Scope of Works
Electrical
1768 – E – 1000

Hailsham TOWN COUNCIL

Rev	Purpose	Originator	Approved	Date
01	Tender issue	Steve Lissamore	S Fears	09/05/2021

Contents

2 GENERAL

This scope of works is to be read in conjunction with the design drawings provided as part of the tender package and is for the purpose to provide support information relating to the electrical services installations including but not limited to distribution, small power and lighting associated with the illumination of the Hailsham Active circuit, Western Road, Hailsham, East Sussex, BN27 3BF.

Ensure you have all the documentation listed in the tender release schedule listed in section 12 of this document.

3 DESCRIPTION OF WORKS

The works consist of the illumination of the Hailsham Active Circuit within the Western Road Recreation grounds.

The electrical works consist of: -

- Provision of a new UKPN electrical supply
- Associated ground works for the UKPN installation
- Provision of new distribution arrangement in kiosk
- Provision of frost protection heater to kiosk
- Provision of new illumination to Active circuit
- Provision of lighting control
- Associated ground works to column erection
- Testing and commissioning
- Provision of record documentation

This specification has been written at a design stage before the completion of the active circuit installation works and makes the assumption that the kiosk in preparation for the UKPN supply has been erected and furnished with the 3 no outgoing ducts and the required twin wall ducting installation to the entire perimeter of the active circuit as per informed requirement.

3.1 Design

The successful contractor shall be responsible to ensure that the development of the design from stage 4 information provided and for the design, supply, delivery, installation of plant and materials are included within the tender package.

Testing, commissioning, setting to work and all handover documents should also be provided as part of the works.

It is the successful contractor’s responsibility to ensure that the installation is installed in line with the drawings provided and in accordance with all current regulatory requirements and industry standards including but not limited to all CIBSE/IET guidance.

The successful contractor shall carry out the final design and co-ordination of the electrical services as described and to produce fully co-ordinated working drawings. these shall be issued for comment and approval before works are to commence, any works on site before approval shall be at the risk of the successful contractor.

Any change to the stage 4 design provided including modifications and relocation of services shall become the responsibility of the successful contractor including warranties for the altered services. Please note that all architectural and structural drawings should be examined to ensure the tenderer fully understands the specific nature of the installation. If these are not included within the tender package, these are to be requested from the poster of the tender information.

A site visit must be performed to ensure the site constraints are realised and that the contractor is fully familiar with the site.

3.2 Extent of Works

The works shall comprise of the complete installation as noted on the drawings and specification this shall provide fully working, tested and commissioned systems as required. This includes providing specified performance and environmental conditions, all ancillary items, and sundry items for the installation to operate efficiently and provision for maintenance to be carried out in a safe and practical manner.

The works should also be completed in line with all relevant regulations, recommendations, British Standards, Code of Practice and industry recognised methods of installation and workmanship.

3.3 Standard and Regulations

The following standards and regulations should be followed (but not limited to) and supersede the details provided within this scope of works and the tender drawings provided.

- Health and Safety at Work, etc, Act.
- Health and Safety Executive Publications.
- Electricity at Work regulations (HSR25)
- British Standards, relevant European and International Standards.
- The Requirements for Electrical Installations, BS 7671:2018 as per current addendum.
- Requirements under the Electricity Acts.
- The Clean Air Act.
- Control of Pollution Act.
- Energy Conservation Act.
- Regulations under the Factories Act.
- The Building Regulations.
- Requirements of local Electricity, Gas and Water Undertakings and Fire Fighting Authorities.
- The CIBSE Guides to Current Practice.
- Health and Safety at Work etc Act 1974
- Construction (Design and Management) Regulations 2007 (CDM)
- Management of Health and Safety at Work Regulations 1999
- Control of Substances Hazardous to Health Regulations 1999
- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR)

3.4 Examination of Site

Tenderers shall examine all of the architectural and structural drawings (where applicable), to ensure that tenders include for all work of any special nature that may be required because of the type or method of construction, or for any other reason.

The installer is responsible for all measurements and the compilation of quantities required and visiting the site as necessary. Site visits are particularly important since it is essential that the installer shall be fully aware of the conditions under which the work will be carried out. No extra costs will be allowed on account of insufficient knowledge, inaccurate measurements or errors.

The tender drawings indicate diagrammatically the approximate routes of services and location of equipment and plant, but the exact positions will be determined by the installer to suit the actual space available.

The installer shall ascertain all architectural features, structural features, positions of other services and all other relevant information that may be required to establish satisfactory positioning and installation of the works.

The installer shall include for all costs associated with liaising with other trades, preparing working drawings, co-ordinating with all other trades, services or elements together with adequate site supervision to ensure that the works are arranged to make optimal use of the space available.

Working drawings shall be produced for approval prior to any work commencing. Approval of any drawings issued shall not exempt the Installers responsibility for accuracy and correctness or the responsibility to comply with the Scope of works.

