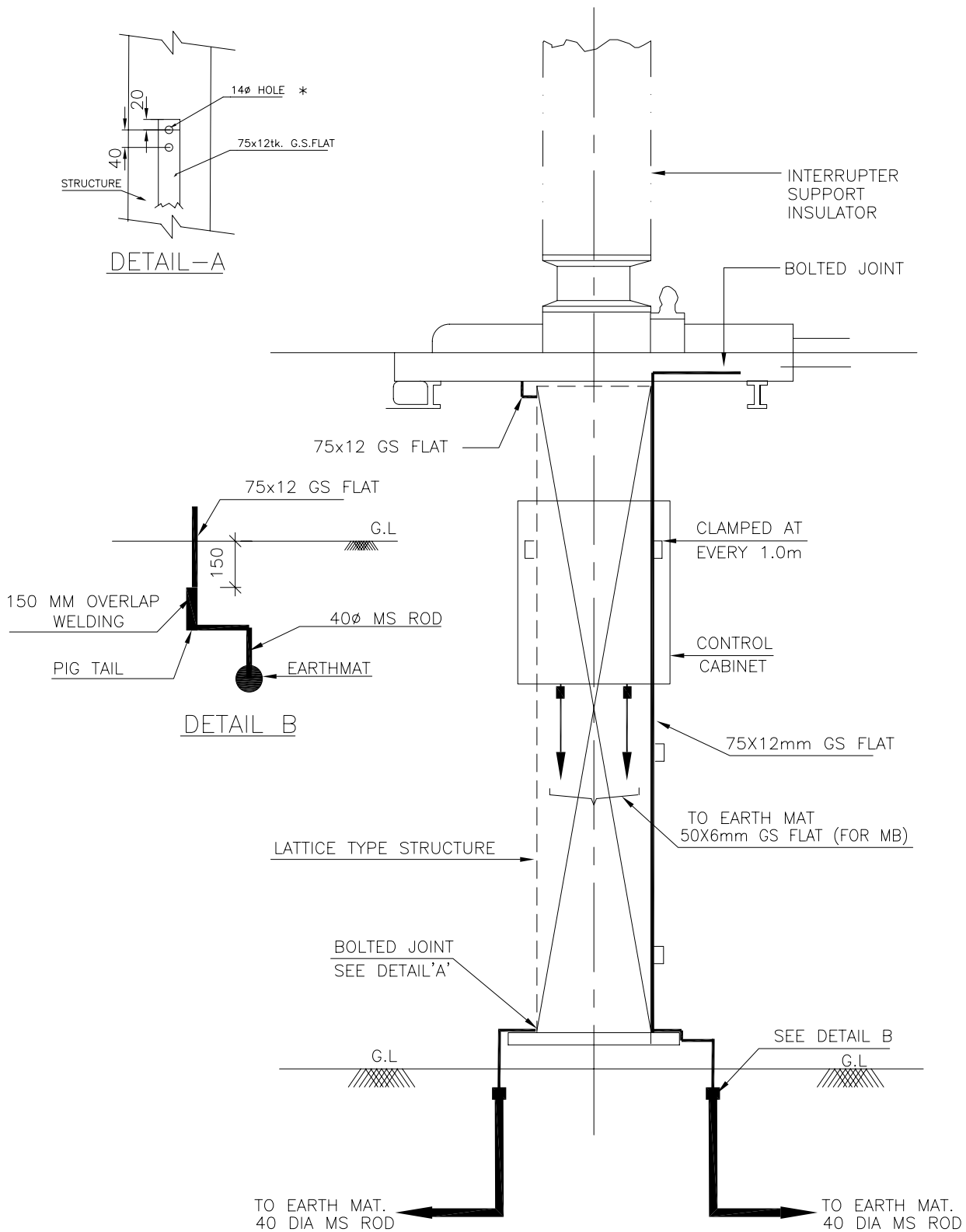


COMPUTER DRG. PATH NAME :

COMPUTER DRG. PATH NAME :

COMPUTER DRG. PATH NAME :



NOTE:

1) * BOLT SIZE AND HOLE SIZE SHALL BE TO SUIT RESPECTIVE EQPT./STRUCTURE.



EQUIPMENT EARTHING DETAILS

220 kV SF6 CIRCUIT BREAKER

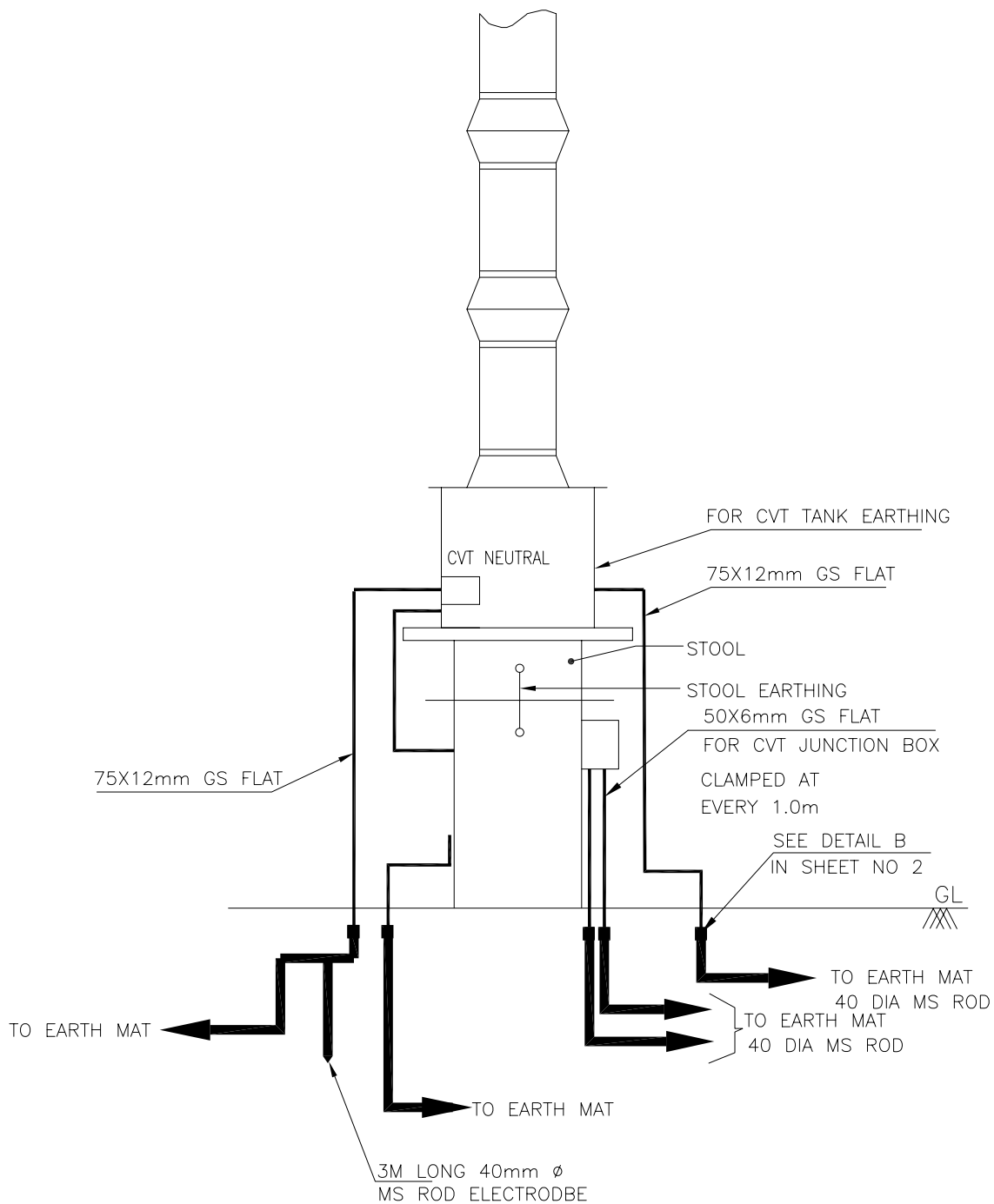
COMPUTERREF.NO.

DRG. No.

TB-4-345-316-007

REV. 00

SHEET No.
2



ROD ELECTRODE = 1 NO.



EQUIPMENT EARTHING DETAILS

220kV CVT/EMVT

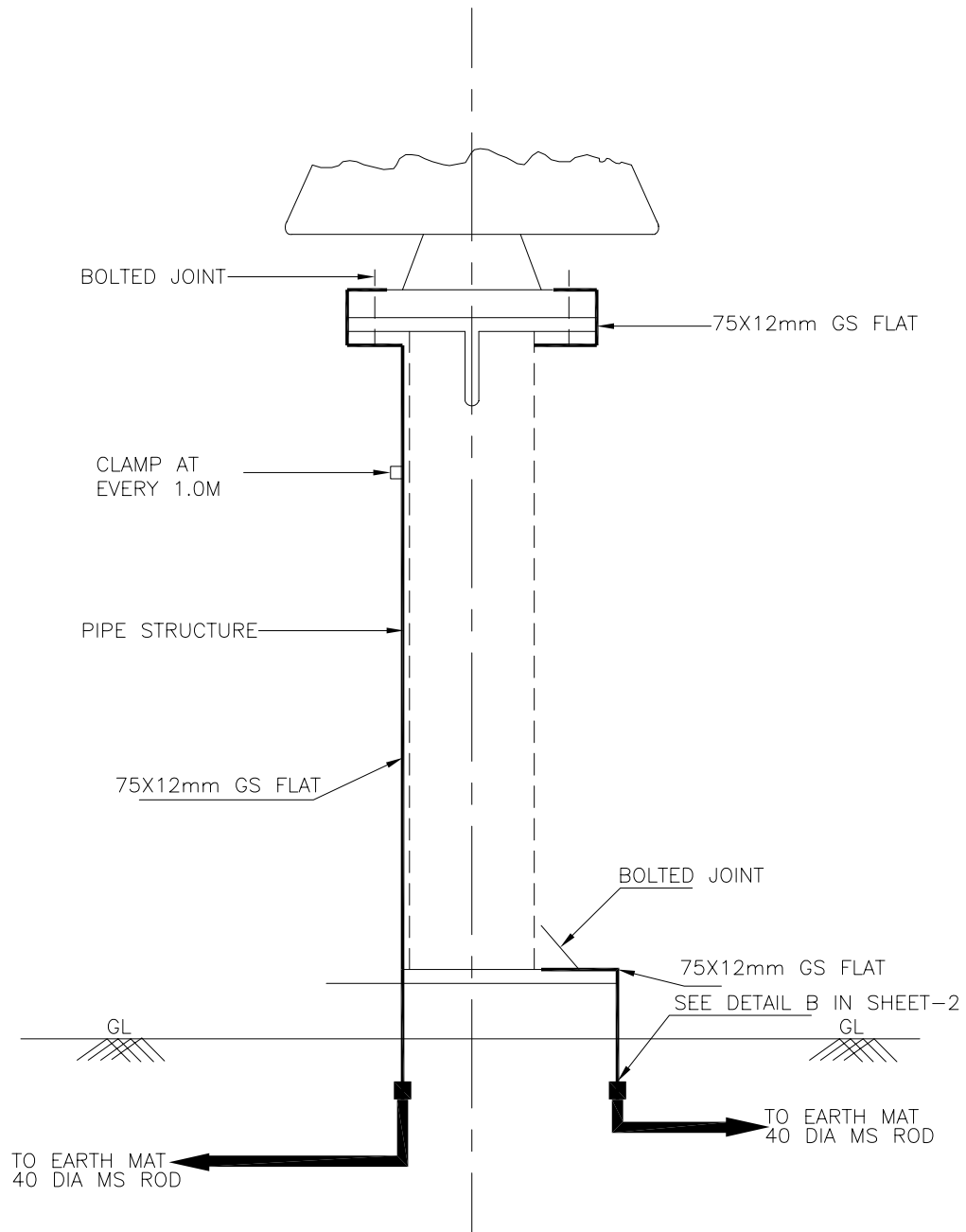
COMPUTERREF.NO.

DRG. No.

