



Seaford Town Council

Tender Documents for the
Construction of floodlights for new
Tennis Courts at
The Salts Recreation Ground



January 2020

Key Date for site visits: Tuesday 4th February 2020

Tender Deadline – Friday 28th February 1300hrs

EMPLOYERS REQUIREMENTS

FOR

**THE INSTALLATION OF FLOODLIGHTING
TO
THREE FULL SIZE TENNIS COURTS
AND
ASSOCIATED WORKS**

AT

SALTS RECREATION GROUND

NOVEMBER 2019

**PREPARED
BY**



FOR

SEAFORD TOWN COUNCIL

PROJECT REF. NR. 2019 CAS 066 FLD WKS

DOCUMENT STATUS – TENDER ISSUE 02 19.12.2019

CONTENTS

SECTION 1.00 - PRELIMINARY PARTICULARS

GENERAL CONDITIONS AND OBLIGATIONS THAT THE EMPLOYER (CLUB) REQUIRES OF THE CONTRACTOR WHEN CARRYING OUT THE PROJECT

SECTION 2.00 - SCOPE OF WORKS FOR TENNIS COURT FLOODLIGHTING – GENERAL REQUIREMENTS

DESCRIPTION OF THE WORKS TO BE CARRIED OUT BY THE CONTRACTOR

SECTION 3.00 - SCOPE OF WORKS FOR TENNIS COURT FLOODLIGHTING – SITE SPECIFIC REQUIREMENTS

DESCRIPTION OF THE WORKS TO BE CARRIED OUT BY THE CONTRACTOR

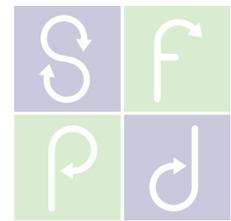
SECTION 4.00 - TENDER SUM ANALYSIS AND FORM OF TENDER

BREAK DOWN OF THE COSTS OF THE PROJECT

SCHEDULE OF SUPPLEMENTARY INFORMATION

SECTION 1.00

PRELIMINARY PARTICULARS



1.00 PRELIMINARY PARTICULARS SFPD REF NR 2019 CAS 066 FLD WKS

1.01 General

This document sets out the Employers Requirements to be included in the Conditions of Contract in respect of the Design and Construction of the Works described herein and includes the obligations and restrictions to be imposed upon the Contractor.

1.02 Project

The works comprise the design and construction of various works detailed within Sections 2.00 and 3.00 of this document.

1.03 Parties and Consultants

Employer :-

Seaford Town Council
37 Church Street
Seaford
EAST SUSSEX.
BN25 1HG.

Employers Representative :-

Ms Emily Piper Tel. 01323 671680

Email : Emily.piper@seafordtowncouncil.gov.uk

Tennis Court Floodlighting Consultants :-

Sports Facility Planning & Design Limited
39 Hemwood Road
Windsor
BERKSHIRE. SL4 4YX.

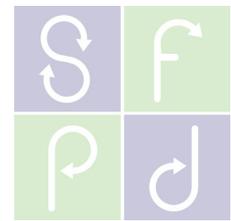
Contact : Mr L. West Tel. 01753 850123 Mob. 07770 366259

Email : office@sfpad.co.uk

Employers Agent :-

Sports Facility Planning & Design Limited
39 Hemwood Road
Windsor
BERKSHIRE. SL4 4YX.

Contact : Mr L. West Tel. 01753 850123 Mob. 07770 366259



1.00 PRELIMINARY PARTICULARS **SFPD REF NR 2019 CAS 066 FLD WKS**

1.04 Site Location

The site of the proposed works is located on land at The Salts Recreation Ground, 14 Marine Parade, Seaford. BN25 2PL.

1.05 Access to the Site

Access to the site will be from an existing public highway drop kerb and public foot path crossover entrance off Marine Parade and then along the internal asphalt drive way to the site area. The Contractor shall allow for forming a suitable temporary site access and all reinstatement of this on completion of the works.

1.06 Limitations of Working Space

The Contractor shall confine everything pertaining to the Contract within the area of the proposed works and surrounding areas.

The Contractors operations are to be confined to the minimum area required to carry out the works which shall be executed carefully so as to cause minimum nuisance and inconvenience to the users of adjoining facilities.

1.07 Restrictions on Working Hours

Generally no specific restrictions will be placed upon normal working hours other than weekend working (i.e. Saturdays, Sundays and Bank Holidays) which will not be permitted without prior formal approval from the Employer.

The Contractor is required to state within their tender during what hours are proposed to undertake the works.

1.08 Trespass and Nuisance

All reasonable means shall be used to avoid inconveniencing adjoining owners and occupiers.

No persons employed on the works shall be allowed to trespass on adjoining properties.

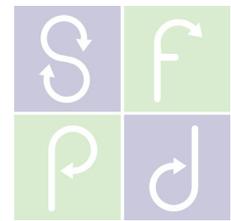
The Contractor shall indemnify the Employer against any claims or action for damage on account of any trespass or other misconduct of the Contractors' employees.

The Contractor or any of his subcontractors, their staff and workmen will not be allowed to park any vehicles or plant on the surrounding roads.

1.09 Inspection of the Site

The Contractor is recommended to visit the site and surrounds as no claim due to lack of knowledge which could have been obtained by such a visit will be entertained.

Permission to visit the site must be obtained from the Employers Representative.



1.00 PRELIMINARY PARTICULARS **SFPD REF NR 2019 CAS 066 FLD WKS**

1.10 Drawings and Other Documents

Drawings will be issued with these Tender documents and this will indicate the position of the new floodlit tennis courts and existing tennis club facilities.

1.11 Name Boards

Not required.

1.12 Advertisements

All rights of advertising on the site shall be reserved by the Employer and the Contractor shall take all necessary measures to ensure that no unauthorised advertising takes place.

1.13 Publicity

No information, either written or verbal, nor photography or drawings concerning this Contract shall be supplied by the Contractor to any persons without the written authority of the Employer.

1.14 Programme

The Contractor shall before being given possession of the site prepare and submit his proposed programme for the execution of the works for comment by the Employer.

Thereafter the Contractor shall amend and revise the programme as required by the Conditions of Contract or as requested by the Employer.

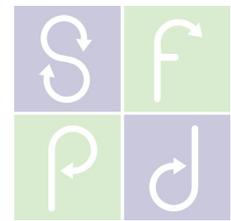
1.15 Method Statement & Risk Assessments

The Contractor should provide, at the time of tendering, a statement describing their proposed general and detailed arrangements and methods for carrying out the works. Generic risk assessments shall also be provided.

The Method Statement should include details of how all stages of the works will be executed. It should detail procedures to ensure the specified parameters are obtained, the appropriate climatic conditions in which the surfacing can be laid, the appropriate Health and Safety requirements and training that personnel will undergo prior to working on site. The document should indicate areas of work that will be sub-contracted and detail the company(s) that will be employed.

1.16 Site Meetings

Formal pre-start, monthly progress or stage completion and practical completion hand over meetings will be held by the Employer and minutes will be taken and distributed by the Contractor.



1.00 PRELIMINARY PARTICULARS **SFPD REF NR 2019 CAS 066 FLD WKS**

1.17 Plant, Tools and Vehicles

The Contractor shall allow for providing all plant, tools and vehicles necessary for the completion of the Works.

1.18 Site Administration

The Contractor shall allow for all necessary site administration for the proper execution of the Works. Prior to commencing the works on site the Contractor shall confirm to the Employer the name of the person in charge of the site together with brief details of his experience. This person is not to be changed without the prior agreement of the Employer, which will not be unreasonably withheld.

The Contractor shall ensure that the works and the site are properly protected and secured at all times, including any works outside the site boundary, and that the Employer is indemnified against any claim for loss, damage, theft or the like. The use of guard dogs will not be allowed.

1.19 Site Security and Temporary Fencing

The Contractor shall provide all temporary and permanent fencing as necessary.

The Contractor must provide for situating his temporary buildings and offices and the storing of materials etc. within the site boundaries.

The site is to be maintained in a secure state until completion at which time all temporary fencing, building materials and equipment is to be removed and all works made good. The site is also to be left in a safe and tidy state at the end of each working day.

