

400kV GIS EARTHING PLAN VIEW

- NOTES:-**
- 1) ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED.
 - 2) AUX. EARTH MAT 40 DIA. MS ROD SHALL BE LAD 60MM BELOW FGL. WE SHOWN AUXILIARY EARTH MAT BASED ON GIS DRAWING. AUX. EARTH MAT (4000x4000 MM SPACING) SHOWN IS INDICATIVE ONLY & MODIFICATION SHALL BE CARRIED OUT TO SUIT SITE CONDITIONS AVOIDING FOULING WITH ANY FOUNDATION, ETC.
 - 3) SUITABLE POCKET SHALL BE MADE IN FLOOR & THESE EARTHING CONNECTIONS SHALL BE MADE INSIDE THOSE POCKETS. FURTHER THESE POCKETS SHALL BE SUITABLY COVERED AFTER EARTHING CONNECTION.
 - 4) EARTHING CONNECTIONS OF 75X12MM GS FLAT RISER WITH 50X6MM, 40X5MM COPPER PLATE SHALL BE DONE WITH SUFFICIENT OVERLAP & SAME SHALL ALSO BE PROVIDED WITH BI-METALLIC STRIP SIMILARLY BI-METALLIC STRIP SHALL BE PROVIDED ON GIS EQUIPMENT BASE FRAME/STRUCTURE EARTHING SIDE ALSO.
 - 5) WHEREVER EARTHING CONDUCTORS CROSSES CABLE TRENCHES, UNDERGROUND SERVICE DUCTS, PIPES, ETC. IT SHALL BE LAID MINIMUM 30MM BELOW THEM.
 - 6) LCC & CRP PANELS ARE TO BE EARTHED FROM 50X6 MS FLAT LAD IN CABLE TRENCH.
 - 7) GIS EQUIPMENT & ITS ASSOCIATED ACCESSORIES ARE GROUNDED IN LINE WITH GIS MANUFACTURER RECOMMENDATION & PROVISIONS AS PER POWERGRID SPECIFICATION.
 - 8) MAIN EARTH MAT GRID AROUND THE GIS BUILDING SHALL BE BURIED IN EARTH AT A MINIMUM DISTANCE OF 100mm FROM OUTER BOUNDARY OF THE BUILDING.
 - 9) AUXILIARY GIS EARTH MAT 4000x4000 (40MM DIA MS ROD) WHICH IS CONNECTED/WELD JOINED WITH MAIN EARTH MAT RING IS EXISTING.
 - 10) THIS DRAWING ONLY FOR REFER FOR INDOOR GIS EARTHING.
 - 11) DETAILS FOR COPPER MESH (HIGH FREQUENCY MAT CONNECTION) WITH MAIN OUTDOOR EARTH MAT THROUGH ROD ELECTRODE REFER DRAWING NO. HI-240-4118-A03-01 INSIDE BUILDING FOUNDATION LAYOUT.

PANEL LIST:-

SIR NO	PANEL	LOCATION	PANEL NAME	QTY	DIMENSION (LxW)
1	423	LINE CRP PANEL	LINE CRP PANEL	1	800X800
2	422	CRP ROOM	TIE CRP PANEL	1	800X800
3	421	ROOM	TRANSFORMER CRP PANEL	1	800X800
4	421P		TRANSFORMER PROTECTION PANEL	1	800X800

- REFERENCE DRAWINGS:-**
1. OVERALL ELECTRICAL PLAN AND SECTION LAYOUT DWG NO : HI-P25072-EPC-B-02-R1
 2. 400KV (INSIDE BUILDING LAYOUT) - DRAWING DWG NO : HI-240-4118-A02-02-R1
 3. INSIDE BUILDING FOUNDATION LAYOUT DWG NO : HI-240-4118-A03-01-RO
 4. INDOOR CABLE TRENCH LAYOUT DWG NO : HI-P25072-EPC-B-07-R2

- ABBREVIATIONS:**
- FGL - FINISH FLOOR LEVEL
 - FLL - FINISH FLOOR LEVEL
 - CU - COPPER
 - E - EARTHING CONDUCTOR
 - TYP - TYPICAL
 - MS - MILD STEEL
 - GS - GALVANIZED STEEL
 - LCC - LOCAL CONTROL CABINET

