

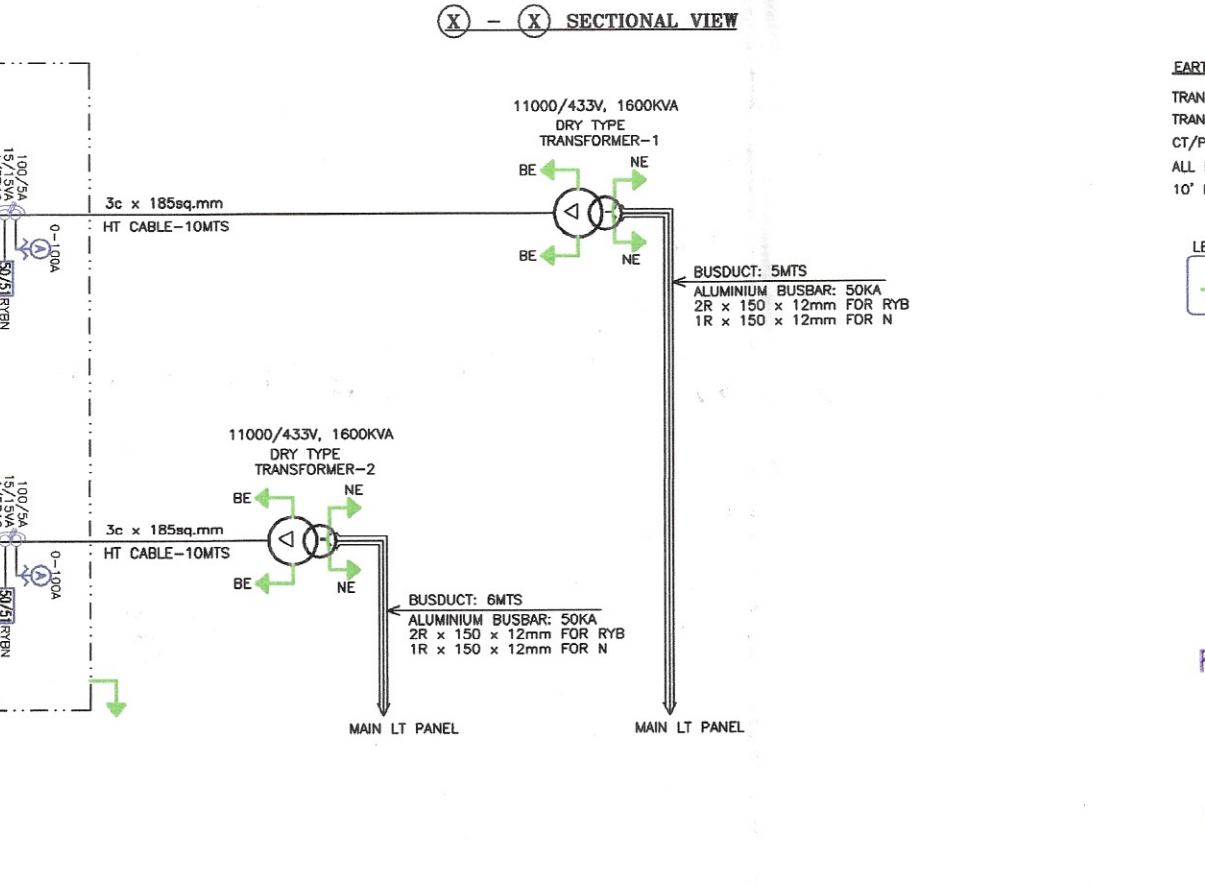
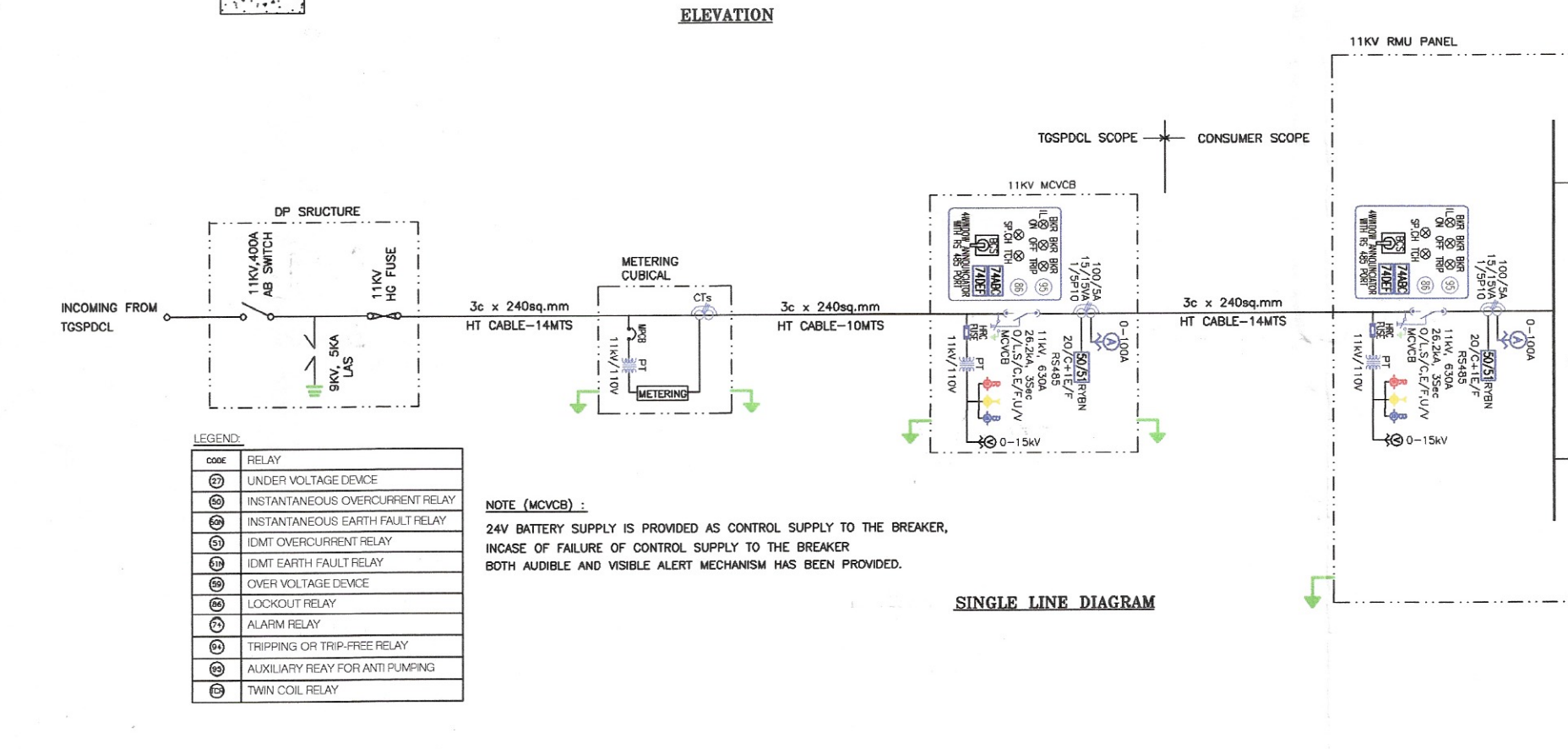