1.20 Water for the Works

A water supply for the works is available from either the adjacent café building or toilet block.

The Contractor shall allow for providing all temporary arrangements for storing and distributing.

1.21 Lighting and power for the works

The Contractor shall allow for providing all necessary artificial lighting and supplying electric power for mechanical tools and plant for the whole of the Works to a standard not inferior to that laid down in the Institute of Electrical Engineers' Regulations.

1.22 Temporary Roads, Hard Standings etc.

The Contractor shall allow for providing all temporary roads, hard standings, crossings and the like necessary for carrying out the whole of the Works and removing the same on completion.



1.00 PRELIMINARY PARTICULARS **SFPD REF NR 2019 CAS 066 FLD WKS**

1.23 Temporary Accommodation for Use by the Contractor

The Contractor shall allow for providing and maintaining all necessary temporary offices or storage for materials for his own requirements.

No offices, stores or temporary buildings shall be erected on site without first obtaining the consent of the Employer as to the position in which they are to be erected.

1.24 Temporary Telephone

Not required.

1.25 Safety, Health and Welfare of Work people

The Contractor shall allow for providing and maintaining all welfare and safety measures to a standard not inferior to that laid down in statutory instruments, rules and orders and subsequent amendments thereto for all workmen employed on the site including the employees of Subcontractors.

Sanitary accommodation for workmen and staff shall be provided, connected to existing drainage where practicable, and maintained in a thoroughly clean, deodorised and orderly condition. Alternatively the public toilets may be used by the contractor.

All huts and other temporary facilities shall be removed, and contaminated soil disinfected and all damage made good on completion of the Contract.

The Contractor must provide industrial safety helmets complying with the latest BS for the use of all personnel including subcontractors and authorised visitors attending the site. He will be expected to use his best endeavours to ensure that the helmets are worn by all such personnel on site in accordance with current legislation.

The Contractors' attention is particularly drawn to his obligations under the Health and Safety at Work Act etc., 1974.

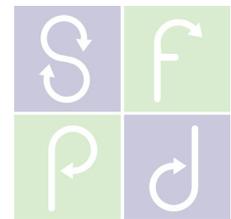
1.26 Maintenance of Roads Etc.

The Contractor shall maintain all public and private roads, footpaths, paved areas, boundary walls and fences on or adjacent to the site in their present condition and on completion, make good any damage arising from the works and reinstate to the satisfaction of the Employer.

The Contractor is to make good any damage caused to any land, public and private roads, footpaths, services under, kerbs, paved areas, boundary walls, and fences etc.. by their own and by subcontractors and suppliers plant, transport and activities, at his own expense or pay the cost and charges in connection therewith.

The Contractor is to carry out a photographic survey of the site boundaries, footpaths and roads and agree this with the Employer prior to works commencing.

No storage of materials will be allowed on the adjoining roads or pavements.



1.00 PRELIMINARY PARTICULARS **SFPD REF NR 2019 CAS 066 FLD WKS**

1.27 Keeping Roads, etc. Clean

The Contractor shall keep any public, private and existing roads, footpaths and paving on or adjacent the site or used by traffic entering or leaving the site in a clean and unobstructed and safe state to the satisfaction of the Employer, the Police and the Local Authority. The Contractor shall use all means to prevent mud or rubbish of any kind being carried on to such roads, footpaths and paving, by vehicles belonging to himself or any other subcontractor to the reasonable satisfaction of the Employer.

Where, however, in spite of such precautions, mud or rubbish is carried on to the roads, footpaths or paving, he must immediately clean up such mud or rubbish at his own expense by scraping, brushing, shovelling and removing to tip. Special attention must be given to prevent mud becoming embedded in the road and footpath surfaces.

1.28 Removing Rubbish etc. and Cleaning Works on Completion

The Contractor shall allow for removing all rubbish, protective casings, coverings and debris from the site. The contractor shall allow for the provision of a fully cleaned site area on completion of the works.

1.29 Police Regulations

Police regulations shall be ascertained and the Contractor shall allow for complying with any such regulations or requirements concerning pedestrian or vehicular traffic control, the loading and unloading of or waiting by vehicles on the public highway, site ingress and egress, safety precautions and other matters affecting the works.

1.30 Control of Noise and Pollution

The attention of the contractor is drawn to the provision of Section 60 of the Control of Pollution Act 1974 with references to the control of noise in relation to any construction works, and must comply therewith.

The Contractor is recommended to confer with the Chief Environmental Officer in relation to proposed method and noise level resultant.

1.31 Planning Consent & Building Regulations Approval

The Contractor is to allow for any liaisons with the relevant planning authority, for any fees due and for complying with any requirements of the planning authority.

The Contractor shall obtain formal Building Control approval for the works from the Local Authority before the works commence on site.

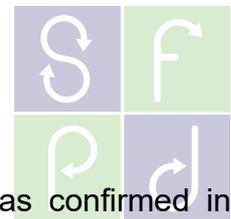
1.32 The Construction (Design and Management) Regulations 2015

This Contract will be executed strictly in accordance with the Regulations.

The Contractor named in the Articles of Agreement of the Contract will be deemed the Principal Contractor.

1.00 PRELIMINARY PARTICULARS

SFPD REF NR 2019 CAS 066 FLD WKS



The Principal Designer will be as stated below, or his successor as confirmed in writing by the Employer.

The Health and Safety Information document that has been established for this project by the Principal Designer is attached to these Employers Requirements, and the Contractor shall incorporate this in his own Health and Safety Plan.

The Contractor shall, if formally requested, submit his Health and Safety Plan for the project with his tender and shall execute the whole of the Contract strictly in accordance with this.

The Contractor shall allow the Principal Designer access to the Works and afford him every reasonable facility for the performance of his duties.

The Contractor shall co-ordinate with the Principal Designer, execute the Health and Safety Plan and contribute as required to the Health and Safety File.

Principal Designer :- S.F.P.D. Limited

Lee West

1.33 Shared Use of the Site

During the construction period the existing public Recreation Ground will remain operational utilising the areas not directly affected by these Contract Works.

The Contractor shall allow and make necessary arrangements for the joint use of access roads, parking, paths, surfaces etc., to the areas which remain in use including providing temporary diversions, facilities etc., as may be required to maintain the operation of the public Recreation Ground.

The contractor shall ensure that the public highway and temporary site entrance is left unobstructed at the end of each working day.

1.34 Tender Submission

The Contractor is to provide the following within his Contractors Proposals :-

- i) Detailed contractors proposals documentation / specification for all aspects of the floodlighting works
- ii) Completed original version of S.F.P.D. Tender Sum Analysis
- iii) Performance information in respect of the proposed luminaire and lamp in terms of the provision of a computer plot to identify the predicted illumination levels and uniformity that will be achieved, on a court by court basis, by the proposed selection and layout of equipment. This item shall only apply where alternative fittings are to be offered to that contained within the S.F.P.D. Lighting Design.

1.00 PRELIMINARY PARTICULARS SFPD REF NR 2019 CAS 066 FLD WKS



Note : The presentation is to be related to the Principle Play Area (P.P.A.) and the Total Play Area (T.P.A.) for each court.

- iv) General Method Statement & Risk Assessments for the overall execution of the works
- v) CV's for all site supervisory personnel (Site & Contracts Manager's)
- vi) Programme for the Works
- vii) Information as requested by the CDM Co-Ordinator
- viii) Working hours (Monday - Friday only)
- ix) List of Proposed Construction and As Built Drawings for the works
- x) Indicative maintenance schedule and requirements for floodlighting installation
- xi) Anticipated design life of floodlighting installation
- xii) Details of any warranties provided.

1.36 Contract Conditions and Stage Payments

The contractor shall submit their own contract terms and conditions for the works. Stage payments shall be made by the Employer based on key stage completion of the works (i.e. installation of columns, installation of fittings and practical completion).

1.37 Co-ordination with Court Works Contractor

The floodlighting works may be carried out concurrently, and in conjunction with, the construction of the tennis courts by a separately appointed court works contractor.

The court works contractor shall allow for all co-ordination and co-operation with the court works contractor appointed by the Employer.