LEGENDS:-

SI.NO.	DESCRIPTION	LEGEND
1	40MM M.S. ROD RISER	—
2	75x12 GS FLAT RISER FOR GIS EQUIPMENT, PANEL & STRUCTURE EARTHING	—
3	50x6mm M.S. FLAT FOR INDOOR CABLE TRENCHES.	—
4	50x6mm G.S. FOR PANEL EARTHING.	—
5	50X6MM CU GROUNDING MESH	—
6	50x6 CU FLAT EQUIPMENT RISER	—
7	40x5mm CU FLAT	—
8	EARTHING POINT/RISER(FOR GIS EQUIPMENT /STRUCTURE/LCC PANEL/BASE PLATE)	—
9	CONNECTION BETWEEN 50X6MM CU GROUNDING MESH AND 40MM M.S. ROD ELECTRODE	—
10	EXISTING CONNECTION POINT OF GIS AUX. 40MM MS ROD WITH MAIN GIS GROUNDING MAT 40MM MS ROD	—
11	EXISTING 40MM M.S. ROD GIS AUXILIARY GROUND MAT (4000MMx4000MM)	—
12	GIS INSTALLATION AREA	—

BOQ:-

SI.NO.	TYPES OF MATERIAL	TOTAL QTY.	UNIT
1	40MM DIA M.S. ROD RISER	120	MTRS
2	75X12 MM GS FLAT	30	MTRS
3	50X6 MM MS FLAT	30	MTRS
4	50X6 MM GS FLAT	35	MTRS
5	50x6mm CU FLAT	Refer GIS Drawing	MTRS
6	40x5mm CU FLAT	Refer GIS Drawing	MTRS

REV.No	REVISED DATE	DESCRIPTION	DRAWN	DESIGNED	CHECKED	APPROVED
3	26.02.26	ISSUED FOR APPROVAL	MI	BS/SS	GS	D.M
2	22.12.25	ISSUED FOR APPROVAL	MI	BS/SS	GS	D.M
1	18.11.25	ISSUED FOR APPROVAL	MI	BS/SS	GS	D.M
0	08.10.25	ISSUED FOR APPROVAL	MI	BS/SS	GS	D.M

CLIENT: POWER GRID CORPORATION OF INDIA LIMITED
(A GOVERNMENT OF INDIA ENTERPRISE)

SUPPLIER / CONTRACTOR: HYOSUNG T&D INDIA PVT. LTD.