4 TENDERING/PRICING

Tenderers shall make an assessment of all installation requirements to ensure that all costs are included for adjustments which could be necessary to the external groundwork's access requirements etc. in order for the works to fully meet the specification.

Tenderers shall study all drawings, specifications and information available at the time of tendering to ensure the total tender price includes for all adjustments to the ground works, access equipment, fixtures, other services or trades to ensure that this price is based on totally integrating the works within the recreation ground and minimising the works impact on the general usage of the area.

Exact adjustments or adaptations to the active circuit shall be established during the installer's preparation of co-ordinated working drawings and full details shall be produced prior to the ordering of structural items and all required materials in sufficient time to meet all requirements of the programme.

The successful contractor must produce a full set of builder's/ grounds work drawings indicating any excavations or required penetrations. No extra costs can be claimed for any adjustments needed to the active circuit (or other items) in order for the specified Services and associated works to be provided.
Allowance shall be made in the tender price for services routes or positions being varied due to the following:

- Co-ordination with all other items.
- Any ground works that involve the excavation of the active ring and reinstatement
- Practical maintenance, subsequent removal or dismantling.
- Final setting-out and positions of the completed active circuit

Allowance shall be made for all necessary fixings, brackets, supplementary steelwork, sleeves, plates, adaptors etc to interface the Works with the operational area.

No extra costs can be claimed for any lack of detailed information in the Scope of works.
This should include all labour and materials required to complete the works.

Any clarification required on the tender documents should be issued before submission of tenders.

Any clarification, deviations or additional services required should be noted within the tender response and highlighted to the main contractor. This should include any assumptions made as part of the pricing process.

The tenderer shall provide a provisional programme of works including for any required closures to the recreation ground and durations of any fenced of excavation areas. Dates for the work/programme are to be agreed with Hailsham Town Council but the programme should indicate processes in a weekly format indicating specifically any overnight/weekend open (fenced) excavations.

5 UKPN CONNECTION

5.1 Excavation requirements

The Main electrical service as indicated on drawing 1650 – E – 2000 is to be exposed as per UKPN excavation requirements for a service connection as per fig 1 below

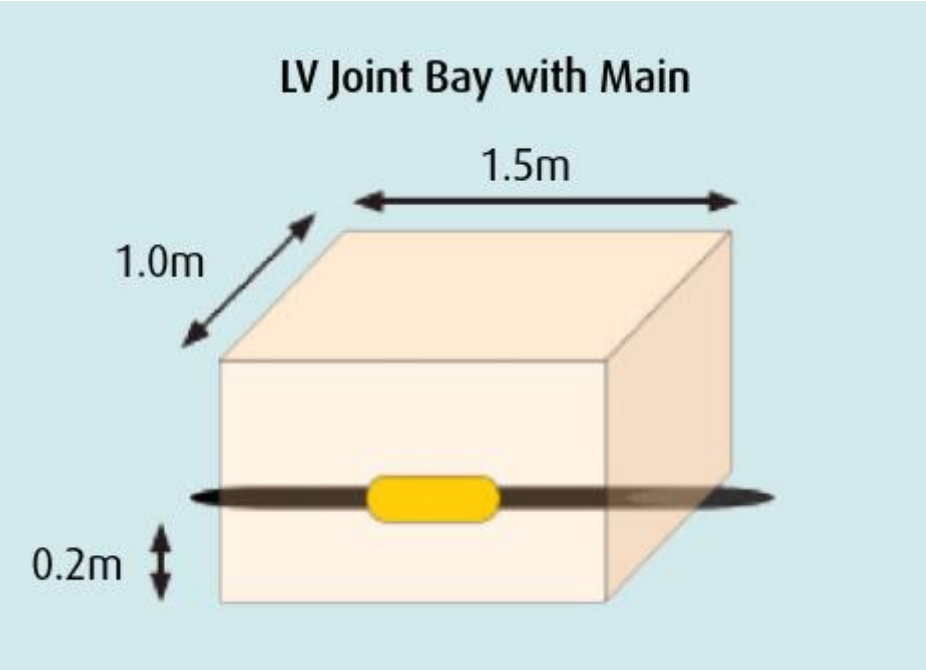

Fig 1.0

From this joint bay excavation, the contractor shall excavate a trench to the end of the installed duct to the kiosk installed under a previous contract to enable the installation of the new service cable.

The following notes are made for consideration in reference to the excavations.

Think ahead

- Get the basics right.
- Familiarise yourself with the site.
- Mark the route of underground cables running across the site on all plans circulated to staff.

What to do

- Have cable drawings and records on site, know how to read them and check them before starting work.
- Be aware that not all cables may be shown on the records.
- Look around for anything in the vicinity that would have an electricity service, such as streetlights, CCTV cameras, phone boxes, etc. as well as the more obvious things like houses and industrial units.
- Always use a cable avoidance tool (CAT) to survey the entire site before digging commences.
- Once found, mark cable positions with spray paint or similar.
- Do not forget to use encroachment lines as well.