SECTION 2.00

**DESCRIPTION OF WORKS
FOR
FLOODLIGHTING
GENERAL REQUIREMENTS**



2.00 DESCRIPTION OF WORKS - FLOODLIGHTING GENERAL REQUIREMENTS 2019 CAS 033 FLD WKS

2.01 Mains power supply

The extent of the provision required is specified in the *Site Specific* Section of this document.

2.02 Definitions

Principle Play Area (P.P.A.) - The area bounded by the doubles court lines.

Total Play Area (T.P.A.) - The PPA plus the run-back areas to a depth of 4.5M and the Side-runs to a width of 2.5M.

Uniformity ratio - The ratio of Minimum illuminance value to Average value within the prescribed area.

Initial Illuminance - The value of illuminance predicted at initial installation and /or after re-lamping and cleaning of reflectors.

Maintained Illuminance - The value of illuminance predicted after initial reduction output and to be experienced over the working life of the lamps.

2.03 Lighting

The type of light source [Metal Halide OR Sodium] and the luminaire concept to be applied is specified in the *Site Specific* Appendix to this document.

All luminaires are to be provided with their associated lamp control gear.

N.B.

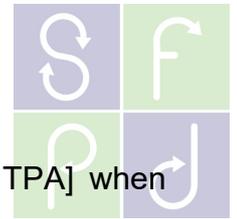
1. Where 'projector' type 'FLAT GLASS' fittings are specified, the requirement is to minimise the impact of any glare from the fittings.
2. Proposals must clearly show how the proposed fitting is designed to control glare.
3. Where a particular type of fitting is strictly required as a condition of the planning approval, this is stated in the *Site Specific* Appendix to this document.

Due provision is to be made for all necessary reflectors, hoods, baffles that may be required to achieve the standards identified both in terms of illumination, spillage and glare control.

2.04 Illumination Level required

The standards that are to be achieved within the prescribed areas are specified in the *Site Specific* Appendix to this document.

2.00 DESCRIPTION OF WORKS - FLOODLIGHTING GENERAL REQUIREMENTS 2019 CAS 033 FLD WKS



The standards are to be achieved within the prescribed areas [PPA & TPA] when each court, and or play area is lit individually.

Illumination standards are to be based on measurements taken after dark at ground level.

The scheme is to be designed with a maintenance factor of 80%.

2.05 Measurement Grid – Design & On Site Testing

A total of (45) forty-five readings are required on the P.P.A.

Note : These readings shall be equally spaced within a defined rectangular measurement grid on the which the outer readings are to be placed on the base lines at either end of the court and the outer side lines at either side of the court (or not exceeding more than 500mm away from these outer positions).

A total of (117) one hundred and seventeen readings are required on the TPA.

Note : These readings shall be equally spaced within a defined rectangular measurement grid on the which the outer readings are to be taken 4.5m from the base lines and 2.5m outer side lines at either end of the court and the outer side lines at either side of the court (or not exceeding more than 700mm away from these outer positions).

The On Site testing grid shall be as stated above, or variation of the above, as agreed between the Floodlighting Consultant and the Contractor.

2.06 Columns

Redundant equipment

Where the removal of existing lighting is specified – The contractor is to allow for and price separately, the making safe, disconnection, removal and safe disposal of the number of existing sets of luminaires, columns and switchgear on the courts specified.

The number of sets of equipment and the court Nos to which this requirement applies are detailed within the *Site Specific* Appendix to this document.

New Installations

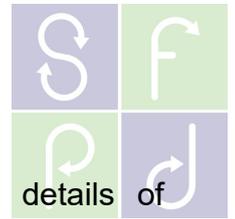
The column height, type [Static OR Raise lower] and layout concepts are detailed within the *Site Specific* Appendix to this document.

All columns are to be supplied with integral lamp control gear housings.

Lamp gear trays are to be located within the base of each column.

External gear control boxes are not acceptable.

2.00 DESCRIPTION OF WORKS - FLOODLIGHTING GENERAL REQUIREMENTS 2019 CAS 033 FLD WKS



The type of construction, material and specific colour together with details of switchgear housing is to be identified in the Contractors proposals.

All pits required to be dug outside or inside the court area shall be the responsibility of the Floodlighting Contractor.

All excavated material arising shall be disposed off site by the Floodlighting Contractor. All columns shall be set in concrete (where planted root type) which shall be provided by the Floodlight installation contractor.

N.B. If columns are to be finished in a colour to satisfy any specific conditions of the planning approval, this will be defined within the *Site Specific* Appendix to this document.

2.07 System Protection

The location of the power distribution board/central control panel is specified within the *Site Specific* Appendix to this document.

The specialist floodlighting contractor is to supply and install a dedicated distribution board.

A contactor control panel is to be provided adjacent to the distribution board.

A central control box is to be provided adjacent to the distribution board.

It is to house the necessary relays, timers and other central control devices to be included in the scheme.

The distribution board, contactors and control devices can be combined within a central control panel, designed for this project.

All power circuit and control components are to be permanently identified.

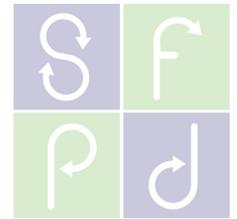
All spare circuit 'ways' and component spaces included for the future provision of additional lighting are to be fully labelled

The labelling details are to be re-produced in the circuit charts and in the handover documentation.

2.08 Cabling Ducting ,Draw Pits and Conduits

The extent of the cabling provision required is specified in the *Site Specific* Appendix to this document.

2.00 DESCRIPTION OF WORKS - FLOODLIGHTING GENERAL REQUIREMENTS 2019 CAS 033 FLD WKS



Cables

Sub Main supply cable

When this cable is being supplied and installed under a separate contract, the responsibility for the design rests with the local contractor.

When included in this contract, the floodlighting contractor must ensure that the volt drop on this cable does not exceed 1.5% of the supply voltage on full load when measured at the incoming terminals of the feeder pillar.

Supply cable tails

When included in this contract, cable tails are to be installed to the switchfuse / MCCB provided by others.

Power supply cables to columns and courtesy lighting

Correctly rated XPLE cables are to be installed between, the distribution board and all columns.

Control cable

Correctly rated XPLE multi-core cable is to be installed between the floodlighting switchgear panel and the control station arrangements specified in the *Site Specific* Appendix to this document.

Ducting, Draw Pits and Conduit

The extent of the provision envisaged is specified in the *Site Specific* Appendix to this document.

N.B. The contractor is to allow for the preparation of detailed and dimensioned setting out drawing to show the relationship between the ducting and draw pits to the columns, fences & gates.

This drawing will be required for comment and agreements of the C.A. before works commence on site.

Installation standards

Cables in soft ground

Cables in the soft ground are to be buried to a minimum depth of 500mm and laid in a trench. Where applicable under the wiring regulations the cables are to be laid on a bed and surround of sand 150mm thick. Buried cables are to be identified along their entire length in the service trench with a yellow marker tape installed 150mm from ground level. Marker tape to be labelled "DANGER – ELECTRIC CABLE BELOW"

2.00 DESCRIPTION OF WORKS - FLOODLIGHTING GENERAL REQUIREMENTS 2019 CAS 033 FLD WKS



Ducted services

The performance requirement is for the draw pits to be adequately sized and together with the ducting system shall provide an underground containment system to facilitate the initial and future re-cabling of the installation without disruption of the court surface, once laid or re-laid.

For ducting and draw pit installations a method statement is to be provided within the Contractors Proposals to identify:-

- Information to clearly illustrate the scope of the provision included in the price tendered
- The diameter of cable ducts, the draw pit construction details.
- Installation methods proposed to achieve the performance requirements.

Ducting is to be buried to a minimum depth of 450mm and draw pits are to be a minimum of 450 by 450mm square.

Service ducting and draw pits for electric cables shall include for the provision and installation of draw wires and drainage from each draw pit.

Draw pits shall be pre-formed and positioned prior to the installation of the ducting. Where stacked plastic sectional draw pits are applied the duct entries are to be drilled to avoid weakening the structure. They shall have lockable removable lids and be provided at each floodlight column position and at all changes of direction.

2.09 Controls for System Management

The control and operating systems required plus the locations are specified within the *Site Specific* Section of this document.

The following design features apply to each element of the Control System Management specified. The performance requirements for each feature are noted in *italics*.