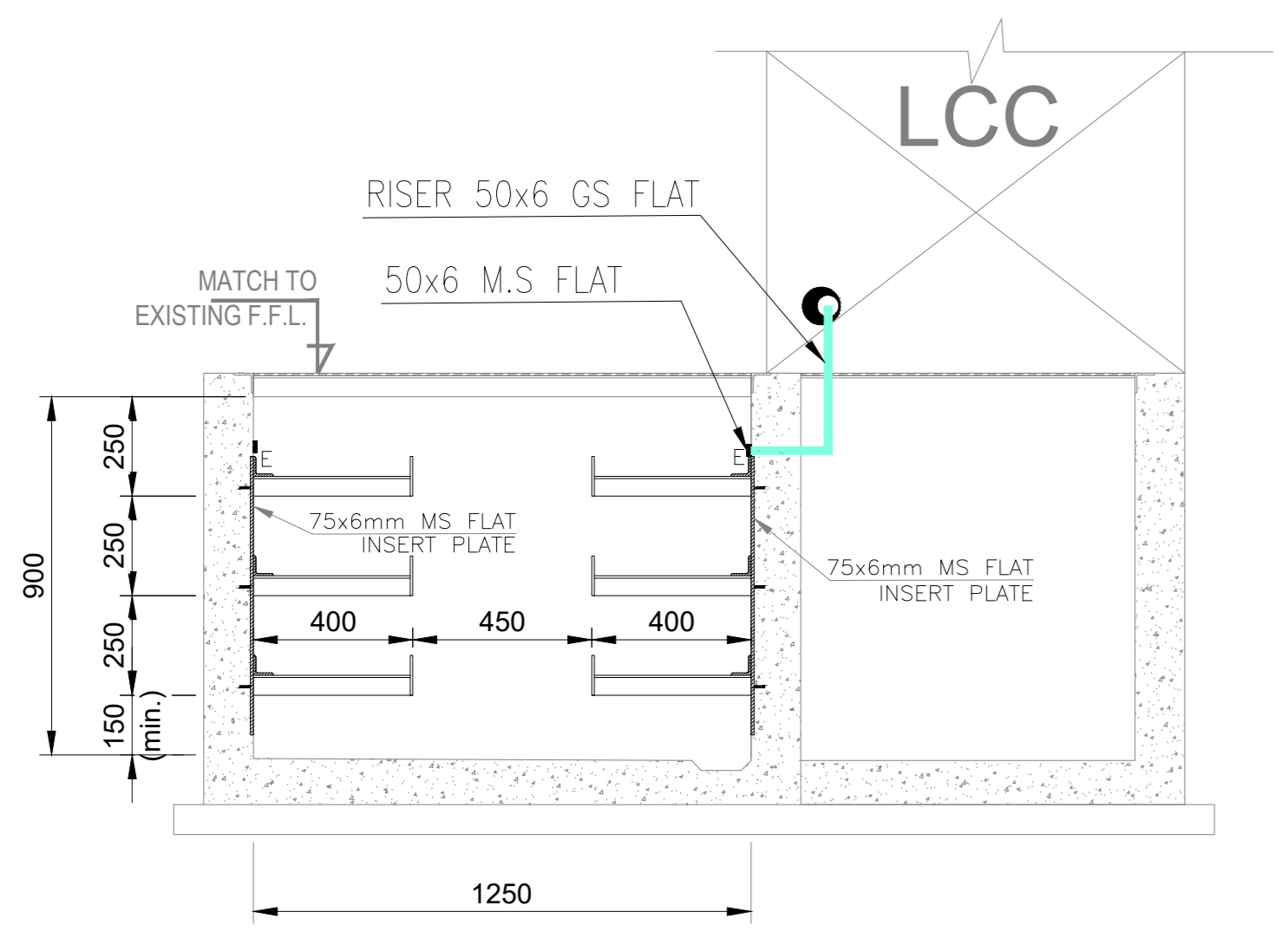
PROJECT: GIS SUBSTATION EXTENSION PACKAGE-SS 132 - AUGMENTATION OF TRANSFORMATION CAPACITY AT 400/230kV TUTICORIN-II GIS PS IN TAMIL NADU BY 500MVA, 400/230kV ICT (6th) TO MEET N-1 RELIABILITY OF RE POOLING STATION".