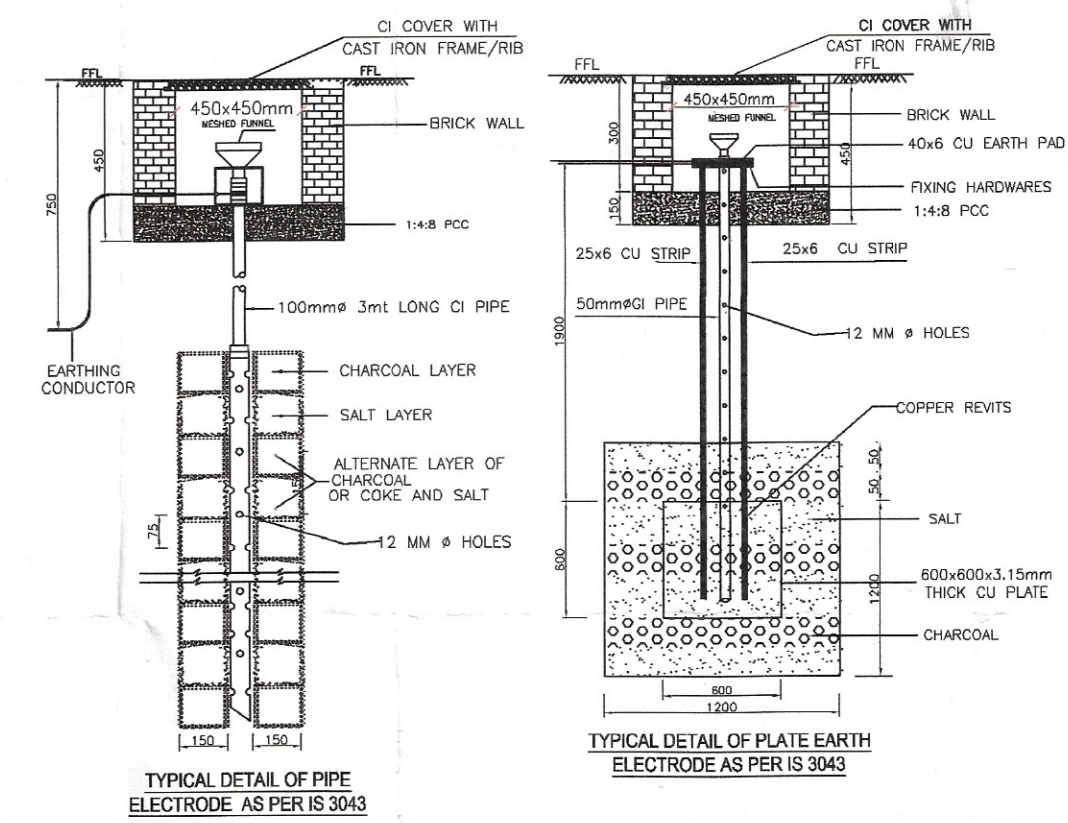