TB-4-345-316-007

REV. 00

SHEET No.
3

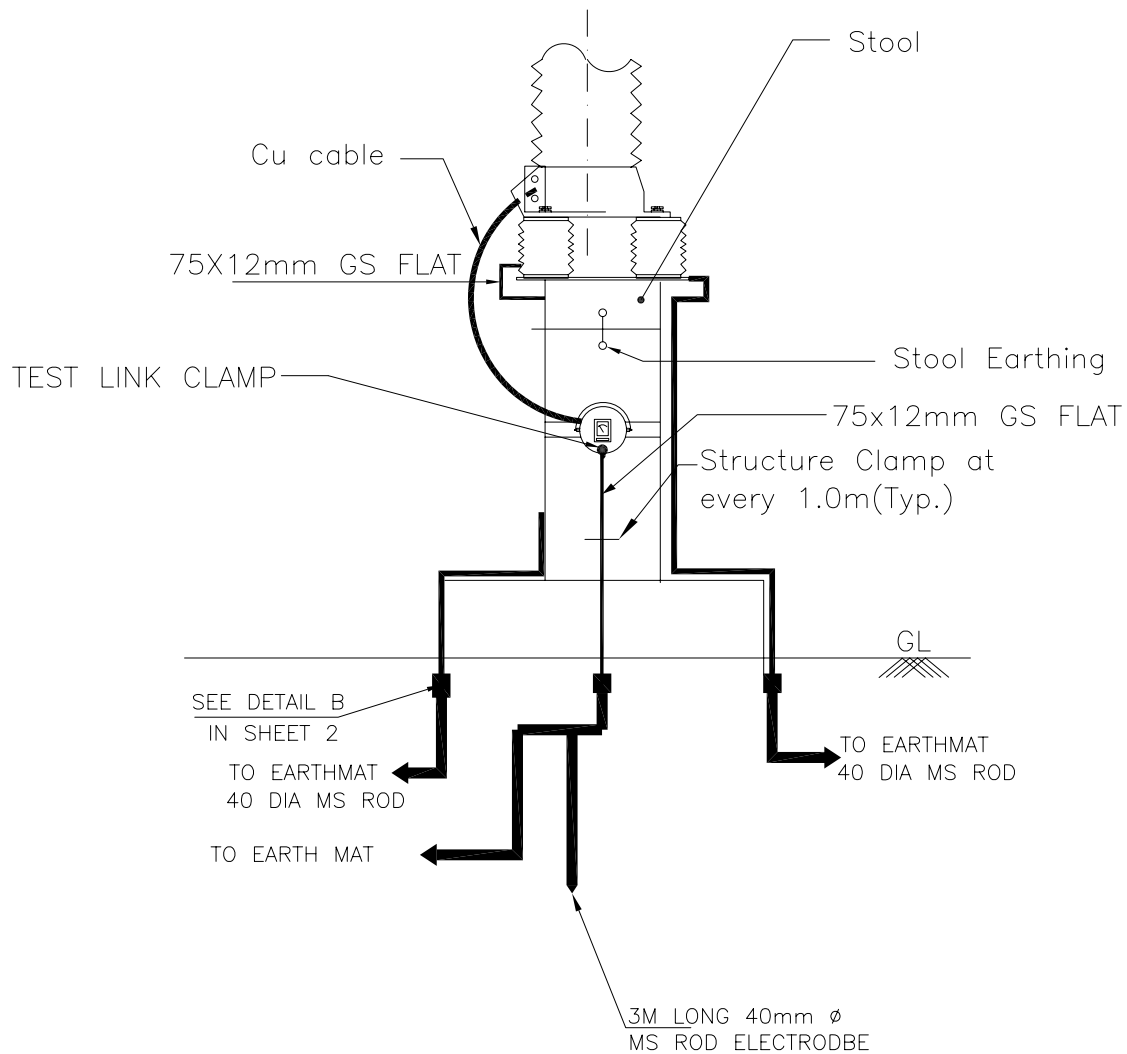


EQUIPMENT EARTHING DETAILS 220kV POST INSULATOR (SOLID CORE TYPE)

DRG. No. TB-4-345-316-007

REV. 00

SHEET No. 4



NOTES;

1. LA SHALL BE EARTHED THROUGH EARTH TERMINAL OF SURGE COUNTER
2. NO. OF ROD ELECTRODE 1 NO. PER PHASE,
3. TEST LINK SHALL HAVE PROVISION TO BOLT TEST LEAD BEFORE ISOLATING THE MAIN EARTHING CONNECTIONS (AS PER SKETCH ABOVE) = 1NO.



EQUIPMENT EARTHING DETAILS

LIGHTNING ARRESTER(198/120kV)

COMPU. DRG. REF.

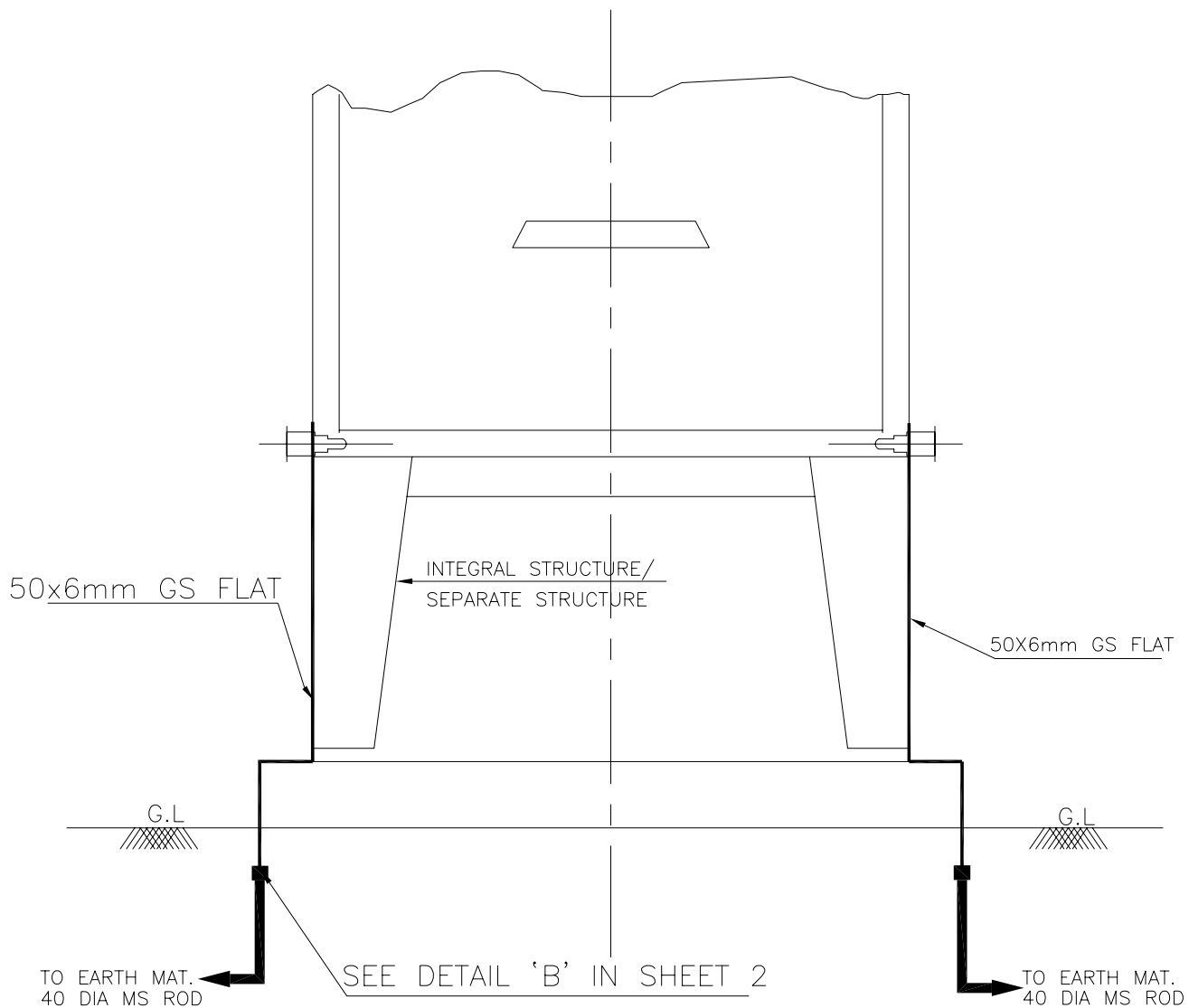
DRG.NO.

TB-4-345-316-007

REV. 00

SHEET No.

5



EQUIPMENT EARTHING DETAILS MARSHALLING KIOSK

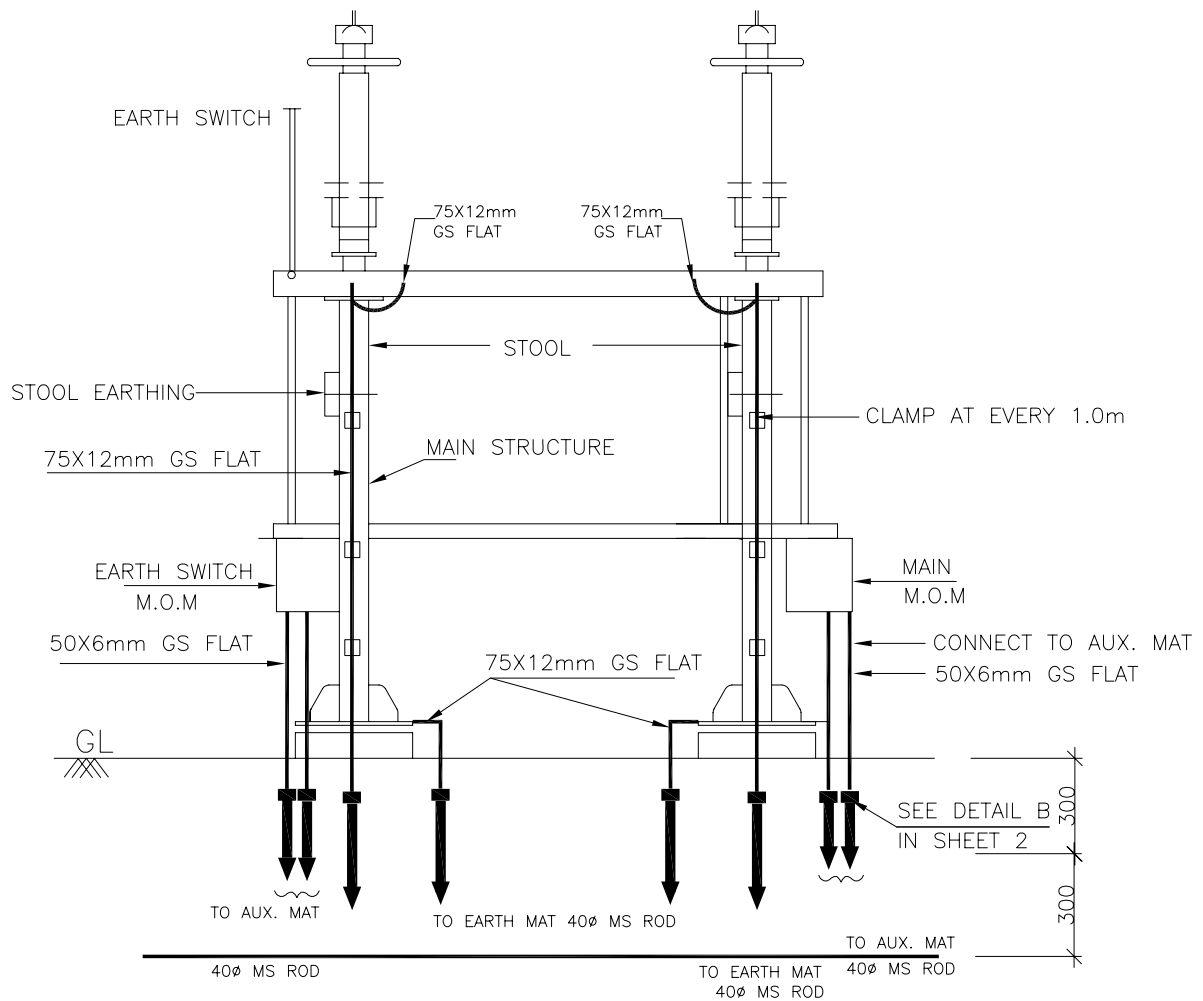
COMPUTERREF.NO.

DRG. No.