PACKAGE: EXTENSION OF 400/230kV TUTICORIN-II GIS PS SUBSTATION

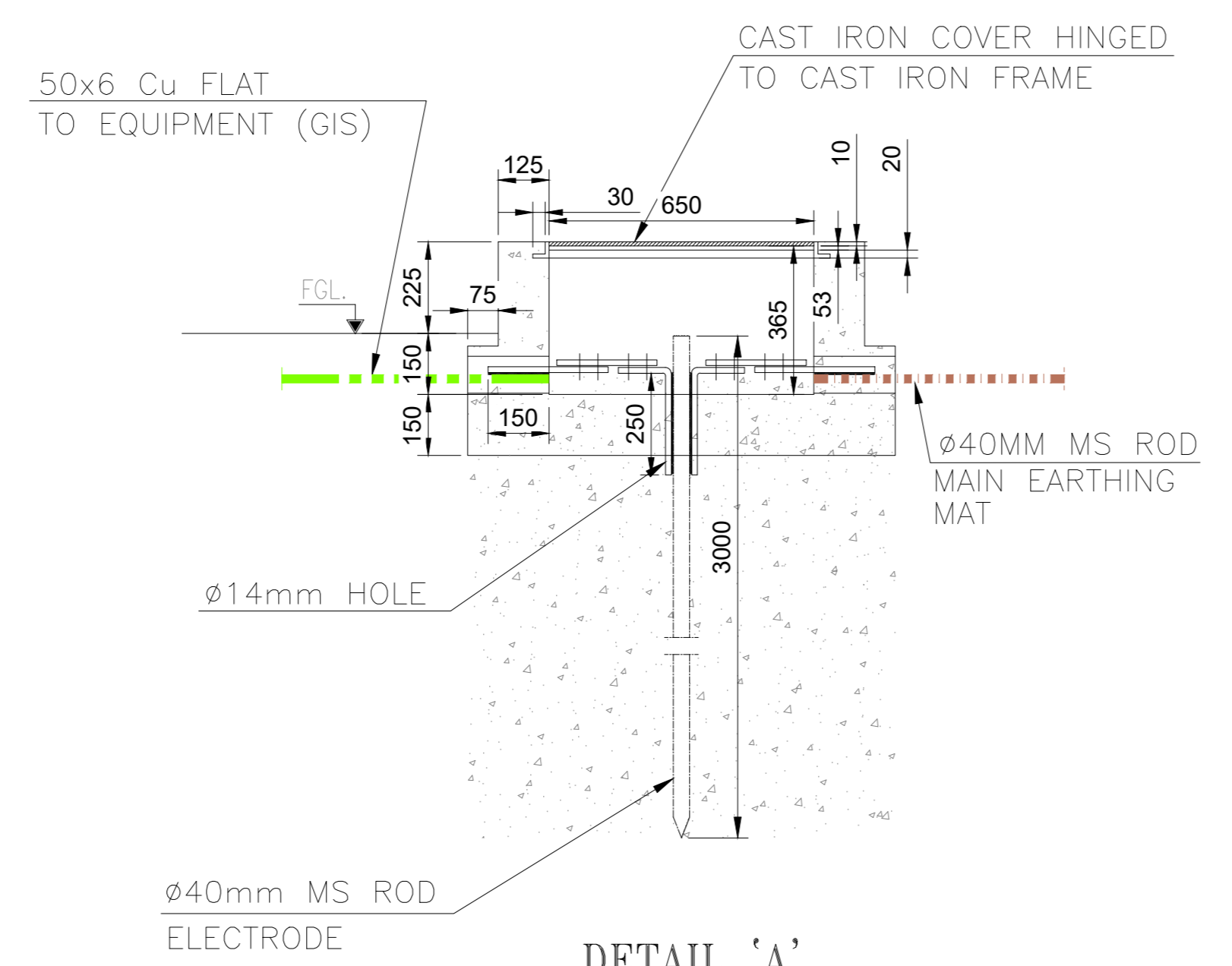
JOB No.:	NAME	SIGN	DATE	TITLE:	SCALE
DRAWN	MI		08.10.25	TUTICORIN-II GIS S/S-400KV INDOOR EARTHING LAYOUT	1:100
DSGN	BS/SS		08.10.25		
CHKD	GS		08.10.25		
APPD	D.M		08.10.25		

