act 2005

**Railway Group Standards** 

#### <u>Glossary</u>

#### Lumen

The standard unit of light (luminous flux) used in describing light emitted by a source or received by a surface.

#### Iluminance and Maintained Illuminance(lumens/m2 or lux)

Illuminance is the term used to describe the level of light on a surface in lumens/square metre or lux. Maintained illuminance is the term used to describe the average illuminance on a reference surface e.g. desktop, at the time maintenance has to be carried out.

#### **Horizontal Illuminance**

The level of light falling on to a horizontal plane(ie The Ground).

#### **Vertical Illuminance**

The level of light falling on to a vertical plane(ie The walls of a house).

#### Light Output Ratio (LOR)

This is the ratio of the total light output of a luminaire, relative to the total light output of the lamp/s under reference conditions. Total LOR can be divided into downward(DLOR) and upward(ULOR) light output ratios if appropriate.

#### Light Intrusion (Light trespass, Overspill, Light into windows).

The flow of light spilling outside the location boundary. With inadequate control Intrusive light may be sufficiently great as to provide a serious nuisance and disturbance to adjacent areas.

#### Glare.

Glare may be divided into 2 types known as disability and discomfort glare. In a Sports Lighting context it relates primarily to direct viewing of the floodlights. Only in severe situations would disability glare be experienced. In most instances it is discomfort glare that may result, causing annoyance to the viewer if inadequate screening of floodlights is not provided.



#### **Sky Glow**

The general term for the Halo-effect caused by upwardly directed light, forming a glow in the night sky. It can cause diminished contrast of stars against their dark background making astronomical observations difficult and often impossible. The upwardly directed light can be caused by direct waste light from floodlights or indirect redirected light from the sports surface.

#### ILP

The Institution of Lighting Professionals.

#### ILP 'Guidance notes for the reduction of light pollution'

A booklet produced by the ILP providing advice on reducing the impact of exterior lighting installations on the environment. The degree of permissible overspill & ULOR varies depending on the environmental zone as categorized in the guidance notes. Due to the higher ambient lighting levels in built up areas the restrictions are not as stringent in city centres, were as dark landscapes & rural areas require tighter control

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# Overview of product data: 5XA7693F2F1A

LED

#### FL20mx,PL44T,LED910001m740,Basic,bracket

#### **Product description**

Floodlight 20 maxi LED, floodlight, primary light control with lens, of PMMA, primary optical cover: cover panel, of toughened safety glass, transparent, light distribution: PL44T, light emission: direct distribution, installation type: surface-mounted, LED, LED High Power, luminous flux: 91.000 lm, luminous efficacy: 102lm/W, light colour: 740, colour temperature: 4000K, control gear: ECG Basic, control: power reduction, overheat protection, electronic power reduction, with terminal, 4-pole, max. 2.5mm<sup>2</sup>, mains connection: 220..240V, AC, 50/60Hz, connected load: 890W, LED unit, luminaire module, of diecast aluminium, housing frame, of diecast aluminium, mounting bracket, of steel, ON/OFF, protection rating (complete): IP66, insulation class (complete): insulation class I (protective earthing), certification: CE, ENEC in preparation, ball protection: ball impact resistant, permissible ambient temperature for indoor applications: -40..+40°C, permissible ambient temperature for outdoor applications: -40..+50°C, packaging unit: 1 piece

## ∰ IP 66 ⊕ 🗜 🐼 C€

Lamps:	LED
Wt. (kg):	38.7
Order No.:	5XA7693F2F1A
GTIN (EAN):	4058352011881

5XA7693F2F1A: 2x LED 4000K / CRI ≥ 70

4058352011881 5XA7693F2F1A





Luminous intensity class according to EN13201-2: G6







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#### Product data details: 5XA7693F2F1A

#### FL20mx,PL44T,LED91000lm740,Basic,bracket

Detailed technical description

#### Key data

- Product type: floodlight
- Family: Floodlight 20 maxi LED
- Order No.: 5XA7693F2F1A

#### Lighting technology | Lamps | Control gear

#### Component 1

#### Lighting technology:

- Light control: lens of PMMA
- Cover: cover panel, transparent
- Light distribution: PL44T
- · Light emission: direct distribution

#### Lamps:

- Lamps: with LED High Power, LED
- Net luminous flux: 91000lm
- Luminous efficacy: 102lm/W
- Colour temperature: 4000K
- Light colour: 740
- Connected load: 890W

#### Operating device:

- Control gear: ECG Basic
- Control: Basic
- Equipment: overheat protection, power reduction
- Switching method: electronic power reduction

#### Material | Colour

- LED unit: diecast aluminium
- luminaire module: diecast aluminium
- housing frame: diecast aluminium
- mounting bracket: steel
- Cover: cover panel of toughened safety glass

#### Mounting

- Mounting method, mounting location: surface-mounted, to supporting structure, to the cross arm
- Arrangement: single arrangement
- Supplement: with mounting bracket

#### **Electrical connection**

- Connection: terminal, 4-pole, max. 2.5mm<sup>2</sup>
- Nominal voltage: 220..240V, AC, 50/60Hz
- Surge voltage resistance: 4kV 1.2/50µs

#### Dimensions | Weight

• Weight: 38.7kg

#### Certificates | Standards

- Protection rating: IP66
- Insulation class: insulation class I (protective earthing)
- Permissible ambient temperature: -40..+40°C
- Certification, designation: CE, ENEC in preparation

#### Light emission

Light emission: 0% at 0° inclination

#### Service life

Service life: service life = 50,000h at AT = 10°C



#### Dimensions: 5XA7693F2F1A

## FL20mx,PL44T,LED910001m740,Basic,bracket



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From: Nick Morley Architects Ltd Sent: 30 May 2019 16:01 To: Helen Braine (Planning Officer) Subject: Re: Scott Park Patchway - PT18/1557/F

#### Helen

I attach text of email and data sheets hopefully this is the last piece of information you require.

- 1. Vertical illuminance lighting levels on nearby properties (All properties under 5lux)
- 2. Luminaire/Source intensity This has been measured in candelas (light intrusion into window), within the environmental zoning of E2 a maximum of 7,500cd is required Pre curfew our lighting scheme complies well within this regulation
- 3. The proposed Osram PL44T Datasheet shows details on the ULR of the floodlight 0% ULR will be given on this scheme. With use of flat glass luminaire technology this floodlight is able to use 0% ULR when mounted.

Thank you

#### Nick Morley

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Appendix G Arboricultural Impact Assessment (Planning Condition 3)