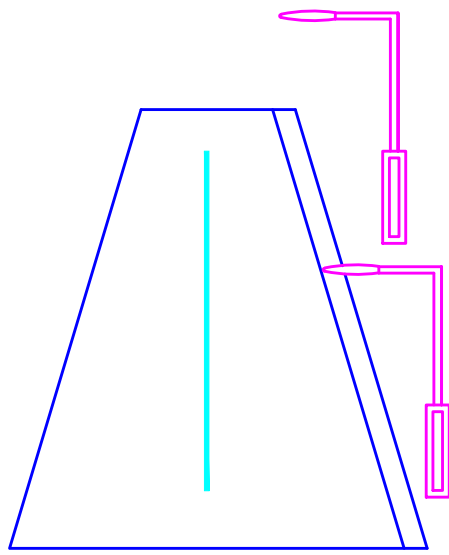


WARNING NOTICE TO BE FITTED ON PUBLIC LIGHTING MICRO PILLAR

100mm wide by 120mm deep notice with black lettering on yellow black ground.



Public lighting legend

Urbis Axia 5241 24 LED 800mA NW 61 watt lantern fitted with a Rear Louvre, (IP 65) (with 7 Pin NEMA PE Socket).

Lanterns to be programmed for Dimming to 75% from Midnight to 6.00 am.

PE shall be 1 part and comply with BS 5972, 18 LUX on 35 LUX off, switching ratio of 2:1 5 year minimum guarantee (IP 67) fitted to each lantern.

Lantern mounted directly on to the column, at zero degree tilt.

8m column + 1m planting depth. Columns should be manufactured to BS 5469 (including any amendments), or equivalent and also to the Department of Transport's interim design rules which augment the requirements of BS 5469: Part 6: 1992(1997).

Lighting Columns should be of tubular steel construction, with a minimum wall thickness of 3mm and to comply with the requirements of BS 5469: Part 3: 1982. Columns, brackets and steel fittings should be protected against corrosion by hot dip galvanizing, in accordance with BS:1971 (1994).

Tubular Columns should be 7m long with a base minimum diameter of 140mm and a shaft minimum diameter of 76mm. The base length should be 3m. The junction of the base and the shaft sections should be a swaged and welded joint.

The base is to be fitted with a cable entry opening, 180mm x 60mm, with the top of the opening 700mm from the base end, together with a compartment door and welded in a frame. The top of the compartment door and frame assembly should be 2700mm from the base end and in line with the cable entry opening. The door should be weatherproof to IP 33 (IEC classification system) and should be securely secured by two recessed locking mechanisms requiring a female triangular key, 10mm side. An earthing connection should be provided within the base compartment. The fastening screw for this connection should be of stainless steel.

See diagrams for bracket arrangement.

Columns and brackets should carry a permanent identification mark, indicating the manufacturer and the year of manufacture.

Urbis Axia 5241 24 LED 700mA NW 53 watt lantern fitted with a Rear Louvre, (IP 65) (with 7 Pin NEMA PE Socket).

Lanterns to be programmed for Dimming to 75% from Midnight to 6.00 am.

PE shall be 1 part and comply with BS 5972, 18 LUX on 35 LUX off, switching ratio of 2:1 5 year minimum guarantee (IP 67) fitted to each lantern.

Lantern mounted directly on to the column, at zero degree tilt.

8m column + 1m planting depth. Columns should be manufactured to BS 5469 (including any amendments), or equivalent and also to the Department of Transport's interim design rules which augment the requirements of BS 5469: Part 6: 1992(1997).

Lighting Columns should be of tubular steel construction, with a minimum wall thickness of 3mm and to comply with the requirements of BS 5469: Part 3: 1982. Columns, brackets and steel fittings should be protected against corrosion by hot dip galvanizing, in accordance with BS:1971 (1994).

Tubular Columns should be 7m long with a base minimum diameter of 140mm and a shaft minimum diameter of 76mm. The base length should be 3m. The junction of the base and the shaft sections should be a swaged and welded joint.

The base is to be fitted with a cable entry opening, 180mm x 60mm, with the top of the opening 700mm from the base end, together with a compartment door and welded in a frame. The top of the compartment door and frame assembly should be 2700mm from the base end and in line with the cable entry opening. The door should be weatherproof to IP 33 (IEC classification system) and should be securely secured by two recessed locking mechanisms requiring a female triangular key, 10mm side. An earthing connection should be provided within the base compartment. The fastening screw for this connection should be of stainless steel.

See diagrams for bracket arrangement.