DRG. No.: HI-I-P25072-EPC-B-13
SHEET 1 OF 1

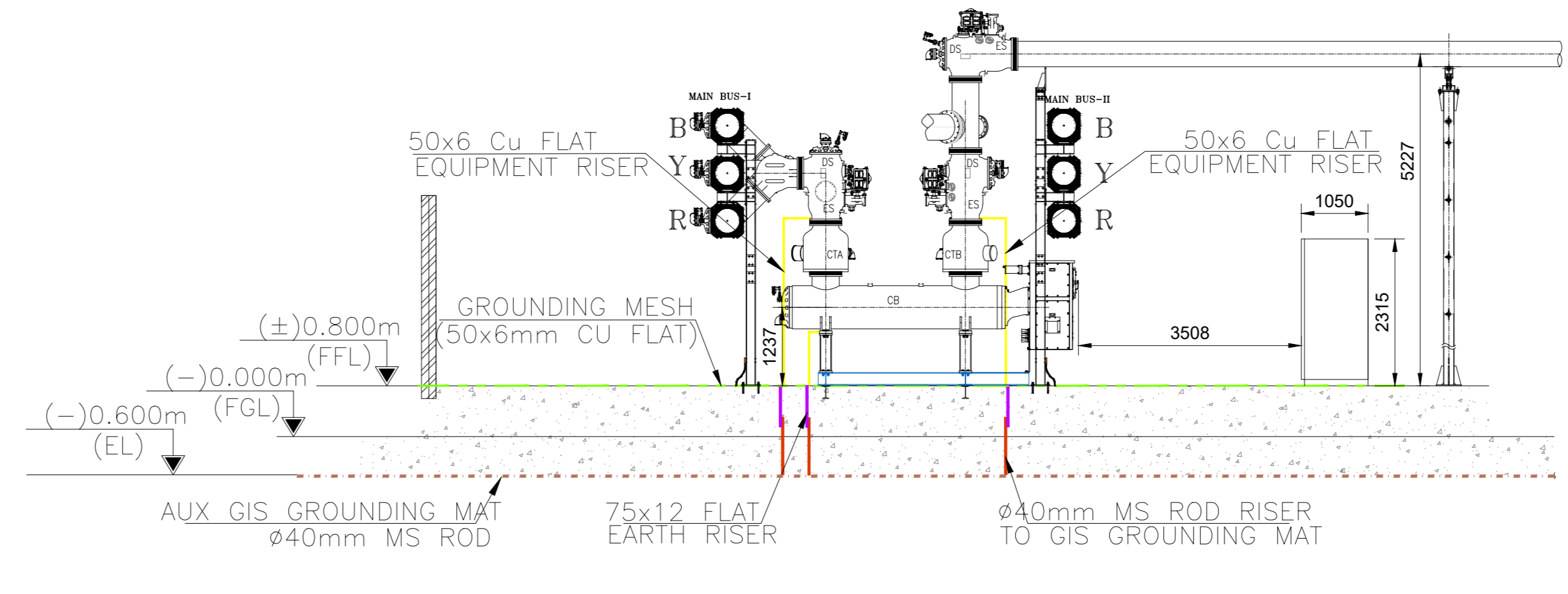
RELEASED FOR PRELIMINARY TENDER INFORMATION APPROVAL CONSTRUCTION



