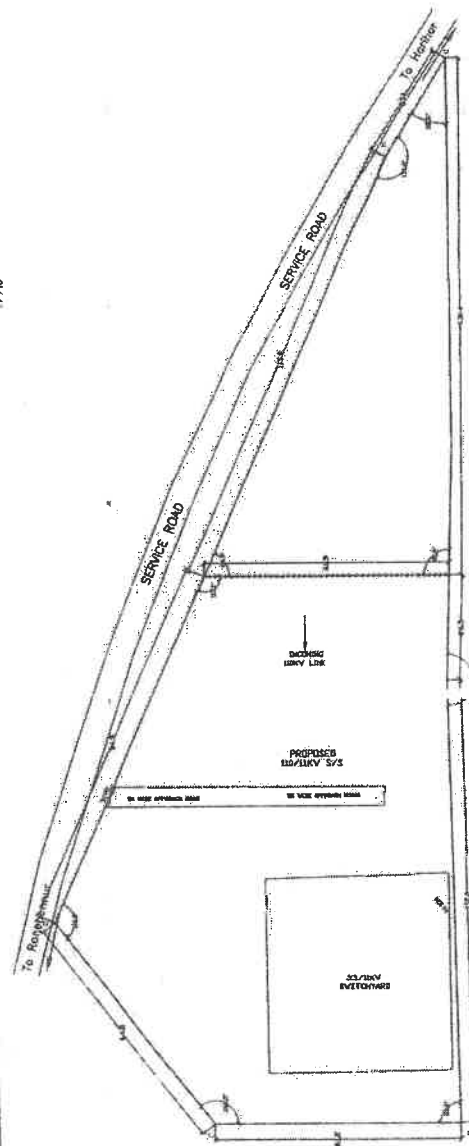
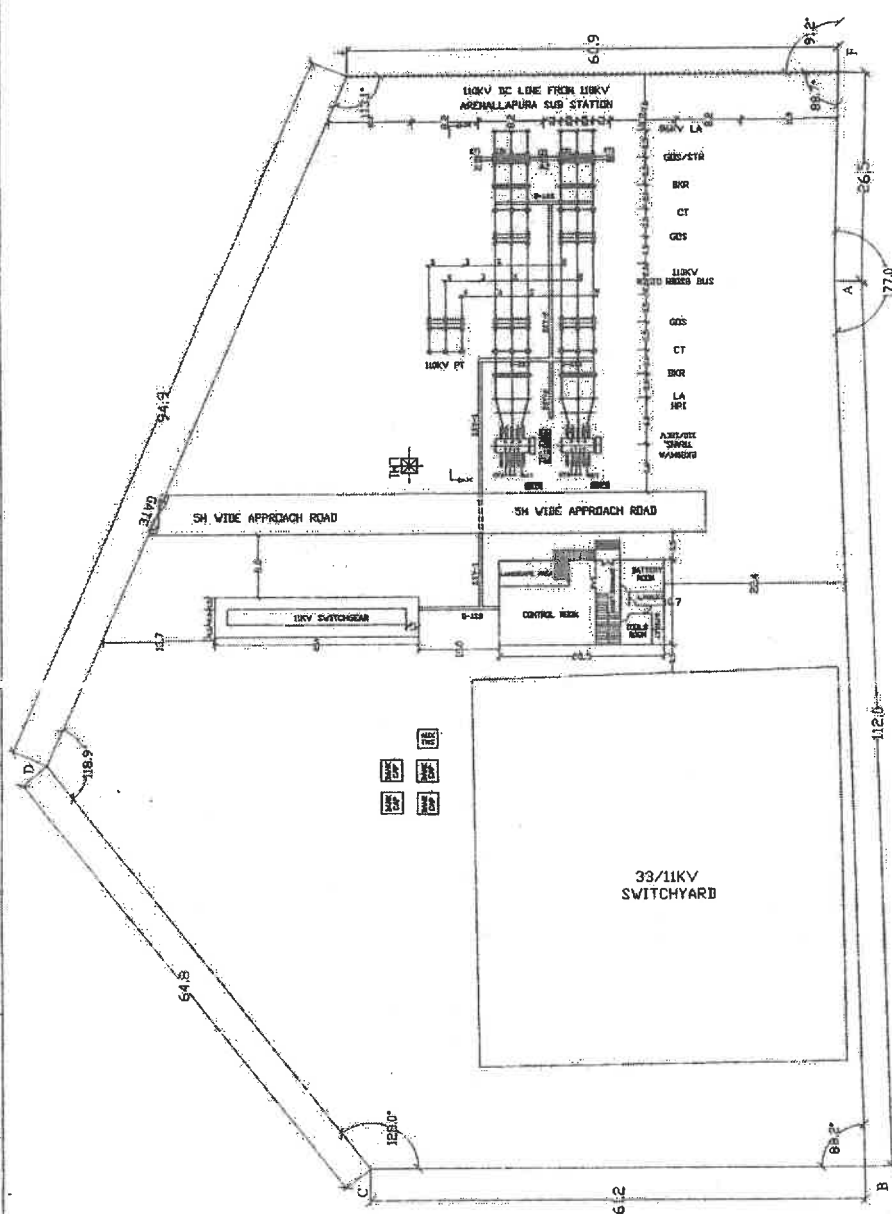
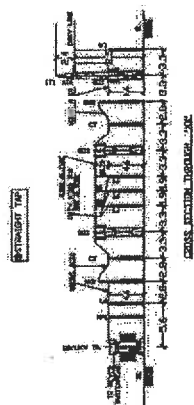