- Dig trial holes, by hand, alongside the indicated route of the cables(s).
- Use spades and shovels with insulated handles in preference to forks and picks.
- Make sure everyone on site, including visitors, understand the risks.
- If the is a cable encased in concrete contact UK Power Networks to agree a safe method of work. This may mean making the cable dead.
- Have the emergency contact telephone number easily available on site the number for this region is South East 0800 783 8866

What NOT to do

- Never allow anyone near a damaged or suspected damaged cable or joint.
- Do not handle or attempt to alter the position of a cable or joint.
- Never assume that cables run in straight lines, they may be deflected around underground obstacles.
- Do not use mechanical excavator or powered digging tool within the vicinity of known cables.
- Never knock a road pin, or forcibly throw a spiked digging tool into the ground, without checking what is below the surface.

If a cable is damaged

Notify UK Power Networks immediately:

Call the emergency services if anyone is injured.

Anyone who has received an electrical shock should go to hospital as damage may have occurred to the heart.

Always treat the cable(s) as live even if they are not sparking.

Cables can be re-energised at any time without warning.

Never remove anything that is stuck in a cable.

Keep everyone well away from the area of the damage.

Do NOT attempt to remove anything that is in contact with the cable.

In case of emergency call UKPN on: South East 0800 783 8866

All excavations are to be protected from the public by Harris fencing.

Fence off all excavations in public places during the course of these works including for the excavations to facilitate the installation of the lighting columns to prevent pedestrians and vehicles falling into them.

Where children might get onto a site out of hours, take precautions (e.g. backfilling or securely covering excavations) to reduce the chance of them being injured.

All works should follow the guidelines from the Health and Safety Executive as given within HSG151

The contractor shall ensure all required actions of the document are carried out to ensure the safety of their works and members of the public.

5.2 UKPN connection

The successful contractor is to order and liaise with UKPN for the required new service to the kiosk.

A quotation for the works has been obtained from UKPN and is included within this tender package.

The quotation from UKPN referenced in this document is: - *SYS_8100180493_Small Services Quotation offer and instant quote.* The contractor should note all of the terms, conditions and client responsibilities listed and make allowance for all items

The contractor is to make all required payments, arrangements and attendances to ensure the UKPN installation proceeds within the confines of the programme.

6 KIOSK DISTRIBUTION ARRANGEMENT

6.1 Service cabling and containment

The electrical contractor shall provide a full cable management system for all LV and ELV services to the kiosk, this is to consist of a 100x100mm trunking as indicated on drawing 1650 – E – 0900.

The electrical contractor is to supply and install 25mm double insulated tails from the head position to the meter position then from the meter position to the new distribution unit.

The meter installation is to be arranged by the electrical contractor who are to liaise with Hailsham Town Council for their preferred electricity provider.

6.2 Distribution Board

The contractor shall supply and install an Eaton EAM10 distribution unit with an EAMS1251N main switch.

The distribution unit is to be populated by protective devices as set out in the circuit chart 1650 – E – 0700 included within this tender package.

The distribution unit shall also be used to house the 2 no contactors (Contactor CR2020230A) required for the lighting control as specified in section 9 of this scope of works. These contactors are to be installed to ways 8 and 10 of the distribution unit.

All neutral cables shall be clearly marked as to the circuit way they serve. All circuit ways shall be clearly marked both within the distribution boards and within a separate type written circuit chart, which shall be installed within the distribution board.

All distribution equipment shall be securely fixed to the structure and shall be bonded to earth. Blank filler panels shall be fitted over all spare ways on the panel to enable extra units to be fitted at a later date should that be necessary.

The electrical contractor shall allow for 25% spare capacity on the distribution board.

7 FROST PROTECTION

The electrical contractor shall supply and install 1 no radial circuit with PVC conduit cable management to facilitate the installation of a Frost protection heater within the kiosk enclosure.

The switched fused connection unit to be used as isolation for the unit is to be fitted with a protective device as per the manufacturer's guidelines for the device.

The frost protection heater is to be a Dimplex MPH500 unit and set for frost protection and to eliminate condensation build up.

8 LIGHTING INSTALLATION

8.1 Excavations/seating of columns

The electrical contractor shall supply and install 11no lighting columns and 23no root mounted bollards as per drawing 1650 – E – 0200.

The previous ground works contract has specified to *excavate narrow trench, say 250mm width, 600mm deep to receive 110mm die cable duct with 450mm cover. Trench to adjoin the external perimeter of path, the nearest excavated face to be 300mm from the edge of the completed path.*

Extra-over the above rate for breaking out trench across concrete hardstanding, between D & E, and reinstatement with 100mm concrete following installation of duct and infilling.