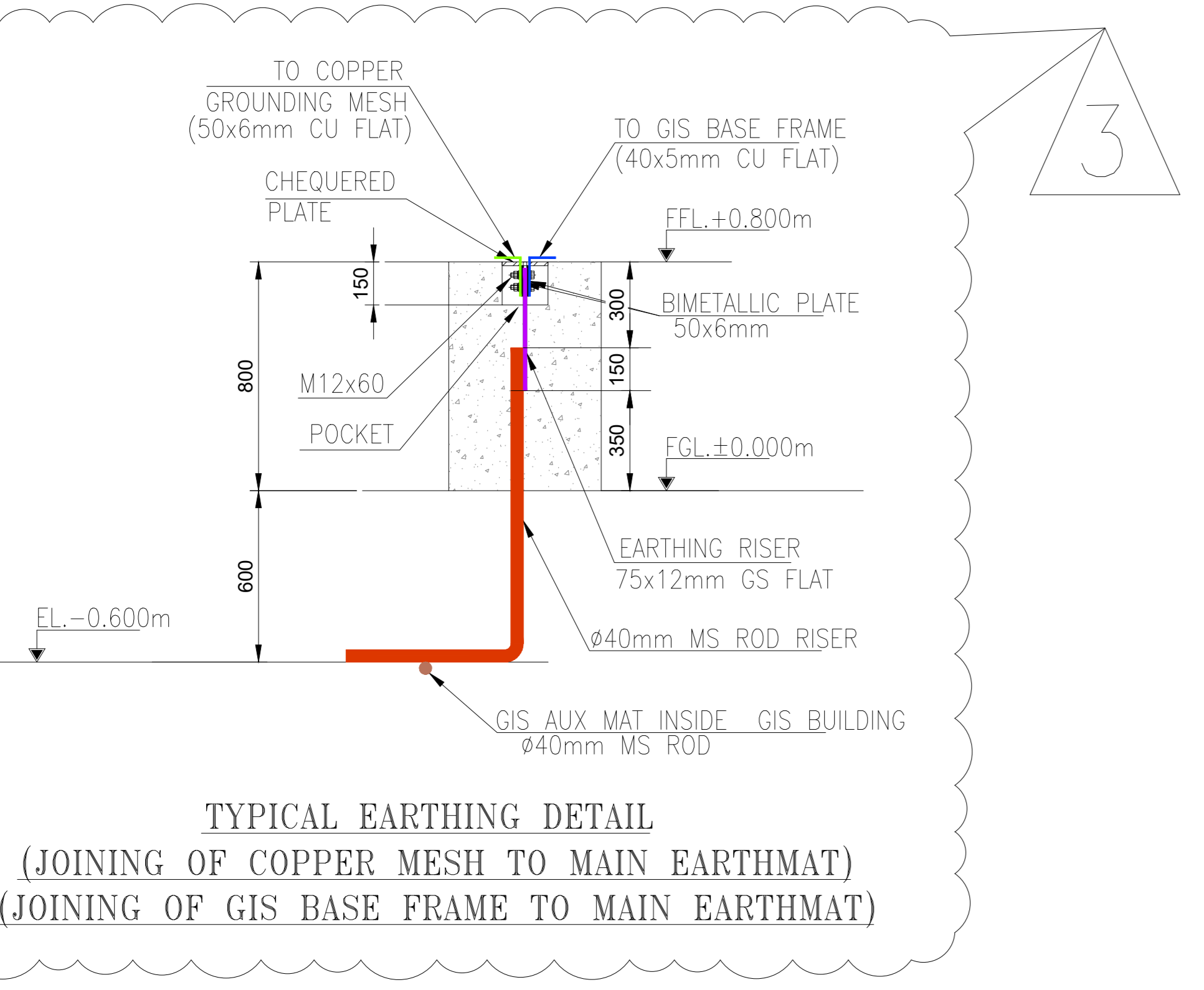
TYPICAL CABLE TRENCH & PANEL EARTHING



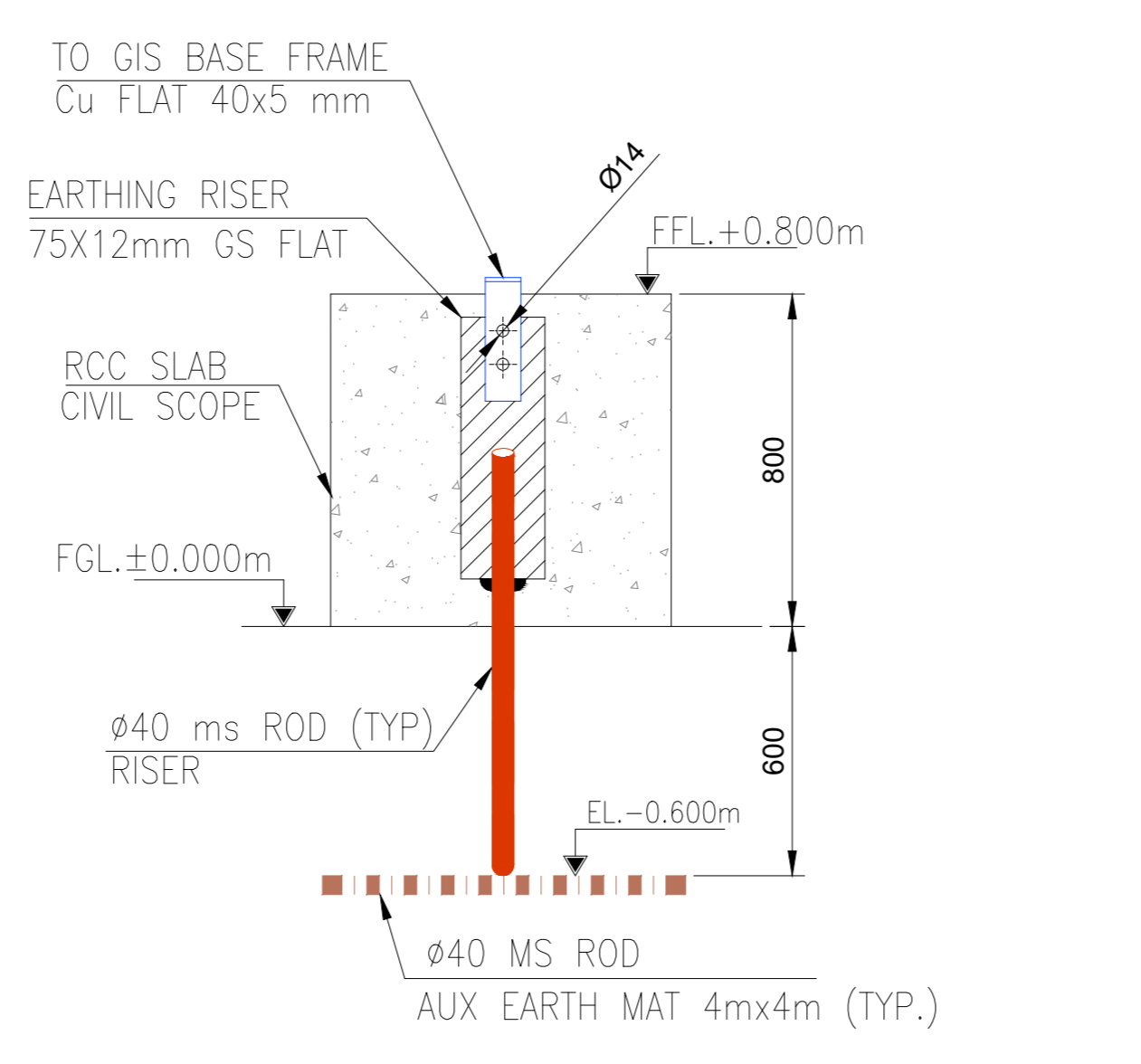
DETAIL 'A' (FOR ROD ELECTRODE)