Columns and brackets should carry a permanent identification mark, indicating the manufacturer and the year of manufacture.

Existing Street Lights

10mm2, 3 core NYCY cable to DIN VDE 0276603 (0.6/1kV), Cable to be installed in 100mm red HDPE Polyethylene ducting with a 5mm wall thickness. The ducting shall be stamped Public Lighting with Marker Tape placed 100mm above the duct. A minimum cover of 600mm to the ducting should be provided in grass margins and footpaths. A minimum cover of 750mm should be provided to the ducting at road crossings and the trench filled back with concrete. A spare duct should be laid across all aprons

Micro Pillar should consist of a rectangular box of overall dimensions 600mm x 150mm x 150mm, with a front and rear bottom extension plates 300mm long, for anchoring purposes. The Pillar should be vented and fitted with a lift out door 445m x 142mm, fixed with two triangular headed locking screws onto a suitably tapped fixing plate, with weathering strip all around. A key, operating both locks should be provided with each Pillar. The shell, door and extension plates should be hot dipped galvanized to BS 729. Ground level should be clearly marked on each unit.

See Digrams for Warning Labelling on Micro Pillar

Draw Chamber with a 100mm deep concrete base, 225mm thick concrete blocks laid flat, with ducts continuing through the blockwork to slightly inside the chamber. It shall be complete with cable chamber frame/cover to finished pavement surface level.

Cable chamber frames and covers shall conform to EN 124 grade B125. Cable chamber frames and covers can be obtained from Cavanagh Foundry or approved equal. The cover shall be retained in position by a stainless steel bolt with 'Allen Key' type head and bolt lid. The cover shall be stamped 'Public Lighting'.

NOTES

- Blackpitts Rd and Donovan Lane are designed to BS EN C4.
- The Electrical Installation and equipment should conform to the requirements of: The National Rules for Electrical Installations ET 101/1991 and amendments, published by the Electro Technical Council of Ireland (ETCI) ET 102/1993 Section 533 1.1.1, with regard to Cartridge Fuses for A.C. circuits, published by ETCI
- Electrical Equipment within the lanterns should comply with:
(IS EN 55015: 1993) (IS EN 60238: 1993) (IS EN 60598-2-3: 1994) (IS EN 60923: 1992) (IS EN 60923: 1992) (IS EN 60928: 1997) (IS EN 60928: 1993) (IS EN 61000-3-2-1: 1995) (IS EN 61048: 1993) (IS EN 61049: 1994) (IS EN 61184: 1994) (IS EN ISO 9001: 1994) (IS EN ISO 9001: 1994) BS 1361:1971 (1986), Specification for Cartridge Fuses for A.C. Circuits in Domestic Premises and similar Premises. BS 3676: Part 1: 1989, Switches for Household and similar fixed Electrical Installations - Specification for general requirements
Columns, brackets and steel fittings should be protected against corrosion by hot dip galvanizing, in accordance with BS:1971 (1994).
- Cables to comply with BS 6346: 1989, Specification for PVC - insulated Cables for Electricity Supply
- A double pole cutoff to comply with BS 7654 + IP 21 internally & IP 42 externally to be fitted in each column base. The cutoff fitted with a BS 1361 6A fuse, will be mounted on a readily - detachable hardwood base board measuring 400 x 80 x 20mm in the base compartment of each column. The clearances between the baseboard and the inside face of the door when secured should not be less than 100mm. A 5A surface mounted switch, tested to BS 3676, should be mounted on the baseboard above the cutoff to facilitate daytime testing by short circuiting the photo-electric cell on the lantern. Lanterns should be wired with a minimum of 2.5mm2 PVC/PVC stranded copper cable.
- Mini Pillar should be 600mm in height above ground level, 250mm wide, 150mm in depth, with 320mm root. Extension plates (roofs) measuring as shown above, shall be fitted at bottom the section pillar to enable concrete to be poured into the ground. Ground level shall be clearly marked. The main shell bottom plate and door shall be 3mm thick steel. The pillar shall be vented and as manufactured by Lucy Zodioc, Charles Endirect Ltd, or approved equal. The pillar shall be fitted with a single flat door, recessed into a frame with two triangular-head locking screws. A key operating both locks shall be provided with each pillar. The lock operating section of the key shall have a triangular slotted head. The triangular-head locking screw (M8 size) shall screw into a suitably tapped 3mm fixing plate, welded to the body of the pillar, to secure the door. The plate shall have a M8 nut welded to the inside face, to secure the triangular-head screw. A minimum of 10mm metal is required between the edge of the tapped hole and the edge of the plate.