TB-4-345-316-007

REV. 00

SHEET No.
6



NOTES

1. AUXILIARY EARTH MAT SHALL BE PROVIDED BELOW EVERY MOM BOX (REFER SHEET 14)



EQUIPMENT EARTHING DETAILS

220kV HORIZONTAL CENTER BREAK ISOLATOR (TYPICAL) WITH ONE EARTH SWITCH

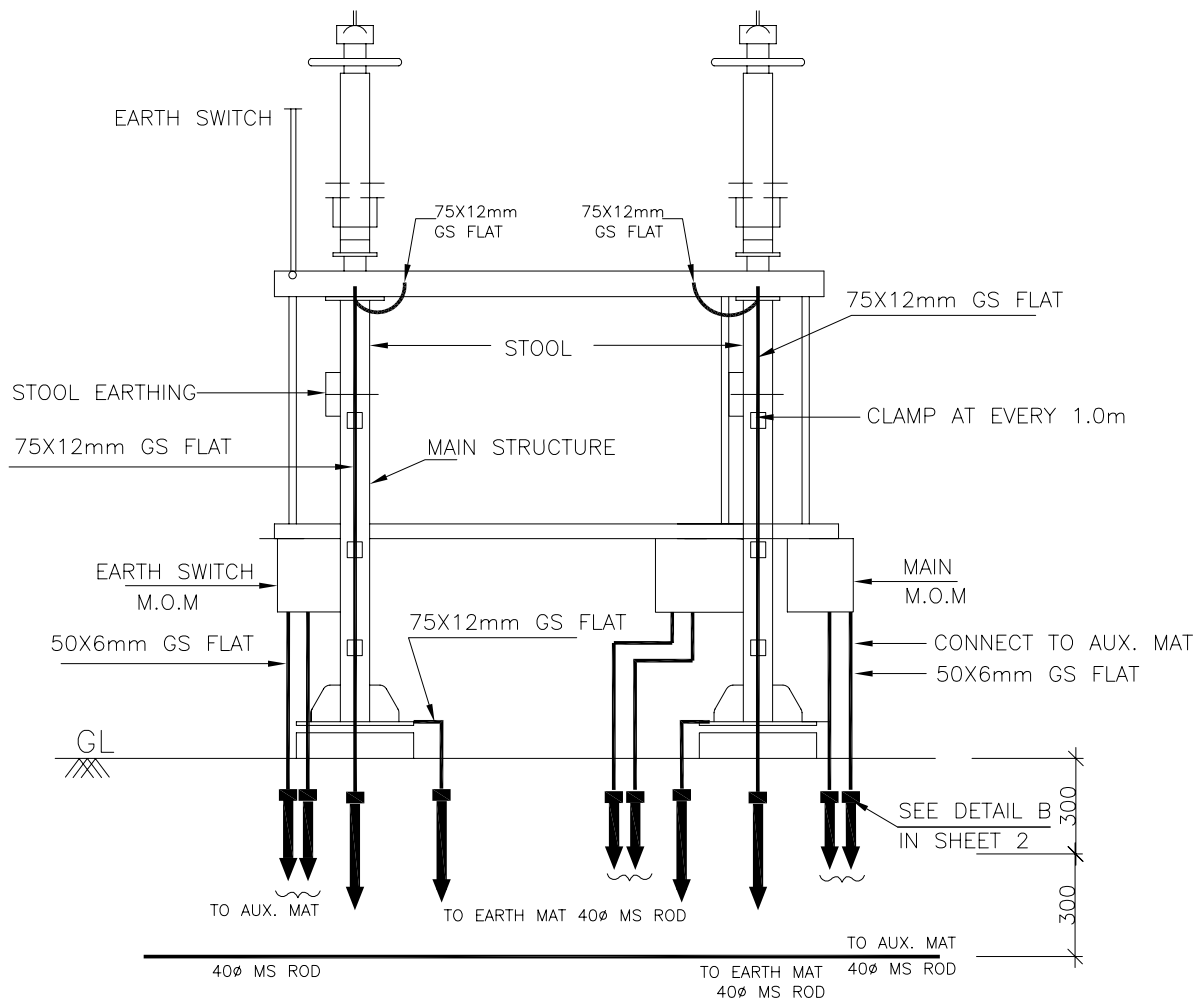
COMPUTERREF.NO.

DRG. No.

TB-4-345-316-007

REV. 00

SHEET No.
7



NOTES

1. AUXILIARY EARTH MAT SHALL BE PROVIDED BELOW EVERY MOM BOX (REFER SHEET 14)



EQUIPMENT EARTHING DETAILS

220kV HORIZONTAL CENTER BREAK ISOLATOR (TYPICAL) WITH TWO EARTH SWITCH

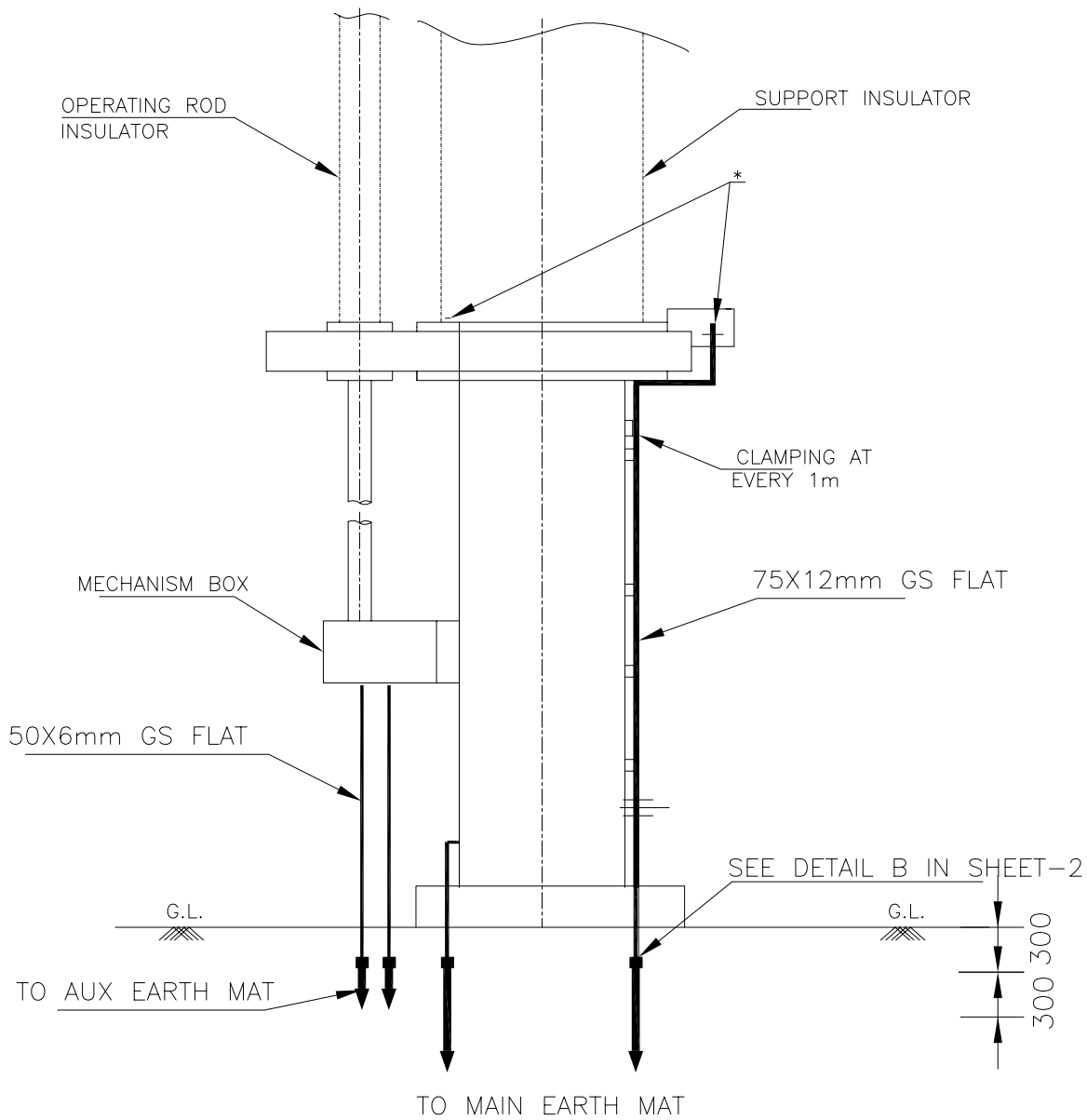
COMPUTER REF. NO.

DRG. No.

TB-4-345-316-007

REV. 00

SHEET No.
7A



NOTES

1. AUXILIARY EARTH MAT SHALL BE PROVIDED BELOW EVERY MOM BOX (REFER SHEET 14).



EQUIPMENT EARTHING DETAILS

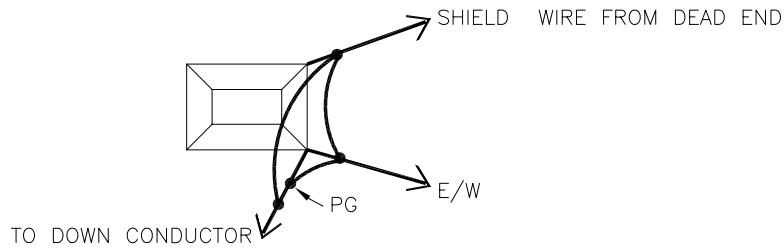
220kV PANTOGRAPH ISOLATOR WITHOUT E/S

COMPUTERREF.NO.

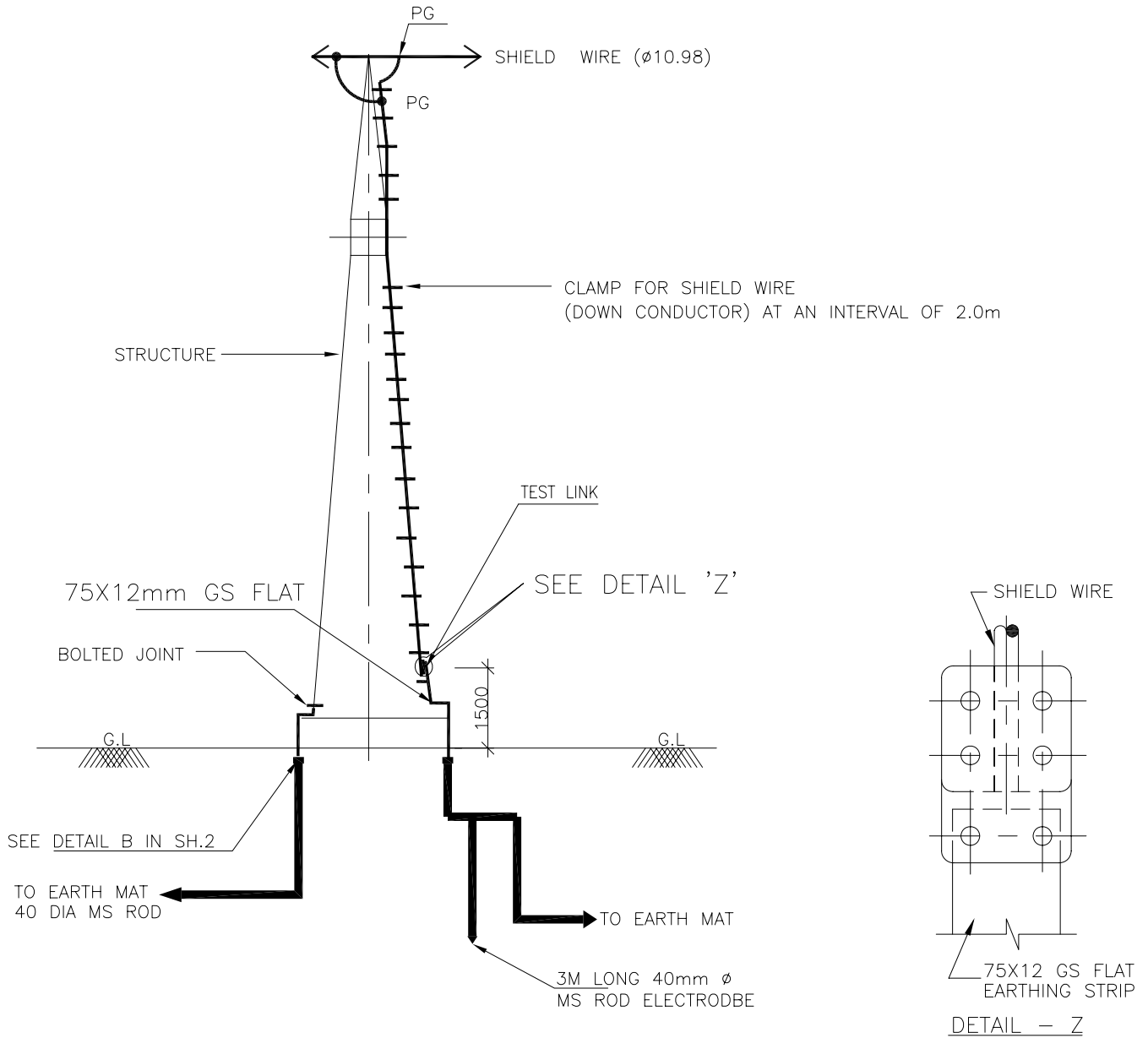
DRG. No. TB-4-345-316-007

REV. 00

SHEET No.
7B



DETAIL WHEN 2 & E/WIRE TERMINATES A TOWER



NOTE:

1. NO. OF ROD ELECTRODE : 1 NO. PER TOWER WITH DOWN CONDUCTOR.



EQUIPMENT EARTHING DETAILS

SHIELD WIRE TOWER

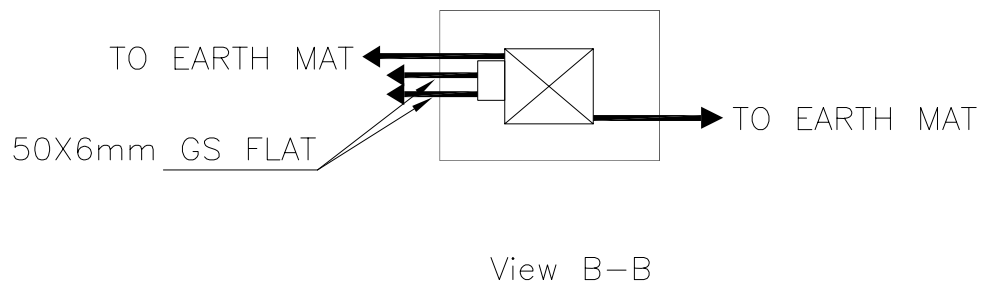
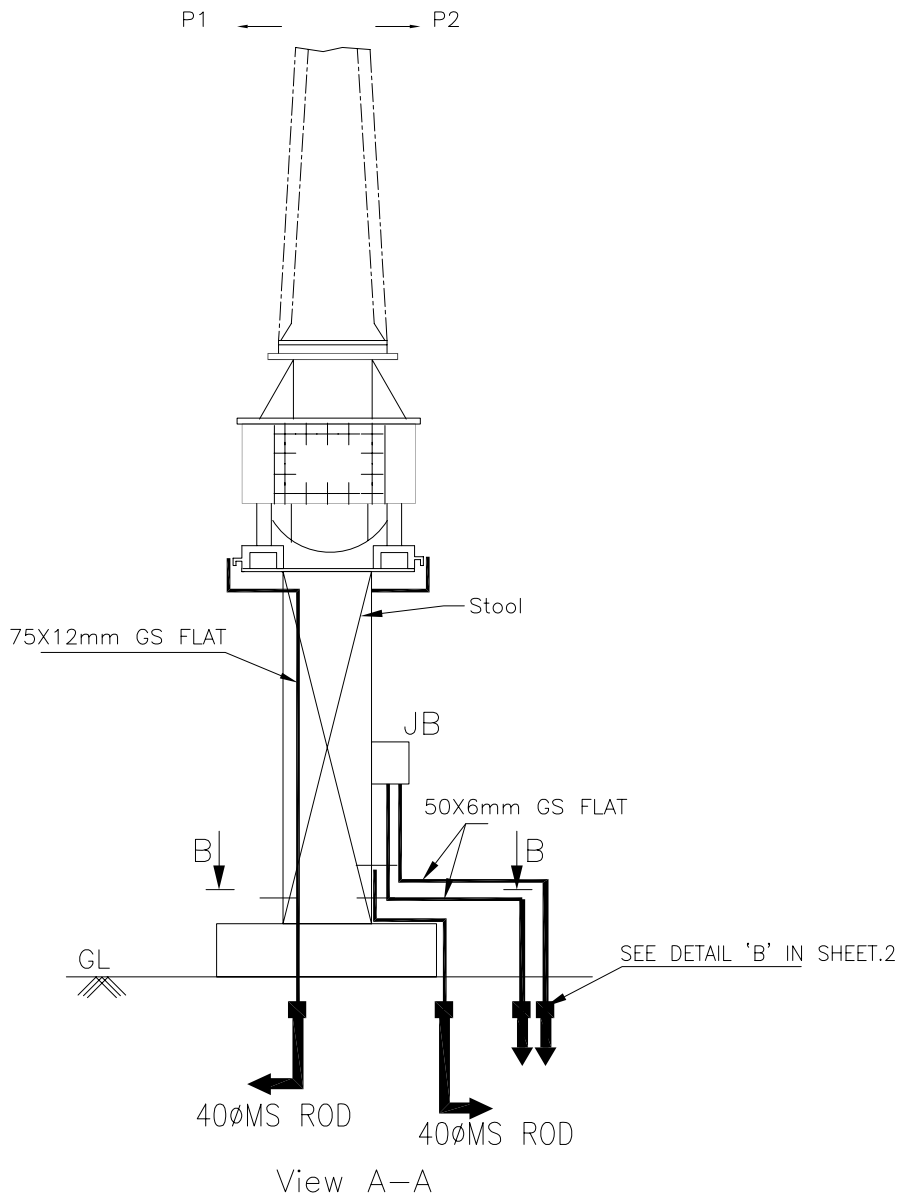
COMPUTERREF.NO.

DRG. No.

TB-4-345-316-007

REV. 00

SHEET No.
8



EQUIPMENT EARTHING DETAILS 220 kV Current Transformer

COMPU. DRG. REF.

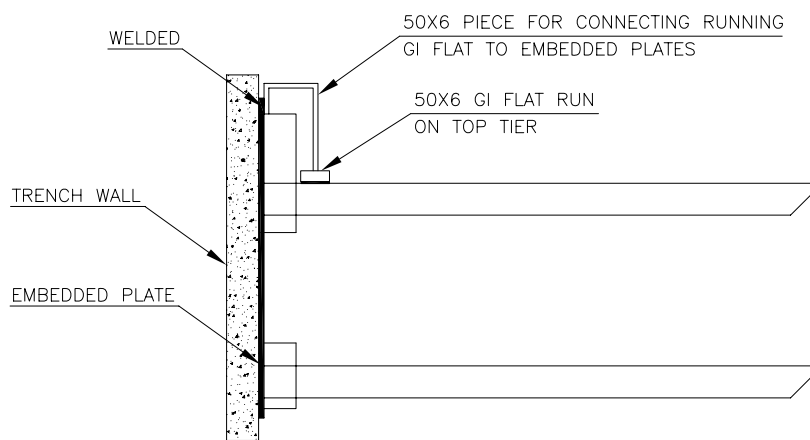
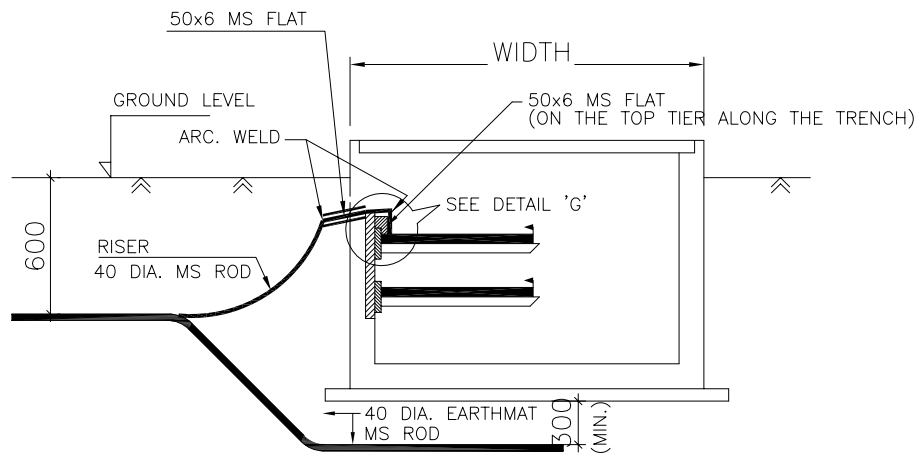
DRG.NO.

TB-4-345-316-007

REV. 00

SHEET No.

9



DETAIL 'G'

DETAIL FOR CONNECTING GI FLAT RUNNING HORIZONTAL ON TOP TIER TRENCH TO EMBEDDED PLATE.

NOTE:

1. ALL TRENCHES SHALL BE EARTHED AT AN INTERVAL OF 30M ALONG THE LENGTH OF TRENCH & FREE ENDS.
2. THE EARTH STRIP (50x6 MS FLAT) SHALL BE WELDED TO EMBEDDED PLATE AT EVERY 0.75M INTERVAL.
3. WHERE THE CABLE RACKS ARE PROVIDED ON BOTH SIDES OF THE TRENCH, BOTH SIDES SHALL BE EARTHED AS PER ABOVE.
4. THE MS FLAT SHALL BE FINALLY PAINTED WITH TWO COATS OF RED OXIDE PRIMER & TWO COATS OF POST OFFICE RED ENAMEL PAINT.



EQUIPMENT EARTHING DETAILS CABLE TRENCH

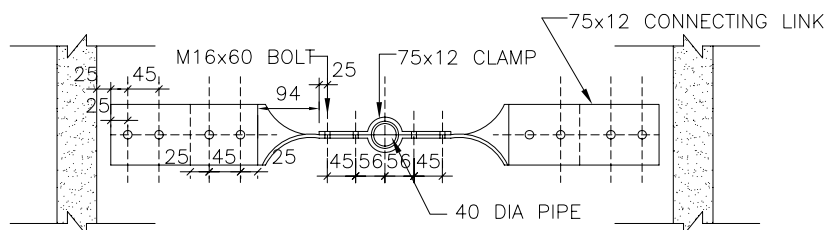
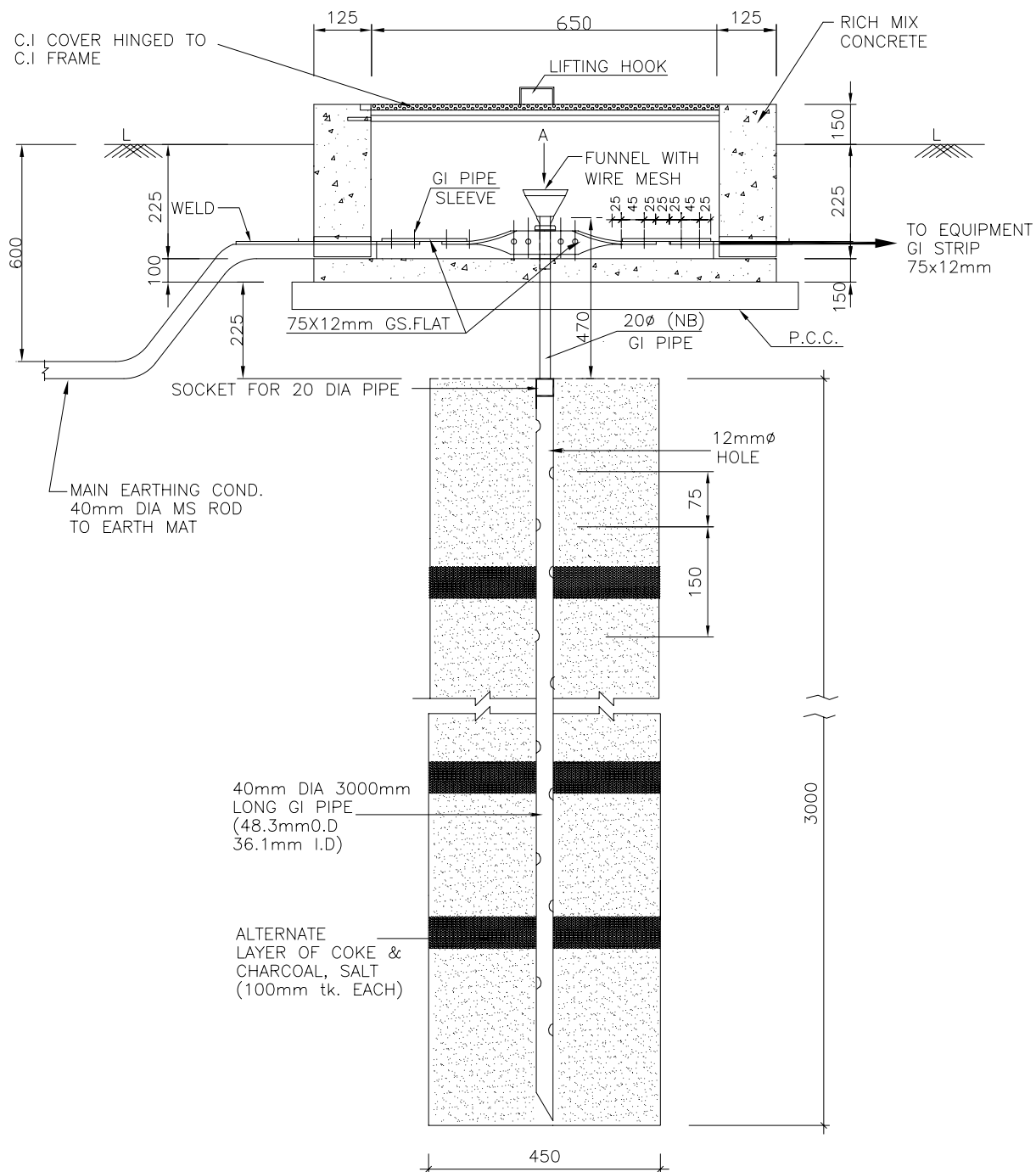
COMPU. DRG. REF.

DRG. NO.

