

## **New Artificial Turf Multi Use Games and Cricket Nets**

At Norman Scott Park, Coniston Road, Patchway, Bristol BS34 5JR  
For Patchway Town Council

### **Performance Specification**

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#### **1 GENERALLY**

##### **1.1 Contractor's Design**

1.2 The contractor is to be responsible for the design and specification of the Works in accordance with all relevant standards and guidelines.

1.3 The Contractor is to ensure the works are fit for their intended purpose.

1.4 Contractor to state terms and length of guarantee for the installations.

##### **2.0 Standards of Workmanship and Materials**

2.1 Where and to the extent that materials, products and workmanship are not fully detailed or specified they are to be of a standard appropriate to the Works and suitable for the functions stated in or reasonably to be inferred from the project documents, and in accordance with relevant good building practice.

2.2 Products to be new unless otherwise specified.

2.3 The synthetic (artificial) turf sports pitch and ancillary works and fencing to be in compliance with the SAPCA Code of Practices.

2.4 Products are to be to British and/ or European Standards. Provide certificates of compliance from manufacturers when requested.

2.5 Ensure that the whole quantity of each product required is of consistent kind, size, quality and overall appearance.

2.6 Ensure consistency of supply from the same source. Do not use different colour batches where they can be seen together.

2.7 If products are prone to deterioration or have a limited shelf life, order in suitable quantities to a programme and use in appropriate sequence. Do not use if there are any signs of deterioration, setting or other unsatisfactory condition.

2.8 Handle, store, prepare and use or fix each product in accordance with its manufacturer's current printed or written recommendations. Inform CA if these conflict with any other specified requirement. Submit copies when requested.

2.9 The tender will be deemed to be based on the products specified and recommendations on their use given in the manufacturers' literature current at the date of tender.

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- 2.10 Prevent over-stressing, distortion and other damage to materials and the like for incorporation into the Works.
- 2.11 Keep materials and the like clean and free from contamination. Prevent staining, chipping, scratching or other disfigurement, particularly of products exposed to view in the finished work. Keep dry to prevent premature setting, moisture movement and similar defects. Where appropriate store off the ground and allow free air movement between stored products.
- 2.12 Protect all materials and completed works adequately from rain, damp, frost, sun and other elements as appropriate. Ensure that products are at a suitable temperature and moisture content at time of use.
- 2.13 Keep products in their original wrappings, packings or containers until immediately before they are used. Wherever possible retain protective wrappings after fixing and until shortly before Practical Completion.
- 2.14 Ensure all necessary preparatory work has been carried out, including provision for services, openings, supports, fixings, damp proofing, priming and sealing.
- 2.15 Inspect components and products carefully before fixing or using and reject any which are defective.
- 2.16 Provide suitable packings at screwed and bolted fixings to take up tolerances and prevent distortion. Do not overtighten.
- 2.17 Adjust location and fixing of components and products so that joints which are open to view are even and regular.
- 2.18 Ensure that all moving parts operate properly and freely. Do not cut, grind or plane prefinished components and products to remedy binding or poor fit without approval.
- 2.19 SAMPLES: Where approval of a product is specified the requirement for approval relates to a sample of the product and not to the product as used in the Works. Submit a sample or other evidence of suitability. Do not confirm orders or use the product until approval of the sample has been obtained. Retain approved sample in good, clean condition on site. Ensure that the product used in the Works matches the approved sample.
- 2.20 APPROVALS: Where and to the extent that products or work are specified to be approved or instructs or requires that they are to be approved, the same must be supplied and executed to comply with all other requirements and in respect of the stated or implied characteristics

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either: To the express approval of the Employer or to match a sample expressly approved as a standard for the purpose.