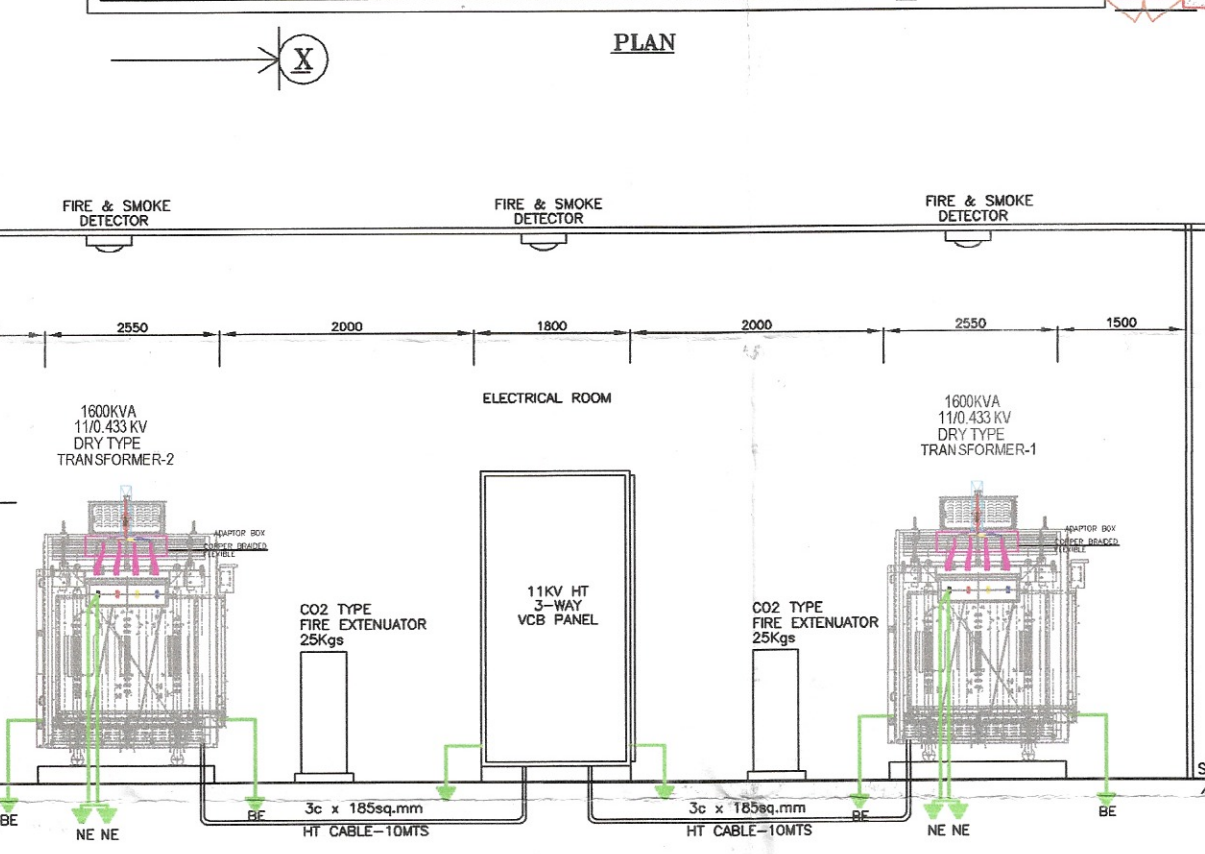
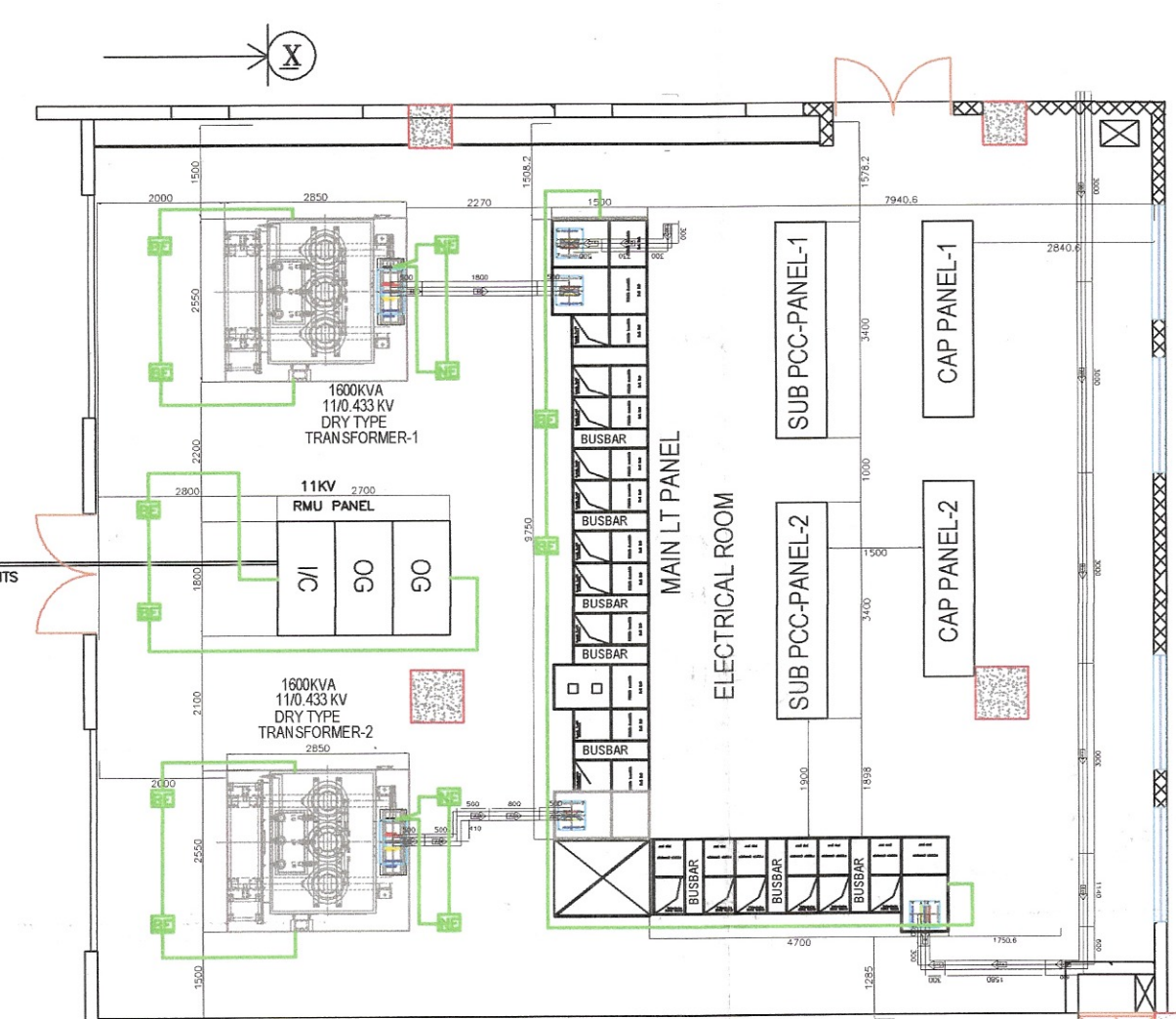