TB-4-345-316-007

REV. 00

SHEET
10



VIEW-A

NOTE:

1. ALL NUTS,BOLTS AND WASHERS, FUNNEL GI PIPE AND WIRE MESH SHALL BE GALVANISED AS PER SPECIFICATION.
2. FUNNEL SHALL BE SECURELY HELD TO THE PIPE.
3. TO BE USED FOR CONNECTING TO NEUTRAL OF POWER TRANSFORMER/REACTOR/NGR



EQUIPMENT EARTHING DETAILS
DETAILS OF PIPE EARTH ELECTRODE
IN TREATED EARTH PIT (ET)

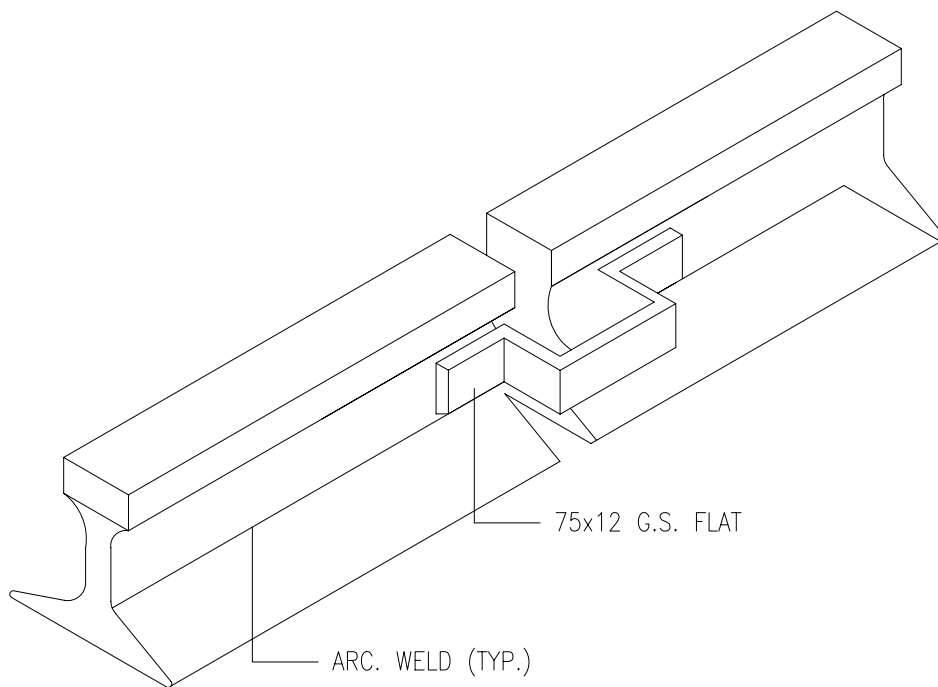
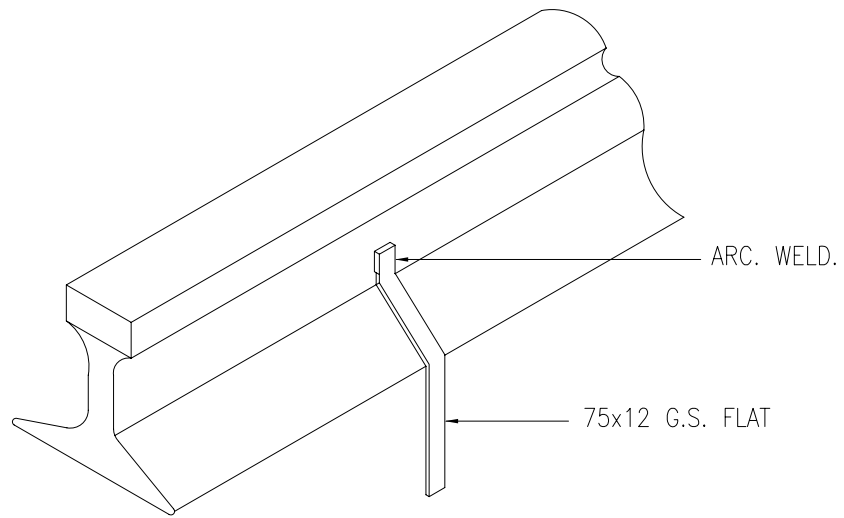
COMPUTERREF.NO.

DRG. No.

TB-4-345-316-007

REV. 00

SHEET No.
11



NOTE:—

1. RAILWAY TRACKS WITHIN SWITCHYARD AREA SHALL BE EARTHED AT BOTH ENDS & AT 30M. SPACING.



EQUIPMENT EARTHING DETAILS

RAIL BONDING

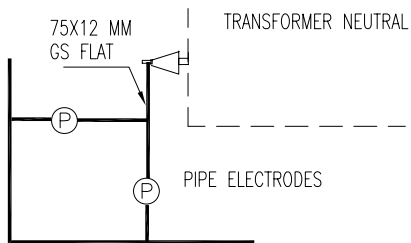
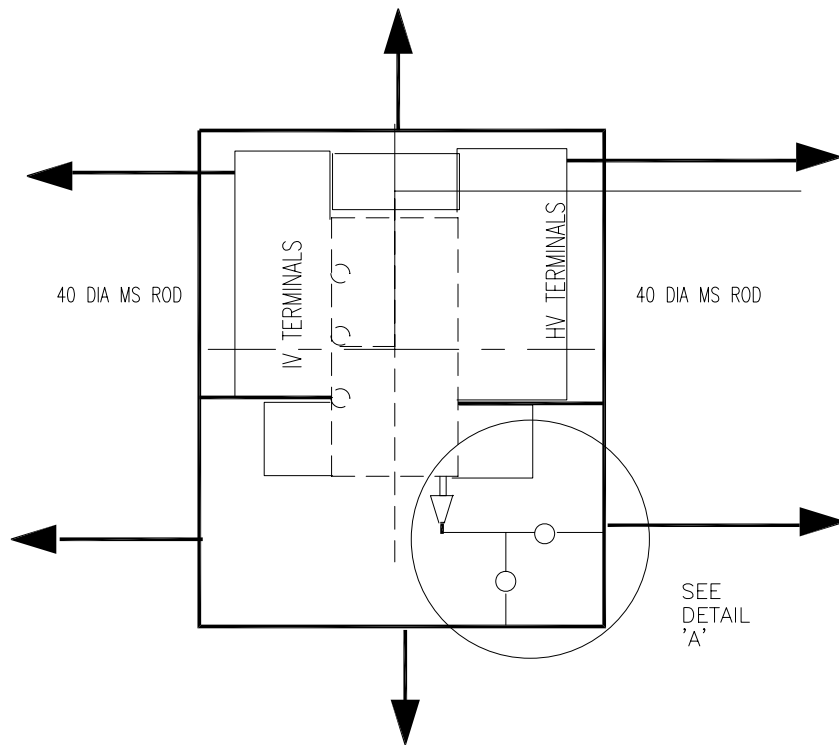
COMPU. DRG. REF.

DRG. NO.

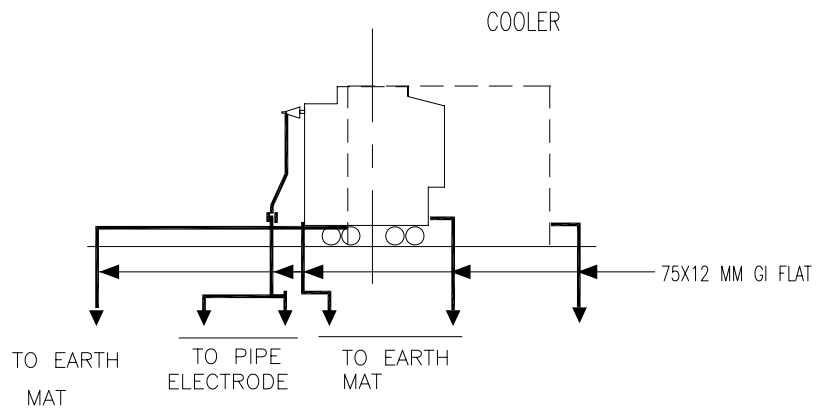
TB-4-345-316-007

REV. 00

SHEET No.
12



DETAIL A

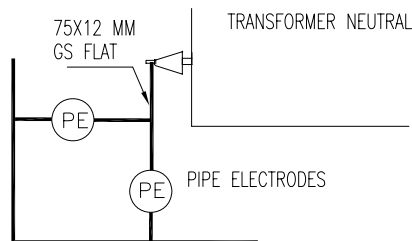
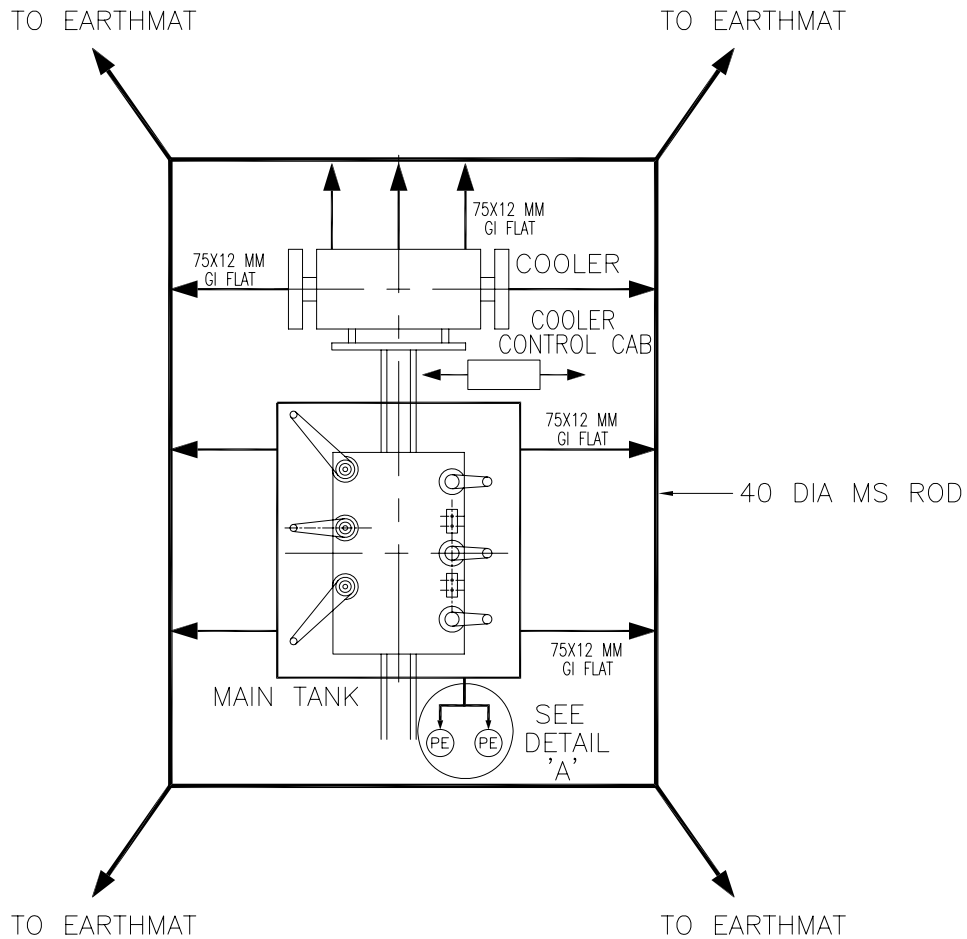


EQUIPMENT EARTHING DETAILS LT TRANSFORMER

DRG. No. TB-4-345-316-007

REV. 00

SHEET No.
13



DETAIL A

NOTES:—

1. EARTH CONTINUITY ACROSS GASKETED JOINTS MUST BE ENSURED USING FLEXIBLE OR FLAT.
2. ALL ACCESSORIES ASSOCIATED WITH TRANSFORMER LIKE COOLING BANKS, RADIATORS, MAIN TANK, MARSHALLING KIOX ETC. SHALL BE CONNECTED TO THE EARTHING GRID AT MINIMUM TWO POINTS.