- 2.21 SETTING OUT: Check the levels and dimensions of the site against those shown on the drawings and record the results on a copy of the drawings. Notify the Employer in writing of any discrepancies and obtain instructions before proceeding.
  - 2.22 Arrange the setting out, erection, juxtaposition of components and application of finishes to ensure satisfactory fit at junctions, with no practically or visually unacceptable changes in plane, line or level and a true, regular finished appearance.
  - 2.23 Wherever satisfactory accuracy, fit and/or appearance of the work are likely to be critical or difficult to achieve obtain approval of proposals or of the appearance of the relevant aspects of the partially finished work as early as possible.
  - 2.24 SERVICES REGULATIONS: Any work carried out to or which affects new or existing services must be in accordance with the Bye Laws or Regulations of the relevant Statutory Authority.
  - 2.25 Notify Services Undertaker/ Utility companies of any work carried out to or which affects new or existing services and submit any required plans, diagrams and details.
  - 2.26 Allow adequate time to receive Undertaker's consent before starting work. Inform immediately if consent is withheld or is granted subject to significant conditions.
  - 2.27 Provide a written statement that the installation complies with the relevant services Regulations or Byelaws.
  - 2.28 SECURITY AT COMPLETION: Leave the Works secure with all accesses locked. Account for and adequately label all keys and hand over to Employer with itemised schedule, retaining duplicate schedule signed by Employer as a receipt.
  - 2.29 MAKING GOOD DEFECTS: Make arrangements with the Employer and give reasonable notice of the precise dates for access to the various parts of the Works for purposes of making good defects. Inform the Employer when remedial works to the various parts of the Works are completed.
- 3.0 Demolition**
- 3.1 Standard: Demolition to be in accordance with BS 6187 and undertaken by appropriately skilled and experienced for the type of work.



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- 3.2 Site staff responsible for supervision and control of work are to be experienced in the assessment of risks involved and methods of deconstruction/ demolition to be used.
- 3.3 Reduce airborne dust by periodically spraying deconstruction/ demolition works with an appropriate wetting agent. Keep public roadways and footpaths clear of mud and debris.
- 3.4 Protect existing property from damage. Make good any damage arising in the course of the works to match the surrounding in materials and finish.
- 3.5 Remove old foundations, slabs and the like: Break out in locations and to the extents stated and remove from site to a licensed tip. Deconstruct/ demolish down to natural ground.
- 3.6 Contaminated material: Remove to licensed tip and carry out remediation required by the Enforcing Authority.
- 3.7 Work carried out to or affecting new and/ or existing services: Carry out in accordance with the byelaws and/ or regulations of the relevant Statutory Authority.
- 3.8 Services affected by deconstruction/ demolition work: Locate and mark positions.
- 3.9 Mains services marking: Arrange with the appropriate authorities for services to be located and marked.
- 3.10 All drains and associated manholes, inspection chambers, gullies, vent pipes and fittings: Protect; maintain normal flow during deconstruction/ demolition. Make good any damage arising from deconstruction/ demolition work. Leave clean and in working order at completion of deconstruction/ demolition work.
- 3.11 Give notice immediately of suspected asbestos-containing materials when discovered during deconstruction/ demolition work. Avoid disturbing such materials. Removal: Submit statutory risk assessments and details of proposed methods for safe removal.
- 4.0 Groundworks**
- 4.1 Clear site of rubbish, debris and vegetation. Do not compact topsoil.
- 4.2 Keep excavations free from water.
- 4.3 Make advance arrangements for inspection by the Employer of formations and granular beds to witness compaction.

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- 4.4 Dispose of excavated material off site to a licensed tip. Excavated earth may be deposited in spoil heaps around the MUGA, shaped and landscaped to form viewing areas subject to the Employer's approval.
- 4.5 Compact bottoms of excavations and treat with herbicide.
- 4.6 Proposed fill materials for subbase and making up levels; Contractor's choice. Submit details for Employer's approval.
- 4.7 Do not place fill on frozen surfaces. Remove material affected by frost. Replace and recompact if not damaged after thawing.
- 4.8 Geotextile membrane; Contractor's choice. Submit details for Employer's approval including jointing, laps and preparation of subbase.
- 4.9 Proprietary precast concrete to be to BS EN 1340.
- 4.10 Edgings; Contractor's choice. Submit details for Employer's approval including size, foundation and haunching.

