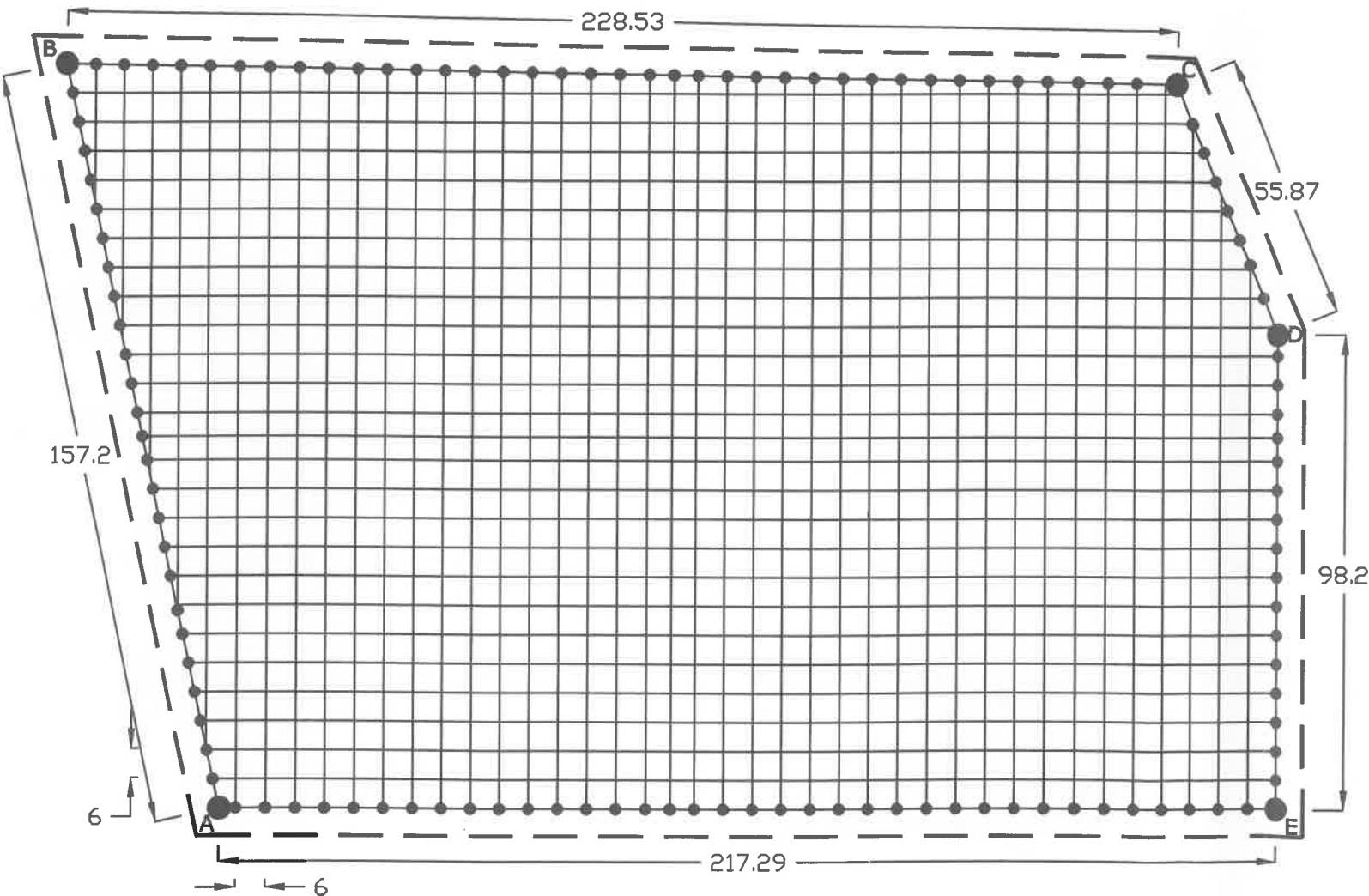


REVISED EARTHMAT DESIGN FOR THE PROPOSED 220/110/11 KV SUB-STATION AT CHADACHAN IN CHADACHAN (T), VIJAYAPURA (D)

IMPORTANT \* NOT TO SCALE \* \* BEFORE EXECUTION PLEASE CAREFULLY GO THROUGH THE KPTCL R&D GUIDELINES \* \* ALL DIMENSIONS ARE IN METER \*

SALIENT DESIGN FEATURES	
AREA COVERED BY EARTHMAT IN SQ MTR	34829
DEPTH OF BURIAL OF EARTHMAT IN MTR	0.9
SPACING BETWEEN MAT CONDUCTOR (M.S. FLAT) IN MTR	6
SIZE OF EARTHMAT CONDUCTOR (M.S.FLAT) IN MM	75 X 12 MM
SPREADING OF GRANITE METAL JELLY OF SIZE 20/25 MM TO A HEIGHT OF 100 MM OVER THE ENTIRE EARTH MAT AREA.	

BILL OF MATERIALS (APPROXIMATE) FOR EARTHMAT FORMATION & FENCING.	
(AS PER THE LAYOUT DRAWING NO. KPTCL/TECH/SS-220/CHDCHN-4-R2 DTD: 17.01.2025)	
1.Excavation,formation,refilling	5498 Cmtr.
2.Material for formation of earthmat as per specification	
a)M.S.Flat 75 X 12 MM	12339 Mtr.
b)MS Round rods 40 mm dia,1.075 Mt. long	132 No.
c)G.I.Flats 75 X 12 MM for earth connection	8284 Mtr.
d)Cast iron pipe electrodes of 100 mm Id,13 mm thick,2.75 mtr.long	99 No.
e)Spreading of Granite metal jelly of size 20/25 mm size to a height of 100 mm	3483 Cmtr.



- NOTE:**
- EARTHMAT DESIGNED BY CONSIDERING BREAKER STC OF 50 KA WITH 0.75 GRID FACTOR FOR 2 X 160 MVA, 220/110/11 KV POWER TRANSFORMERS.
  - 'ABCDEA' INDICATES PROPOSED EARTH MAT OF AREA 34829 SQ MTR WITH 75 x 12 MM FLAT OF 6 MTR SPACING.
  - PROPOSED EARTHMAT SHALL BE EXECUTED DULY OBSERVING R&D GUIDELINES.
  - THIS DRAWING SUPERSEDES EARLIER EARTHMAT DRAWING ISSUED FROM THIS OFFICE VIDE LETTER NO. SEE/R&D/EEE/KCO-116/F-76(24)/2022-23/2034-38 DTD: 10.08.2022.**

- — FENCE SHALL BE AT A MINIMUM DISTANCE OF 1.5 METERS AWAY FROM THE PERIPHERY OF THE STATION EARTHMAT
- 40 MM DIA M.S. ROUND RODS OF LENGTH ONE METER TO BE DRIVEN AS SHOWN
- C.I.PIPE ELECTRODES PROPOSED (MIN 5.5 MTR SPACING SHALL BE MAINTAINED BETWEEN ANY TWO ELECTRODES)

RESEARCH & DEVELOPMENT CENTRE, KPTCL

DRG NO. SEE/R&D/EEE/KCO116/F76(24)/R1 Dtd. 20-02-2025

20/2/25  
AEEE

20/2/25  
EEE

24.2.2025  
SEE