

FP01
B1450 BURRINGHAM ROAD (WARP FARM)

PROPOSED SINGLE PHASE 80A
DNO SUPPLY (WITH TT EARTH)

80A SP&N FUSED ELECTRICITY COMPANY CUT-OUT
SP&N ELECTRICITY COMPANY METER

100A SP&N DOUBLE POLE ROTARY ISOLATOR
LABELED AS MAIN SWITCH

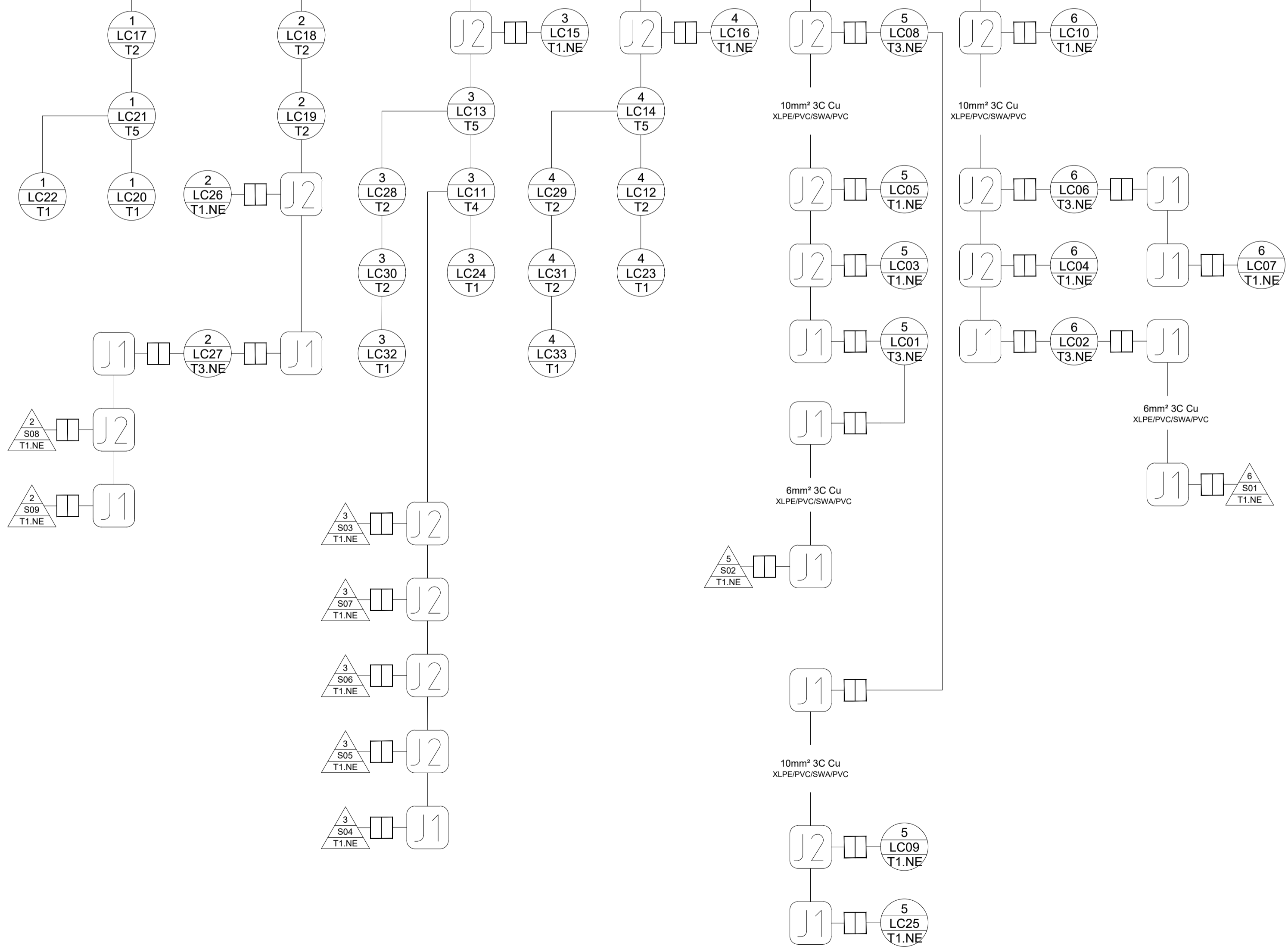
SURGE PROTECTION
DEVICE (SEE NOTES FOR
DETAILS)