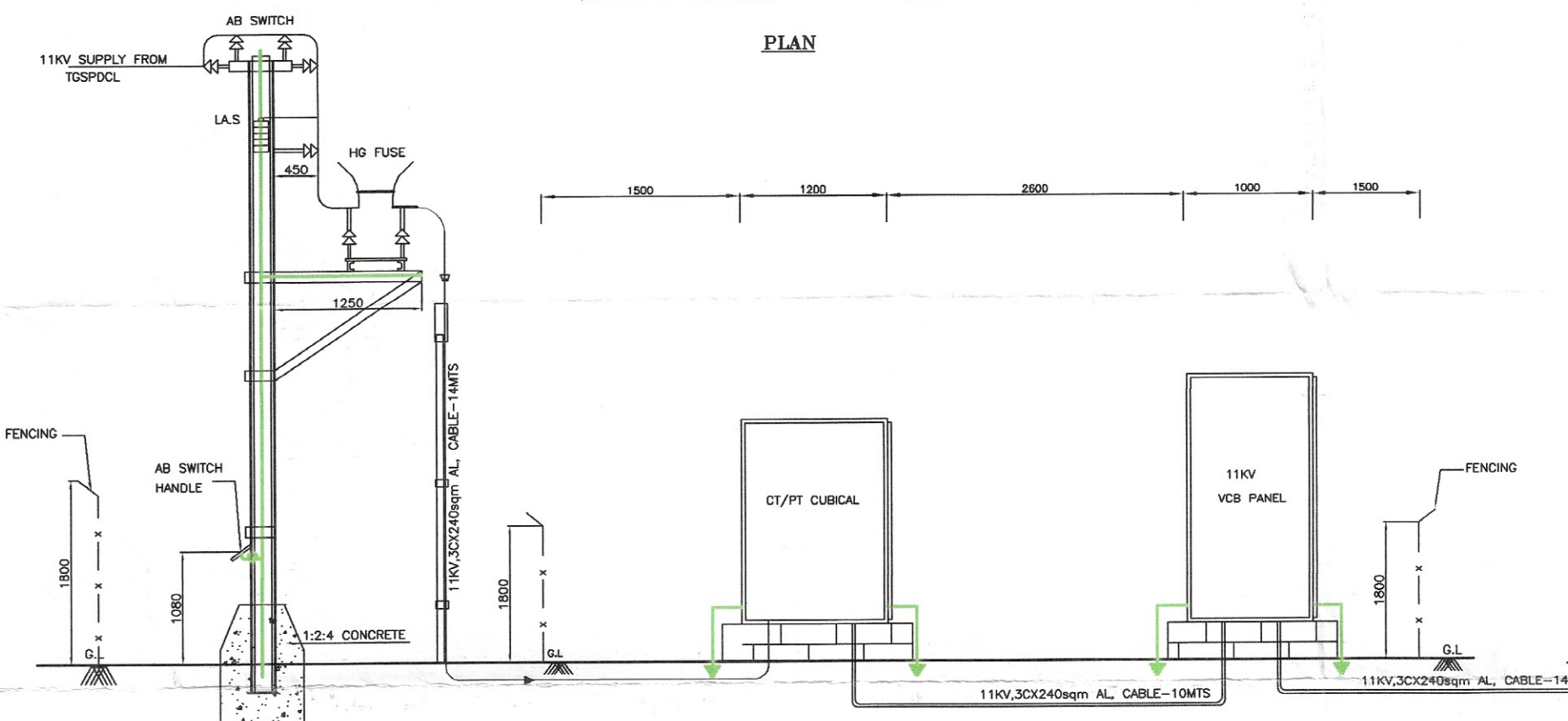
