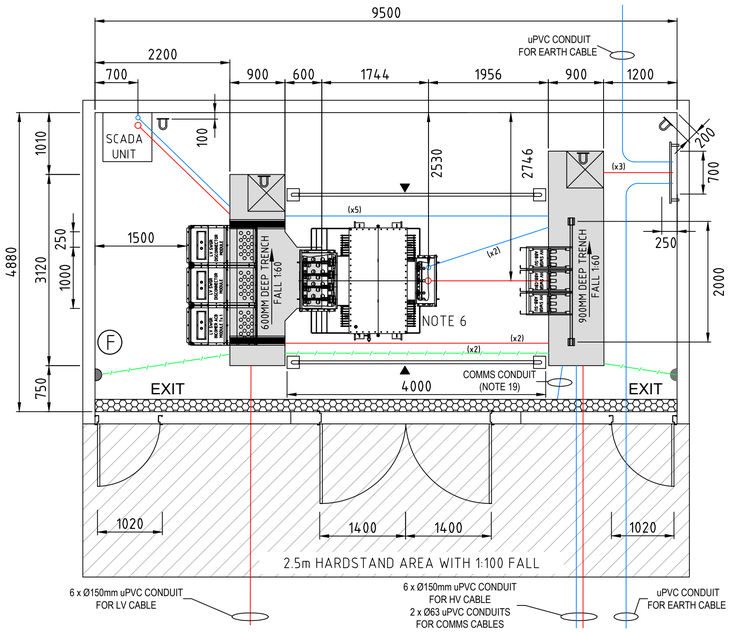
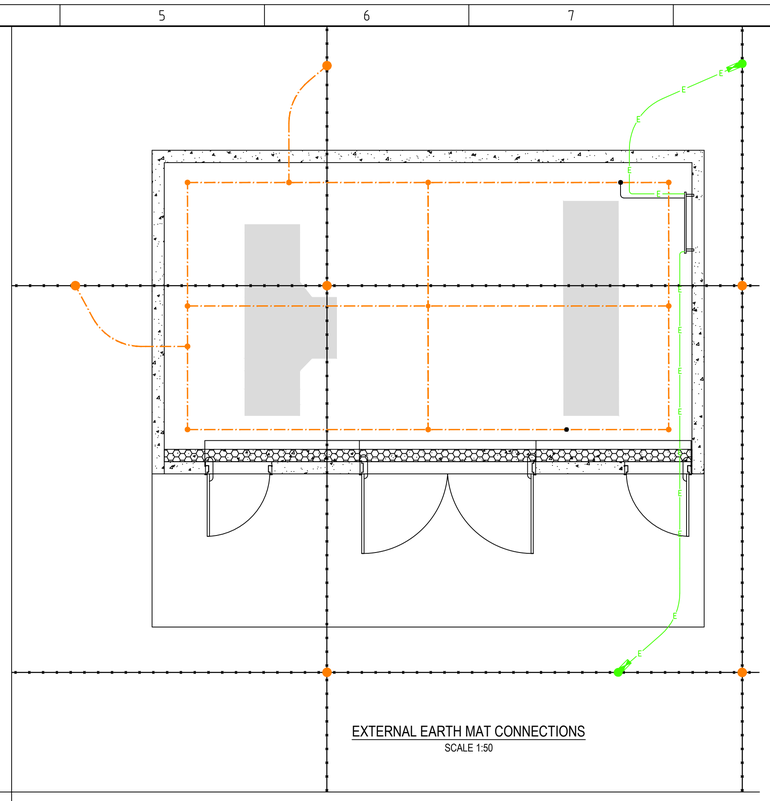
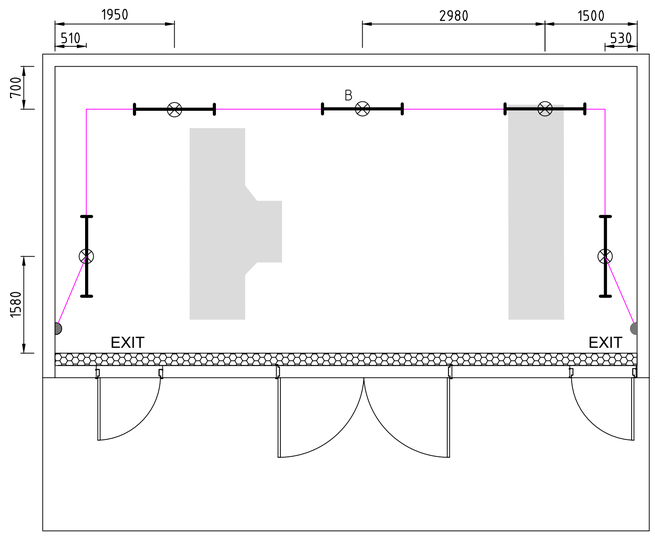