The pillar shall be hot dippedgalvanised to BS EN ISO 1461 (or equivalent). The extension plate below ground level shall also be painted with black bitumen. All brass and metal components shall be electroplated.

A baseboard shall be fitted in the mini-pillar covering the back of the pillar. The baseboard is to be approximately 20mm thick. Three coats of intumescent varnish shall be applied to the baseboard in order to prevent propagation. The varnish shall be manufactured by Hamron type WD-45 or approved equivalent. The rate of coverage shall be 2.5m2/litre in order to provide Class 0 protection. The clearance between the base board and the inside face of pillar door, when secured, is to be not less than 100mm.

An earth lead connection (threaded bolt) shall be fitted to the inside of the mini-pillar body and door, for earthing purposes.

The pillar shall be firmly secured in the ground with concrete. The concrete shall be in accordance Department of the Environment Specification for Road Works, clause 1502 Concrete for ancillary purposes.

Mini-pillars shall comply with the ESB code of practice for Mini-pillars.

There must be 2m separation between ESB and PL mini-pillars.
JB1 cable chamber is required to terminate PL Duct from PL mini-pillar into PL main-line duct.
Electrical Contractor should consult with the local ESB office on ESB interface requirements.

All columns are supplied from the Mini-pillar, no more than 8 columns shall be supplied from any one circuit and not more than 4 circuits shall be taken from any one auxiliary mini section pillar.

All outgoing circuits shall be individually fused by means of a 16 or 20 amp HRC cut-out type and capable of accommodating cable sizes up to 25mm2. These fuses shall be rated 20ka minimum rupturing capacity and shall comply with BS 88.

Where there is more than one outgoing service cable, a main circuit fuse shall also be provided. It shall be rated 30 amps and shall otherwise be identical to the individual circuit fuse(s).

All components shall be solidly secured to the baseboard.
The public lighting mini-pillar be earthed, using an earth electrode and the supply neutralised. A main earth terminal shall be mounted on the baseboard to which the following shall be connected:

- 6mm2 PVC cable from earth terminal on pillar. A crimped lug shall be used for the connection to the pillar
- 10mm2 PVC cable from the earth electrode
- 10mm2 PVC cable from the neutral link (i.e. Neutralising Link)

The armour on the Public Lighting cable shall be terminated on a brass earth plate. The earth terminal on the brass plate shall be connected to the earth terminal on the section pillar using 6mm2 PVC cable.

Earth Electrodes

An earth electrode shall be installed at each public lighting section pillar. The earth electrode used shall comply with the requirements of the latest edition of the ETCI regulations. It is advisable to use the lattice-type earth plate where other underground service are likely to be present. The earthing cable shall exit the section pillar via the service cable entry opening.

The connection at the earth electrode shall be accessible for inspection and shall be protected, by a suitable weather proofed tape. The connection shall be enclosed in a green PVC bow with an inspection cover for additional protection. After inspection, the connection shall be buried underground to avoid damage.

- The Street Lighting Columns to be positioned in the back of the foot path adjacent the garden edges, (to reduce the possibility of vehicular damage) with the lantern at right angle to the kerb line and the Column door positioned on opposite side to oncoming traffic
Lighting Column bases should be treated internally and externally with a bituminous material preservative, for a distance of 1.25 metres from the end.

- Any existing Street Lighting cable across the site entrance to be encased with 100mm duct with concrete surround to comply with County Council criteria for Road Crossings.

UNTIL ADOPTION BY LOCAL COUNTY COUNCIL THE SUPPLY WILL BE METERED & AFFORDED ADDITIONAL PROTECTION AS STATED IN CLAUSE 415 1.1 OF BS 7671