Provide and lay twin wall 94/110 electric cable duct, complete with 6mm blue nylon drawcord, to comply with EN-61386-24. Bed on sand in trench. Backfill around duct with fine sand to a level 100mm above duct. Provide and lay Warning tape complete with trace wire@ 450mm cover level. Reinstate trench with soil compact to surface levels.

The electrical contractor is to trace the above pre-fitted ducting and excavate/intercept in preparation for the fitting of lamp columns (FC5) in positions as per drawing 1650 – E – 0200. The seating of the lamp columns should be carried out utilising a sleeved foundation method in a manner as/equivalent too the method showing in drawing 1650 – E – 0901. The seating of the root mounted bollards is to be with a concrete surround to prevent vandalism as per the manufacturer's installation recommendations and instructions.

Any excavations made must be fenced off to protect the public as per details in section 5.1 of this document.

8.2 Cabling and earthing

The electrical contractor shall install the cabling as per type and sizing referenced within the circuits schedule 1650 – E – 0700 included within this tender pack.

The cabling is to be PVC or XPLE insulated, steel wire armoured, PVC sheathed with stranded plain copper conductors, 600/1000V grade to BS 6346

All cable runs are to be in one complete section with no joints within the columns of the ground.

Circuit protective and equipotential conductors shall comply in all respects with the requirements of BS 7671.A circuit protective conductor shall connect the earth terminal on each luminaire to the main earth terminal block mounted on the column back board. An earth terminal block shall be fixed to the baseboard adjacent to the cut-out and shall be three-way type capable of accepting a cable size up to 25mm2

.

A main protective bonding conductor shall have a cross-sectional area not less than half the cross-sectional area required for the earthing conductor of the installation and not less than 6 mm².

Where PME conditions apply the earthing conductor of a street electrical fixture shall have a minimum copper equivalent cross-sectional area not less than that of the supply neutral conductor at that point or not less than 6 mm².

All exposed conductive parts, as described in BS 7671, shall be bonded to the main earth terminal using an equipotential bonding conductor of not less than 6 mm² cross sectional area. Access doors shall be bonded using flexible or tri-rated cable. All earth conductors shall be insulated with green and yellow PVC.

All street lighting and other electrically supplied street furniture shall be earthed and bonded in compliance with BS 7430.

A permanent label to BS 951, with the words “Safety Electrical Connection – Do Not Remove” shall be permanently fixed in a visible position as stated in BS 7671 Section 514-13.

The cables are to be drawn through the pre-fitted ducting to the lamp column position and into the column prior or at the time the column is finally seated into the foundation sleeve.

8.3 Cut out and connections

A service cut out shall be fitted to each column as per Lucy Titan range THM0010211.

Cables shall be individually terminated and secured at switches, cut-outs and other electrical apparatus by means of an armour securing clamp or an aluminium compression type gland complying with BS 6121 or BS EN 50262 and a gland plate. The armour securing clamp or compression gland and plate assembly shall incorporate at least one non-ferrous earthing terminal. All glands shall be shrouded overall with PVC sleeves and CET system terminations shall be suitably protected.

The cable connection from the cut-out position to the luminaire is to be carried out using 3183Y flexible cabling firmly secured with the luminaire cable clamps.

8.4 Luminaire fitting

Lanterns and brackets (where required) shall not be attached to the column until 24 hours after the concrete foundations are laid.

The lantern and bracket arrangements are indicated in drawing 1650 – E – 0901, the components that make up the luminaire are as per items listed within the luminaire schedule 1650 – E – 0701 included within this tender documentation and all items as per Urbis Schreder quotation reference SQ044183-1 are to be purchased and installed by the electrical contractor.

All fittings shall be aligned with the active circuit to achieve the designed wide spread of the lantern. The lantern head needs to be aligned at a 90º angle to the footpath.

The electrical contractor shall ensure all require access equipment and protection to the public is included within their tender return to allow for the safe fitting of the lanterns whilst complying fully with all relevant legislation and guidance.

9 LIGHTING CONTROL

The lighting to the active circuit is to be controlled via a timeclock and photocell combination.
The time clock is to be a Sangamo Q551.14 offering 2 no timed on/off periods per 24 hours.
The time setting for the timeclocks is to be agreed with Hailsham Town Council.

The control is to have a photocell to hold of operation of the luminaires in any timed period if there is sufficient lux from natural light at any given operation time.

A 3-position control switch is to be installed to the distribution kiosk as showing on drawing 1650 – E – 0900. This switch is to be id position Off, Up as Automatic operation and down as permanently On.
This switch is to have legible identification of its operation.

The control is to be wired as a separate circuit and is to operate the 2 no contactors to energise the lighting circuits as described in section 6.2 of this document.

10 INSPECTION, TESTING & COMMISSIONING

10.1 Inspection & testing

The installation shall, on completion of the whole, or on the completion of any one complete section of the installation be inspected and tested in accordance with the relevant Regulations, British Standards or Codes of Practice. These tests shall be witnessed by the engineer.

