

Refurbishment of 3G Artificial Turf Pitch

Corby Borough Council at Lodge Park Sports Centre

Contract Specification and Work Schedule

Document Control			
Client	Corby Borough Council Democratic Services Department Corby Cube Parklands Gateway George Street Corby, Northamptonshire NN17 1QG		
Project	Refurbishment of an Artificial Grass Pitch at Lodge Park Sports Centre		
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Contents

Section	Title	Page No
1	Introduction	3
2	Work Schedules/ Construction Specification	6
3	Quality Control, Warranties and Testing	22

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1 Introduction

1.1 General Instructions

This ITT document details the parameters for the proposed work necessary to successfully refurbish an Artificial Turf Pitch at:

Lodge Park Sports Centre
134-148 Shetland Way,
Corby
NN17 2SG

1.2 Associated Documents

SSL2593 01 - Location Plan
SSL2593 02 - Existing Site Plan
SSL2593 03 - Proposed AGP Layout
SSL2593 04 – Proposed Construction Management Plan

1.3 Conditions of Contract

Refer to SSL2593 Part 1 Invitation To Tender.
Refer to SSL2593 Part 2 Form of Contract.

1.4 Performance Quality Standards (PQS)

The Contractor must ensure the proposed works are designed in accordance with and constructed if full compliance with the following sources of technical guidance applicable to the proposal:

Artificial Grass Pitch (AGP) & Facility Certification Requirements

- Federation Internationale de Football Association (FIFA) Quality Programme for football turf – Handbook of requirements - FIFA Quality – October 2015
- International Artificial Turf Standard (IATS)
 - It is acknowledged that the artificial turf carpet will not form a FIFA approved system in conjunction with the 50mm sand layer, however the carpet should at a minimum have been tested and meet the FIFA Quality standard. This sets a quality level against the chosen carpet and its constituent parts and performance.

Ball Stop Fencing and Pitch Perimeter Barrier

- BS EN 15312:2007 A1:2 Free access multi-sports equipment – Requirements, including:
- Clause 5.5.1.2.1 Resistance to repeated impact of footballs
- Clause 5.5.1.2.2 Very intense forceful impact resistance to player's kicks
- The Building Regulations 2010: Approved Document M - Access to and use of buildings: Volume 2 - Buildings other than dwellings – March 2015 (hand rail design)

Goals

- BS EN 748:2004 – Playing field equipment. Football goals. Functional and safety requirements, test methods.
- BS 8461:2005+A1:2009 – Football goals. Code of practice for their procurement, installation, maintenance, storage and inspection.
- BS 8462:2005+A2:2012 – Goals for youth football, futsal, mini-soccer and small-sided football.

Generally

- Works must comply with current Building Regulations and British / European Standards applicable to the proposal
- The provision of proprietary materials and components and systems supplied or supplied and installed throughout this contract is binding upon the Contractor, unless express permission is sought from the Employer. The Contractor may submit alternatives for approval from other sources if he can prove that such supplies are of equal quality, performance and fitness for purpose, subject to agreement with the Employer.

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- The Contractor shall obtain the manufacturers' printed instructions relating to all proprietary materials and systems employed in the works and he shall take strict precautions to ensure that their recommendations are followed. Copies of such instructions shall always be to hand where relevant work is in progress and shall be made available to the Employer if requested.

1.5 Facility Information

Age

The precise age of the facility is unknown however it the surface has previously been resurfaced from a sand based carpet to a 3G carpet.

Pitch Surface

The playing surface comprises a fibrillated 3G carpet with sand and rubber.

Pitch Base

Below the synthetic turf is a sand envelope system, i.e. a layer of sand which is sandwiched between two textiles. This sand layer was found to vary between 40mm and 50mm in depth.

Below the sand envelope layer is a graduated angular aggregate base.

Pitch Restraint

The artificial turf playing surface is restrained with a single line of 50mm hydraulic pressed pre-cast concrete (PCC) edgings within a concrete haunch. These edgings are generally sound with a true line and shall be retained for the resurfacing works. The turf is bolstered in between the gap created between the sand envelope system and the PCC kerb line.

Tarmac Pathways

The synthetic turf is installed up to tarmac perimeter apron, which is 2.0m behind the goal line and 1.0m wide on both sidelines. This tarmac appeared in good condition and from a functional perspective it is of suitable condition to be retained.

Storage Areas

There are no goal recesses for the AGP. The 4no mini soccer goals are anchored to the ground with sockets and of fence folding type. The larger 11 aside goals are freestanding and pushed back when not in use.

Perimeter Ball-Stop Fencing

The ATP is surrounded by two fence types. The main fencing used is rollform 50 x 50 weldmesh fencing, galvanised and polyester powder coated green, including straining wires and clips. The fence is generally 3.0m high but raises in height for the centre section to each main goal end. To the sides, behind the 4no mini soccer goals there is increased height panels of twin bar rigid panel mesh, with rebound mesh to the lower 1.2m.

Main player access and egress is provided by the access gates to the south east and south west ends of the pitch.

The fencing is in reasonable condition however works are considered necessary for the refurbishment works. These are listed as an extra over item.