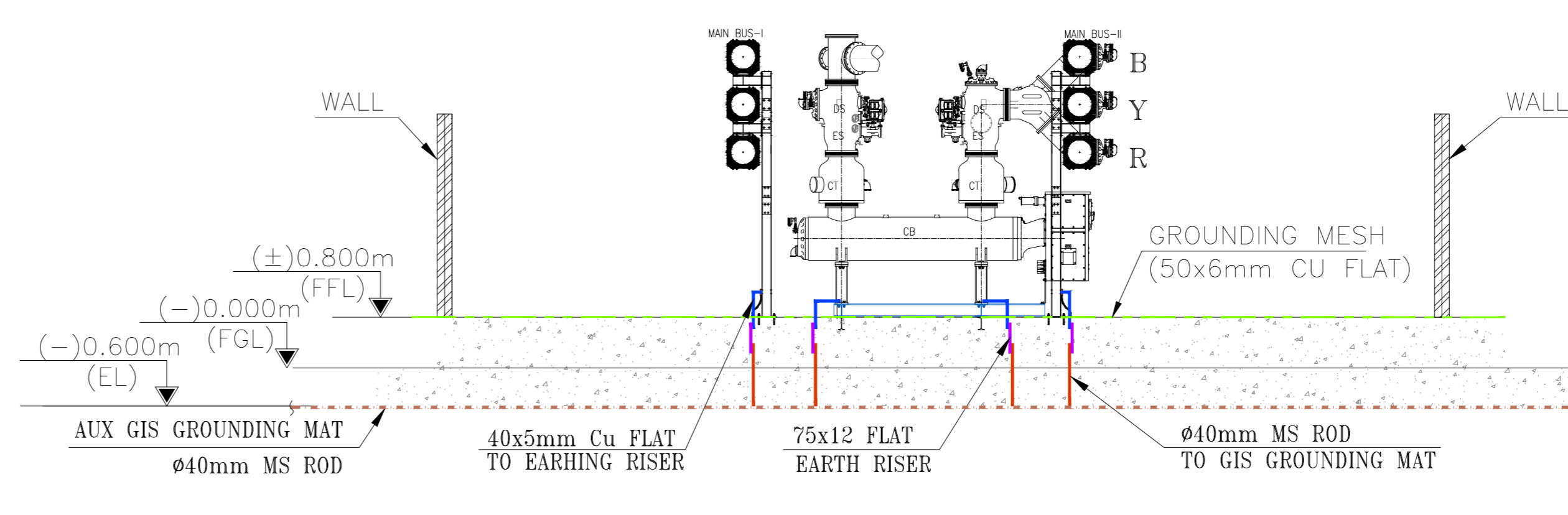
TYPICAL EARTHING VIEW(421 ICT-6)



TYPICAL EARTHING DETAIL (JOINING OF COPPER MESH TO MAIN EARTHMAT)



TYPICAL EARTHING CONNECTION METHOD (EARTHING RISER)



TYPICAL EARTHING VIEW (FOR MAIN BUS SUPPORT, BASE FRAME & CB)