1. ALL DIMENSIONS ARE IN METERS.
2. RUCKY SWITCHBOARD LEVEL, WITH BOUNDARY 'ABCD' SHALL BE FIXED WITH RESPECT TO THE EXISTING ROAD LEVEL. THE CUTTING & FILLING QUANTITIES SHALL BE FINALISED AS PER SITE REQUIREMENT.
3. LOCATION OF CAPACITOR BANK, LM AND AUX. TRANSFORMERS ARE INDICATIVE ONLY. HOWEVER EXACT LOCATION AND QUANTITY OF LM MAY BE FINALISED AT THE TIME OF ENGINEERING Dwg APPROVAL.



SITE PLAN



KARNATAKA POWER TRANSMISSION CORPORATION LIMITED

LAY OUT DIAGRAM FOR THE PROPOSED 110/11KV SUB STATION
AT CHALAGERI IN RANEENUR TALUK, HAVERI DISTRICT.

| | | | | | | |
|-------|-------|-------------------|------|------------|-------------|-----------------|
| DRGNO | APTEL | TECH/SS-110/977-A | DATE | 10.05.2008 | SCALE - MTS | SHEET 1 OF 4 |
| AE | AE | AE | EE | SA TECH | CEE (P&C) | |
| DRN | CHD | SUI | REC | APPROVED | | |

NOTES:-

- ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
- RIGID BUS IS PROPOSED FOR 110KV MAIN BUS.
- a) 110KV SWITCHYARD WITH BOUNDARY 'ABODEFA' SHALL BE FIXED WITH RESPECT TO THE EXISTING ROAD LEVEL. THE CUTTING & FILLING QUANTITIES SHALL BE FINALISED BASED ON RL FIXED.
- b) SWITCH YARD FENCING SHALL BE PROVIDED ALONG THE BOUNDARY LINE "EF".
- c) SECURITY COMPOUND WALL SHALL BE PROVIDED ALONG THE BOUNDARY LINE "FABODE".
- d) PERIPHERY COMPOUND WALL SHALL BE PROVIDED ALONG THE BOUNDARY LINE "FGHE".
- e) RETAINING/TOE WALL MAY BE PROVIDED WHERE EVER NECESSARY ALONG THE BOUNDARY LINE.
- f) 5M WIDE APPROACH ROAD SHALL BE PROVIDED IN THE STATION SITE INCLUDING THAT IN THE SWITCH YARD AS INDICATED IN THE SITE PLAN & DETAILED LAYOUT PLAN.
- FOR DETAILS OF BOUNDARY DIMENSIONS & CO ORDINATES, REFER DRG. TOPOGRAPHICAL SURVEY WITH BLOCK LEVELS.
- CONTROL ROOM OF SIZE 20.5X10.7M OF STANDARD CONTROL ROOM BUILDING IS PROPOSED FOR THIS STATION.
- TO FIX EXACT LOCATION OF STATION YARD, FIRST FIX THE 110KV STRUCTURE LINE A1-A2 WITH CO ORDINATES OF POINTS GIVEN BELOW.