THE ESB OVERHEAD POWER CABLES ARE HIGHLIGHTED IN RED

FIRE STOPPING NOTES -

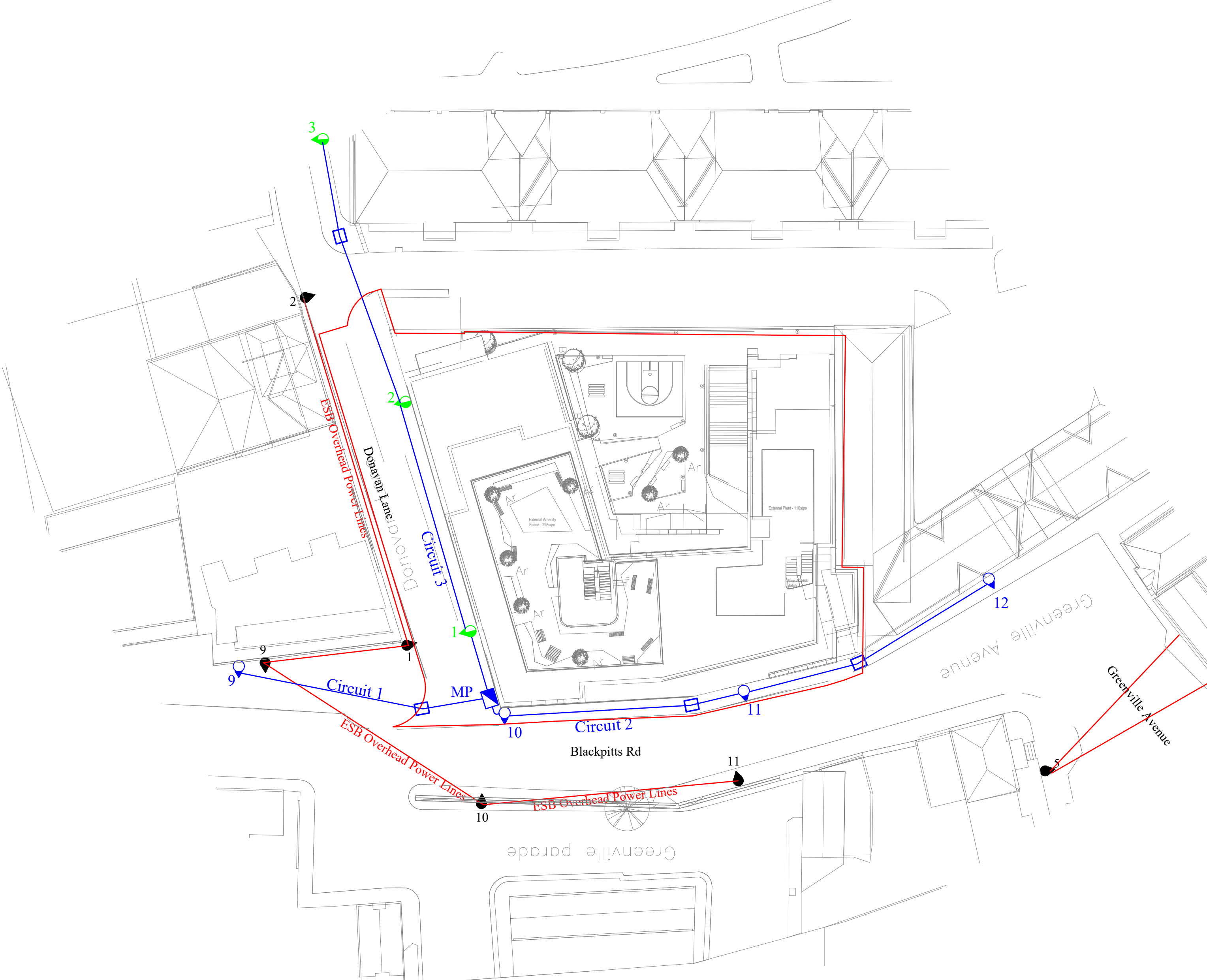
The Electrical Contractor shall be responsible for all firestopping as detailed below.

- Cable tray passing through fire compartment walls to receive HiFi cable basket fire sleeves (incorporating HiFi infill material upon cable completion) for up to 120 minute fire protection in partitions, gap between plasterboard and sleeves to be no bigger than 10mm and to be filled with intumescent sealant, all installed in strict accordance with manufacturers recommendations.

- Switches and sockets within stud partition fire compartment walls to receive HiFi socket box inserts for up to 120 minute fire protection in partitions, all installed in strict accordance with manufacturers recommendations.

WARNING

THE MAIN ELECTRICAL CONTRACTOR SHALL NOTE THAT THE PROPOSED CABLE ROUTES ARE IN THE VICINITY OF EXISTING UNDERGROUND HV/LV CABLES. THEREFORE DUE CARE SHOULD BE TAKEN WHEN WORKING IN AND AROUND THESE CABLES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF THE UNDERGROUND CABLES USING A SUITABLY LICENSED COMPANY APPROVED BY THE ENGINEER TO DO SO.



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PROJECT					
BLACKPITTS STUDENT HOUSING					
PROJECT No.					
4994					
DRAWING TITLE					
ELECTRICAL SERVICES INSTALLATION SITE PLAN PUBLIC STREET LIGHTING PROPOSAL					
DATE	SCALE	DRAWN	CHECKED		
JUL'25	1:100	JMcG	TMcP		