Timber kickboards are present around the pitch that are in reasonable condition and have benefitted from being stain treated however several of these will need replacing and are included as an extra over item.

Amount

Aspect	Quantity	Amount
Artificial Turf Pitch	97.55m x 61.1m - total synthetic turf area	5960m2

1.6 Schedules of Work Preamble

Schedules of Work are to be read in conjunction with the all other sections contained within tender stage documents and drawing package/s.

All rates and prices shall be expressed to two places of decimals.

All items in these Schedules of Work should be completed with individual rates or prices provided by the Supplier and should not be grouped together.

If any item contained in these Schedules of Work is not priced, it will be deemed that the cost has been included elsewhere in these Schedules of Work and the rate payable against that item will be zero. On request from the joint Employer, the Supplier must provide details of where this cost has been included, to the joint Employer's satisfaction.

Where there is a discrepancy between the rate and the associated amount tendered in a Schedules of Work, the rate shall apply and the amount shall be adjusted accordingly. Where there is a discrepancy between the rate and the associated amount in a Schedules of Work, the amount shall apply and the rate shall be adjusted accordingly.

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Unless stated otherwise the cost of complying with Conditions of Contract shall be covered by the rates and prices inserted against the items in these Schedules of Work.

In these Schedules of Work, the sub-headings and item descriptions identify the work covered by the respective items, but the exact nature and extent of the work to be performed is ascertained by reference to tender stage drawing and the Conditions of Contract.

The rates and prices entered in these Schedules of Work shall be deemed to be the full inclusive value of the work covered by the respective items, including but not limited to the following, unless expressly stated otherwise:

- A. Labour and costs associated therewith including all site allowances.
- B. Plant and costs associated therewith including transport to and from Site.
- C. The supply, loading, transporting and delivery to site, unloading, handling and storage of materials and goods.
- D. Taking delivery of materials and goods supplied by others, loading, transporting and delivery to Site, unloading, handling, storage and returning any surplus.
- E. Assembling, mixing, fixing, erecting, lifting, hoisting, handling, spreading, installing and placing of materials and goods in position.
- F. Waste, bulking and shrinkage of materials.
- G. Removal and disposal off site of surplus or spoil materials and costs in connection therewith including tip fees.
- H. Temporary works.
- I. Provision of working space and upholding sides of excavations.
- J. Notifying, making arrangements and liaising with all relevant statutory bodies, authorities and clients to obtain all licences and permits necessary for the execution of the Works, and costs in connection therewith.
- K. Taking precautions and measures as far as is reasonable and practical to prevent interference with or damage to existing structures, services, utilities, roads, footpaths, paved areas, watercourses, drainage systems, public and private vehicular and pedestrian accesses, trees, graves, burial urns, including the provision of alternative access, if necessary.
- L. The effect of phasing of the works or of alteration or additions to existing services and supplies to the extent that such work is set forth or reasonably implied in the Contract.
- M. Keeping the Works where necessary, and as near as may be practical, free from water and protected from damage due to water and from weather conditions which may adversely affect the Works including dewatering of excavations, and taking measures to prevent flotation of new or existing structures.
- N. Submitting to the joint Employer all drawings, details of procedures and methods of construction to be used, calculations, technical literature, test certificates and any other documents or information required to be submitted in accordance with the Schedules of Work.
- O. All costs for quality assurance systems including carrying out all tests and providing certificates of conformity.
- P. Attendance and transport for sampling and testing carried out by the joint Employer, and supplying results of tests carried out by the Supplier.
- Q. Establishment charges, overhead charges, profit and all preliminary costs.
- R. General obligations, liabilities and risks involved in the execution of the works set forth or reasonably implied in the Contract.
- S. Adjustment for rise and fall in costs.

All items have been measured net and no allowance has been made for laps, cutting, bulking, shrinkage or waste, unless expressly stated otherwise.

Schedules of Rates and provisional quantities included in shall be remeasured.

Work Schedules (except for provisional quantities) shall not be remeasured.

The quantity given against items in these Work Schedules has been rounded up to the nearest whole.

The following abbreviations have been used for units of measurement:

Unit	Abbreviation	Unit	Abbreviation
Millimetre	mm	Item	item
Metre	m	Millilitre	ml

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Square Metre	M2	Litre	l
Linear Metre	m.lin	Hour	Hr
Cubic Metre	M3	Day	Day
Kilogram	kg	Man Day	M/Day
Tonne	t	Week	Wk
Number of	No	Provisional Sum	PS
Set	Set	Provisional Quantity	PQ

Provisional Sums

All work included as Provisional Sums (PS) in these Schedules of Work shall be completed within the contract period, unless expressly stated otherwise.

Provisional Quantities

Provisional Quantities (PQ) as applied to these Schedules of Work means that such quantities have not been estimated from dimensions on the drawings and whilst it is probable that some part will be required and possible that the whole or part might be required, no guarantee can be given that any or all will in fact be required. The rates affixed to such items shall include the direct costs together with their associated on-costs and shall allow for the quantities stated in these Schedules of Work to be completed within the contract period.