The installer shall inform the engineer of his programme of testing giving at least 5 working days' notice of the tests.

This inspection and testing may, of necessity, include parts of the installation that are not part of this contract. Faults found that prevent the issue of the Completion and Inspection Certificates shall be: -

- Corrected if the fault is in the part of the installation that is the subject of this contract.
- Reported immediately to the engineer and the architect in writing if the fault is in the part of the installation that is not the subject of this contract.

The installer shall provide all instruments required for testing. The ownership, make, type and serial number of the instruments which shall be certified to be correct, shall be noted and entered on the inspection certificate.

Separate distribution and test schedules required shall be provided by the installer who should also note that cables which become inaccessible during the progress of the contract and Mineral Insulated Cables shall be tested as they are installed.

10.2 Commissioning

The installer shall include in his tender for the proper commissioning, demonstration and instruction in the use and maintenance of the equipment supplied within this contract by, if applicable, specialist suppliers or sub-contractors.

The installer shall agree with the engineer his programme for commissioning.

The demonstration in the use and maintenance of the equipment shall be to the head of the establishment or the authorised representative with the engineer in attendance.

10.3 Identification & Records

The installer shall include in his tender for the provision of proper records of the installation that is the subject of this scope of works as it was installed. These details shall include:

Drawings
The route of every concealed main or sub-main cable, the position of every joint in a main or sub- main cable. The location of earth electrodes and the length of the earth rods. The position of distribution

switchgear, the batteries and control panels of fire alarm, emergency lighting and other specialist systems, the principle routes of circuits and the positions of access boxes.

The record drawings shall include a switchgear diagram which shall show the size, rating and characteristics of all switchgear, distribution equipment and protective devices, along with details of each cable which shall include the number of cores, the type of cable and if the cores are copper or aluminium. If the work of this contract is an extension or modification of an existing installation, the existing diagram shall be modified in a manner approved by the engineer.

A circuit diagram showing the external connections between the terminals of each item shall be provided for each specialist (fire alarm, public address etc) system installed within this contract. The serial or manufacturer's identification number shall be recorded in a Schedule of Specialist Equipment.

Before they are finalised, copies of the record drawings shall be forwarded to the engineer for approval in writing.

Schedules

A distribution panel or board showing: -

- The origin of supply
- The size and type of cable feeding the panel/board.
- Voltage and phase details.

- The rating and type of each way, the circuit served and the size of each cable.

These shall be typed or neatly printed. The schedules shall be provided in duplicate, mounted in glazed frames fixed adjacent to the relevant equipment and the second set forwarded to the engineer with the record drawings.

A separate test schedule shall be provided showing the insulation resistance and earth loop impedance of each cable installed within this contract.

The drawings and schedules required by this clause shall be provided by the installer, having been agreed as correct by the engineer before the end of the defects Liability Period. In the event of default, the cost of the employer providing the records will be deducted from the final account.

Labels & Markers

Cable markers shall mark the route of each underground cable.

Screwed, plastic, circular, coloured discs or engraver ivorine labels shall be fitted to each distribution board or switch in any building that is fed by more than one phase to indicate the phase(s) to which that item is connected.

Each distribution board or switch shall be provided with an engraved ivorine label denoting its designation.

Conduit boxes enclosing cables or specialist systems that shall be identified by engraved label fixed to the box cover.

Ivorine labels shall be white, engraved with letters as large as is compatible with neatness and the size of the label that is to be used. The size and precise wording of the labels shall be agreed with the engineer.

Ivorine labels shall be fixed by screws or rivets. Care shall be taken to ensure that holes for fixing in weatherproof equipment etc are effectively sealed.

Each isolator shall be fitted with an ivorine label engraved to indicate the equipment that it controls.

The label shall clearly indicate the action necessary to ensure completion isolation if: -

- The machine or equipment is controlled by more than one switch.
- The isolator is remote.
- The equipment is automatically controlled.
- Required by Section 3 of this Specification.

If several machines are sited together such that it is not readily apparent which is the controlling isolator, the machines and isolators shall be provided with identifying labels.

The electrical installation shall be installed in accordance with the Regulations for Electrical Installations published by the Institute of Electrical Engineers (IEE Wiring Regulations) current at the date of tender in so far as they apply to the work that is the subject of this specification.

Those parts of the installation to which the IEE Wiring Regulations are not applicable, shall be installed in accordance with the relevant British Standard or Code of Practice.

10.4 O&M Manuals

Four weeks prior to handover and before the issue of Practical Completion Certificates a draft set of Operating and Maintenance Instructions shall be issued to the Engineer, for approval.