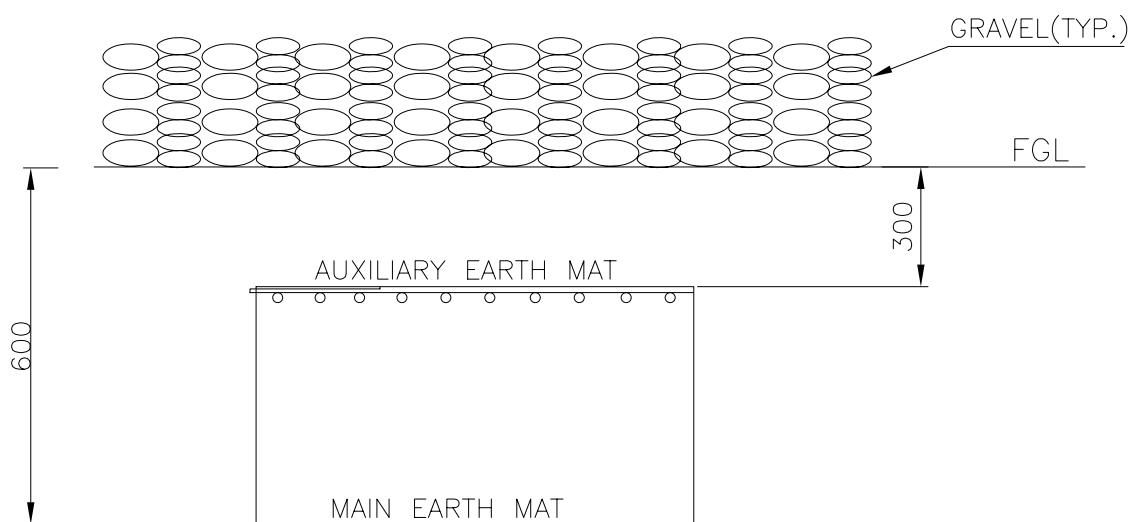
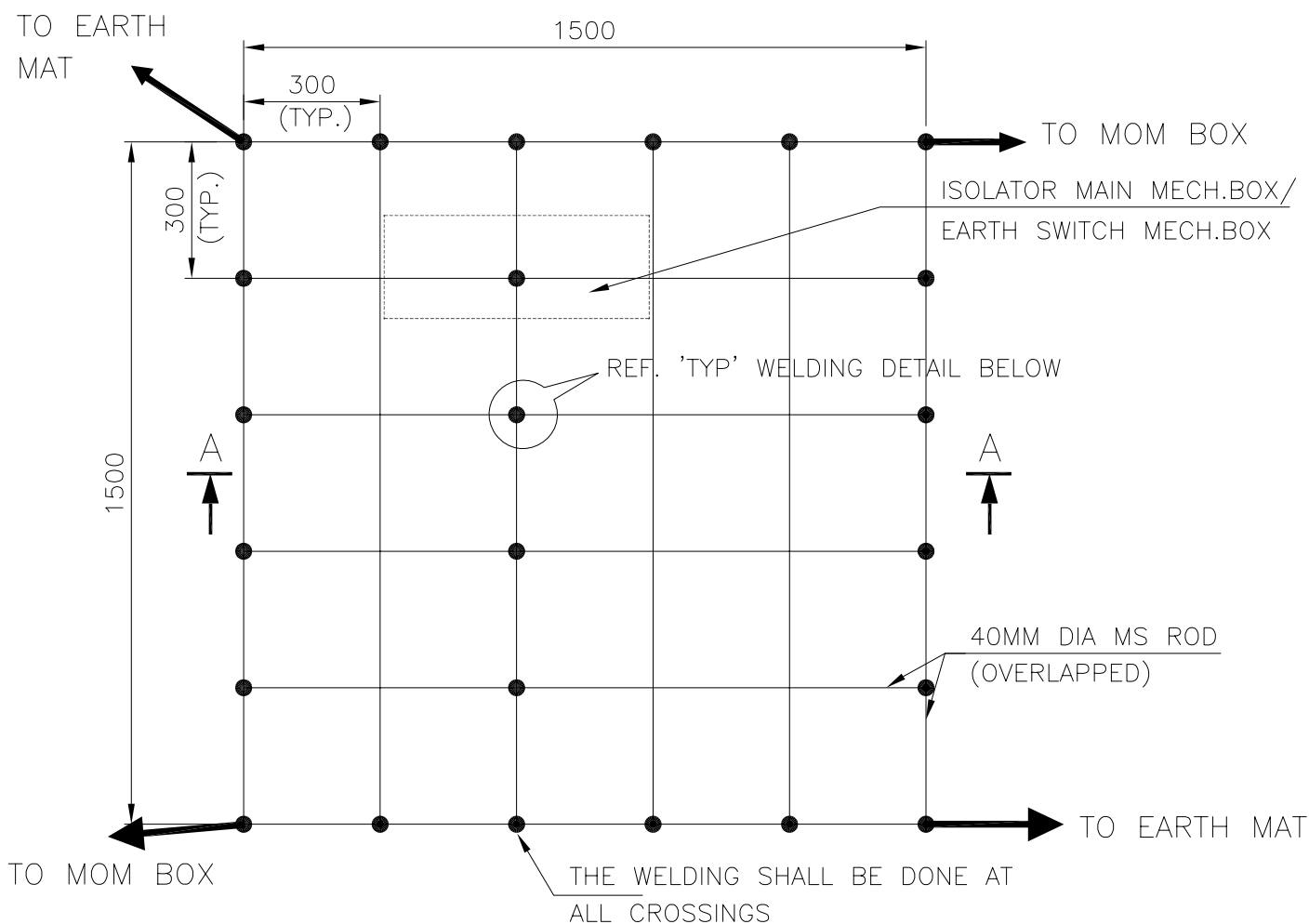


EQUIPMENT EARTHING DETAILS
AUTO TRANSFORMER

DRG. No. TB-4-345-316-007

REV. 00

SHEET No.
13A



SECTION AA

NOTE:

AUX. EARTH MAT SHALL BE SO POSITIONED THAT THE FOOT OF THE OPERATOR ALWAYS LIE OVER THE AUX. EARTH MAT AREA WHILE ATTENDING / OPERATING THE MECH. BOX THE CABLE TRENCH ROUTING SHALL BE PLANNED ACCORDINGLY.



COMPU. DRG. REF.

Report No.

EQUIPMENT EARTHING DETAILS

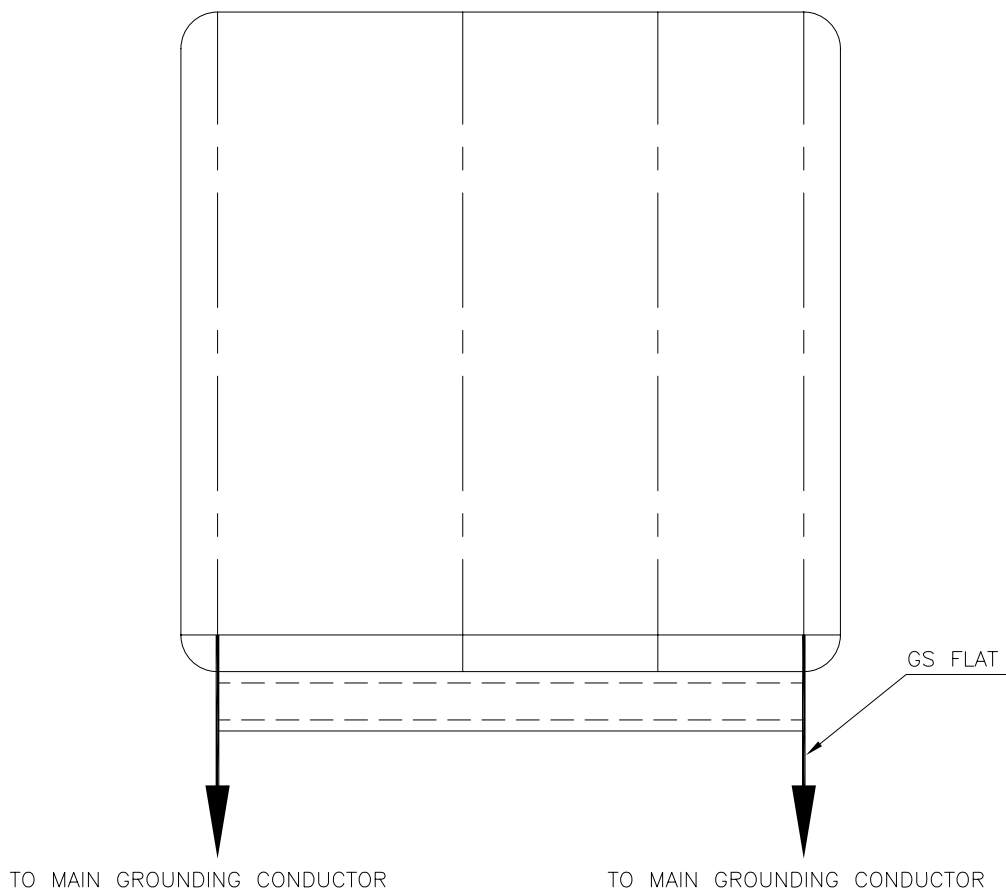
AUXILIARY EARTH MAT FOR ISOLATOR MAIN MECH., E/S
MECH. BOX

TB-4-345-316-007

REV. 00

SHEET No.

14



EQUIPMENT

FLAT SIZE

SWITCHGEAR/ MCC

50X6 MM

AC / DC DISTRIBUTION BOARDS

50X6 MM

CONTROL & RELAY PANELS

50X6 MM

AC KIOSK

50X6 MM



EQUIPMENT EARTHING DETAILS

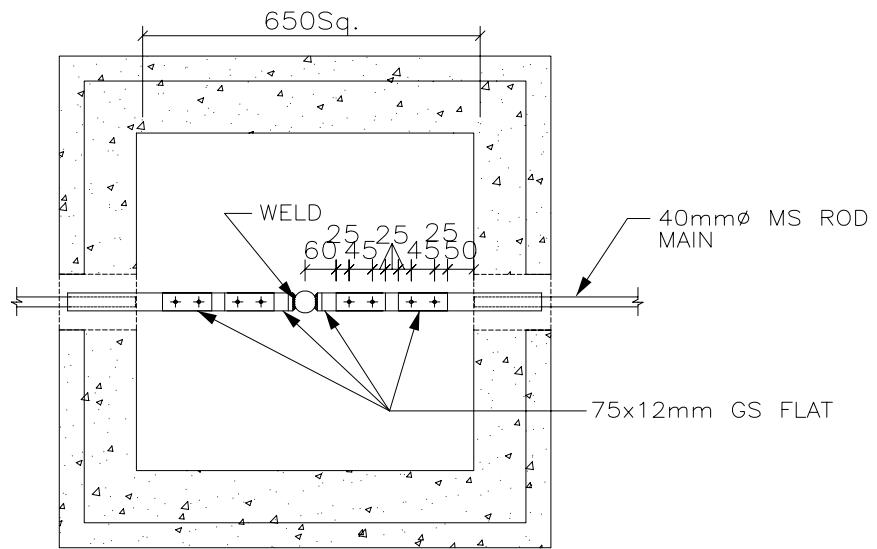
SWITCHGEAR / MCC / CONTROL AND RELAY BOARD/AC KIOSK

DRG. No.