### **5.0 Security fencing**

- 5.1 868 Twin Bar Rigid Panel Security Fencing (22mm overall thickness) welded mesh steel PVC coated fence, consisting of a single 6mm vertical and double 8mm horizontal wires with fence panels spot welded at each join to form a 200mm x 50mm mesh and to be clamped with resilient fixings to avoid vibrations. Contractor to provide sample for approval.
- 5.2 All posts and mesh to be fully hot dipped galvanised to BS EN ISO 1461 or hot dipped galvanised to BS EN ISO 1461 and polyester powder coated (PPC). Contractor to provide sample for approval and provide details of post size, centre spacing, depth and size of foundations.
- 5.3 Gates to be in matching materials with flat section framing, braces etc complete with locking bar, lock handles, drop bolt, gate stop, holding back catches and hollow steel section posts with cap and foot plate.

## **6 MULTI USE GAMES AREA**

### **6.0 Generally**

- 6.1 To comply with World Rugby 22 specification *(i.e. including a thicker shockpad and longer synthetic grass to meet the Head Impact Criteria (HIC) required for contact rugby practice)*.
- 6.2 To be in accordance with Sport England Guidance for Artificial Surfaces for Outdoor Sport

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- 6.3 Playing surface to be a minimum 45 x 40m with 2 nr. recesses each 7.5 x 2.0m.
- 7.0 **Sub-base**
- 7.1 MOT Type 3 or similar approved bed minimum thickness to suit contractor's design.
- 7.2 Porous macadam 10mm aggregate surfacing to subbase or similar; Contractor's choice. Submit details for Employer's approval.
- 8.0 **Shock Pad**
- 8.1 Contractor's choice. Submit details for Employer's approval including depth and certification in compliance with World Rugby 22 Specification.
- 9.0 **Artificial Turf**
- 9.1 Contractor's choice (FieldTurf Prestige XM7 60 or equivalent). Submit details for Employer's approval including length of turf and certification in compliance with World Rugby 22 Specification.
- 10.0 **Line Markings**
- 10.1 To be permanent- Contractor's choice. Submit details for Employer's approval.
- 11.0 **Flood Lighting**
- 11.1 To be in accordance with;  
Sport England Artificial Sports Lighting Guidelines 2012;  
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
- 11.2 Installation is to maintain an average lighting level of 200 Lux, with uniformity (min/ave) of 0.60.
- 11.3 Vertical illuminance lighting levels on nearby properties to be less than 5 lux.
- 11.4 Sport England Artificial Sports Lighting Guidelines 2012 guidelines indicate the optimum mast height should be 10m for a Multi-Use Games Area of this size. The Contractor is to check their proposed installation against these guidelines and adjust their design as necessary. Provide the Employer with calculations for approval.



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- 11.5 The mast height is to result in floodlight beam elevations of between 5° and 10° which complies with the ILP recommended maximum of 70°.
- 11.6 The proposed floodlighting should be Osram Siteco FL20 MAXI LED floodlights or similar approved which features flat glass style optics designed to reduce upward waste light and overspill.
- 11.7 Contractor to provide details of floodlight masts for approval including size, materials, finish plus depth and size of foundations.
- 12.0 **Drainage**
- 12.1 Contractor's design to remove surface water to adjacent sewer.
- 13 **CRICKET Nets**
- 13.1 Generally
- 13.2 Design and installation to be in accordance with ECB Guidance Notes for the Provision and Installation of Non-Turf Cricket Pitches and Net Cage Facilities.
- 13.3 All designs and specifications are in full accordance with ECB TS6 and ECB Non-Turf Pitch Code of Practice Accreditation and are to be formally approved by The England & Wales Cricket Board.
- 13.4 Installers are to be NTP code of practice accredited.
- 13.5 Preferred system type: Double shockpad system; NottsBase D System or similar ECB approved. Alternative ECB Approved systems that are also non-responsive to moisture content will also be considered.
- 13.6 The facility is to comprise a single section continuous 24.2m long x 7.32m (total) width practice pitches with two lanes and run up 30.14m x 9.32m; Double Lane 4.0m High Cage & Netting Facility- 21.96m long x 3.66m wide per lane (7.32m total width) x 4.0m high with 1.5m gap between back of the batting ends and the cage/netting to meet ECB guidelines.
- 14.0 **Subbase**
- 14.1 MOT Type 1 or similar approved bed minimum thickness to suit contractor's design.
- 14.2 Provide geotextile membrane, sand bed as required; Contractor's choice- Submit details for Employer's approval.
- 15.0 **Intermediate selected granular bed**