Furthermore, no consideration will be given to claims against the joint Employer, including claims for loss of profit, should the actual measured quantities prove to be more or less than those stated in these Schedules of Work.

Day Works

No work may be claimed as day works by the Supplier unless prior written instruction has been provided by the joint Employer.

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2 Schedules of Work

PART A - Artificial Pitch Refurbishment

	Description of Work	Quantity / Unit	Rate	Cost
1	Contract Compliance			
1.1	Allow for compliance with the Forms of Contract and Conditions of Contract and all and obligations and requirements stipulated by the Employer.	1 Item	£	£
1.2	Allow for the provision of necessary management, supervision and administration of the works in compliance with Construction (Design and Management) Regulations 2015.	1 Item	£	£
1.3	Allow for sufficient resources in which to prepare, mobilise and install the scheduled works and to ensure Practical Completion on the planned due date.	1 Item	£	£
1.4	<p>Allocation for the undertaking of Inspection / Testing procedures (ITPs) for works and materials, to be completed and reported at each critical stage of construction and throughout the sequential programme of works.</p> <p>The absolute requirement of ITPs is to ensure that the completed works may be accepted by the employer with the reassurance that at the point of handover, the works contain no significant faults or omissions in the work which would require the Contractor to re-enter the site to carry out further works ('zero defects').</p> <p>Allow for the publication of a closure report within Building Manuals.</p>	1 Item	£	£
1.5	<p>Provision of Building Manuals (incorporating the Health and Safety Files) in bound hard copy and electronic copy formats at Practical Completion.</p> <p>To include relevant end-user warranties, guarantees and operating and maintenance (O&M) manuals.</p>	1 Item	£	£
1.6	<p>Allow for the provision of full and detailed demonstration of the operational requirements for the completed facility to the Employer.</p> <p>Prior to completion of the works, the Supplier will provide a statement describing the general and detailed maintenance required on the newly developed facility.</p> <p>The statement shall include details of the maintenance programme.</p> <p>It shall detail procedures to ensure the specified parameters are maintained, the appropriate climatic conditions in which work can be carried out, the appropriate health and safety requirements and training the personnel may require.</p> <p>The Contractor will allow an appropriate cost to cover the training and advising of the grounds maintenance staff.</p>	1 Item	£	£
1.7	Carry forward to Pricing Summary		£	£
2	Site Establishment	Quantity / Unit	Rate	Cost
2.1	<p>Appraisal of site approach, entry and movements whilst tendering for the works and make all necessary allowances as required, refer to drawing SSL2593 04 CMP, including:</p> <p>Banks person for all deliveries and removals as necessary.</p> <p>Haul road from the pitch to the nearest hardstanding within the car park area.</p>	1 Item	£	£

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	<p>Heras fencing to form a safe working area, in particular the haul road and securing the pitch area, in particular when undertaking fence repairs and any socketed goals as required.</p> <p>Road cleaning during the construction period as necessary</p> <p>Wheelwash facility for vehicles exiting site as necessary.</p> <p>Maintaining an emergency access.</p>			
2.2	<p>Establish an area to be used as the site compound and site access with a hard-standing surface as required, sufficient to withstand all trafficking and haulage for the duration of the works.</p> <p>The site compound and access must accommodate all construction activities and movements, which must be contained within the site curtilage for site office and welfare, storage of plant and materials, parking and manoeuvring of site operatives and visitors vehicles together with the loading and un-loading of goods vehicles.</p> <p>Construction access shall be agreed.</p> <p>a) via the entrance off Shetland Way, via the carpark to the west of the leisure centre across the playing field.</p>	1 Item	£	£
2.3	<p>Supply and erect temporary security fencing, consisting of 2.0m high open steel weld mesh fencing (Heras or similar approved) to the agreed site compound.</p> <p>This fencing shall be retained intact and at full height and extent until the works are completed.</p> <p>The fencing should include security entrance gates as required.</p> <p>The fencing should be checked twice daily.</p> <p>Temporary fencing as required during AGP Fence Repairs and any socketed goal installation works.</p>	1 Item	£	£
2.4	Supply a site office and appropriate welfare facilities to comply with Construction (Design and Management) Regulations 2015.	1 item	£	£
2.5	Supply temporary storage facilities for any and all fragile / vulnerable building materials as deemed necessary by the contractor during the construction period as required.	1 Item	£	£
2.6	Supply and erect public health and safety / warning signage to the temporary security fencing as required by Construction (Design and Management) Regulations 2015.	1 Item	£	£
2.7	Deliver construction machinery and plant to site and allow for removal upon completion of the works.	1 Item	£	£
2.8	Carry out a comprehensive underground services detection survey of the entire working area and transport routes prior to the commencement of excavation works and then provide suitable temporary protection as necessary to any and all vulnerable utilities, services, manholes and inspection chambers, etc...; capable of withstanding all trafficking and haulage during the works; to avoid damage for the duration of the works.	1 Item	£	£
	Carry forward to Pricing Summary		£	£
3	Site Clearance and Base Work	Quantity / Unit	Rate	Cost
3.1	Carefully remove all existing free-standing and socketed goals from the pitch as necessary and store safely and securely for the duration of the works. Following resurfacing works all goals should be re-erected onto the pitch surface.	1 Item	£	£
3.2	Lift, strip and remove the existing pitch surface (3G artificial grass) and top geotextile membrane; carefully and sequentially using vehicles with low-flotation tyres (in order to prevent damage to the underlying sand layer).	5960 M2	£	£