The Operating and Maintenance Manual shall include the following: -

- Specifically, written information A4 size pages with typed text using double spacing.
- Drawings on A3 size sheets or larger size sheets reduced to A3 as appropriate.
- Carefully selected and edited standard published information to include only those items installed. Where editing is not appropriate, type out the relevant items and include in above.
- Schedules of equipment with manufacturers names, addresses and telephone numbers and reference numbers.
- Schedule of fuse charts.
- Schedule of valve numbering and operation.
- Set of paper prints of 'As Installed' drawings.
- Wiring diagrams of plant and interconnections and control wiring or equipment.

The following information shall be provided for every item, component and/or system: -

- Certified manufacturing drawings.
- A full description giving any unique features. A full breakdown of the parts and the catalogue number of the constituent parts, together with duties, ratings etc. A schedule of all separate items.
- The guarantee period of any work where in excess of the warranty required under the conditions of the contract or inspections which the Installer undertakes during the period.

How to operate the item, component or system, special attention being paid to sequences of operations and time periods and delay in respect of, but not limited to: -

- Precautions, warnings and safety measures.
- Commissioning.
- Balancing.
- Starting.
- Running.
- Stopping.
- Emergency stopping.
- Temporary shutdown.
- Permanent shutdown.
- How to override.

Type of consumable items to permit re-ordering of these items without reference to the installer.

How to maintain the items, components or systems: -

- Frequency of maintenance of all parts.
- Precautions, warning and safety measures.
- How to isolate plant or parts of plant.
- Routine preventive maintenance inspecting.
- Routine repairs and replacement.
- Fault finding, comprising faults, symptom cause, remedy.
- Major maintenance, special notes to facilitate major maintenance, e.g., lifting beams, hoists, removal of maintenance or service department of Contractor and manufacturers of major items of plant.
- Terms of maintenance contract recommended and offered by Installer or suppliers.
- Emergency contact and procedures.
- Statutory inspections and tests.
- Give reference to special tools required and access to components or areas.

Following approval, two sets of the above documents in stiff backed ring binders shall be given to the Engineer one week prior to the handover inspections. The binders shall be A4 size, finished in welded PVC with 'Pull Open' four ring fittings and of a capacity to suit the intended contents.

Following the engineer’s approval of the documents these shall be transferred onto CD ROM, including all manufacturers literature, test certificates etc, with two sets of CD discs being provided. The electronic copies of the manuals shall make use of Adobe Acrobat for access and navigation.

The Practical Completion Certificate will not be issued until the approved Operating and Maintenance Manuals are handed over to the Engineer.

In addition to providing operating and maintenance documentation relevant to the entire development as part of the health and safety file, the Installer shall provide a tenants/occupiers handbook for each dwelling, with the format and content of the handbook being approved by the client.

12 DOCUMENTS OF ENQUIRY

Document Title	Size	Scale	DRG No.	Revision
Document Register (this document)	A4	N/A	1768 – E - 0000	T
Distribution Schematic	A1	NTS	1768 – E – 0001	T
Lighting Layout 1 of 4	A1	1:200	1768 – E – 0200	T
Lighting Layout 2 of 4	A1	1:200	1768 – E – 0201	T
Lighting Layout 3 of 4	A1	1:200	1768 – E – 0202	T
Lighting Layout 4 of 4	A1	1:200	1768 – E – 0203	T
Circuit Schedule	A4	N/A	1768 – E – 0700	T
Luminaire Schedule	A4	N/A	1768 – E – 0701	T
Illuminance report	A4	N/A	1768 – E – 0800	T
Electrical Calculations report	A4	N/A	1768 – E – 0801	T
Electrical Kiosk Layout	A1	1:10	1768 – E – 0900	T
Lamp Column Details	A1	1:10	1768 – E – 0901	T
Scope of works	A4	N/A	1768 – E – 1000	T
Tender Return Schedule	A4	N/A	1768 – E - 1001	T
Power Networks detail connection	A4	N/A	1768 – E – 2000	T

APPENDIX

Circuit charts

From description			Supply Conductors	Main Switch/Disconnect/Isolator
Incomer		Supply	2x1Cx25mm² + 1x25mm² E Pvc70/S/Cu Length: 2m	Isolator 125A
Way	**Phase**	**Description**	**Conductor**	**Protective devices**
1	L1	Lighting Feed 1 East	3Cx6mm² + E(cable core and armour) SwaPvc70/M/Cu Length: 350m	RCBO C 1P 30mA Instant AC 6A/10kA Eaton | EMCH Type C 10kA - 30mA
2	L1	Lighting Feed 2 West	3Cx6mm² + E(cable core and armour) SwaPvc70/M/Cu Length: 350m	RCBO C 1P 30mA Instant AC 6A/10kA Eaton | EMCH Type C 10kA - 30mA
3	L1	Lighting control	2x1Cx1mm² + 1x1.5mm² E Pvc70/S/Cu Length: 10m	RCBO B 1P 30mA Instant AC 6A/10kA Eaton | EMBH Type B 10kA - 30mA
4	L1	Frost protection heater	2x1Cx2.5mm² + 1x1.5mm² E Pvc70/S/Cu Length: 10m	RCBO B 1P 10mA Instant AC 16A/10kA Eaton | EMBH Type B 10kA - 10mA
5	L1	Spare	-	
6	L1	Spare	-	
7	L1	Spare	-	