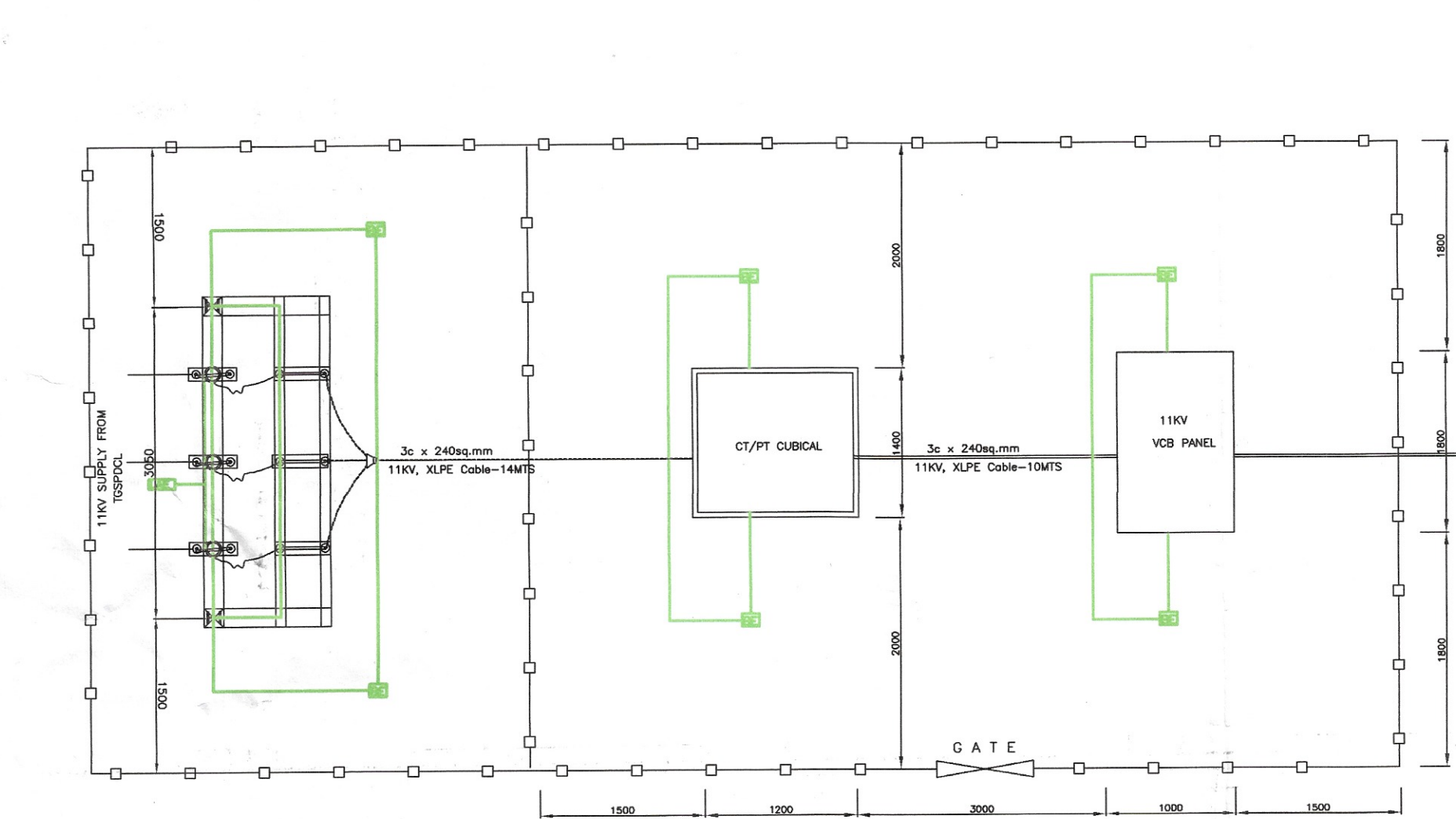
DR. Rajesh
Chief Electrical Inspector