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	<p>Remove stripped materials offsite and dispose in an environmentally sustainable recycling method or similar.</p> <p>Measures to reduce waste and encourage recycling should be implemented wherever possible.</p> <p>Contractor must note;</p> <ul style="list-style-type: none"> Any person or company transporting waste from this site must be a registered waste carrier, correct waste carrier, broker dealers' licence. The Contractor will be expected to provide a copy of the waste carriers licence. The Contractor will be expected to provide a copy of the Environmental Permit or Exemption for the waste facility that materials from this site are being taken to. The Contractor will also be expected to provide Duty of Care waste transfer notes for each load of waste being taken away from this site. <p>The above must be taken in account when pricing this project.</p> <p>Contractor must note;</p> <ul style="list-style-type: none"> Under section 33 of the Environmental Protection Act 1990 it is an offence to: Deposit or knowingly cause or knowingly permit to be deposited (controlled) waste in or on land unless in accordance with the terms of a waste management licence Treat, keep or dispose of controlled waste in land or by means of any mobile plant unless in accordance with the terms of a waste management licence Treat, keep or dispose of controlled waste that could cause environmental pollution or harm human health. (This offence applies even in situations where a waste management licence is not required.) 			
3.3	<p>Apply a proprietary residual herbicide treatment over the entire formation level to be occupied by the pitch. During this process, protect surrounding grassed and vegetation areas from damage by the herbicide treatment.</p> <p>Please Note: The use of pesticides (inc. Herbicide treatments) is covered by various pieces of legislation primarily The Food and Environment Protection Act 1985 (FEPA), Control of Pesticides Regulations 1986 (COPR) and The Control of Substances Hazardous to Health Regulations 1988(COSHH).</p> <p>Only approved products may be used and a Certificate of Competence must be held for all persons applying pesticides (e.g. National Proficiency Test Council (NPTC) PA1, PA2, etc...) and those advising on pesticide use should be registered with BASIS (British Agrochemical Standards Inspection Scheme).</p>	1 Item	£	£
3.4	<p>Re-grade, compact and re-level the existing sand layer sufficiently.</p> <p>Install a new geotextile membrane to the pitch area, taking note to overlap and adhere the joints.</p> <p>All geotextile joints should be overlapped by a minimum of 300mm. The membrane shall be a non-woven type and shall contain a minimum tensile strength of 20kN/m when tested in accordance with BS EN ISO 10319. The membrane shall contain static puncture strength of at least 2.0KN when tested in accordance with BS EN ISO 12236.</p> <p><u>Accuracy</u></p> <ul style="list-style-type: none"> The finished surface of the sand layer shall be graded such that there are no deviations $\geq 10\text{mm}$ beneath a 3m straight edge at any position and in any direction. The finished surface shall be trimmed to a tolerance of no more than ± 10 mm deviation relative to design levels. <p><u>Performance</u></p>	5960m2	£	£

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	<p>Upon completion, there shall be no detectable movement under the roller that is used to compact the surface.</p> <p>Given that remedial action is extremely difficult to execute on all types of playing surfaces, extreme care must be taken in the construction of the bases to avoid consolidation or settlement of the playing area.</p>			
3.5	<p>Surfacing Standards Ltd are to undertake a surface regularity test, alongside the Contractor of the exposed geotextile layer following the above works.</p> <p>Allow time for the survey and await results of the survey before proceeding with the laying of the artificial turf.</p>	1 item	£	£
3.6	<p>Locate existing drainage system to pitch and carry out water jetting cleaning of pipe work, inspection chamber's and rodding eyes.</p>	1 Item	£	£
	Carry forward to Pricing Summary Sheet		£	£
4	Synthetic Turf	Quantity / Unit	Rate	Cost
4.1	<p>Supply and install 50mm 3G artificial turf playing surface</p> <p><u>Please note</u></p> <p><i>This is a Contractor's Design Proportion (CDP) item, but within the below parameters.</i></p> <p><u>Materials generally</u></p> <p>The artificial grass shall be a FIFA quality product, meaning a product that has successfully passed the three phases of testing as required by FIFA, those being:</p> <p>FIFA Quality Programme for football turf – Handbook of requirements - FIFA Quality – October 2015</p> <p>Stage 1/3 - Laboratory testing Stage 2/3 - Initial Field Assessment Stage 3/3 - Field certification</p> <ul style="list-style-type: none"> • minimum 50mm pile height when stretched • Monofilament fibres. • Playing area run offs to be colour green • Minimum 1070g/m2 pile weight with no tolerance allowance. • Minimum 12000 DTEX with no tolerance allowance. • Minimum Carpet Tuft Withdrawal Force (water aged) >42N, as evidenced by a FIFA Laboratory Report. • Pile component of playing area to be coloured green, containing two tone shades. • The Artificial Turf is to be certified to the FIFA Quality performance standards with/without a shockpad system. It is noted however that the refurbished pitch will not meet the FIFA Quality standard owing to the Sand/Geotextile Layer present on this project. <p><u>Installation generally</u></p> <p>The artificial grass shall be laid out across the width of the pitch in full rolls with the exception of any rolls incorporating tufted sidelines, which may be laid longitudinally over the Total Playing Area.</p> <p>All bonded joints must be installed with 400mm wide carrier tapes with specialist adhesive applied evenly to a minimum 300mm width.</p> <p>During the installation process, fine silica sand and granulate rubber shall be filled into the grass pile in order to produce the desired performance characteristics for football in accordance with infill material specification/s and spread rates declared within the FIFA / IATS / accreditation for the artificial turf.</p>	5960 M2	£	£