CLASS II

DISTRIBUTION BOARD NO. 1 (SP&N) - ROAD LIGHTING & AUXILIARY CIRCUITS - 24HR

1	2	3	4	5	6	7	8	9	10	11	12
C25 2P MCB + 300mA [S] 2P RCD	C25 2P MCB + 300mA [S] 2P RCD	C25 2P MCB + 300mA [S] 2P RCD	C25 2P MCB + 300mA [S] 2P RCD	C25 2P MCB + 300mA [S] 2P RCD	C25 2P MCB + 300mA [S] 2P RCD	SPARE	SPARE	SPARE	B6 2P 30mA RCBO	B6 2P 30mA RCBO	B6 2P 30mA RCBO
10mm ² 3C Cu XLPE/PVC/SWA/PVC	10mm ² 3C Cu XLPE/PVC/SWA/PVC	10mm ² 3C Cu XLPE/PVC/SWA/PVC	10mm ² 3C Cu XLPE/PVC/SWA/PVC	16mm ² 3C Cu XLPE/PVC/SWA/PVC	16mm ² 3C Cu XLPE/PVC/SWA/PVC	SPARE	SPARE	SPARE	TRI-RATED CABLE	TRI-RATED CABLE	TRI-RATED CABLE
									INTERNAL LIGHT (LED)	13A 1-GANG SOCKET (LIMITED TO 6A)	60W HEATER & STAT