SUBSTATION FLOORPLAN
SCALE 1:50

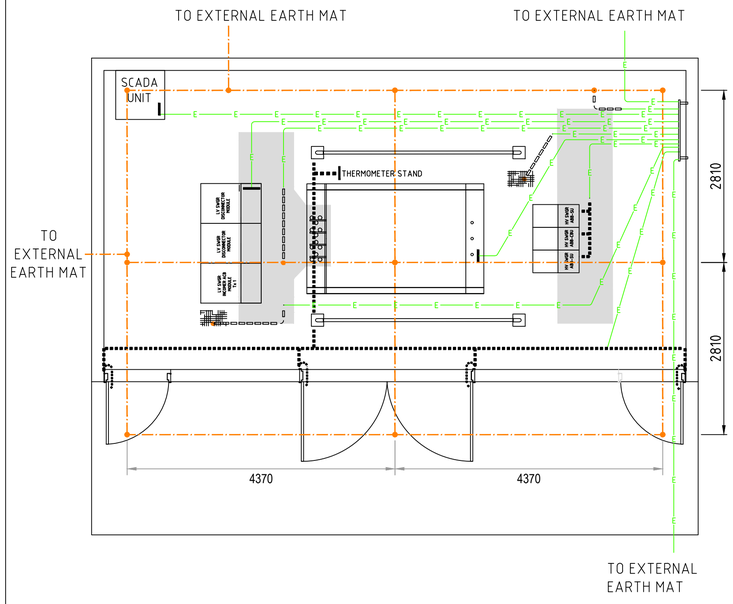


EXTERNAL EARTH MAT CONNECTIONS
SCALE 1:50

LEGEND		REFERENCE
F	4.5 kg DRY CHEMICAL FIRE EXTINGUISHER SUPPLIED AND INSTALLED BY THE DEVELOPER	PO07201
	EXOTHERMIC WELD JOINT	
	EARTH CABLE CONNECTION POINT	D110-0005, D110-0006
	CONCRETE FLOOR RE-BAR MESH	4961-03
E	70mm² STRANDED COPPER PVC INSULATED EARTH CABLE (DIRECT BURIED/ IN TRENCH/ IN FLOOR CONDUIT)	
x	EXTERNAL EARTHMAT	
	FLOOR GRADING RING COMPRISING 70mm² HDBC HORIZONTAL CONDUCTOR	
	25X3MM COPPER STRAP ATTACHED TO FLOOR SURFACE	
	25X3MM COPPER STRAP EMBEDDED IN CONCRETE FLOOR WITH 600MM TAIL BROUGHT INTO TRENCH	
	CONNECTION POINT TO EQUIPMENT EARTH TERMINAL	
	SUBSTATION EARTH BAR SUPPLIED & INSTALLED AT 500MM ABOVE FLOOR LEVEL BY DEVELOPER.	094-010, PO07201
	WARNING SIGN (WORDING TO SUIT LOCATION. SEE 094-009)	094-009
	HAULAGE EYE	4951-09
	DRY SUMP -600 x 600 x 300	4931-01
	TRANSFORMER & HV SWGR SAFETY BARRIERS SUPPLIED BY THE DEVELOPER	4951-22
	COMBINED POWER POINT AND 2 WAY LIGHT SWITCH TO BE INSTALLED ON SIDE WALL NEXT TO ENTRY DOOR.	PO07201
	JUNCTION BOX C/W COVERS SUPPLIED AND INSTALLED BY DEVELOPER	
	BARE BATTEN 36W FLUORESCENT LIGHT FITTINGS SUPPLIED AND INSTALLED BY DEVELOPER.	
B	BARE BATTEN 36W FLUORESCENT LIGHT FITTING WITH BATTERY BACKUP SUPPLIED AND INSTALLED BY DEVELOPER.	
EXIT	RUNNING MAN EXIT SIGNS COMPLYING WITH AS 2293.3 SUPPLIED & INSTALLED BY DEVELOPER.	
	1 x Ø25 HD uPVC CONDUIT INSTALLED IN CONCRETE FLOOR SLAB	4931-03 4931-06 4931-11
	1 x Ø25 HD uPVC CONDUIT INSTALLED IN CEILING SLAB	
	Ø150 HD uPVC CONDUIT INSTALLED IN CONCRETE FLOOR SLAB (1-OFF UNLESS SHOWN OTHERWISE)	
	Ø63 HD uPVC CONDUIT INSTALLED IN CONCRETE FLOOR SLAB(1-OFF UNLESS SHOWN OTHERWISE)	
	HV SWITCHGEAR SUPPORT RAIL SUPPLIED AND INSTALLED BY DEVELOPER	4951-31
	100 x 100 PRECAST BUND - MAX LENGTH 600 - SUPPLY ONLY	
	LOUVRE DOOR - STAFF ACCESS	4951-28
	LOUVRE DOOR - EQUIPMENT ACCESS	4951-29
	EQUIPMENT/CHECKER PLATE SUPPORT BRACKETS (SEE NOTE 5)	4931-02



SUBSTATION LIGHTING LAYOUT
SCALE 1:50



SUBSTATION EARTHING DETAIL
SCALE 1:50

NOTES:

1. DETAILS SHOWN REPRESENT TYPICAL LAYOUT & CLEARANCE REQUIREMENTS. THIS DRAWING IS TO BE USED AS BASIS FOR DEVELOPING A CONSTRUCTION DRAWING THAT MEETS PROJECT CONDITIONS & SUBMITTED TO EVOENERGY FOR APPROVAL PRIOR TO CONSTRUCTION WORK.
2. SUBSTATION CHAMBER TO BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH EVOENERGY CHAMBER TYPE SUBSTATION DESIGN & CONSTRUCTION STANDARD PO07201.
3. CHAMBER TO BE FREE OF ANY OTHER BUILDING SERVICES.
4. TRENCH TO BE SOLID CONCRETE. DIMENSIONS AS SHOWN. REFER TO DRAWING 4931-01 FOR CONSTRUCTION DETAILS AND DRAWING 4931-02 FOR TRENCH EDGE FRAME DETAILS.
5. EQUIPMENT/CHECKER SUPPORT BRACKETS SUPPLIED BY DEVELOPER. QUANTITY REQUIRED WILL BE NOMINATED IN THE PROJECT DRAWINGS.
6. HV SWITCHGEAR SUPPORT RAIL CAN BE REPLACED WITH SUPPORT BRACKETS, IF 1 X 3 OR 4 WAY ONE TANK SWITCHGEAR IS USED.
7. SUPPLY CHEQUER PLATES AS PER CUT-OUT PLAN PROVIDED BY EVOENERGY SUBSTATION FITOUT TEAM.
8. LEVEL FLOOR SURFACE WITH TOLERANCE OF ±1MM in 1000MM REQUIRED FOR INSTALLATION OF TRANSFORMERS, HV AND LV SWITCHBOARDS. REMAINDER OF FLOOR TO FALL TOWARDS CABLE TRENCH WITH A SLOPE OF 1:100. NO ABRUPT CHANGES TO FINISHED FLOOR SURFACE.
9. CONSUMER MAINS PASSING THROUGH THE FOUNDATION ARE TO BE INSTALLED IN A SET OF uPVC CONDUITS. ALL PENETRATIONS MUST BE SEALED AS PER RELEVANT STANDARDS - REFER TO PO07201 FOR DETAILS.
10. uPVC CONDUITS FOR HV & LV CABLES AND EARTH BONDING CABLE ARE TO BE INSTALLED TO SUIT INDIVIDUAL SUBSTATION LOCATIONS. WHERE THE MAINS CONDUIT ENTRY IS AT 90 DEG TO THE HV TRENCH A HIDDEN TRENCH MUST BE PROVIDED. THE HV/LV TRENCH DRY SUMPS AND ADJACENT HAULAGE EYES TO BE INSTALLED AT OPPOSITE ENDS TO WHERE HV MAINS CABLES ENTER THE TRENCH.