At the main switchgear position

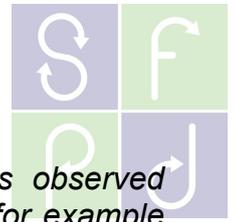
Separate electricity check meter.

The meter is to be wired to monitor and cumulatively record the power usage [Kw Hrs]
The meter is to provide information of power usage for the floodlighting installation that is the subject of this specification.

Master time clock for court lighting

The clock is to be provided with battery back-up, seasonal changeover [BST/ GMT] and manual override.

2.00 DESCRIPTION OF WORKS - FLOODLIGHTING GENERAL REQUIREMENTS 2019 CAS 033 FLD WKS



It is to ensure the curfew time, dictated by the planning approval, is observed automatically. It is to be set to provide an 'availability period' each day, for example 15.00 hrs to 22.00 Hrs. The commissioned values are to be in accordance with the planning agreement.

Separate hours usage counters.

A separate counter is required for each Court/Pitch.

The fitting of an 'hours usage counter' is to enable the owner of the facility to monitor the 'burning hours', and identify when a further performance test is required, and to compare this with both the INITIAL performance and the design MAINTAINED standard.

At the control station position.

Manual Control

A pair of 'on/off' push buttons per court/pitch is to be provided.

These are applied in place of conventional switches, when a master time clock is installed.

The control circuit wiring must ensure the court lighting defaults to 'off' at the curfew time This is to ensure courts or pitches in use at the previous curfew time do not re-instate automatically and incorrectly at the beginning of the next availability period. (E.g. 15.00Hrs).

Timed Manual Control

A manually set timer is required for each court /pitch.

The time period is to be adjustable in minutes, over the range 0 to 4 hours.

This system is applied on fully manned sites, e.g. sports centres /schools etc. to enable a receptionist or other duty officer to allocate a finite period of usage.

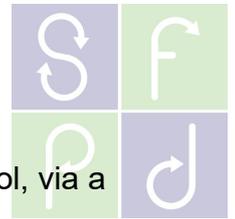
Meter Control of the floodlighting

If a TOKEN meter is specified it is to be provided with a Manual override control, via a key switch

The meters are to provide day-to-day control of the floodlighting with manual override for coaching and match play.

COIN or Re-usable card operated systems may also be specified in place of token meters.

2.00 DESCRIPTION OF WORKS - FLOODLIGHTING GENERAL REQUIREMENTS 2019 CAS 033 FLD WKS



Each meter of this type is also to be provided with Manual override control, via a key switch.

The performance requirements are identical to those detailed above in respect of Token metering

On Court

Visual warning

When specified, it is to be achieved by switching on a small flasher unit sited at 3m on the column[s] agreed with the Client. It is to operate for an adjustable number of minutes before the end of the controlled time period and prior to the curfew time.

It is to warn users the allocated time is about to expire.

Egress Lighting

When specified, it is to be achieved by the extended operation of the luminaire[s] detailed in the *Site Specific* section of this document.

The system is to operate for an adjustable period at the end of any pre-paid time period (as applicable) and at the adjustable cut off time prescribed.

The system is to ensure players can pack equipment and leave the court/ pitch area in safety.

Electronic Control systems

If this type of control system is a Client Requirement it will be included within the *Site Specific* Appendix to this document.

Either Programmable Logic Controls [**PLC**] or Personal Computer [**PC**] based systems will be required – The system type will be defined in the *Site Specific* Appendix to this document.

When electronic control systems are specified all the 'system management' functions detailed in the *Site Specific* section of this document are to be included on the system.

The performance criteria in respect of each item is identical to that detailed above for the electro- mechanical control systems.

PLC based systems are to include a master control unit located at the main switchgear location and for users, day - to - day a small 'display' unit is to be provided at the designated control station location.

The master control unit and the user display may be linked by either 'hard wired' control cable or be linked by radio as specified.

2.00 DESCRIPTION OF WORKS - FLOODLIGHTING GENERAL REQUIREMENTS 2019 CAS 033 FLD WKS



The 3 amp power supply, usually required for the remote display unit, will be provided locally via an un-switched fused spur unit and unless specified otherwise, under separate contract.

PC based systems are to be provided with the associated software for installation on the Clients existing PC system and be complete with all necessary relay devices to interface with the power and control components supplied as part of the floodlighting installation.

The user interface will be via the keyboard and screen of the Clients PC.

When this form of control is specified the Clients existing computer facilities will be defined in the *Site Specific* Appendix to this document, to enable contractors to offer compatible design solutions.

Radio Control links

If this type of control system is a Client Requirement it will be included within the *Site Specific* Appendix to this document. The radio link will comprise,

Two [2] radio modem units - One is to be located adjacent to the main switchgear, the other included as part of the remote control station.

Two [2] vandal resistant aerials are to be included for connection to each modem.

Both modem units and all necessary relay devices to interface with the power and control components are to be provided supplied as part of the floodlighting installation.

2.10 **Small power**

The quantity required is specified within the *Site Specific* Appendix to this document.

Single 13amp power sockets outlets are required

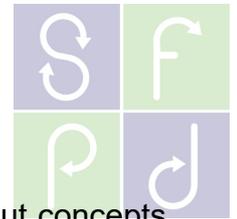
RCD protection is to be provided.

They are to be terminated on columns or in an IP 54 rated weatherproof enclosure.

The power socket installation is to be under a common key control from the control station position or fitted to the side of the feeder pillar.

The final locations for sockets and key switch are to be agreed at the Pre-Start meeting.

The installation is to be arranged to avoid the need for trailing leads over the court/pitch surfaces when supplying power to maintenance equipment ball machines and training equipment.



2.00 DESCRIPTION OF WORKS - FLOODLIGHTING GENERAL REQUIREMENTS 2019 CAS 033 FLD WKS

2.11 Courtesy Lighting [Amenity lighting]

When included in the scheme - The column / bollard height, type and layout concepts and control requirements are detailed within the *Site Specific Appendix* to this document and illustrated on the Site Plan/Concept drawing.

This system is to be selected and designed to suit the specific site conditions.

The installation is to provide lighting to the areas outside the court block or pitch area, for access to and from the courts and/or pitch.

2.12 Testing and Commissioning

In addition to the electrical tests associated with the installation an illumination test is to be carried out, after dark, on each court to establish the performance achieved within each of the prescribed areas. The results are to be plotted and conclusions drawn.

These tests are to establish the INITIAL level of illuminance and uniformity and are to be related to the MAINTAINED levels specified.

A FULL electrical test certificate in accordance with BS 7671 and the latest amendments will be required.

2.13 Manual

A manual, containing record "As Installed" drawings, to include the underground ducting, circuit diagrams of the control circuits, and all other information to provide complete record of the installed services is to be provided at handover.

The manual is also to include details of manufacturer's equipment supplied, together with contact names and addresses plus a schedule of recommended spares.

The manual is to contain lighting test certificates for the floodlighting and a FULL electrical test certificate for the electrical installation.

2.14 Maintenance

The cost and frequency of the service maintenance required is to be separately detailed in the Contractor's Proposals. The contractor is to identify the after sales and/or emergency services available.



2.00 DESCRIPTION OF WORKS - FLOODLIGHTING GENERAL REQUIREMENTS 2019 CAS 033 FLD WKS

2.15 Floodlighting Contractors

The floodlighting works shall be undertaken by an electrical contractor who can demonstrate experience in the Design, Supply, Installation and Commissioning of floodlighting for sports facilities together with the Electrical and Performance Testing.

In particular the proposed floodlighting contractor must have previous experience of floodlighting for Outdoor Tennis Courts to the standards specified herein and should be preferably a member of the Sports And Play Construction Association.

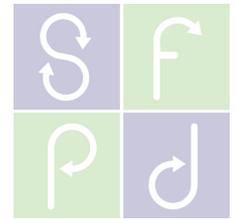
SECTION 3.00

DESCRIPTION OF WORKS

FOR

FLOODLIGHTING

SITE SPECIFIC REQUIREMENTS



3.00 DESCRIPTION OF WORKS - FLOODLIGHTING GENERAL REQUIREMENTS 2019 CAS 066 FLD WKS

3.00 Site : Salts Recreation Ground

3.01 Scope of the Works for Outdoor Tennis Court Lighting

General

To design supply, install and fully test the floodlighting to serve three (3) new build full size doubles tennis court Nrs 1 – 3, arranged as one block of three doubles courts, as detailed on the layout plans, all included in Schedule of Supplementary information.