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	<p>The contractor shall then supply and install these materials, to the precise quantities and spread rates as recommended by the manufacturer declared below:</p> <p><u>Silica sand</u></p> <p>Thickness Layer: Composition: Infill rate:</p> <p><u>Granulate rubber</u></p> <p>Thickness Layer: Composition: Infill rate:</p> <p><u>Please note</u></p> <p>Where alternative suppliers of infill materials to those detailed in the original laboratory test report are to be used, samples of the infill should also be submitted in advance of construction so that compliance of these materials with the requirements of the FIFA Handbook / IATS can be determined prior to installation.</p> <p><u>Accuracy</u></p> <p>Seams must be perfectly cut neat and straight and no significant height difference and no discernable gaps or separation at joints and seams.</p> <p>Joints should be tight so the maximum gap at the top of the pile is equal to or less than the carpet's stitch gauge plus 2mm.</p> <p>Bonded carpet joints should not have adhesive beads within the pile of the carpet that may cause a ball to lift or deviate as it passes over the joint.</p> <p>Stitched joints should not cause a ball to lift or deviate as it passes over the joint.</p> <p>The pile of the carpet immediately either side of the joint should be consistent with the remainder of the pitch. In particular, the carpet pile should not be trapped within the joint nor should adhesive layers and backing films beneath the carpet cause ridges outside surface evenness tolerances.</p> <p>The jointing method shall produce no ridges, grooves, creases or adhesive stains / splatter.</p> <p>There must be no surface textural variations which might cause a ball to be deflected from its true path.</p> <p>There must be no loops in the tufts, nor random tuft lengths, tears, holes (other than drainage pores) or melted areas. Should the replacement of any area of defective artificial grass be necessary, then this shall involve the full replacement of an entire carpet roll.</p> <p>No patching shall be allowed whatsoever.</p> <p>Abutting surface rolls together shall be jointed together as per manufacturer's recommendations and trimmed neatly against the pitch perimeter restraint.</p> <p><u>Please note:</u></p> <p>This is a Contractor's Design Proportion (CDP) item.</p>			
4.2	<p>Supply / install permanent markings to comply with FIFA Laws of the Game to produce the following playing lines cut into the surface:</p> <ul style="list-style-type: none"> INLAID 11v11 football pitch sized 91.4 x 55m (white 100mm wide) to u15/16 dimensions for boxes and circles including marker nibs for goal locations and corner areas INLAID 2no. cross pitches (Red, 80mm) including 7v7 penalty boxes, penalty and centre spots, divisional lines and marking nibs for goal locations 	<p>1</p> <p>1</p>	<p>Item</p> <p>Item</p>	<p>£</p> <p>£</p>

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	<p><u>Laying generally</u></p> <ul style="list-style-type: none">Line markings that are requested to be inlaid are, where possible, to be tufted within the rolls of artificial grass at fabrication stage. The other inlaid lines will be cut and glued into the playing surface during the installation process to produce permanent lines.Lines markings that are requested to be painted are to use a 2-PAC polyurethane compound. A specialist should be considered to carry out line painting and 3G manufacturer advice sought RE suitable paint type. Rubber infill must be brushed back into the line areas following a suitable drying period.All other lines will be cut and glued into the playing surface during the installation process to produce permanent lines.The maximum tolerance for height is 3mm and the maximum separation between tufts of adjoining carpets is 20mm with the maximum gaps between backing joints is 15mm. <p><u>Accuracy</u></p> <ul style="list-style-type: none">All line markings measured with a calibrated steel tape shall be within 20mm of their true position as specified in the appropriate rule.Markings shall not deviate by more than 10mm from a line joining their ends, nor include any sudden steps.Line edges shall be parallel and uniform.For a period of five years following Practical Completion each straight line marking shall remain straight to within \pm 100mm of a tensioned string line joining its ends and all lines shall remain within \pm 150mm of their original position as measured at Practical Completion. Furthermore, no line shall exhibit any sudden irregularity or deviation greater than 75mm over a distance of one metre.											
4.03	<p>Rubber Crumb Requirements;</p> <p>(i) <u>Supply Certificates Pre-Construction</u></p> <p>Prior to contract commencing the Contractor must supply certificates to demonstrate that the rubber crumb being supplied meets the REACH requirements and the legal requirements regulated by DEFRA and HSE.</p> <p>Chemical composition from a health and safety perspective is regulated through comprehensive EU legislation, spearheaded by REACH (the Registration, Evaluation, Authorisation and Restriction of Chemicals).</p> <p>REACH aims to ensure a high level of protection to human health and the environment REACH applies appropriate risk management measures to chemical substances. This is done by the four processes of REACH, namely the registration, evaluation, authorisation and restriction of chemicals.</p> <p>(ii) <u>Evidence of Testing Carried Out During Production</u></p> <p>Materials supplied to the site should be accompanied by a report with full traceability demonstrating compliance with the criteria in the following table. This should include availability of all raw data for audit and inspection by an independent body approved by SAPCA.</p> <p><u>PRODUCTION TESTING PROCESS - TEST PROCEDURES/ STANDARDS</u></p> <table><tr><th>Parameter</th><th>Test / Method</th><th>Frequency</th><th>Requirement</th></tr><tr><td></td><td></td><td></td><td></td></tr></table>	Parameter	Test / Method	Frequency	Requirement					1	Item	£
Parameter	Test / Method	Frequency	Requirement									
		1	Item	£								

