



**EASTERN RAILWAY**

Office of the  
Principal chief Signal & Telecom Engineer  
Eastern Railway, Fairlie Place  
17, Netaji Subhash Road, Kolkata-700001

SG/224/0/2/1

Date : 28.03.2025


**Sub: Revision of Typical diagram of Earth Electrode (GI Pipe)**

Please find attached herewith revised Typical diagram of Earth electrode (Drg No. SI/TYP/0097 dated 25.03.25). Above drawing to be used in all tenders against SOR item 130301.

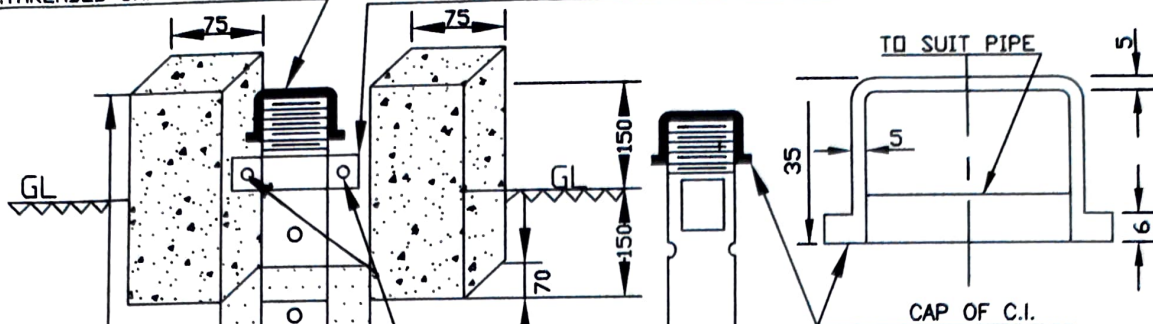
  
(Vikas Kumar)  
Chief Signal Engineer-II

Copy to: 1.CSTE/Project, CSTE/Con, CSTE/HQ, CSE, CCE  
2. Sr.DSTE/HWH, ASN,MLDT & SDAH  
3. Dy.CPM/GSU/SDAH, Principal/STTC/LLH

OK

  
28/03/2025  
P.CSTE

C.I. THREADED CAP. 450 M.S. FLAT 40X40X6MM TO BE WELDED.



# NOTE:

1. ALL DIMENSIONS IN MILLIMETER (MM).
2. NOT TO SCALE.
3. LOWER END OF PIPE TO BE SHAPED AS SHOWN BY SQUEEZING AND IF NECESSARY BY CUTTING OF DEFORMED MATERIAL.
4. EARTH ELECTRODE PIPE TO BE GALVANIZED AFTER DRILLING AND FABRICATION.
5. EARTH ELECTRODE SHOULD BE SUPPLIED WITH GALVANIZED, HEX-HEAD, IRON BOLT TO SPECIFICATION NO. IS: 1821-1961 (8mm. DIA. X 40mm. LENGTH WITH 25 THREADED PORTION), TWO ROUND FLAT WASHER AND A NUT TO SUIT FOR FIXING THE SOCKET TO PIPE CLAMP.
6. OUTER SURFACE OF CEMENT CONCRETE ENCLOSURE ABOVE GROUND LEVEL SHOULD BE PLASTERED WITH 1:4 CEMENT SAND.
7. LAYER OF COMMON SALT AND CHARCOAL & SIEVED SOIL IS AS PER DRAWING.
8. EARTH CONNECTION THROUGH MS FLAT/CABLE SUITABLE CONNECTED TO ELECTRODE WITH NUT AND BOLT.
9. CEMENT CONNECTION ENCLOSURE - SQUARE SHAPED OF SIZE 450MM X 450MM X 300MM AND 75MM THICK.

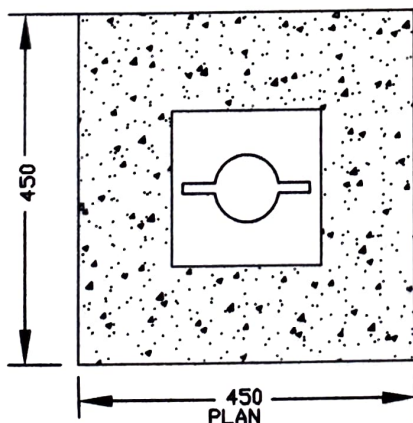
ALTERNATE LAYERS OF CHARCOAL OR COKE AND SALT

BOTTOM TUBE

300 ELEVATION

## SIDE VIEW

MILD STEEL GALVANISED (LIGHT CLASS) IS 1239 (PART-I)-1979 PIPE 3mm. THICK, 50mm. DIA AND PERFORATED (STAGGERED) 5mm. DIA HOLES 2 NOS. PER 305mm. LENGTH.



450 PLAN

NP-83 OF FILE No. SO. 42/2 (PT.-II)

E.R.

APPROVED

CHECKED

DRAWN & CHECKED

TYPICAL DRAWING FOR EARTH ELECTRODE (G.I. PIPE)

DRG. NO. S1/TYP/0097

(B.K. AGRAWAL)

(V. KUMAR)

(R. SINGH)

(S. KUMAR)

(N.K. UPPADHYAY)

(A. DATTA)

PCSTE/ER

CSE/II/ER

DY.CSTE/W/D&D/HQ

ASTE/D&D/HQ

ASTE/HWH/HQ

SSE/W/D