The two new full size doubles courts are numbered 1 – 3.

NOTE : The three doubles court block is dimensioned to the L.T.A. minimum of 34.75m long x 46.33m wide with outer side runs 3.05m, intermediate side runs 3.66m and run backs 5.49m. The lighting design is based on a three doubles court block of these dimensions.

Contractors are advised that this is a 'combined' court surfaces and lighting project and the floodlighting contractor shall allow for all necessary liaison, co-operation and co-ordination of the floodlighting works with the court works contractor. NOTE : The court works contractor will allow five days for the installation of floodlight columns and five days for the installation of the LED fittings including cabling within their programme for the works.

All works, including ground works, outside the fenced area of the court block are the responsibility of the floodlighting contractor. The contractor is to allow for the removal and disposal off site of all excavated and waste materials, directly created by the floodlighting works. Within the fenced area of the court block the contractor will only be required to provide in-situ concrete for the installation of columns within column sockets provided by the court works contractor which shall be finished 65mm below the upper playing surface of the courts.

The Works include the provision of all luminaires, columns, contactor switchgear and any necessary timing devices plus mains power and control wiring to all luminaires and controls plus their connection at the distribution board FLDB1 located within a single door GRP (dark green) service pillar SP1, local to the court block.

A system of underground ducting and draw pits shall be installed at the site by a court works contractor to be appointed by the Employer and this arrangement is set out within SFPD Drawing Nr 2019 CAS 066 005. The floodlighting contractor will install any supplementary cable ducting and draw pits as required (including reinstatement of the existing pathways and areas of soft landscaping) outside the fenced court block area with respect of the installation of the electrical sub-main and control cable for the CIA lighting management system.

Lighting Performance

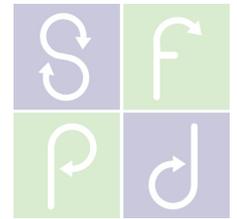
The standards of lighting required are set out in this Employers Requirements document.

Planning Approval and Conditions

For the purposes of obtaining quotations the contractor shall assume that local authority planning consent has been granted to the Town Council for the scheme with the design concept based on the use of LED 'projector' type fittings manufactured by Signify P.L.C.

The Contractors attention is drawn to any conditions of the Planning Consent.

3.00 DESCRIPTION OF WORKS - FLOODLIGHTING GENERAL REQUIREMENTS 2019 CAS 066 FLD WKS



The Contractors shall submit tenders on the basis of an LED light source only.

Contractors shall offer LED 'projector', 'panel', 'box' or 'cluster' type fittings with rear / side deflectors (as appropriate) and must provide full details of the scheme proposed to support the information required to enable a revision to the Planning Agreement to be considered by the Council.

The preferred contractor may be required to develop a prediction of the vertical light "trespass" that will be experienced by neighbours from the proposed system. Clearance of this detailing will be necessary prior to final appointment.

Power supply

The Contractor is to allow for the following items.

Design, supply and installation of a suitably rated switch fuse / mcb / over current protective device to the existing switchgear, within the existing Intake Pillar area (as identified within the tender drawings), to control and protect the supply to the tennis court Service Pillar.

Design, supply and installation of the three phase sub-main, T.P. & N. 415 volt sub-main supply rated at 16 KVA between the existing intake switch cupboard within the pavilion and the new service pillar (SP1). A Certificate of Compliance of the sub-main will be issued by the Contractor on completion of the connection.

N.B. The Contractor is reminded of the need to ensure that the design of the supply sub-main from the intake position will ensure that the volt drop does not exceed 1.5% of the supply voltage, when measured at the incoming terminals of the floodlighting distribution board, when operating under full load. The 'Z' value must not exceed 0.3 ohms.

Power Distribution

The Contractor is to allow for the following items.

The floodlighting contractor is to design, supply and install a single door G.R.P. Service pillar (SP1) to the side of the new court block as indicated on the layout drawings. The position is to be agreed by exchange of 'setting out' drawing with the Employer.

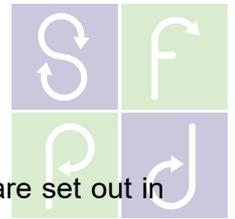
The works INCLUDE in the Scope of Works the design, supply and installation of a switch-fuse within the feeder pillar.

The new double door Service Pillar shall be sized to contain the following :-

- 1) Main Switch to control the supply ;
- 2) Floodlighting distribution board [FLDB1] and control panel.
This is to be sized to accommodate the control gear for 3 courts ;
- 3) LTA ClubSpark Gate Access and Floodlighting Control switchgear.
Spatial requirements set out within CIA Quotation for the project.

Individual Mcb's are to be provided for each luminaire circuit on the distribution board FLDB1 and a separate mcb for the control circuits.

3.00 DESCRIPTION OF WORKS - FLOODLIGHTING GENERAL REQUIREMENTS 2019 CAS 066 FLD WKS



The facilities in the control panels and on the distribution boards to be included are set out in the General Section of this document.

All the foregoing works are to be provided under this contract.

Columns & Fittings

Columns are to be finished RAL 6005 dark green (either by painting or power coating).

Fittings are to be self finished aluminium (dark grey).

Cable Ducting

A full scheme of cable ducting with draw pits and column sockets is envisaged within the court block areas as the layout drawings included within the Schedule of Supplementary Information.

Controls

The Contractor is to allow for the provision and installation of the web based L.T.A. ClubSpark control system (provided and installed by CIA Fire and Security) including one access gate, the provision of suitable and sufficient space for the ACT controllers and GSM router equipment within the service pillar (SP1), dedicated 13 amp switch fused spurs for power supplies necessary adjacent and three Nr 12 Volt relays and associated wiring into the lighting trigger all as indicated with the CIA sketch layout included within the schedule of supplementary information.

Light Fitting Photometry

The Floodlighting contractor shall provide an ies / tm14 / elumudat file of the proposed fitting from the manufacturer for a due diligence check by the floodlighting consultant (with third party lighting design software) of the proposed lighting scheme prior to the award of the contract (where available to do so).

Installation / Testing and Commissioning

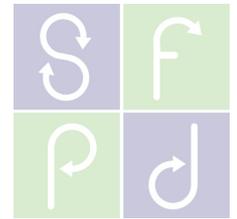
The Works are also to include the provision of all power distribution equipment, contactor switchgear, and timing devices for the egress lighting plus mains power wiring to all luminaries and their connection in the feeder pillar.

The complete installation is to be carried out in accordance with the current edition of the IEE wiring regulations FULL electrical test certificates will be required on completion and prior to final handover of the installation

The specified tests of illuminance, on a court-by-court basis, to confirm the floodlighting performance are required, in addition to the standard tests required for the electrical installation are included in the Scope of Works.

Practical Completion / Handover Documents

Two [2] hard copies and one [1] electronic soft copy on usb memory device of the Operations and Maintenance Manual are to be provided at Practical Completion or Handover containing the information identified in the General Specification of this document.



3.00 DESCRIPTION OF WORKS - FLOODLIGHTING GENERAL REQUIREMENTS 2019 CAS 066 FLD WKS

3.02 Site Specific requirements

Mains Power Supply

Specialist Floodlighting Contractor

The Contractor is to allow for the provision of a correctly rated and selected Triple Pole Isolator on the new distribution board [FLDB1] to be sited within the service pillar P1.

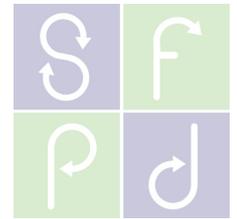
Overview

For this project the concept is to illuminate these courts, and to be individually switched to fully comply with the lighting standards noted below.

The floodlighting works **INCLUDE** the installation of a new T.P. & N. sub-main power supply.