	Product Identification	Product Name Material Type Material Source Material Specification	Initial only (unless supply / specification changes)	As per product declaration from the supplier			
	Physical Testing	Shape - (BS EN 14955), Size Grading - (BS EN 933-1), Bulk Density - (BS EN 1097-3), Colour - (Visual, RAL)	Every 12 months	± 10 % of product declaration AND as per BS EN 15330-1 (and other Sports Governing Body Requirements)			
	Environmental Testing	UV Ageing - (BS EN 14836)	Initial only (unless supply / specification changes)	≥ Grey Scale 3			
	Chemical Testing	PAH - AfPS 2014:01 PAK	Representative sample (min 20 g) to be taken every day of production. Daily samples to be combined for 10 days of production. This combined sample to be tested.	< 20 mg/kg @ 8 PAH; & < 75 mg/kg @ 18 PAH			
		Heavy Metal Migration EN 71-3	Every 12 months	Cat 3 as per EN 71-3			
		Toxicology EN ISO 11885	Every 12 months	As per EN ISO 11885			
	(iii) <u>Testing of Site Samples</u> Refer to next item						
4.04	<u>Rubber Crumb Sample Testing - Please note</u> The 6 Nr rubber crumb samples are initially to be tested against the criteria in the below table. Any rubber crumb found <u>not</u> to have met these criteria will need to be tested from the site samples for ALL the requirements listed in the above item (i.e. ALL criteria for the Production Testing Process). Should any requirement not be met, the contractor is responsible for the replacement of the infill material and all associated costs including but not limited to new materials, construction (removal and re-infill), re-testing, loss of income from the venue and cost to dispose of old infill. <i>SITE SPOT CHECK TESTING PROCESS - TEST PROCEDURES/ STANDARDS</i>				1	Item	£
	Parameter	Test / Method	Frequency	Requirement			

	Product Identification	Product Name Material Type Material Source Material Specification	2.5kg taken from 6 locations to be mixed/combined for testing	As per product declaration from the supplier (may required an audit)			
	Physical Testing	Shape - (BS EN 14955), Size Grading - (BS EN 933-1), Bulk Density - (BS EN 1097-3), Colour - (Visual, RAL)		± 10 % of product declaration AND as per BS EN 15330-1 (and other Sports Governing Body Requirements)			
	Chemical Testing	PAH - AfPS 2014:01 PAK		< 20 mg/kg @ 8 PAH; & < 75 mg/kg @ 18 PAH			
		Heavy Metal Migration EN 71-3		Cat 3 as per EN 71-3			
		Toxicology EN ISO 11885		As per EN ISO 11885			
Carry forward to Pricing Summary Sheet						£	
5	Player Signage				Quantity / Unit	Rate	Cost
5.1	Supply and erect player signage (rules of correct pitch use etc...) to be supplied and installed where designated. <u>Features</u> 915mm wide x 615mm high. 3mm thick Dibond boards or similar (Dibond is an aluminium faced composite sheet with polythene making extremely rigid yet lightweight with a high quality surface producing stunning results with direct to panel UV ink printing). Supplied with 10mm radius corners. Fixings should include flat galvanised steel bars to top and bottom of each sign with nut and bolt fixing to each end of each bar, or similar. Bolts should finally be covered with a decorative rubber caps. Graphics shall be full colour and the Contractor is to propose sign layout/wording to SSL and the client for agreement, including Project Designer logo.				2 Nr	£	£
Carry forward to Pricing Summary Sheet						£	
6	Reinstatement				Quantity / Unit	Rate	Cost
6.1	Dispose of all arisings, spoils, surplus materials and general waste generated during the entire construction works described above repsonsibly at a registered tipping site or similar.				1 Item	£	
6.2	Reinstate all natural ground affected by the works to fine grass.				1 Item	£	
6.3	Clear and clean hard standing areas within the fenced areas. Make good any hard standing surfaces affected by the works.				1 Item	£	