TOTAL CONNECTED LOAD		
S.No.	EQUIPMENT	CAPACITY
I.	1. TRANSFORMER :	1600KVA, 11000/433V.
	2. TRANSFORMER :	1600KVA, 11000/433V.
II.	1. GENERATOR :	1500KVA, 415V
	2. GENERATOR :	1500KVA, 415V
III.	1. MOTORS :	1090.6KW
	2. CAPACITORS :	1000KVAR
IV.	1. LIGHTING LOAD :	24KW
	2. RAW POWER LOAD :	40KW
	3. A/C LOAD :	57.6KW

TRANSFORMER SHORT CIRCUIT FAULT CURRENT CALCULATION :-
SHORT CIRCUIT (I) IN KILO AMPS IS EQUAL TO 100 TIMES OF TRANSFORMER RATING IN KVA
DIVIDED BY MULTIPLICATION OF ROOT 3, TRANSFORMER SECONDARY SIDE VOLTAGE (V) IN VOLT
AND PERCENTAGE IMPEDANCE IN PERCENTAGE.
$$I = \frac{S (KVA) \times 100}{1.732 \times V \times \%Z}$$
$$= \frac{1600 \times 100}{1.732 \times 433 \times 0.5} = \frac{160,000}{372.7} = 429.3$$
$$= 429.3 \times 0.5 = 214.65$$
$$= 214.65 \times 0.5 = 107.325$$
$$= 107.325 \times 0.5 = 53.6625$$
$$= 53.6625 \times 0.5 = 26.83125$$
$$= 26.83125 \times 0.5 = 13.415625$$
$$= 13.415625 \times 0.5 = 6.7078125$$
$$= 6.7078125 \times 0.5 = 3.35390625$$
$$= 3.35390625 \times 0.5 = 1.676953125$$
$$= 1.676953125 \times 0.5 = 0.8384765625$$
$$= 0.8384765625 \times 0.5 = 0.41923828125$$
$$= 0.41923828125 \times 0.5 = 0.209619140625$$
$$= 0.209619140625 \times 0.5 = 0.1048095703125$$
$$= 0.1048095703125 \times 0.5 = 0.05240478515625$$
$$= 0.05240478515625 \times 0.5 = 0.026202392578125$$
$$= 0.026202392578125 \times 0.5 = 0.0131011962890625$$
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$$= 0.00655059814453125 \times 0.5 = 0.003275299072265625$$
$$= 0.003275299072265625 \times 0.5 = 0.0016376495361328125$$
$$= 0.0016376495361328125 \times 0.5 = 0.00081882476806640625$$
$$= 0.00081882476806640625 \times 0.5 = 0.000409412384033203125$$
$$= 0.000409412384033203125 \times 0.5 = 0.0002047061920166015625$$
$$= 0.0002047061920166015625 \times 0.5 = 0.00010235309600830078125$$
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$$= 7.99633562564849853515625 \times 10^{-7} \times 0.5 = 3.998167812824249267578125 \times 10^{-7}$$
$$= 3.998167812824249267578125 \times 10^{-7} \times 0.5 = 1.9990839064121246337890625 \times 10^{-7}$$
$$= 1.9990839064121246337890625 \times 10^{-7} \times 0.5 = 9.9954195320606231689453125 \times 10^{-8}$$
$$= 9.9954195320606231689453125 \times 10^{-8} \times 0.5 = 4.99770976603031158447265625 \times 10^{-8}$$
$$= 4.99770976603031158447265625 \times 10^{-8} \times 0.5 = 2.498854883015155792236328125 \times 10^{-8}$$
$$= 2.498854883015155792236328125 \times 10^{-8} \times 0.5 = 1.2494274415075778961181640625 \times 10^{-8}$$
$$= 1.2494274415075778961181640625 \times 10^{-8} \times 0.5 = 6.2471372075378894805908203125 \times 10^{-9}$$
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$$= 8.46644966528450920158137518231937820996768806480758939869$$