		Notes on Site specific features
Court Details		
Number of Courts to be floodlit	3	Three Doubles Courts
Court number(s)	1 – 3	- see site layout drawing
Performance Standards – Full Size Courts		
Maintained Average Illuminance PPA	400 lux	
PPA Uniformity	0.7	
Maintained Average Illuminance TPA	300 lux	
TPA Uniformity	0.6	
Project maintenance factor to be applied	0.9	L.T.A. minimum requirement
Equipment and installation features	Quantities [Each feature]	Locations
Columns		
Quantity	8	Column Duty to be stated With full manufacturers details
Height [Metres]	10.0	Nominal
Layout		Corner & Side Lit scheme
Columns within the fence lines	None	All columns outside court area
Finish		Dark Green RAL 6005
Luminaries		
'Projector' Type and quantity	12	12 total to three courts 4 to each court operating individually
Finish		Self finish aluminium
Light Source	LED	1050 Watt Nominal Wattage

**3.00 DESCRIPTION OF WORKS - FLOODLIGHTING
GENERAL REQUIREMENTS 2019 CAS 066 FLD WKS**



Power distribution

Service Pillar (SP1)

Adjacent to Court Nr 1

Distribution board [FLDB1]

1

In the Service Pillar SP1

Cable ducting and draw pits

Cable ducting

Full

See layout drawings by SFPD

Draw Pits

Full

Inside the court area
by court works contractor

Cable installation

Final connection of Sub-main at SP 1

As applicable

By floodlighting contractor

Power cables to all columns

As applicable

By floodlighting contractor

Extra low voltage control cable to
'Clubspark' controller

1

By floodlighting contractor

Basic control features

Electricity 'check meter'

Included

Within the feeder pillar FP1

Time switch [twin 'channel' type]

1

Within the feeder pillar FP1

'Hours Run' counters

3

Within central control panel

Features at the Control Stations

Electronic control per court – 'with
Default to off circuit' sub-master to the
Time switch via ClubSpark Controller

3

Within the service pillar

Manual override switches within
Service pillar

3

Details by contractor
One for each court

On Court features

Visual Warning beacons

3 sets

One per court

Egress Lighting

3 sets

One per court

Power Sockets

3

To central columns to Southern
Run back1 Nr per court

Power socket key switch

1

On side of service pillar

Other Site Management features

Courtesy Lighting bollards

Excluded

Courtesy Lighting controls – PE cell

Excluded

CCTV

Excluded

Security system

Excluded

3.00 DESCRIPTION OF WORKS - FLOODLIGHTING GENERAL REQUIREMENTS 2019 CAS 066 FLD WKS



3.03 Information required to be submitted with Tender:

1. A computer plot to identify the predicted illumination levels and uniformity that will be achieved, on a court by court basis, by the proposed selection and layout of equipment. The presentation is to be related to the Principle Play Area (PPA) and the Total Play Area (TPA) for each court.

The computer plot shall be provided by a recognised outdoor lighting design software programme. Information shall not be abstracted from the software and placed on drawings. The computer plot shall detail the type of fitting to be used, power in Watts, mounting height, details aiming angles, maintenance factor applied, any reflectance values and horizontal illumination levels for the P.P.A. (45 measurement positions) T.P.A. (117 measurement positions) and the overall spillage contours beyond the area being lit.

2. A prediction of the horizontal light "spillage" that will be experienced from the proposed system. This can be included within the overall computer plot.
3. A statement on the extent to which provision has been made to control glare from the proposed arrangement of luminaires.
4. A schedule to identify the make and types of equipment proposed, with particular attention to the characteristics of the type(s) of lamp offered and included in the tender price.
5. A sketch to identify the space required for the controls proposed within the clubhouse.
6. The quantity, height and location of columns are to be identified.
7. Ducting and draw pit installations method statement, to include a sketch to identify the extent of ducting included within the tender price.

N.B. Detailed setting out drawing(s) will be required, post contract.

8. The power loading per court is to be stated, and from this the predicted running cost per hour.
9. The cost and availability of replacement lamps is to be stated.
10. The expected lamp life is to be stated, together with any limitations on usage that will affect the expected life of the lamps proposed.
11. Written confirmation that the Electrical Feeders Contractor has identified the full Scope of the works and that the Tender price is fully inclusive of all the materials, plant and labour necessary to carry out the installation, Commissioning and documentation specified and included in the tender proposals.

N.B. A pre tender site inspection is required to verify the site conditions

12. The extent of both the manufacturers and installer's warranties is to be stated.
13. Details of the maintenance offered for the values included in the Tender Sum Analysis.
14. Current availability of equipment and lead time for site mobilisation is to be identified in the contractor's proposal.



SECTION 4.00

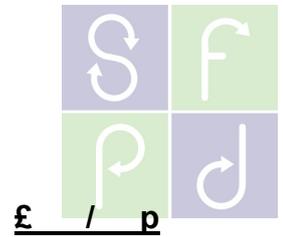
TENDER SUM ANALYSIS

AND

FORM OF TENDER

4.00 TENDER SUM ANALYSIS
SFPD REF NR 2019 CAS 066 FLD WKS

4.01 TENDER SUM ANALYSIS

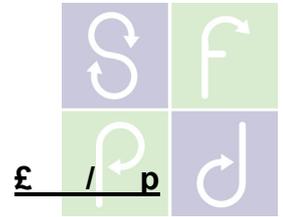


4.00 FLOODLIGHTING TO NEW COURT NRS 1 – 3

<i>Item</i>	£ p
Preliminaries	
Contract conditions	
Services as designer	
Service Pillar (SP1)	
Installation & Connection of Three Phase Sub-main from the Café to Service Pillar	
LED Fittings including control gear	
Manufacturer Ref Nr	
Manufacturer Lead in period weeks	
Manufacturer Warranty period years	
Columns Green RAL 6005	
System Protection – including the service pillar [SP1], plus connection of the supply. Control Panel / Distribution board [FLDB1].	
Power distribution cabling to columns	
Review and comment on ducting and draw pit layout as noted in the ER	
System Management controls including CIA ‘Clubspark’ web-based system.	
Power sockets, the associated key switch on SP1 and the power, plus control circuit wiring	
Testing and commissioning	
Manuals & Record Drawings	
Any items not specifically included above.	
TOTAL CARRIED TO COLLECTION	£

4.00 TENDER SUM ANALYSIS
SFPD REF NR 2019 CAS 066 FLD WKS

4.01 TENDER SUM ANALYSIS



COLLECTION

1) Floodlighting to Court Nrs 1 – 3 :-

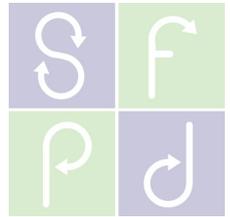
PAGE 4/1 £ _____ } £

TOTAL CARRIED TO FORM OF TENDER £

=====

EXTRA OVER ITEMS FOR FLOODLIGHTING COURT NRS 1 – 3

A) Electrical surge protection within distribution board £



EXTRA OVER ITEMS FOR FLOODLIGHTING COURT NRS 1 – 3

MAINTENANCE

<i>Item</i>	£	p
<p>Minor Service(s)</p> <p>No. Visitsper annum</p> <p>@. £..... per visit</p>		
<p>Interim Service, including Full lighting check</p>		
<p>Major Service, including cleaning fittings</p>		
<p>Annual service contract, to include both minor and major services, to cover a 5 year cycle of maintenance from handover</p> <p>Cost per annum for a five year contract</p>		

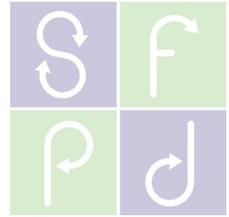
**THE FOLLOWING INFORMATION SHALL BE ISSUED WITH THIS EMPLOYERS
REQUIREMENTS DOCUMENT :-**

PLANNING CONSENT

APPROVED LIGHTING DESIGN

DRAWINGS :-

S.F.P.D. DRAWING : REF 2019 CAS 066 DWG 002 / 003 / 004 / 005



SALTS RECREATION GROUND

FORM OF TENDER

To: **Seaford Town Council, 37 Church Street, Seaford, EAST SUSSEX. BN25 1HG.**

For: **The design and installation of LED floodlighting to three new tennis courts and associated works at Salts Recreation Ground**

From:(Contractor)

Sirs,

I/We having read the Conditions of Contract and Employers Requirements delivered to me/us and having examined the drawings referred to therein do hereby offer to execute and complete in accordance with the Conditions of Contract the whole of the Works described within (insert number) weeks from the date of possession for the sum of :

.....