Luminaire Schedule

Fitting Reference	Fitting Type	Manufacturer	Part No	Range	Image
S	5M Galvanised Lighting Column	Urbis Schreder	COL-FUNC/5.0m	Columns	
5.6	5.6M Galvanised Lighting Column	Urbis Schreder	COL-FUNC/5.6m BRAC00833GBU	Realta	
6	6M Galvanised Lighting Column	Urbis Schreder	COL-FUNC/6.0m	Realta	
B	Pharos 11W LED Bollard	Urbis Schreder	PHA2000106GBU	Pharos	
C	Axia 8l_300mA LED	Urbis Schreder	AXIAGEN3S1	Axia	
E	Axia 32l_800mA LED	Urbis Schreder	AXIAGEN3S2	Axia	
Cut 2	Column cut out	Lucy	THM0010841	Titan	
Cut 1	Column cut out	Lucy	THM0010211	Titan	

Notes

All fittings by Urbis Schreder are to be supplied and installed with as per the manufacturer instructions.
All lighting columns are to be fitted with Lucy Column cut-out 1 complete with EF01100020 2A fuse.
Please note the twin column is to be fitted with a Cut 2 unit as per the above schedule complete with 2 No EF01100020 2A fuses.

UKPN Quotation

Registered Office:
Newington House
237 Southwark Bridge Road
London SE1 6NP

Registered in England and Wales No: 3870728

Company:
UK Power Networks
(Operations) Limited

Mr. Steve Lissamore
Southeast Electrical Solutions LTD
11, Amanda Close
BEXHILL-ON-SEA
East Sussex
TN40 2TB

26 February 2020

Our ref: 8100180493/QID 3100141465

Dear Mr. Lissamore,

Site Address: Western Road / HAILSHAM BN27 3DN

I am writing to you on behalf of South Eastern Power Networks plc the licensed electricity distribution network operator for the above site.

Thank you for asking us to look at the electricity connection at the above site. Please find enclosed your quotation to carry out the Works described in the Schedule in accordance with the attached Terms and Conditions and the contents of this letter. We have also included our "GSOP Factsheet". **It is important that you read this letter and the Terms and Conditions carefully. They contain provisions that limit or exclude our liability to you and the circumstances when the price and completion date may change.**

Subject to the Terms and Conditions, the Works will be completed for the price stated in the Schedule. Based on the information that you have provided we have included a provisional date for completion of the Works in the Schedule Please note that you can change this date (please see the section overleaf headed "Completion Date" for more information). You will need to contact us again to agree a firm date for carrying out of the Works (please see the section overleaf headed "Completion Date" for more information on how and when to do this)

Digging near live electricity cables and other underground services is dangerous. Therefore if you wish to arrange for or carry out the excavation of the joint bay yourself, before accepting the quotation you must ensure the person who will carry out the excavation has read and understands the booklet "Avoiding danger from Underground Services" (HS (G) 47) published by the Health & safety Executive (available at hse.gov.uk) and agrees to carry out the excavations in accordance with this guidance.

The Works that are the subject of this quotation may be carried out in roads that are subject to lane rental charges. Lane rental charges are daily charges levied by certain road authorities such as TfL where a utility is carrying out works in roads that are covered by a lane rental scheme. Please note that the price may be amended to reflect the costs arising from such lane rental charges in accordance with the Terms and Conditions.

Please note that your quotation may fall within the Quotation Accuracy Scheme (QAS). This provides information so that you can assess whether the specific charge included within the quotation is accurate in terms of consistency with

our Connection Charging Statement. More information can be found at www.ukpowernetworks.co.uk

Validity and Accepting this quotation
This quote is valid for six months. You can accept the quote at any time up to the six months of the date of this letter. After this date, if you later wish to proceed with the Works we will be happy to provide you with a new quotation.

To accept this quote please make payment either by credit card on the telephone or sending a cheque. If you send a cheque please ensure that you write your name and address and the quote reference number at the start of this letter on the back of the cheque (for more details please see the Schedule). Please note that in making payment (either by telephone or by post) you are accepting this quotation and you will be bound by the Terms and Conditions.

Completion Date
We have included in the Schedule a provisional Completion Date for our Works based on the information that you provided to us. However, we understand that you may wish to discuss this date with us and agree an alternative Completion Date to fit with your construction programme. Therefore, before we can schedule the Works, you must telephone us on number below to either:

(i) confirm that you wish for the Works to take place on the provisional Completion Date in the Schedule; or
(ii) agree with us an alternative Completion Date provided that such alternative Completion Date is within six calendar months of the date that you accept this quote.