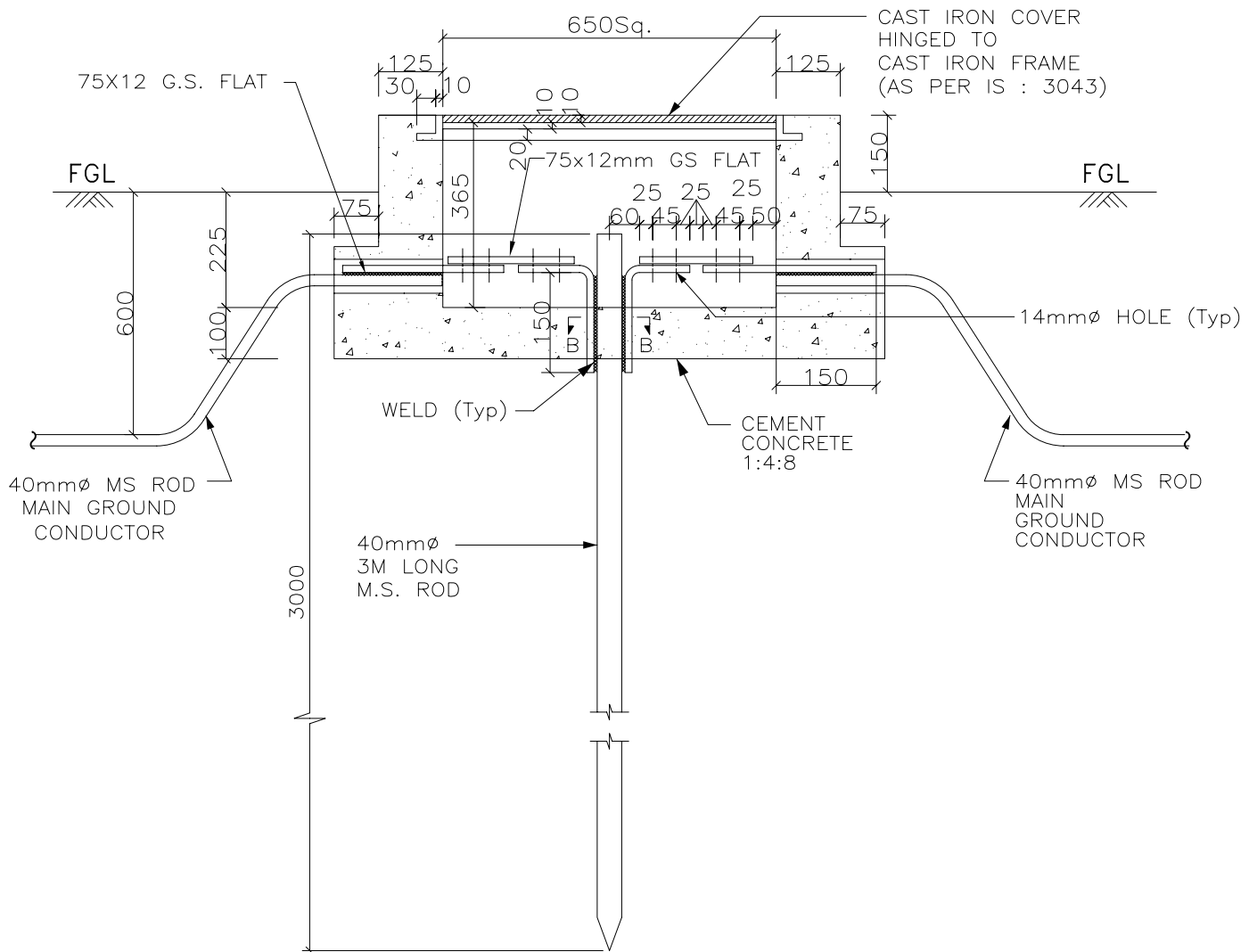
TB-4-345-316-007

REV. 00

SHEET No.
15



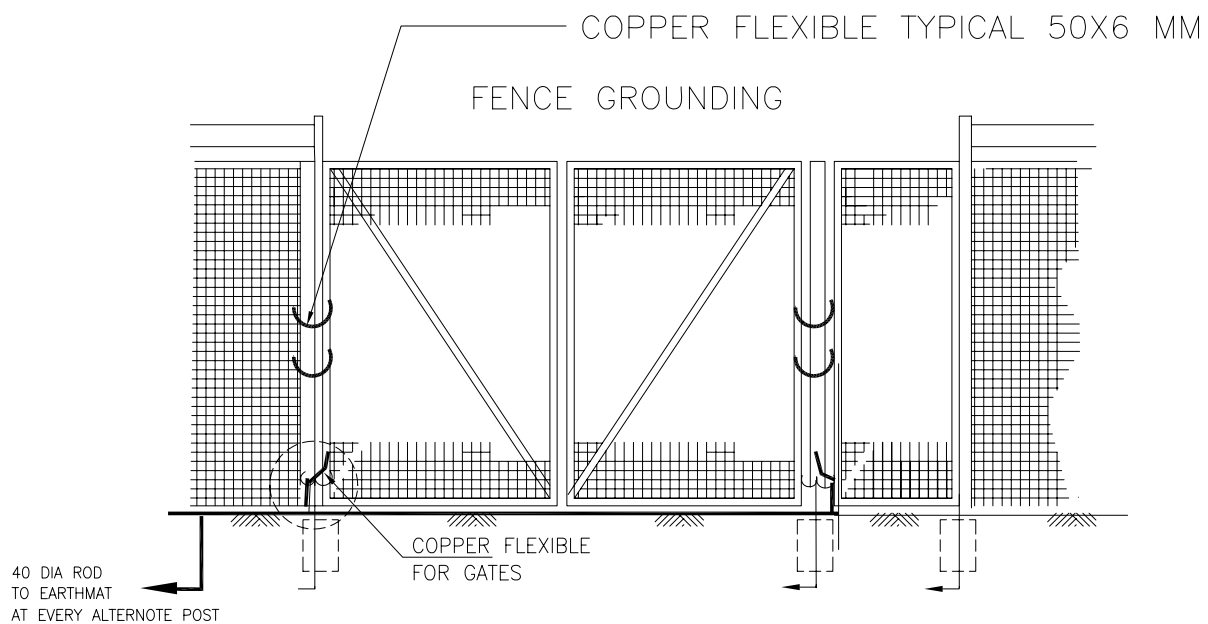
PLAN



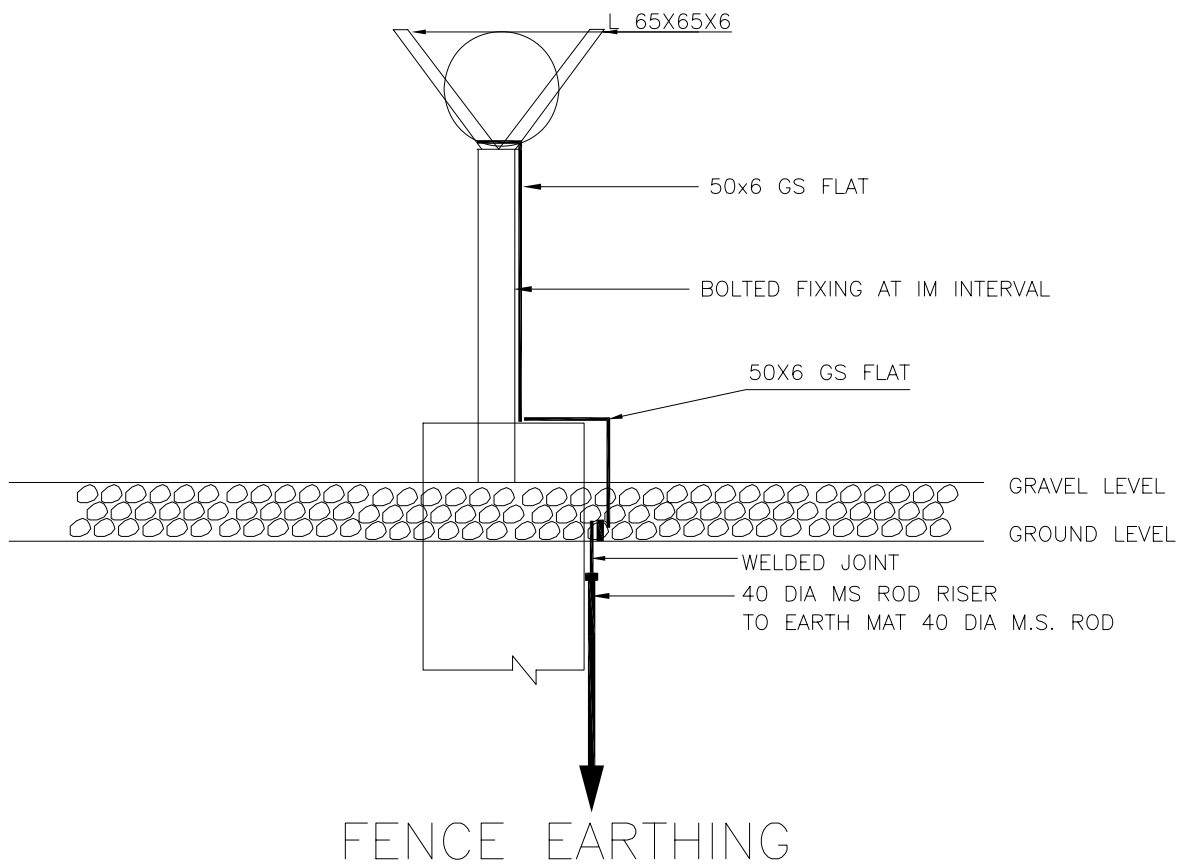
ELEVATION



EQUIPMENT EARTHING DETAILS ROD ELECTRODE WITH TEST LINK FOR LM, TOWER WITH PEAK & LA



EVERY ALTERNOTE FENCE POSTS SHALL BE EARTHED BY 50X6 MM GS FLAT.
50X6 FLAT SHALL BE WELDED TO 65X65X6 ANGLES FORMING V-SHAPE AT THE TOP OF FENCE



EQUIPMENT EARTHING DETAILS FENCE POST

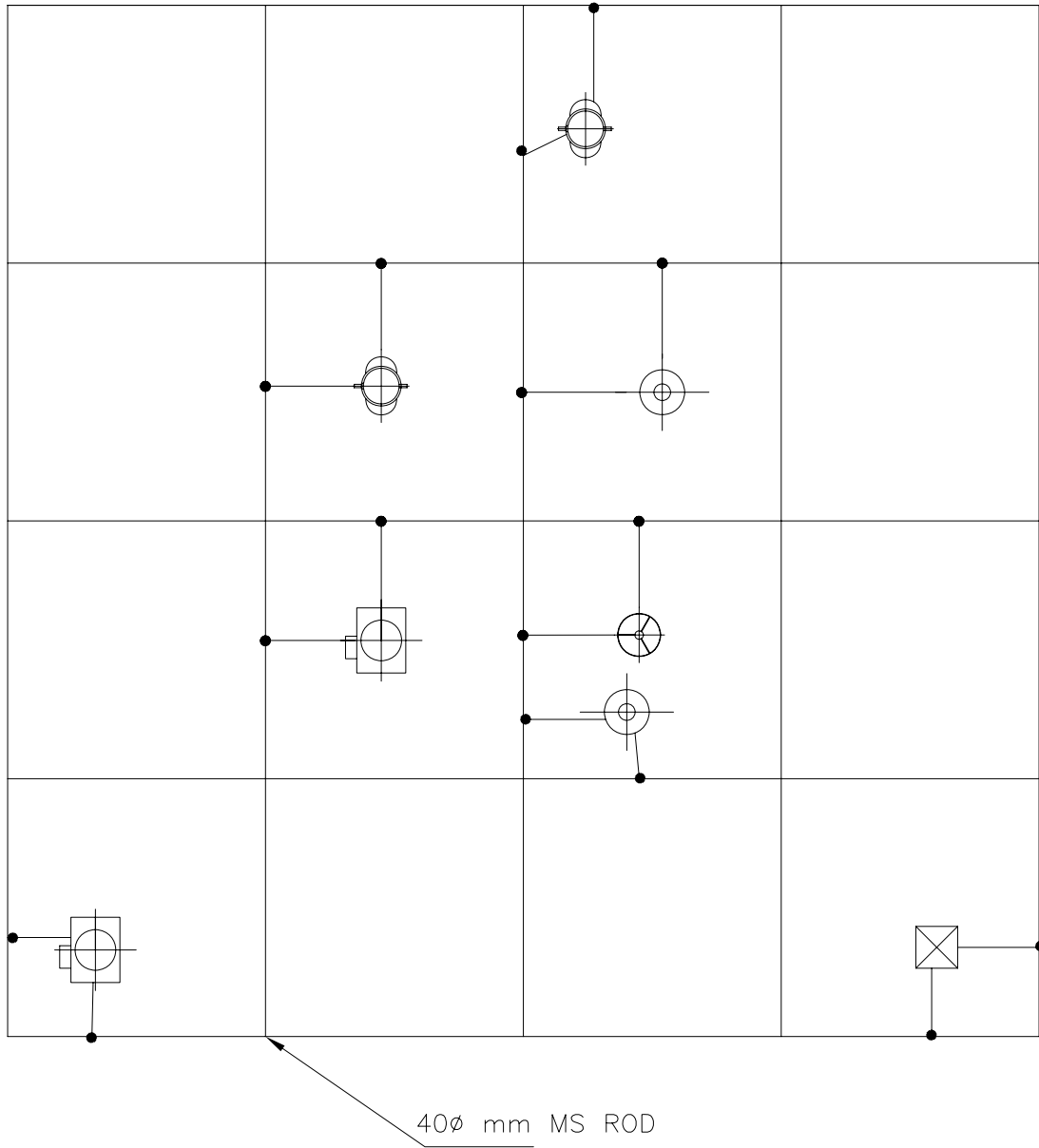
DRG. No.

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REV. 00

SHEET No.
17

MAIN EARTHMAT GRID



• —RISER



EQUIPMENT EARTHING DETAILS

TYPICAL ARRANGEMENT OF EQUIPMENT EARTHING WITH MAIN GRID

COMPU. DRG. REF.

DRG. NO.