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- 15.1 Minimum 50mm bed of porous granular fill with particles not exceeding 10mm to manufacturer's specification.
- 16.0 **Batting & Bowling Ends**
- 16.1 Double Shock Pad, Nottsbase and NottsPad; or similar, submit details for Employer's approval.
- 16.2 Synthetic non-turf cricket surface Notts, NottsGrass Ultra; or similar, submit details for Employer's approval.
- 16.3 Alternative surfaces within ECB Approved systems will be considered Please highlight within the tender whether the proposed surface is a NottsBase D System and synthetic non-turf surface, or an alternative option).
- 17.0 **Run up**
- 17.1 Provide geotextile membrane, sand and granular beds as required; Contractor's choice- Submit details for Employer's approval.
- 17.2 Sub base of non-frost susceptible free draining aggregate; consolidated all to manufacturer's specification.
- 17.3 Synthetic non-turf cricket surface; VHAF NottsSward ; or similar, submit details for Employer's approval.
- 18.0 **Line Markings**
- 18.1 To be permanent- Contractor's choice. Submit details for Employer's approval.
- 18.2 Provide lines of each of the three stumps.
- 19.0 **Cage & Netting Facility**
- 19.1 Cage/netting to meet ECB guidelines; 3mm thick, 42.4mm outside diameter (OD) galvanised tubular steel with locking collars under each roof clamp; 3mm high tenacity 40mm mesh size knotless polypropylene netting (green or black) to wings and full roof.
- 19.2 Individual tunnel nets to each lane, eliminating gaps between roof and vertical nets, and providing a double skin of netting between each lane.
- 19.3 White high tenacity 20mm mesh size knotless polypropylene netting to the end behind the batsmen.

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- 19.4      Tensionable line-wire system to prevent balls escaping under netting and reducing net billowing.
- 19.5      White netting sightscreen behind bowler's arm.

**Appendix C   Pricing Schedules**

The Contractor is to provide a Priced Work Schedule to confirm the breakdown of his contract sum.



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**Work Schedules for Pricing**

**for**

**Patchway Town Council**

Melrose Associates  
1a Trymwood Parade  
Stoke Bishop  
Bristol  
BS9 2DP  
Tel +44 (0) 117 962 1403

Ref	Description	Total £
1.0	<b>PRELIMINARIES</b>	
	MANAGEMENT AND STAFF	
	SITE ACCOMMODATION	
	SERVICES AND FACILITIES	
	CONTRACTOR'S GENERAL COST ITEMS: MECHANICAL PLANT	
	CONTRACTOR'S GENERAL COST ITEMS: TEMPORARY WORKS	
	WORK BY STATUTORY UNDERTAKERS	
	CDM, SAFETY, HEALTH & WELFARE	
	TEMPORARY ROADS AND ACCESS	
	SAFETY FENCING AND GATES	
	INSURANCES	
	CONTRACTOR'S DESIGN	
	TRAINING EMPLOYERS OPERATIVES	
	MAINTENANCE OF THE WORKS FOR 12 MONTHS	
	OPERATION & MAINTENANCE MANUALS	
	AS BUILT DRAWINGS	
	COMPLIANCE WITH ARBORICULTURIST REPORT	
	ANY OTHER PRELIMINARIES ITEMS (please list on separate page(s))	
	<b>Total carried to General Summary</b>	

Ref	Description	Total £
<b>2.0</b>	<b>MULTI USE GAMES AREA</b>	
	<u>Demolition</u> (the tenderer should visit site to ascertain the full extent of the work)	
1	Disconnect and make safe electrical supply to existing flood lights	
2	Remove existing floodlights including base and cart away	
3	Remove basketball equipment including base and cart away	
4	Remove chain link fencing and gates including posts and bases and cart away	
5	Remove low level timber rail fencing including posts and bases and cart away	
	<u>Groundworks</u>	
6	Remove vegetation and shrubs as necessary for the Works	
7	Break up existing hard paving including subbase	
8	Remove from site arisings from breaking out hard paving (provisional)	
9	Excavate topsoil to working area and deposit in temporary spoil heaps.	
10	Excavate to reduce levels and deposit in spoil heaps, spread and shape to form viewing platform as directed on site, spread top soil and grass seed. Maintain until grass is established	
11	Allow for keeping excavations from water	
12	Level, compact, treat excavation formation with herbicide and lay geotextile membrane	
13	Crush and treat arising to provide sub base to new pitch laid and compacted as required	
	<b><u>Contractor's Designed works</u></b>	
	<u>Drainage</u>	
14	Install drainage system to games area.	
15	Allow provisional sum of £750.00 for work to and connection into existing surface water drainage system	
	<u>Retaining works to perimeter</u>	