If the Works **do not require long lead items** you must contact us not less than 30 days before the date that you would like us to carry out the Works to confirm the provisional Completion Date or agree an alternative Completion Date.

If the Works **require long lead items**, to enable us to make the necessary arrangements, you must contact us not less than 14 weeks before the date that you would like the Works to take place to confirm the Provisional Completion Date or agree an alternative Completion Date. Where long lead items (such as road closures) are required this will be made clear in the box marked “Description of the works carried out by UK Power Networks” in the Schedule.

Please note we may terminate the quote if for any reason the works are not completed within six calendar months from the date that you accept the quote.

Cooling off period
Once you have made the payment to accept this quotation you have fourteen (14) days from the date of payment within which to notify us in writing (quoting the job number) if you wish to cancel the Works. Following receipt of your written cancellation notice, you will be refunded the Price.

Please note that if Your Works are not satisfactorily completed when we arrive at Your Site to carry out the Works we will not be able to start the Works. In such circumstances we will have to charge you a cancellation fee and arrange another time for us to carry out our Works.

What happens once you have accepted the Quotation? UK Power Networks will contact you or your nominated representative. We will confirm what work needs to be completed by you before we can start the Works. At this stage we will also let you know if we need to revise the quotation or amend the date of connection should you wish to change this. If you want to discuss this quotation or the date of connection, please contact UK Power Networks Connections Coordinator on 08005872265 between 8.30am and 5pm.

Yours Sincerely

Emma Walklett

Connection Services
UK Power Networks

Schedule

Correspondence Address	Job Details	
Mr. Steve Lissamore Southeast Electrical Solutions LTD 11, Amanda Close BEXHILL-ON-SEA East Sussex TN40 2TB	Job Number	3100141465
	Quotation Expiry Date	24 August 2020
	Connection Coordinator	Emma Walklett

Site Address :	Western Road / HAILSHAM BN27 3DN

Description of work to be carried out by you (**"Your Works"**):

These will be described in the Customer Responsibilities Document that will be issued to you by UK Power Networks after the site visit. These works may include (but are not limited to):

- excavation and reinstatement on your property;
- excavation and re-instatement of the joint bay in accordance with our instructions and the booklet "Avoiding danger from Underground services" 9HS (G) 47 published by the Health and Safety Executive;
- supply and install of electrical duct;
- arranging for third party consents where required;
- internal electrical works to British Standard BS7671;
- appointing an electrical supplier;
- supply and installation of a sub main;
- supply and installation of a meter cabinet/cubicle;
- supply and installation of meter tails and earth wire.

Connection Timescales:

Provisional Completion Date: 08/04/2020

(*)This date can be altered to suit your construction programme.

Description of the Works to be carried out by UK Power Networks:

This quote is for a new underground service, jointing only with 3m of single phase cable and ducting.

** Subject to **
- Contacting supplier to install a new meter
- Install permanent kiosk
- Book an electrician to adjust internal wiring
- Customer completing all on site excavations

New cable installation within an existing trench. This is charged per metre and includes the: - Provision of new ducting (protective tubing) into the trench - Provision of electrical warning tape above the duct - Installation of new single phase service cable into the duct	39.00

Installation of a new single phase electricity supply. As you have decided to complete all excavation and reinstatement works yourself, this quotation is only for the electrical works as detailed below: - Technical checks to identify the closest suitable mains cable to connect the supply to our electrical network - Electrical works within the hole to connect the new service cable to the mains cable - Installation of the main fuse in the new position - Electrical safety testing of UK Power Networks' equipment (Please note: You will need to choose an electricity supplier to install the new meter)	1105.00
For the purposes of the Terms and Conditions the following elements of the Works are "Diversionary Works"	
Total Excluding VAT	£1144.00
VAT @ 20%	£228.80
Total (including VAT)	£1372.80

Please note that the Price and the Completion Date are subject to the Terms and Conditions attached to this letter

You can pay by either:

- **Card:** please call 08005872265 we are open Monday to Friday 8.30am to 5.00pm. We accept all major credit and debit cards - apart from American Express; or

- **BACS/CHAPS/Bank Transfer:**
Please quote your 10 digit Quotation Reference Number starting with 31******** as we will not be able to progress your work without it

Account Name: UKPN Operations Connections
Account Number: 02302934 **Sort Code**: 40 05 30; or

- **Cheque:** please complete and return the Acceptance Slip attached

Acceptance Slip for Cheque Payments

Please return to: UK Power Networks, Metropolitan House, Darkes Lane, Potters Bar, EN6 1AG

Please make cheques payable to: "UK Power Networks"

Payer Name:	Job No:	3100141465
Address:	Quotation Expires on:	24 August 2020
	Full Payment of the price:	£1372.80
	Customer Name:	Southeast Electrical Solutions LTD
Cost Centre: 3500	Site Address:	Western Road / HAILSHAM BN27 3DN