| POINTS | S-N | W-E |
|--------|-------|-------|
| A1 | 47.71 | 27.80 |
| A2 | 39.51 | 27.80 |

- FOR BILL OF MATERIALS/EQUIPMENTS/STATION STRUCTURES & MOUNTING STRUCTURES REFER ANNEXURE- SCHEDULE OF REQUIREMENTS.
- ROUTE OF PROPOSED CABLE DUCT FOR SSV -1 & SSV-2 TYPES ARE INDICATED IN THE LAYOUT PLAN. FROM MAIN CABLE DUCTS i.e. SSV-1 & SSV-2 TYPE TO THE RESPECTIVE EQUIPMENTS 'SSV-3' TYPE HUME PIPE SHALL BE PROVIDED FOR THE COMBINATION OF CONTROL & POWER CABLE 'SSV-4' TYPE SHALL BE PROVIDED & FOR ONLY CONTROL CABLE/ POWER CABLE. REFER TYPES OF CABLE DUCT DRAWING FOR OTHER DETAILS.
- SPACE IS EARMARKED ON EITHER SIDE OF 110KV BAYS FOR FUTURE PROVISION, DEPENDING UPON THE ORIENTATION OF 110KV LINES. THE BAYS CAN BE EXTENDED ON ANY SIDE.
- CABLE DUCT WHICH CROSSES 5M WIDE ROAD SHALL BE SUITABLY DESIGNED TO TAKE CARE OF THE LOAD OF THE VEHICLE WITH TRANSFORMER.
- a) APPROVED IN 91st TCC MEETING- DATED: 09.02.2024.
- b) MD MEETING PROCEEDINGS-DATED:-20.02.2025.

OTHER REFERENCE DRAWINGS-

- SITE PLAN WITH BLOCK LEVEL.
- CROSS SECTION DRAWING
- SINGLE LINE DIAGRAM.

| SL.NO. | PARTICULARS | 110KV RIGID BUS |
|--------|--|-----------------|
| 1. | BASIC INSULATION LEVEL (KV) | 550 |
| 2. | MINIMUM CLEARANCES | 2.0 M |
| | a) BETWEEN PHASES | 2.1 M |
| | b) BETWEEN PHASE TO EARTH (CENTRE LINE OF TOWER) | 3.5 M |
| | c) SECTIONAL CLEARANCE | 6.35 M |
| 3. | a) HEIGHT OF CROSS BUS CONDUCTOR | 8.2 M |
| | b) BAY WIDTH | 4.6 M |
| | c) HEIGHT OF MAIN BUS | 6.35 M |
| 4. | HEIGHT OF CENTRE OF TERMINAL PAD PERTAINING TO VARIOUS EQUIPMENTS | 4.6 M |
| | a) ISOLATORS ADJACENT TO MAIN BUS | 75 MM DIA |
| | b) OTHER ISOLATORS AND EQUIPMENTS | 63 MM DIA |
| 5. | MATERIALS OF THE BUS | MOOSE |
| | a) MAIN ALUMINIUM TUBE BS 1600 SCH.40 | |
| | b) MAIN STRUNG BUS | |
| | c) CROSS BUS | |
| | i) ALUMINIUM TUBE BS.1600 SCH.40 | |
| | ii) ACSR CONDUCTOR | |
| 6. | POST INSULATORS USED FOR BUS SUPPORTS AS PER IS 5350 PART II & III | |
| | a) NO.OF UNITS/STACK | 1 |
| | b) VOLTAGE CLASS | 110KV |
| | c) HEIGHT OF INSULATOR STACK (MM) | 1220 |
| | d) PITCH DIA HOLES AT TOP (MM) | 127 |
| | e) NO. OF FIXING BOLTS | 4 |
| 7. | a) 11KV, 90KN DISC INSULATORS | 8 |
| | i) TENSION STRING | |
| | b) 11KV, 90KN DISC INSULATORS | |
| | i) SUSPENSION STRING | |



KARNATAKA POWER TRANSMISSION CORPORATION LIMITED

TECHNICAL PARTICULARS OF LAYOUT PLAN FOR THE PROPOSED 110/11KV SUB STATION AT CHALAGERI IN RAMIBENNUR TALUK, HAVERI DISTRICT.

| DRG.NO. | KPTCL/TECH/SS-110/977 | DATE:14.05.2024 | SCALE:- HTS | SHEET 2 OF 4 |
|---------|-----------------------|-----------------|-------------|--------------|
| A.E | A.E.E | E.E | S.E(TECH) | CEE (P&C) |
| DRN | CHD | SUB | REC | APPROVED |