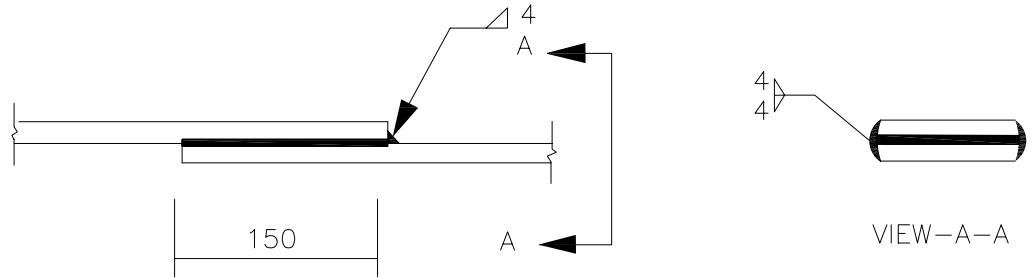
TB-4-345-316-007

REV. 00

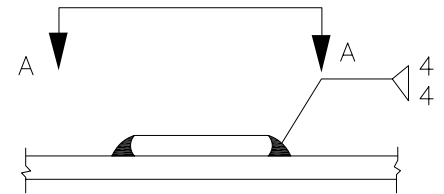
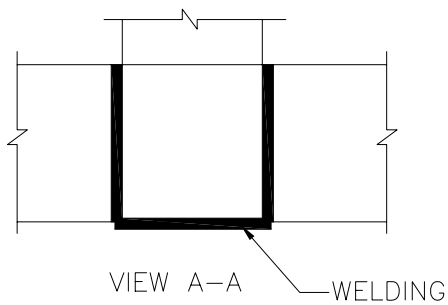
SHEET No.
18

STRIP TO STRIP

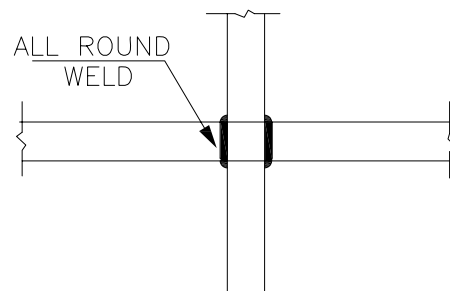
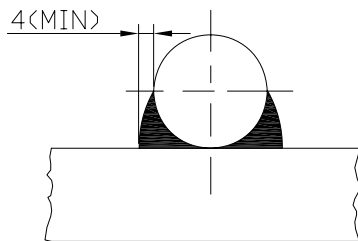
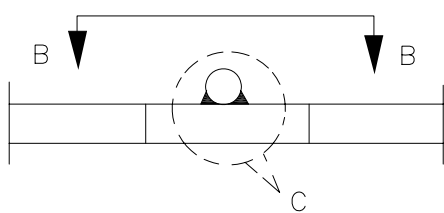
1. STRAIGHT LAP JOINT/RISER



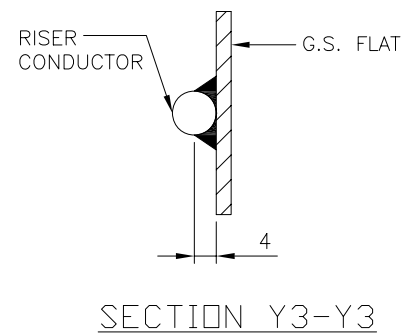
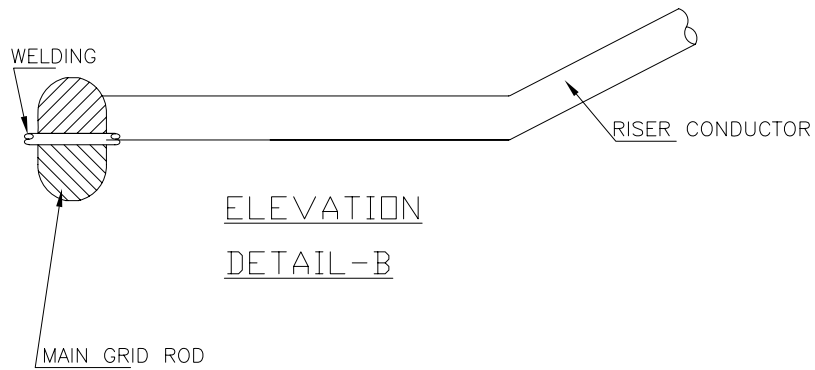
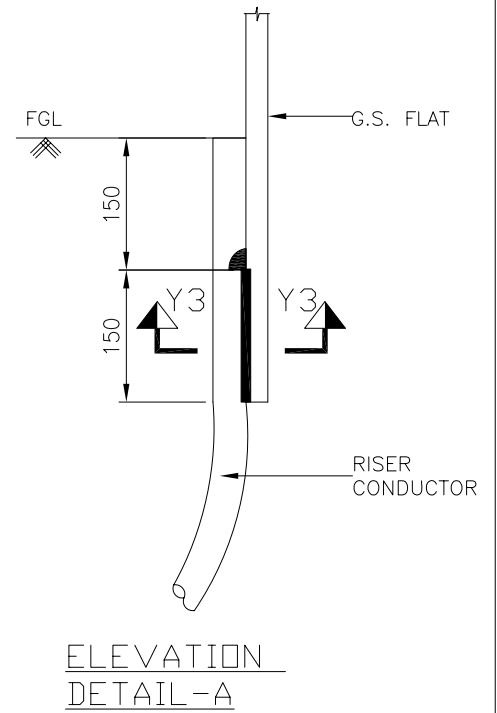
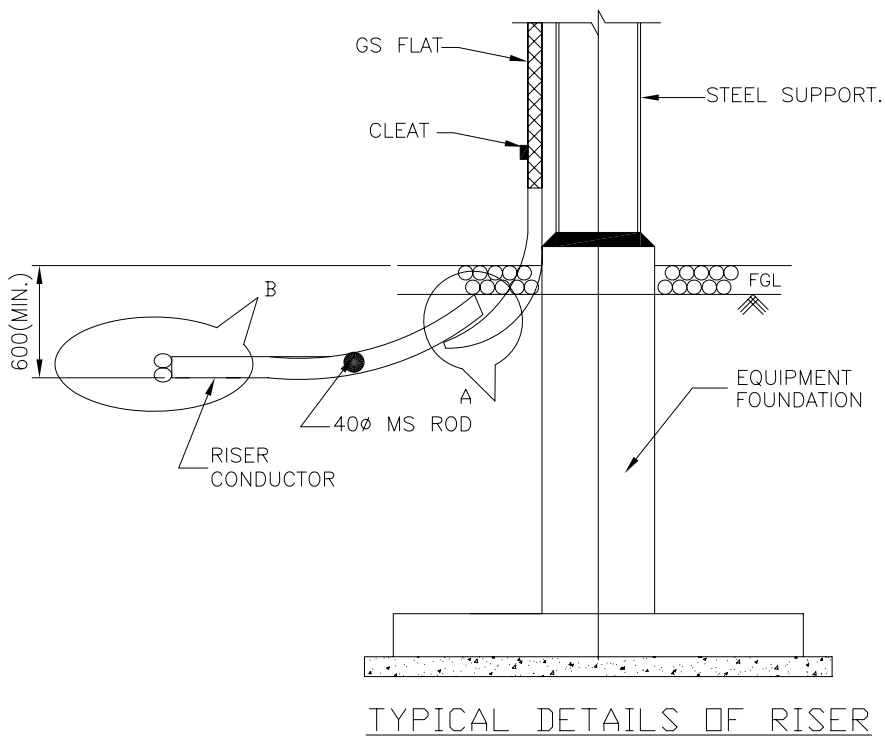
2. CROSS LAP JOINT



RIGHT ANGLED JOINT (ROD TO ROD)



EQUIPMENT EARTHING DETAILS WELDING DETAIL



EQUIPMENT EARTHING DETAILS WELDING DETAILS

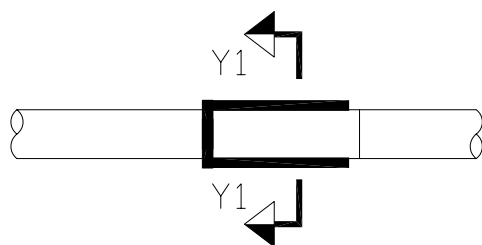
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DRG. No.

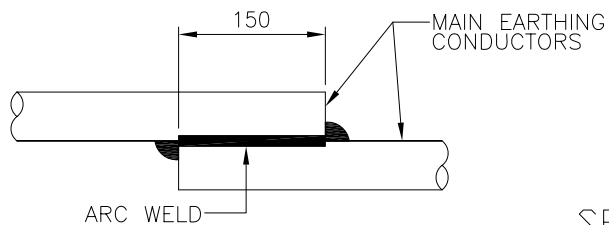
TB-4-345-316-007

REV. 00

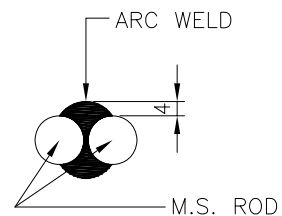
SHEET No.
20



ELEVATION

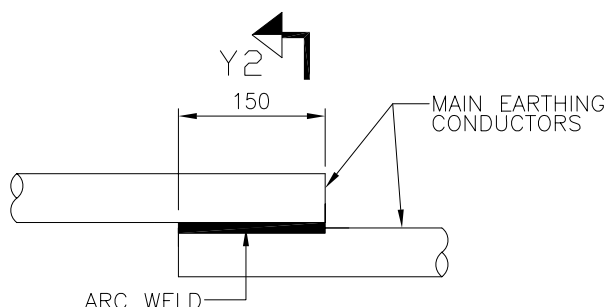


PLAN

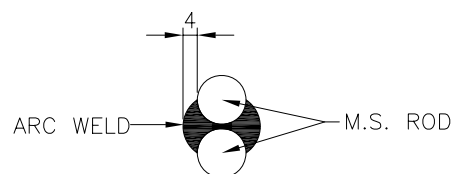


SECTION Y1-Y1

<CONDUCTOR IN HORIZONTAL PLANE>



PLAN



SECTION Y2-Y2

<CONDUCTOR IN VERTICAL PLANE>



EQUIPMENT EARTHING DETAILS WELDING DETAILS

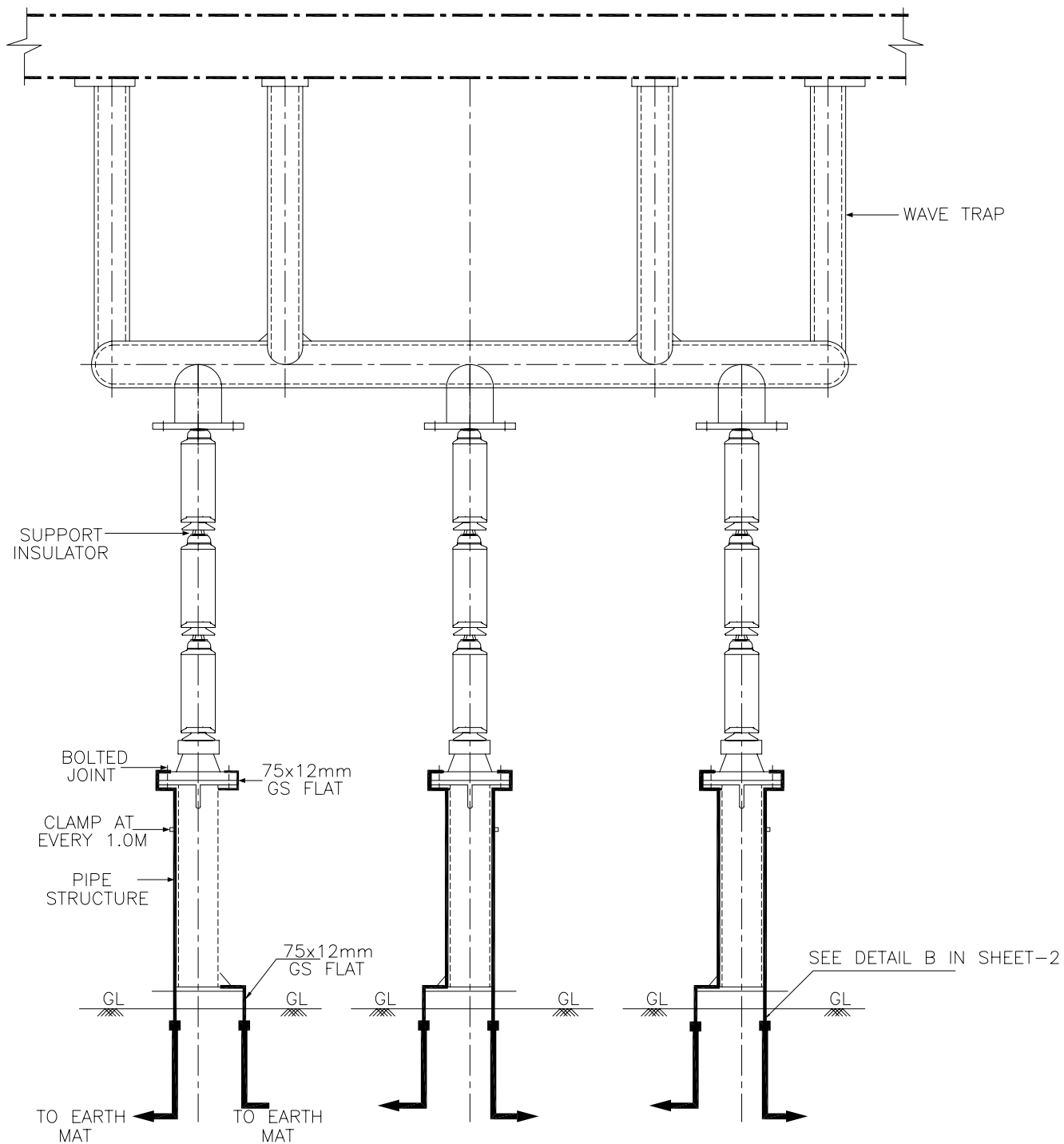
COMPUTERREF.NO.

DRG. No.

TB-4-345-316-007

REV. 00

SHEET No.
21



NO. OF RISER=6NO. PER PHASE



EQUIPMENT EARTHING DETAILS 220kV WAVE TRAP

COMPUTERREF.NO.

DRG. No.

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REV. 00

SHEET No.
22