Ref	Description	Total £
<b>2.0</b>	<b>MULTI USE GAMES AREA</b>	
1	Install retaining structure to the perimeter of the games area as required to suit the contractor's system and existing ground levels (minimum requirement 50 x 150 precast concrete edging on and including concrete base and haunched both sides	
	<u>Subbase</u>	
2	Sub base fill as required	
3	Porous macadam finish or similar to suit contractor's system	
	<u>Artificial Surface</u>	
4	Shockpad membranes	
5	Artificial turf	
6	Permanent markings for 1 nr 5v5 and 7v7	
	<u>Perimeter fence</u>	
7	4.5m High security fence	
8	1.2m High rebound panels	
9	Single gate (2 nr)	
10	Double gate (1 nr)	
11	Coded Lock	
	<u>Floodlighting</u>	
12	LED floodlighting system	
13	Connection into existing power supply in sports pavilion including new cable, excavation of trench, reinstatement, builders work and making good	
	<u>Miscellaneous</u>	
14	Provide Quarterly maintenance during the first year	
15	Maintenance Equipment required for up keep of the pitch including a 3G roller (contractor to provide details of the equipment needed and included in the price)	
16	Testing as necessary in compliance with manufacturer's recommendations	
	<b>Total carried to General Summary</b>	

Ref	Description	Total £
<b>3.0</b>	<b>CRICKET PITCH</b>	
	<u>Groundworks</u>	
1	Strip top soil as necessary for the Works and deposit on site as directed	
2	Break up existing concrete bases and hard paving including subbase (2 Nr approximately 11m x 2m each)	
3	Excavate to reduce levels as necessary	
4	Allow for keeping excavations free from water	
5	Remove all excavated material and broken out material from site	
6	Level, compact, treat excavation formation with herbicide and lay geotextile membrane	
	<b><u>Contractor's Designed works</u></b>	
	<u>Retaining works to perimeter</u>	
7	Install retaining structure to the perimeter of the games area as required to suit the contractor's system and existing ground levels (minimum requirement 50 x 150 precast concrete edging on and including concrete base and haunched both sides)	
	<u>Subbase</u>	
8	Sub base fill as required (Minimum 100mm depth of compacted Type 1)	
	<u>Intermediate Base</u>	
9	Porous granular bed with particles not exceeding 10mm (minimum 100mm thick)	
10	Geotextile wrap to fully enclose intermediate base	
11	Sand bed as required	
	<u>Batting &amp; Bowling Ends</u>	
12	Shockpad layer (or alternative)	
13	Synthetic non-turf cricket surface	
	<u>Bowling Ends</u>	
15	Crease Protector Pads	

Ref	Description	Total £
<b>3.0</b>	<b>CRICKET PITCH</b>	
	<u>Run up</u> (surface to replace all existing grassed areas)	
16	Synthetic non-turf grass including sand bed/ dressing	
	<u>Line Markings</u>	
17	To batting and bowling ends	
18	Provide coaching lines to each of the three stumps	
	<u>Cage &amp; Netting</u>	
19	4.0m high Tunnel lanes and full roof	
20	White netting to batting end	
	<u>Perimeter fence</u>	
21	4.0m High security fence	
22	Full height white sight screen material fixed to both ends of the fence	
23	Double gate (1 nr) 3.0m wide including lock	
	<u>Miscellaneous</u>	
24	Maintenance Equipment required for up keep of the facility (contractor to provide details of the equipment needed and included in the price)	
	<b>Total carried to Summary</b>	



Ref	Description	Total £
4.0	SUMMARY	
1	Preliminaries	
2	MUGA	
3	Cricket Pitch	
	TOTAL TO FORM OF TENDER	