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6.4	Allow for: <ul style="list-style-type: none"> • Dismantling and removing from site the temporary security fencing. • Remove from site, storage facilities, site office • Haul road • Cleaning of welfare facilities etc... • Leave site in a tidy condition acceptable to the Employer. 	1 Item	£	
	Carry forward to Pricing Summary Sheet		£	
7	Client Contingency	Quantity / Unit	Rate	Cost
7.1	Allow for a 5% sum of construction costs above to be used or used in part as a contingency at the discretion of the client during the installation programme to cover unforeseen eventualities.	1 Item	£	
	Carry forward to Pricing Summary Sheet		£	

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FURTHER OPTIONS TO CONSIDER

	Further Options to Consider	Quantity / Unit	Rate	Cost
A1	Fence Repairs Undertake repairs to the damaged areas of green powder coated weld mesh 5050 fencing as noted within Drawing SSL2593 02 Existing Site Plan REV1 and document SSL2593 Photographs of Site <ul style="list-style-type: none"> • Replacement of mesh panels • Resetting of damaged fence posts • Clipping existing mesh together and attaching to clamp rails as required 			
A2	Timber Kickboards <u>Replacement of damaged kickboards</u> To designated areas, replace and dispose and supply and install: <ul style="list-style-type: none"> • 200mm x 50mm treated timber kickboard, including chamfered edge, Sundries <ul style="list-style-type: none"> • Fixings Drop forged cup square bolts to DIN603. • Hexagon nuts to DIN934. • Washers to BS4320. <u>Accuracy</u> All perimeter timber kickboards shall be installed to ensure that: The maximum gap between the face of the PCC kerb edgings (or similar) and adjacent Timber kickboard shall be 10mm. All kickboards must be erected to a consistently even line and height consistent with the finished levels. The internal face of the kickboards must be of a consistent line with no protrusions or sharp edges capable of causing injury to people. <u>Maintenance</u> Supply keys to tighten / remove kickboard fixings.	20	Item	£
A3	Maintenance for First 12 Months Allow to carry out <u>all</u> specialist maintenance operations required throughout the first 12 month period following handover. Throughout a twelve-month period following practical completion, carryout maintenance works to the synthetic turf playing surface in accordance with manufacturer recommendations in order to preserve the appearance, functionality and performance of the AGP. Maintenance works should include as necessary: <ul style="list-style-type: none"> • Brushing of playing surface generally • Grooming of playing surface • Surface vacuuming • Topping up of infill (as required) • Chemical herbicide treatments to playing surface generally • Checking of joints • Checking, tightening, cleaning of perimeter ball-stop fencing, pitch perimeter barrier and associated gates • Checking, tightening, cleaning of sports equipment 	1	Item	£

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	<ul style="list-style-type: none"> Maintenance of hard standing areas Maintenance of floodlights Maintenance of AGP drainage system Completing a maintenance log as required by the manufacturer <p>As well as any other operations deemed necessary by the sports pitch contractor.</p> <p>The level of maintenance undertaken within the 12 months should be that what is expected annually throughout the life span of the artificial turf areas.</p>			
A4	Performance Testing (Field Testing) <p>Immediately prior to Practical Completion, engage with an accredited Test House in order to carry out formal field testing and issue compliance reports and certification to prove the quality of installation in accordance with BS EN 15330-1 :2013 such that the pitch can be placed on The FA 3G Football Turf Pitch Register.</p>	1	Item	£
A5	<p>Supply, install and assemble fence fixed aluminium football goals</p> <ul style="list-style-type: none"> 3.66m x 1.83m fence folding mini soccer goals <p><u>Features</u> Fence folding. Uprights and crossbars manufactured from elliptical reinforced aluminium Internal weighted bottom welded corner joints and extra strong top corner joints. Non-miter corner joints. Polyester powder coated white. Complete with 4mm thick white polyethylene nets and lock on nylon hooks.</p> <p><u>Performance</u> All goals provided under this Contract must be accompanied by a Certificate from an independent test house confirming that the goal meets the requirements of appropriate standards:</p> <ul style="list-style-type: none"> BS 8462:2005+A2:2012 Goals for youth football, futsal, mini-soccer and small-sided football BS 8461:2005+A1:2009 Football goals. Code of practice for their procurement, installation, maintenance, storage and inspection BS EN 748:2004 Playing field equipment. Football goals. Functional and safety requirements, test methods 	4no.	£	£
A6	<p>Supply, install and assemble fence fixed aluminium football goals</p> <ul style="list-style-type: none"> 7.32m x 2.44m Fence Folding Goals <p><u>Features</u> Fencing Folding. Uprights and crossbars manufactured from elliptical reinforced aluminium Internal weighted bottom welded corner joints and extra strong top corner joints. Non-miter corner joints. Polyester powder coated white. Complete with 4mm thick white polyethylene nets and lock on nylon hooks.</p> <p><u>Performance</u> All goals provided under this Contract must be accompanied by a Certificate from an independent test house confirming that the goal meets the requirements of appropriate standards:</p> <ul style="list-style-type: none"> BS 8462:2005+A2:2012 Goals for youth football, futsal, mini-soccer and small-sided football BS 8461:2005+A1:2009 Football goals. Code of practice for their procurement, installation, maintenance, storage and inspection BS EN 748:2004 Playing field equipment. Football goals. Functional and safety requirements, test methods 	2no.	£	£
A7	<p>Supply, install and assemble portable aluminium football goals.</p> <ul style="list-style-type: none"> 7.32 x 2.44m football. 	2no.		