APPROVED
Subject to the conditions laid down in
this office letter No. CEIG/HT/EHT/

Dt. 23/07/2024
Chief Electrical Inspector to Govt. of Telangana



EARTHING DETAILS :
TRANSFORMER BODY DOUBLE EARTHED WITH 100 x 12mm GI STRIP
TRANSFORMER NEUTRAL DOUBLE EARTHED WITH 100 x 10mm Cu STRIP
CT/PT BODY, HT VCB BODY DOUBLE EARTHED WITH 100 x 12mm GI STRIP
ALL EARTH ELECTRODES ARE 75mm DIA x 2.5Mtrs. LENGTH GI PIPE
10' DISTANCE MAINTAINED BETWEEN EARTH ELECTRODES

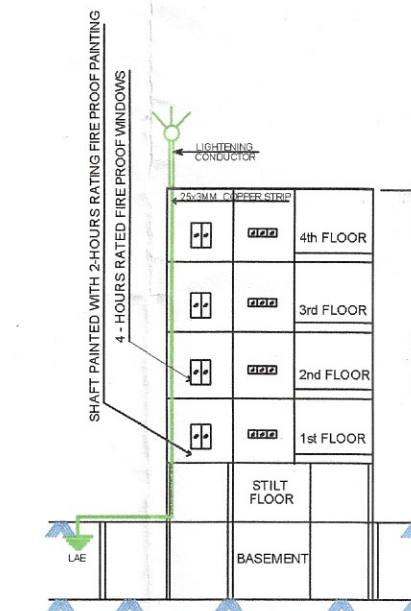
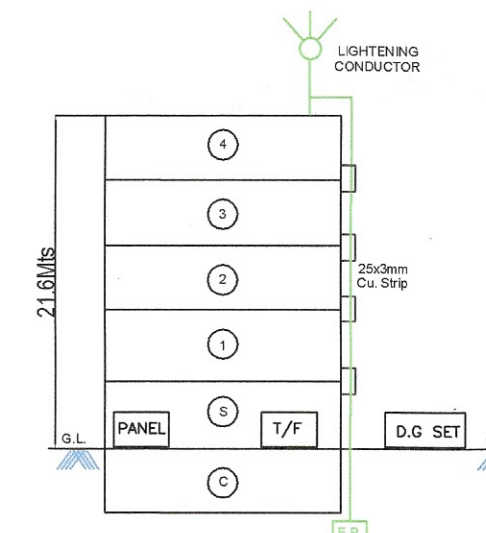
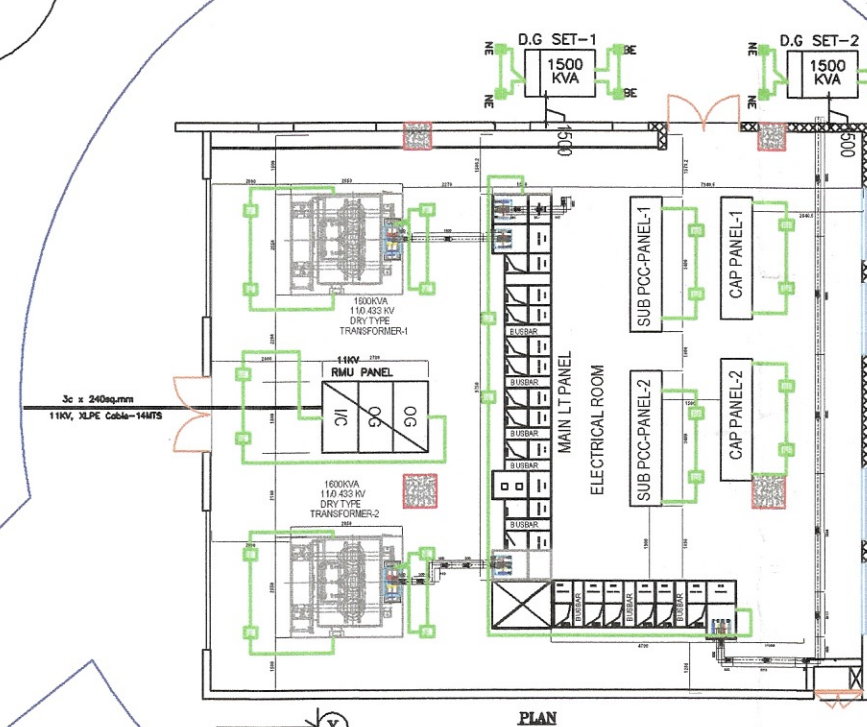
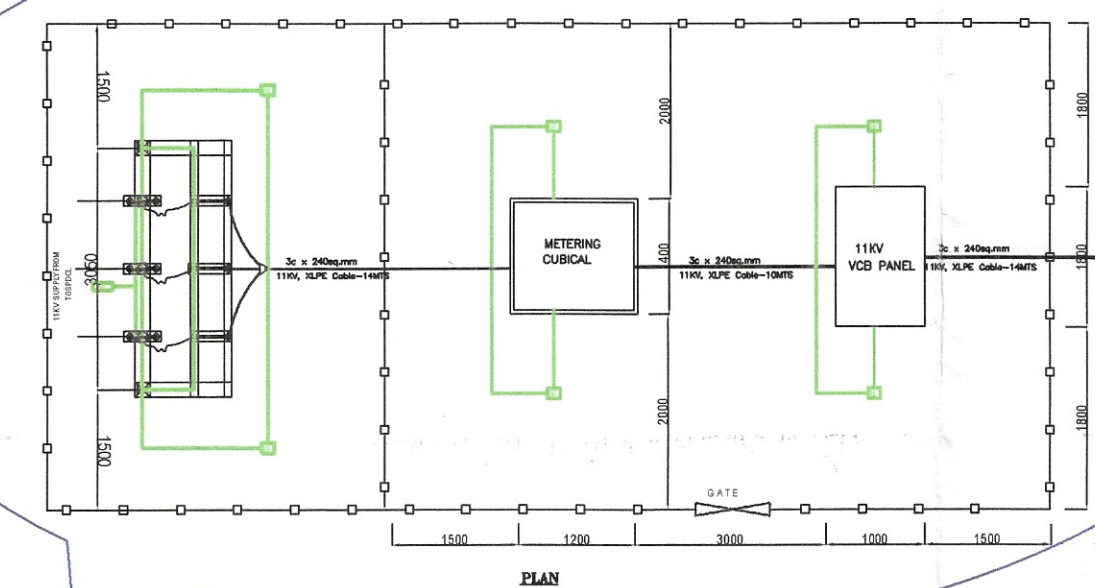
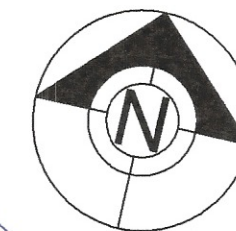
LEGEND:-
: EQUIPMENT EARTHING