.....(£.....) VAT exclusive

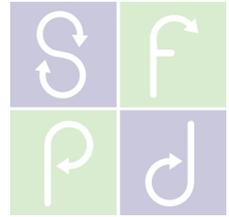
I/We agree that should obvious errors in pricing or errors in arithmetic be discovered before acceptance of one of these offers in the Contract Sum Analysis submitted by me/us these errors will be corrected in accordance with Alternative 2 contained in Section 10 of the NJCC "Code of Procedure for Tendering for Design and Build" dated March 1996.

I/We undertake to enter into a formal contract by deed in the form referred to in the above documents. I/We agree that until this tender is incorporated in such a formal contract, executed under deed by the Employer, this tender together with your written acceptance thereof will constitute a binding contract between us.

I/We confirm that if our tender is accepted we will require a period of weeks to obtain all necessary approvals prior to works commencing on site.

I/We further agree that this tender remains open for consideration for twelve (12) weeks from the last day of submission of tenders.

I/We note that you do not undertake to accept the lowest or any tender and that the Contractors tendering do so free of charge.



SALTS RECREATION GROUND

FORM OF TENDER

I/We declare this tender to be a bona fide tender intended to be competitive and that I/We have not fixed or adjusted the amount of the tender by or under or in accordance with any agreement or arrangements with any other person.

I/We confirm that the Annual Renewal Date of Insurance as supplied by me/us and referred to in Conditions of Contract

is.....

I/We confirm that we have visited the site before submitting this tender.

Dated thisday of2020

For and on behalf of

Signed

Registered Address

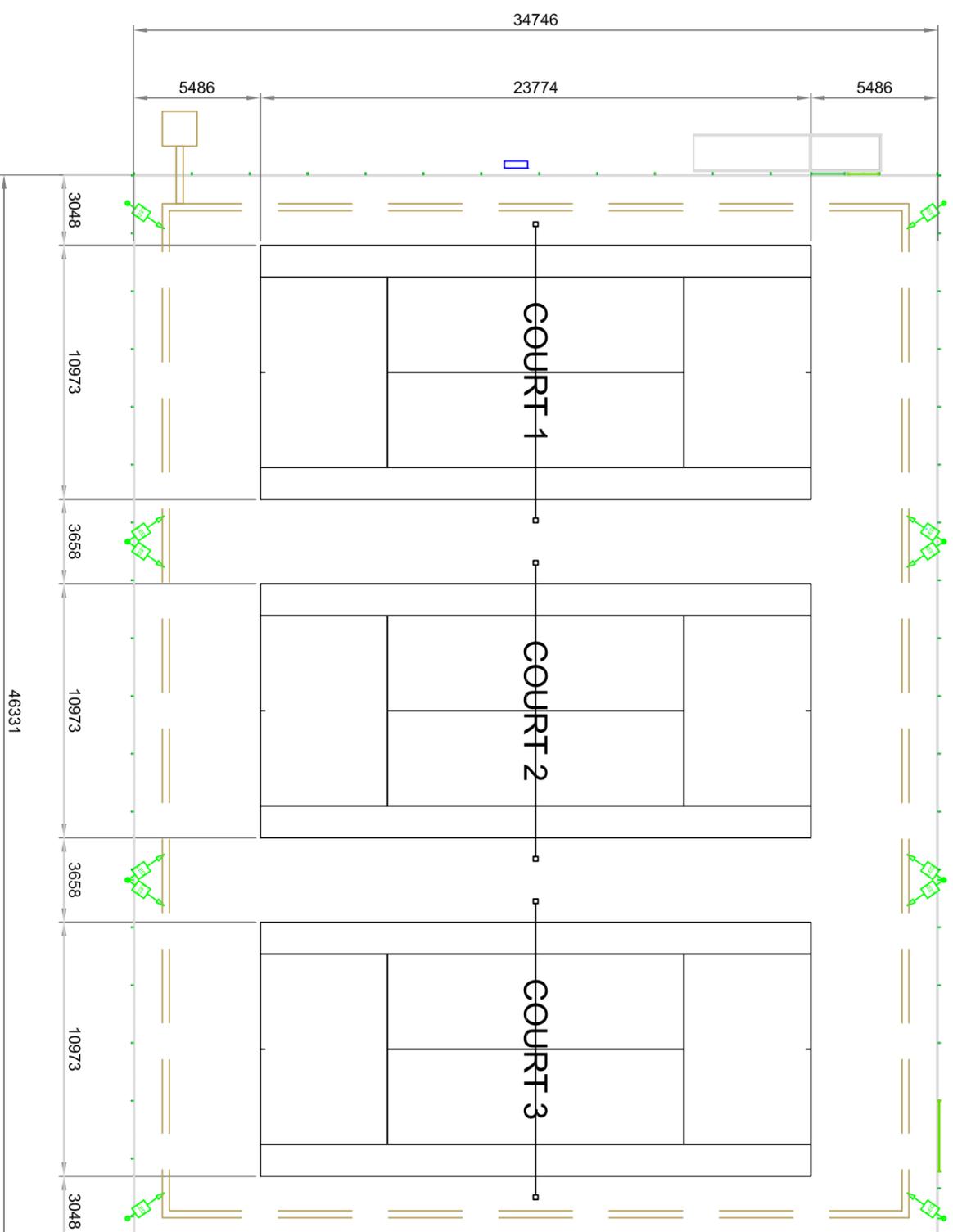
.....

Witness (Signature)

Occupation

Address

THIS IS NOT A PLANNING APPLICATION DRAWING



PROPOSED LAYOUT NEW COURT NRS 1 - 3

Notes:

THIS IS AN A3 DRAWING AT
A SCALE OF 1 TO 250

Rev	Date	Description
A	15.11.19	RAMP POSITION
B	20.12.19	GATES
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Site Location:
THE SALTS RECREATION GROUND
14 MARINE PARADE
SEAFORD
EAST SUSSEX. BN25 2PL.