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	<p><u>Features</u></p> <ul style="list-style-type: none"> • Free standing. • Internally self-weighted. • Internal weighted bottom welded corner joints and extra strong top corner joints. • 100mm x 110mm min. elliptical reinforced aluminium. • Polyester powder coated white. • Complete with full international back supports and top diagonal supports. • 4mm thick white polyethylene nets and lock on nylon hooks. • Side bar lifting handles. • Provided with wheel units complete with cellular rubber, puncture free wheel tyres and cantilever arm lifts (Easy Lift® wheel units) – 4no. per goal or 2no. if complimented with back-bar containing individual galvanised steel rollers. 			
A8	<p>Supply and install 60mm 3G artificial turf playing surface</p> <p><u>Please note</u></p> <p><i>This is a Contractor's Design Proportion (CDP) item, but within the below parameters.</i></p> <p><u>Materials generally</u></p> <p>The artificial grass shall be a FIFA quality product, meaning a product that has successfully passed the three phases of testing as required by FIFA, those being:</p> <p>FIFA Quality Programme for football turf – Handbook of requirements - FIFA Quality – October 2015</p> <p>Stage 1/3 - Laboratory testing Stage 2/3 - Initial Field Assessment Stage 3/3 - Field certification</p> <ol style="list-style-type: none"> A high quality carpet; minimum 60mm pile height when stretched Monofilament fibres; Playing area run offs to be colour green; Minimum 1350g/m² pile weight with no tolerance allowance; Minimum 13000 DTEX with no tolerance allowance; Minimum Carpet Tuft Withdrawal Force (water aged) >42N, as evidenced by a FIFA Laboratory Report. Pile component of playing area to be coloured green, containing two tone shades; and The Artificial Turf is be certified to the FIFA Quality performance standards with/without a shockpad system. It is noted however that the refurbished pitch will not meet the FIFA Quality standard owing to the Sand/Geotextile Layer present on this project <p><u>Installation generally</u></p> <p>The artificial grass shall be laid out across the width of the pitch in full rolls with the exception of any rolls incorporating tufted sidelines, which may be laid longitudinally over the Total Playing Area.</p> <p>All bonded joints must be installed with 400mm wide carrier tapes with specialist adhesive applied evenly to a minimum 300mm width.</p> <p>During the installation process, fine silica sand and granulate rubber shall be filled into the grass pile in order to produce the desired performance characteristics for football in accordance with infill material specification/s and spread rates declared within the FIFA / IATS / accreditation for the artificial turf.</p> <p>The contractor shall then supply and install these materials, to the precise quantities and spread rates as recommended by the manufacturer declared below:</p> <p><u>Silica sand</u></p>	5960M2		

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<p>Thickness Layer: Composition: Infill rate:</p> <p><u>Granulate rubber</u></p> <p>Thickness Layer: Composition: Infill rate:</p> <p><u>Please note</u></p> <p>Where alternative suppliers of infill materials to those detailed in the original laboratory test report are to be used, samples of the infill should also be submitted in advance of construction so that compliance of these materials with the requirements of the FIFA Handbook / IATS can be determined prior to installation.</p> <p><u>Accuracy</u></p> <p>Seams must be perfectly cut neat and straight and no significant height difference and no discernable gaps or separation at joints and seams.</p> <p>Joints should be tight so the maximum gap at the top of the pile is equal to or less than the carpet's stitch gauge plus 2mm.</p> <p>Bonded carpet joints should not have adhesive beads within the pile of the carpet that may cause a ball to lift or deviate as it passes over the joint.</p> <p>Stitched joints should not cause a ball to lift or deviate as it passes over the joint.</p> <p>The pile of the carpet immediately either side of the joint should be consistent with the remainder of the pitch. In particular, the carpet pile should not be trapped within the joint nor should adhesive layers and backing films beneath the carpet cause ridges outside surface evenness tolerances.</p> <p>The jointing method shall produce no ridges, grooves, creases or adhesive stains / splatter.</p> <p>There must be no surface textural variations which might cause a ball to be deflected from its true path.</p> <p>There must be no loops in the tufts, nor random tuft lengths, tears, holes (other than drainage pores) or melted areas. Should the replacement of any area of defective artificial grass be necessary, then this shall involve the full replacement of an entire carpet roll.</p> <p>No patching shall be allowed whatsoever.</p> <p>Abutting surface rolls together shall be jointed together as per manufacturer's recommendations and trimmed neatly against the pitch perimeter restraint.</p> <p><u>Please note:</u></p> <p>This is a Contractor's Design Proportion (CDP) item.</p>			
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End of document

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