For RAJESH TECHNICAL SERVICES
LIC NO. 4870
VALID FROM 04-04-2023 to 03-04-2026

CLIENT: M/S. CRESCENTIA LABS PVT. LTD.				
P.NO: 15B, SY.NO: 230 to 240, TURKAPALLY (V), SHAMEERPET (M), MEDCHAL DISTRICT.				
TITLE: 11KV SWITCH YARD				
DEALT	NTS	DRAWN	RAJESH	REV:-0
SCALE	DATE	15.07.2024		
DRG.No.	SHEET.No.	1 OF 1		

APPROVED
Subject to the conditions laid down in
this office letter No. CEIG/HT/HT/

DI.....
25.07.2024
for Chief Electrical Inspector to Govt. of Telangana



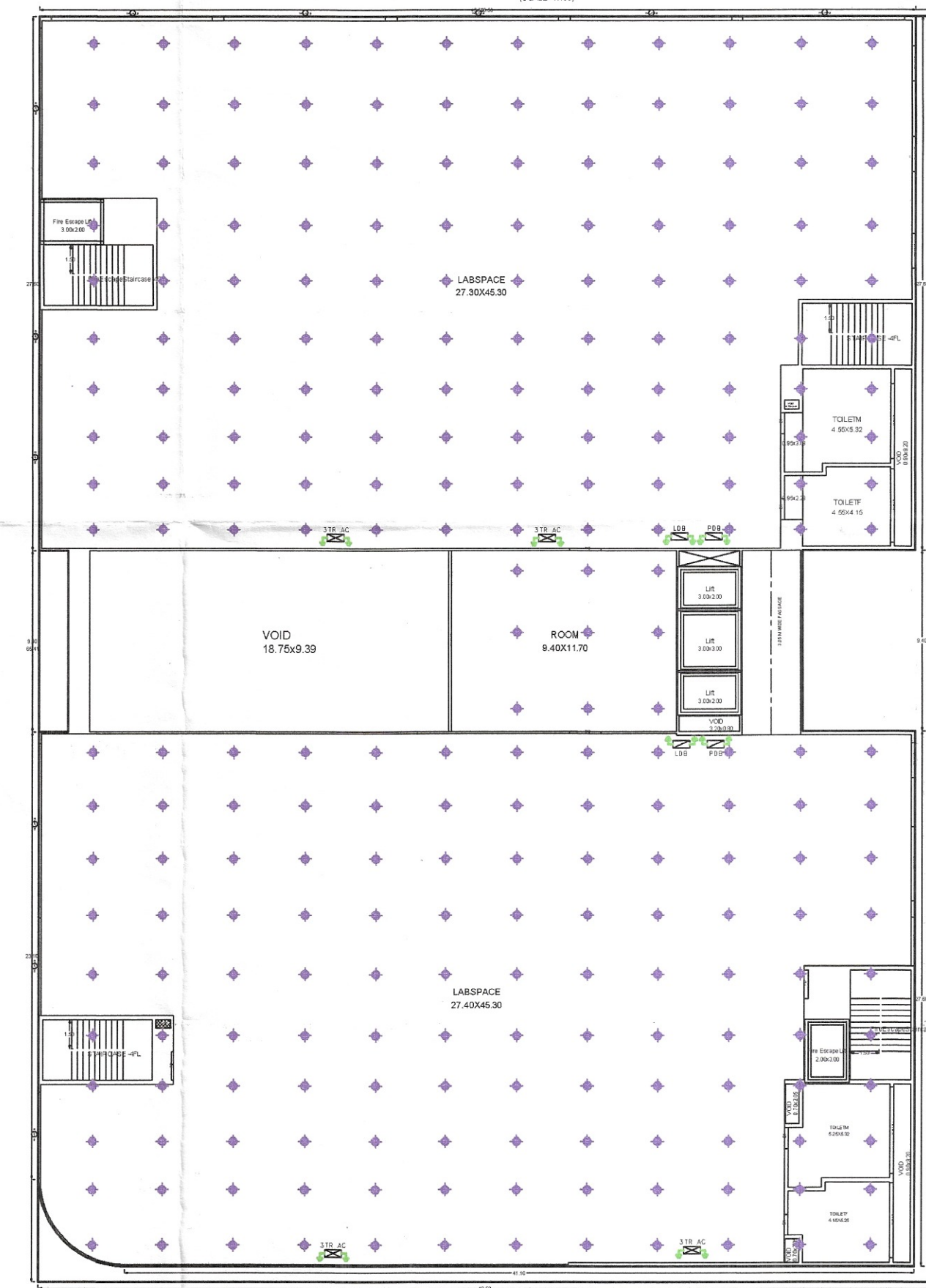
EXISTING 6.0 M WIDE PASSAGE

ROAD

9.0 M WIDTH



BASEMENT FLOOR PLAN



TYPICAL FLOOR PLAN
(FIRST, SECOND, THIRD, FOURTH FLOOR)

- NOTES :
1. ALL SWITCH BOARDS AT 4'-6" FROM F. F. L.
 2. ALL BRACKET LIGHTS AT 7'-9" FROM F. F. L.
 3. LIGHTNING CONDUCTOR IS ERRECTED AND EARTHED THROUGH 25sqmm Cu. FLAT TO SEPARATE EARTH STATION.
 4. ALL TOILET BRACKET LIGHTS AT 4'-6" FROM F. F. L.
 5. ALL 15A & 5A PLUGS THIRD PH. EARTHED WITH 4sqmm WIRE AND 2.5sqmm WIRE
 6. EARTH BUS RUN THROUGH THE BUILDING 40x6mm GI FLAT AND MOTOR UP TO 10 HP DOUBLE EARTHED WITH NO.6 & 8 SWG GI WIRE.
 7. ALL PANELS, MOTORS ARE GROUND DOUBLE EARTH CONNECTION WITH EARTH.
 8. BUS BAR RUN THROUGH THE BUILDING 40 x 6mm GI FLAT AND MOTOR UP TO 10HP DOUBLE EARTHED WITH NO.6 & 8 SWG GI WIRE
 9. EARTH ELECTRODE 75mm DIA x 2.5mtr inra Length
 10. PANEL EARTHING 25 x 3mm COPPER BUS
 11. 25 x 3mm COPPER BUS
 12. ALL ELECTRICAL WIRES ARE FR GRADE
 13. ALL 5A & 15A SOCKETS ARE SHUTTER TYPE

- LEGEND :
- 1x20W LED FITTING
 - 1x40W TUBE LIGHT FITTING
 - CEILING FAN
 - LIGHT PLUG
 - POWER PLUG
 - EXHAUST FAN
 - CFL LAMP
 - AC UNIT
 - D.B./PANEL

EARTHING DETAILS :

UP TO 7.5HP DOUBLE EARTHED WITH 8SWG GI WIRE
7.5HP TO 25HP DOUBLE EARTHED WITH 25 x 3mm GI STRIP
25HP TO 50HP DOUBLE EARTHED WITH 25 x 6mm GI STRIP
ABOVE 50HP DOUBLE EARTHED WITH 40 x 6mm GI STRIP
TRANSFORMER BODY DOUBLE EARTHED WITH 100 x 12mm GI STRIP
TRANSFORMER NEUTRAL DOUBLE EARTHED WITH 100 x 10mm Cu. STRIP
D.G. SET BODY DOUBLE EARTHED WITH 100 x 12mm GI STRIP
D.G. SET NEUTRAL DOUBLE EARTHED WITH 100 x 10mm Cu. STRIP
ALL EARTH ELECTRODES ARE 75mm DIA x 2.5mtr LENGTH GI PIPE
10' DISTANCE MAINTAINED BETWEEN EARTH ELECTRODES
5' DISTANCE MAINTAINED FROM WALL TO EARTH ELECTRODES

For RAJESH TECHNICAL SERVICES
LIC NO. A-1-1247
4870
VALID FROM 04-04-2023 to 03-04-2026

Rahitvarma

CLIENT:
M/S. CRESCENTIA LABS PVT. LTD.
P.NO: 15B, SY.NO: 230 TO 240,
TURKAPALLY (V), SHAMEERPET (M), MEDCHAL DISTRICT.

TITLE: EQUIPMENT LAYOUT

DEALT	NTS	DRAWN	RAJESH	REV.-0
SCALE	DATE	15.07.2024		
DRG.No.	SHEET.No.	1 OF 1		