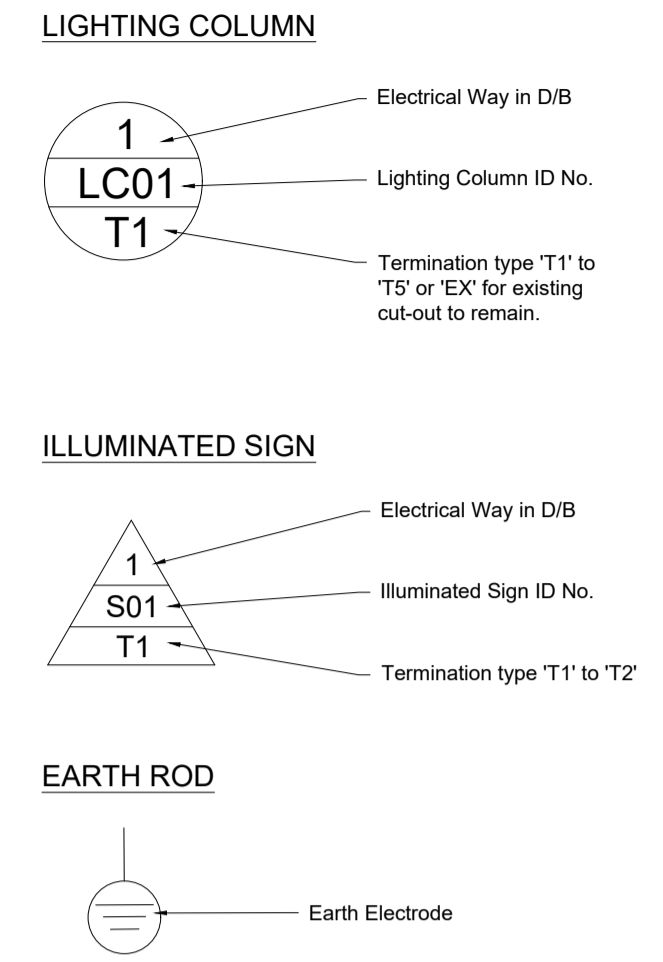
MAXIMUM IMPEDANCE (Ra) 100 Ω



NOTES

- All electrical works to comply with BS7671:2018 'Requirements for Electrical Installations, IET Wiring Regulations Eighteenth Edition' as amended and in accordance with the requirements of North Lincolnshire Council Specification.
- The electrical installation of highway lighting equipment shall be undertaken in line with this drawing and in accordance with the requirements of the Traffic Signs Manual, Chapter 8.
- All work adjacent to the carriageway is to be carried out with the appropriate Traffic Management in accordance with the requirements of the Traffic Signs Manual, Chapter 8.
- All lighting columns, chambers, and feeder pillar locations are to be agreed with the Employer prior to installation.
- Any additional existing circuits not shown on these drawings should be identified on site and referred to the Employer for guidance.
- To guarantee selectivity between "cascading" devices ALL circuit protective devices to be fitted in ALL distribution boards shall be manufactured by the same manufacturer. Refer to the electrical design schematics for relevant manufacturer model/product ranges.
- All new underground public lighting (PL) cables shall be BS 5467 XLPE/PVC/SWA/PVC with copper conductors, of size and number of cores as specified and installed as indicated on the schematic wiring diagram using a 'loop in/loop out' system. Joints shall not be permitted unless specified.
- Surge protection devices are to be suitable Type 1 and 2 in accordance with BS7671 Table 44.3 Dehnsield Type 1 and 2 Ref: DSH TT255 (941310) or similar approved.
- All RCBO's in cut-outs shall be single pole, B Curve, Type A, minimum 6kA breaking capacity, and current rating and rated tripping current as indicated below.
- Termination CPD ratings shall be:
 - Downward RCBO Spur Circuit - BS 61009 10A/30mA
 - Lighting Columns with single luminaire - BS 61009 6A/30mA RCBO
- All lighting circuit RCBO's in new feeder pillars shall be double pole, C Curve, Type A, time delay [S] Selective type (unless specified otherwise) and with current rating and rated tripping current as indicated on the schematic diagrams.
- All auxiliary circuit RCBO's in feeder pillars shall be double pole, B Curve, Type A, minimum 6kA breaking capacity and with 6A current rating and 30mA rated tripping current.
- All distribution boards shall be designed that a single circuit can be isolated/reset whilst not affecting the operation of all other circuits fed from the same distribution board (i.e. circuit protective devices located inside an interlocked enclosure shall not be permitted). Feeder pillars shall be provided with modular pre-wired switchgear in accordance with the schematic wiring diagrams. All distribution boards within the pillar shall be Class II.
- Pillars shall contain a suitable number of 100mm internal diameter orange duct bends and where required for DNO connection 1 no. 125mm internal diameter black duct bend in accordance with Northern PowerGrid specifications. A suitable paved access shall be provided to each feeder pillar to the satisfaction of the Employer. Where the pillar is installed in grassed or unmade ground it shall be provided with a 0.5 metre x 300mm class ST4 concrete surround. All pillar locations are to be agreed with the Employer prior to erection.
- All feeder pillar low voltage switchgear and control gear assemblies shall be in accordance with the relevant parts of IEC 61439.
- Earth electrodes shall be installed at the feeder pillar as indicated on the drawings. The impedance of all earth electrodes at feeder pillars shall not be greater than 100 ohms for correct operation of RCD/RCBO protected circuits.
- Distribution Network Operator service connections, transfers, and disconnections are to be carried out by Distribution Network Operator or their representative. The contractor will provide, and include for, all liaison with, and assistance, to ensure there are no delays or obstacles to completion.
- Prior to the completion of the works the Employer will provide the Contractor with a schedule of identification numbers to be fitted to all lighting columns and feeder pillars. 50mm self adhesive identification letters / numbers (black on white) adhered to a plastic plate which are to be bonded to the feeder pillar.
- On completion of the works the Contractor shall produce as-built drawings on copies of drawings provided by the Engineer in accordance with the requirements of North Lincolnshire Council. The contractor shall also supply test certificates for each feeder pillar, associated cables and switch gear cross-referenced to the apparatus identified on the as-built drawings.
- Disposal of all hazardous materials shall be in accordance with the requirements of:
 - Environmental Protection Act 1990
 - Health & Safety at Work Act 1974
 - Integrated Pollution and Prevention Control Act 1999
 - Control of Substances Hazardous to Health (COSHH)
 - Waste Electrical & Electronic Equipment Directive (WEEE)

KEY



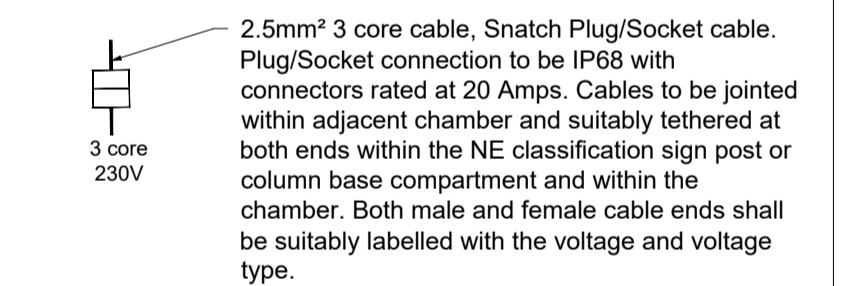
TERMINATION TYPES

- TYPE T1 - Single supply and 1 No. RCBO upward circuit
- TYPE T2 - Looped supply and 1 No. RCBO upward circuit
- TYPE T1.NE - Single supply and 1 No. RCBO upward circuit for NE Passively Safe Column
- TYPE T3.NE - Single supply and 1 No. RCBO upward circuit and 1 No. RCBO downward spur circuit for NE Passively Safe Column
- TYPE T4 - Looped supply and 1 No. RCBO upward circuit and 1 No. RCBO downward spur circuit
- TYPE T5 - Triple looped supply and 1 No. RCBO upward circuit

CABLE JOINT

- J1 - Single phase through joint for end of line SWA circuit with outgoing flexible cable and plug to passive column.
- J2 - Single phase through joint for loop in/out SWA circuit with outgoing flexible cable and plug to passive column.

SNATCH PLUG/SOCKET CABLE



CABLES

Cable size as shown from circuit protective device

TO BE PRINTED IN COLOUR

FOR APPROVAL

Revision	By	Date	Description
P1	PB	25/03/26	Client issued revised layout
P0	PB	10/03/26	Preliminary draft issue for Client comment



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Project: Burringham Road East Roundabout, Scunthorpe
Drawing: Proposed Electrical Schematics & Standard Details
Sheet 1 of 6

Drawn by	Paul Brownbridge	Date:	10-03-2026
Checked by	Ian Harker	Date:	25-03-2026
Drawing No.	SER-SLDS-ZZ-14-D-C-1401-PH1	Revision	P1
Drawing Scale:	N.T.S.	Plot Scale:	N.T.S.

Sheet size A1