

NOTES: -

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- a) ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
 - a. RIGID BUS IS PROPOSED FOR 110KV MAIN BUS.
 - a) 110KV SWITCHYARD WITH BOUNDARY 'ABCD' SHALL BE FIXED WITH RESPECT TO THE EXISTING ROAD LEVEL. THE CUTTING & FILLING QUANTITIES SHALL BE FINALISED BASED ON RL FIXED.
 - b) SECURITY COMPOUND WALL SHALL BE PROVIDED ALONG THE BOUNDARY LINE "ABCD".
 - c) 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	N-S	E-W
A1	1621193.23	559974.20
A2	1621200.00	559969.86

- FOR BILL OF MATERIALS/EQUIPMENTS/STATION STRUCTURES & MOUNTING STRUCTURES
REFER ANNEXURE- SCHEDULE OF REQUIREMENTS.
- ROUTE OF PROPOSED CABLE DUCT FOR SSSY-1 & SSSY-2 TYPES ARE INDICATED IN THE LAYOUT PLAN. FROM MAIN CABLE DUCTS i.e. SSSY-1 & SSSY-2 TYPE TO THE RESPECTIVE EQUIPMENTS 'SSSY-3' TYPE HUMIE PIPE SHALL BE PROVIDED FOR THE COMBINATION OF CONTROL & POWER CABLE 'SSSY-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 86th TCC MEETING- DATED: 29.06.2021. & AS PER T.O. NOTE DTD: 07.11.2024
b) REVISED AS PER PROCEEDING OF MD MEETING DATED:19.02.2025 & 20.02.2025.
- OTHER REFERENCE DRAWINGS-
- a) SITE PLAN WITH BLOCK LEVEL.
b) CROSS SECTION THROUGH VARIOUS BAYS.
c) SINGLE LINE DIAGRAM.

SL.NO.

BASIC INSULATION LEVEL (KV)

- BASIC INSULATION LEVEL (KV)
- MINIMUM CLEARANCES
- a) BETWEEN PHASES
- b) BETWEEN PHASE TO EARTH (CENTRE LINE OF TOWER)
- c) SECTIONAL CLEARANCE
- a) HEIGHT OF CROSS BUS CONDUCTOR
- b) BAY WIDTH
- c) HEIGHT OF MAIN BUS
- HEIGHT OF CENTRE OF TERMINAL PAD PERTAINING TO VARIOUS EQUIPMENTS
- a) ISOLATORS ADJACENT TO MAIN BUS
- b) OTHER ISOLATORS AND EQUIPMENTS
- MATERIALS OF THE BUS
- 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
- BUS INSULATORS USED FOR BUS SUPPORTS AS PER IS 5350 PART II & III
- a) NO.OF UNITS/STACK
- b) VOLTAGE CLASS
- c) HEIGHT OF INSULATOR STACK (MM)
- d) PITCH DIA HOLES AT TOP (MM)
- e) NO. OF FIXING BOLTS

SL.NO.	PARTICULARS	110KV RIGID BUS
1.	BASIC INSULATION LEVEL (KV)	550
2.	MINIMUM CLEARANCES	
	a) BETWEEN PHASES	2.0 M
	b) BETWEEN PHASE TO EARTH (CENTRE LINE OF TOWER)	2.1 M
	c) SECTIONAL CLEARANCE	3.5 M
3.	a) HEIGHT OF CROSS BUS CONDUCTOR	6.35 M
	b) BAY WIDTH	8.2 M
	c) HEIGHT OF MAIN BUS	4.6 M
4.	HEIGHT OF CENTRE OF TERMINAL PAD PERTAINING TO VARIOUS EQUIPMENTS	
	a) ISOLATORS ADJACENT TO MAIN BUS	6.35 M
	b) OTHER ISOLATORS AND EQUIPMENTS	4.6 M
5.	MATERIALS OF THE BUS	
	a) MAIN ALUMINIUM TUBE BS 1600 SCH.40	75 MM DIA
	b) MAIN STRUNG BUS	-
	c) CROSS BUS	
	i) ALUMINIUM TUBE BS.1600 SCH.40	63 MM DIA
	ii) ACSR CONDUCTOR	DRAKE
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

RE	21.02.2025	REVISED AS FOR PROCEEDING OF MD MEETING DATED-18.02.2025 & 20.02.2025
REVISION	DATE	
NO.		
KARNATAKA POWER TRANSMISSION CORPORATION LIMITED		
TECHNICAL PARTICULARS OF LAYOUT PLAN FOR THE PROPOSED 110/1KV SUB STATION AT HANUMANAWATI IN RANGIBENUR TALUK, HAVERI DISTRICT.		
DWG NO.:	KPTCL/TECH/SS-110/KB-1	DATE: 21.02.2025
SHEET	NO.	OF 4
CHECKED BY	DATE	
DESIGNED BY	DATE	
APPROVED BY	DATE	