11. EMBEDDED CABLES TO BE RUN IN RIGID CONDUIT AND RECESSED WITHIN THE FLOOR, CEILING SLAB OR WALL.
12. CONSUMER MAINS TO LV SWITCHGEAR TO BE BOTTOM CONNECTED.
13. PROVIDE SAFETY SIGNAGE MOUNTED ON TRANSFORMER BARRIER PANEL AND REAR WALL AS SHOWN.
14. HARDSTAND AREA TO EXTEND FROM THE LOUVRES A MIN OF 2.5m AND WITH A FALL OF 1:100 AWAY FROM THE SUBSTATION FRONT.
15. DEVELOPER TO SUPPLY AND INSTALL LUMINAIRES AND ASSOCIATED WIRING AND 2-WAY SWITCHES, LEAVING A 5m TAIL IN THE TRENCH FOR CONNECTION BY EVOENERGY.
16. FIRE DETECTORS AND ALARMS ARE NOT REQUIRED UNLESS MANDATED BY THE DEVELOPER.
17. TYPICAL ARRANGEMENT OF HV AND LV SWITCHGEAR SHOWN. FINAL ARRANGEMENT OF SWITCHGEAR TO SUIT PROJECT REQUIREMENTS.
18. TYPICAL EARTH CABLE ROUTING INTO SUBSTATION SHOWN. FINAL ARRANGEMENT TO SUIT PROJECT REQUIREMENTS.
19. REFER TO DWG. 4961-03 FOR DETAILS OF DEVELOPER'S SCOPE OF EARTHING INSTALLATION WORK.
20. CONDUIT FOR ANTENNA; EXACT LOCATION TO BE DISCUSSED & AGREED WITH BUILDER AND COMMS SPECIALIST.

No	Revision	Date	Checked	Approved
L	ADDED NEW TX & SCALED - KV	13/12/2022	N. Azizi	W. Cleland
M	MINOR UPDATES - KV	1/02/2023	N. Azizi	W. Cleland
N	MOVE LV SWITCHGEAR TO 1500mm	18/04/2023	N. Azizi	W. Cleland
O	HIDDEN TRENCH REMOVED	28/12/2023	N. Azizi	W. Cleland

Drawn: J. Piper
Designed: J. Piper
Checked: E. Amaratunga 7/08/1997
Approved: F. Argue 14/08/1997
Project No:

ONE TRANSFORMER INDOOR SUBSTATION TYPICAL LAYOUT

Scale:
Date: 22/07/1997
Sheet No: 1 OF 1
Work Pack No:
File:
Status: Current
A1 | 4921-06 | Rev 0

Date Plotted: 12/01/2024 Plot Style: Electrical.ctb