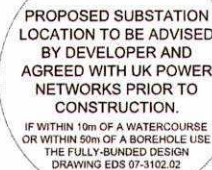


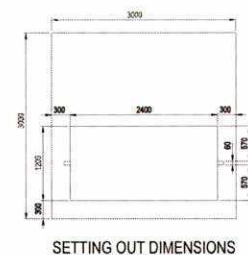
N.H.C.

16 JUN 2025

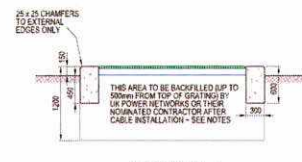
NORTHGATE



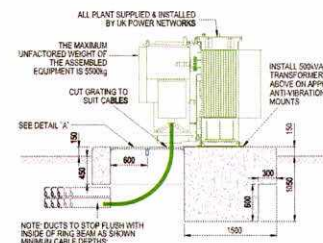
LOCATION PLAN



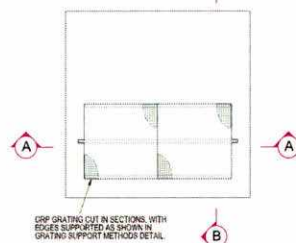
SETTING OUT DIMENSIONS



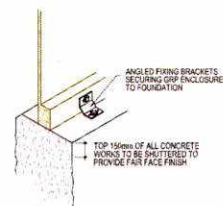
SECTION A-A



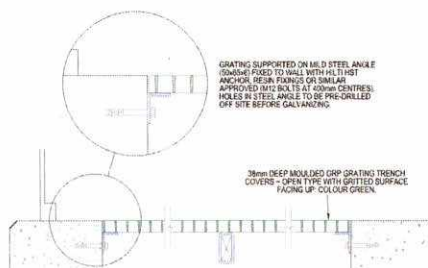
UNIT SUBSTATION ~ SECTION B-B



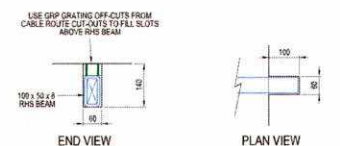
FOUNDATION PLAN VIEW



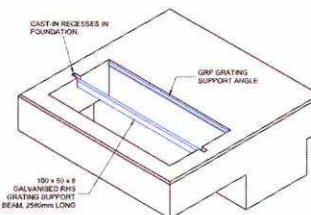
FIXING OF GRP COVER TO FOUNDATION ~ DETAIL



DETAIL 'A' (SECTION B-B)



GRATING SUPPORT BEAM IN CONCRETE RECESS



FOUNDATION ~ ISOMETRIC VIEW

GENERAL NOTES

1. **DON'T SCALE FROM THIS DRAWING.** ANY VARIATION TO THE STATED DIMENSIONS OR MATERIALS SPECIFICATIONS WILL BE PLANNED WITHOUT PRIOR WRITTEN CONSENT FROM LK POWER NETWORKS.

2. **ALL DIMENSIONS ARE IN METRES.**

3. **THE RUNNING OF SPRINKLER SYSTEM, HEATING, GAS, TELECOMS, WATER AND OTHER SERVICES THROUGH OR UNDER THE SUBSTATION AREA IS NOT PERMITTED.**

4. **WORKSHOPS AND MATERIALS TO CONFORM TO THE LATEST EDITION OF THE RELEVANT CODES OF PRACTICE OR BRITISH STANDARDS.**

5. **LOCATION OF THE SITE SHALL BE OVERLAIN ON THE ORDNANCE SURVEY MAP AND ADDED INTO THE PROJECT BASIC DRAWING.**

PLANNING, LOCATION AND POSITION

- POSITION AND ORIENTATION OF THE SUBSTATION SHALL BE ADVISED WITH A POWER NETWORK PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORKS OR ERECTION.
- SUBSTATIONS SHALL BE LOCATED ADJACENT TO A PUBLIC HIGHWAY OR REACHED BY A PRIVATE DESIGNATED ACCESS WITH FULL CANTRIES AND ASSOCIATED LIGHTING.
- THE DEVELOPER IS RESPONSIBLE FOR OBTAINING ALL PLANNING CONSENTS AND BUILDING REGULATION APPROVALS.
- THE SUBSTATION SHALL BE LOCATED WITH DOWNSIDE ORIENTATION AS REQUIRED AT ALL TIMES, IN CASES OF THE YEAR. SAT. ANY THUNDER OR GATES ON THE ACCESS ROAD SHALL BE LOCKED WITH THE STANDARD LIGHT POWER NETWORKS. LOCKING SHALL BE NECESSARY TO AVOID POWER LOSS.
- PROPOSED STAFF LANDSCAPING ADJACENT TO THE SUBSTATION (E.G. PLANTING SHELTERS) SHALL ALLOW FOR FUTURE PLANT GROWTH WITHOUT COMPROMISING ACCESS OR VENTILATION THROUGHOUT DOWNSIDE.
- THE SUBSTATION SHALL BE LOCATED AS FAR AWAY FROM THE NEAREST BUILDING

FOUNDATION AND REINFORCED CONCRETE

- AS STATED ON DRAWING OR TO SUIT THE SITE CONDITION.
- SUFFICIENT COVER TO THE REINFORCEMENT TO ACHIEVE A 4 HOUR FIRE RATING (200mm MINIMUM).
- FOR PRELIMINARY DESIGN, ASSUME 100N/100MM² INSTEAD OF 150N/100MM² IN DESIGN.
- STRUCTURAL CONCRETE TO BE POURED ON 50mm QUARTZ MIX CONCRETE BLINDING OR 100mm GAUGE GEOTEXTILE/MEMBRANE, UN SAND BLINDING, OR WELL COMPACTED STIFF TYPE MATERIAL.
- REINFORCE BARS TO BE ELECTRICALLY CONTINUOUS.