Project Title
NEW COURT NRS 1 - 3

Client:
SEAFORD TOWN
COUNCIL

Drawing Title:
PROPOSED LAYOUT
NEW COURT NRS 1 - 3

SFP SPORTSFACILITY
PLANNING&DESIGNLTD

39 Hemwood Road, Windsor, Berkshire, SL4 4YX
Telephone: (01753) 850123 Mob (07770) 366299

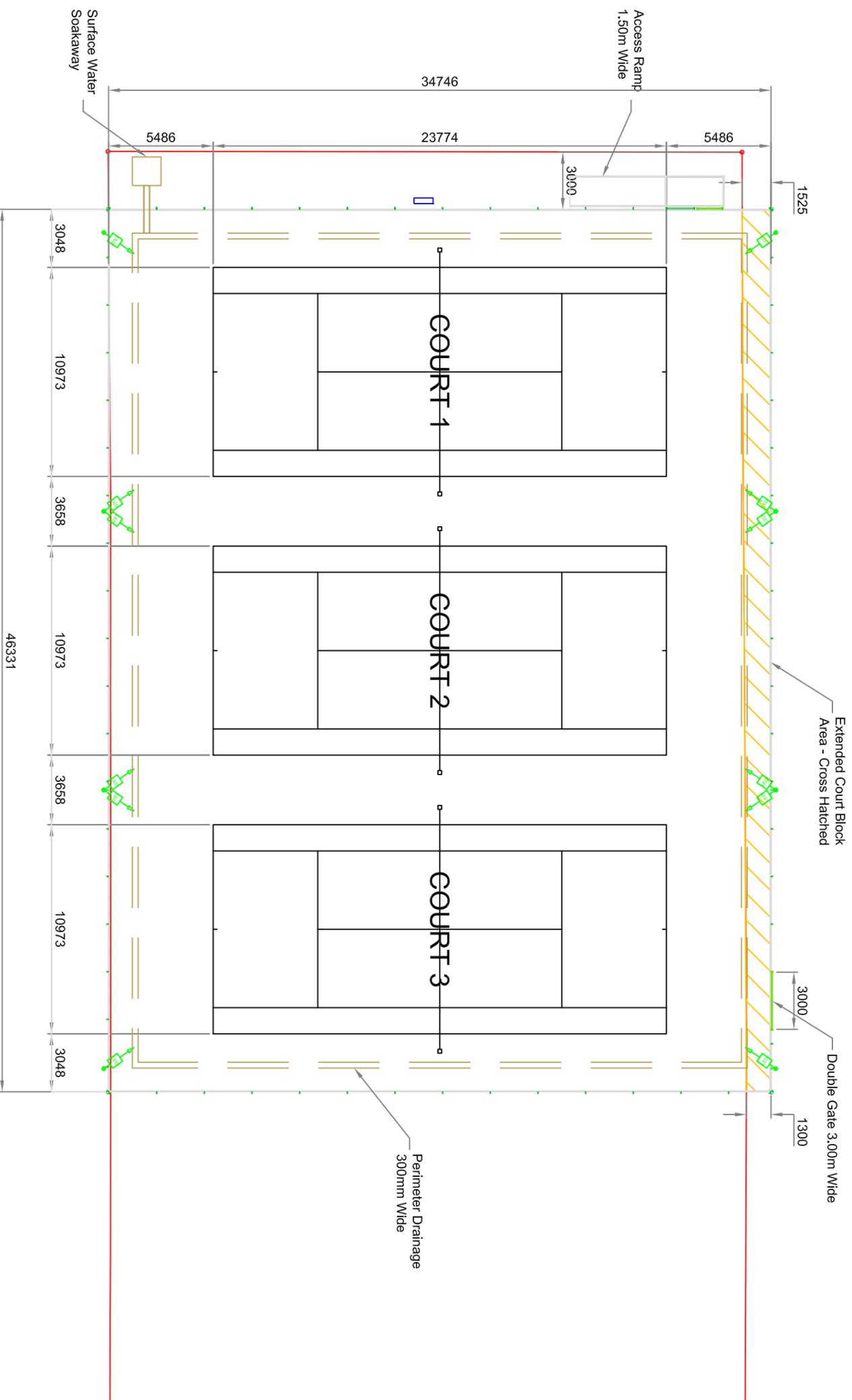
CONSULTANCY SERVICES

WWW.SFPAD.CO.UK

Drawn By: L. WEST	Checked By: S.F.P.D.	Date: 06.11.2019
Scale: 1/250	Sheet: -	Revision: B

Drawing No.
2019 - CAS 066 - 003 B

THIS IS NOT A PLANNING APPLICATION DRAWING



PROPOSED LAYOUT NEW COURT NRS 1 - 3

Notes:

THIS IS AN A3 DRAWING AT
A SCALE OF 1 TO 250

Rev	Date	Description
A	15.11.19	RAMP POSITION
B	20.12.19	GATES
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Site Location:
THE SALTS RECREATION GROUND
14 MARINE PARADE
SEAFORD
EAST SUSSEX. BN25 2PL.

Project Title
NEW COURT NRS 1 - 3

Client:
SEAFORD TOWN
COUNCIL

Drawing Title:
PROPOSED LAYOUT NEW COURT
NRS 1 - 3 OVER EXISTING



39 Hemwood Road, Windsor, Berkshire, SL4 4YX
Telephone: (01753) 850123 Mob (07770) 366299

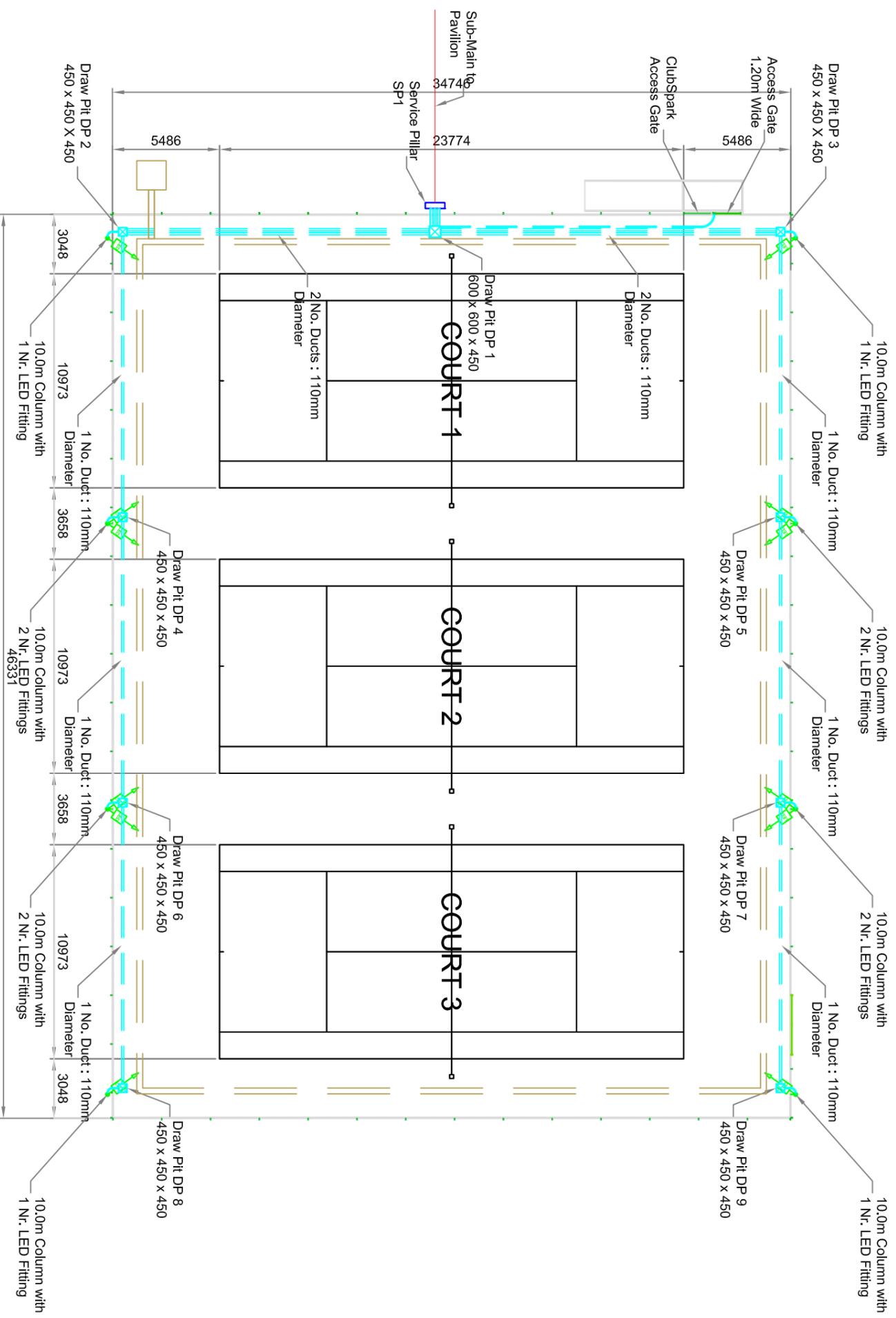
CONSULTANCY SERVICES

WWW.SFPAD.CO.UK

Drawn By: L. WEST	Checked By: S.F.P.D.	Date: 06.11.2019
Scale: 1/250	Sheet: -	Revision: B

Drawing No.
2019 - CAS 066 - 004 B

THIS IS NOT A PLANNING APPLICATION DRAWING



Notes:

THIS IS AN A3 DRAWING AT
A SCALE OF 1 TO 250

Rev	Date	Description
A	15.11.19	RAMP POSITION
B	20.12.19	GATES
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Site Location:
THE SALTS RECREATION GROUND
14 MARINE PARADE
SEAFORD
EAST SUSSEX. BN25 2PL.

Project Title
NEW COURT NRS 1 - 3

Client:
SEAFORD TOWN
COUNCIL

Drawing Title:
PROPOSED LAYOUT NEW COURT
NRS 1 - 3 : LED FLOODLIGHTING



39 Hemwood Road, Windsor, Berkshire, SL4 4YX
Telephone: (01753) 850123 Mob (07770) 366299

CONSULTANCY SERVICES

WWW.SFPAD.CO.UK

Drawn By: L. WEST	Checked By: S.F.P.D.	Date: 06.11.2019
Scale: 1/250	Sheet: -	Revision: B

Drawing No.
2019 - CAS 066 - 005 B