FLOOR SLAB

- TO BE STRUCTURAL ENGINEER'S SPECIFICATION TO SUSTAIN LOADS SHOWN, THE FLOOR COVERING IS TO BE CAPABLE OF SUSTAINING THE FOLLOWING LOADS
- STANDARDS FLOOR SLAB THE THICKNESS OF 220MM MINIMUM REINFORCED CONCRETE, WITH A SUITABLE WEARING SURFACE WITH A MINIMUM COMPRESSIVE STRENGTH OF 40N/mm² AFTER 28 DAYS. CONCRETE WORKS FINISHED WITH STEEL FLOT TO WITHIN ± 3mm OVER 2500mm.
- **SEINFORCEMENT** TO DEVELOPER'S STRUCTURAL ENGINEER'S REQUIREMENTS.

- **SHIP ENCLOSURE.**
 - SUPPLIED AND INSTALLED BY UR POWER NETWORKS, USUALLY DELIVERED ASSEMBLED. (FLAT PACK UNITS ARE AVAILABLE ON REQUEST)
 - TOTAL WEIGHT OF URP ENCLOSURE IS 1500KG
 - THREE HYDRA LOCKING DEVICES WITH FIVE ISSUED UR POWER NETWORKS PADLOCK
 - ENCLOSURE IS DESIGNED TO FULFILL THE CODES IF REMOVABLE TO FACILITATE PLANT MOVEMENT
- **CRISP 1000 CLEARANCE MINIMUM ABOVE SHIP ENCLOSURE FOR PASSERBY RELIEF AT ALL TIMES**
- **AL-3000 CRISP (CR-1) YEARBOOK FOR THE REMOVAL OF THE ENCLOSURE DURING MAINTENANCE OR REPLACEMENT OF THE TRANSFORMER.**
 - MAXIMISE LOAD ON REEF TO BE 2.5MW
 - COVERED VENTS SHALL NOT BE RE-CONSTRUCTED, A MINIMUM CLEAR AREA OF 300mm IS REQUIRED AROUND THE ENCLOSURE

INFILL TO AREA AROUND CABLES

- AFTER CABLE INSTALLATION, SEAL ALL CABLE DUCTS, FILL TRENCHES WITH SAND WITH 100mm ABOVE TOP DUCT AND TO A MINIMUM OF 500mm BELOW THE TOP OF CRATING.

GRP GRATINGS AND SUPPORTS

- USE APPROVED 3mm DEEP I-MOLDED GRP GRATINGS: OPEN TYPE WITH UNSETTLED SURFACE AND COLOUR GREEN.
- GRATING SHALL BE FLUSH WITH TOP OF FOUNDATION AND SECURELY SUPPORTED. BEATED LEVEL WITH NO NOTICEABLE BUCKING OR SLIDING.
- CUT OFF OPENINGS FOR CABLE PENETRATIONS ENSURING THE GRATINGS CAN BE REMOVED WITH CABLES IN-SITU WHILE STILL REMAINING STABLE.
- STEEL WORK FOR GRP GRATING SUPPORTS SHALL BE GALVANISED.

REFERENCES	
SHEET 2	EARTHING LAYOUT
SHEET 3	SMALL POWER AND LIGHTING LAYOUT
URS 07-0550	APPROVED EQUIPMENT LIST - CIVIL
EAS 02-0069	APPROVED EQUIPMENT LIST - CABLES & DUCTS
URS 07-0119	SUBSTATION ELECTRICAL DETAILS
URS 07-1301	PRE-DESIGN REQUIREMENTS FOR SECONDARY SUBSTATIONS
SDS 07-1562	SECONDARY SUBSTATION CIVIL DESIGN STANDARD

EQUIPMENT WHICH MAY BE USED WITH THIS DESIGN

- UNIT SUBSTATION WITH A 1500VA TRANSFORMER ON BELOW
- MICRO SUBSTATION
- COMPACT SUBSTATION

C	26-10-18	Design revised to show 1500KVA transformer	LA	RDH
			LA	UKPN
B	05-01-18	Equipment positioning dimension added.	LA	RDH
			LA	UKPN
A	09-08-17	ORIGINAL	LA	RDH
			LA	UKPN
Version	Date	Description	Checked	Dis.
			Approved	Disapproved



TITLE
UNIT OR PADMOUNT
SUBSTATION IN A GRP
ENCLOSURE
CIVIL LAYOUT

SCALE NTS	@A1	APPROVED	Version C
DRAWING NO EDS 07-3102.01		Sht 1 of 3	
SITE		SECONDARY SITES	