

NOTES:-


- ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
- RIGID BUS IS PROPOSED FOR 110KV MAIN BUS.
- a) 110KV SWITCHYARD WITH BOUNDARY 'ABCDEFGHA' SHALL BE FIXED WITH RESPECT TO THE EXISTING ROAD LEVEL. THE CUTTING & FILLING QUANTITIES SHALL BE FINALISED BASED ON RL FIXED.
b) RETAINING/TOE WALL SHALL BE PROVIDED ALONG THE BOUNDARY LINE "AH".
c) SECURITY COMPOUND WALL SHALL BE PROVIDED ALONG THE BOUNDARY LINE "ABC" & "FGH".
d) PERIPHERY COMPOUND WALL SHALL BE PROVIDED ALONG THE BOUNDARY LINE "A CBP3 CBP2 CBP1 CBP6 H".
e) IF REQUIRED THE 132KV SWITCH YARD WITH BOUNDARY "ABCFGHA" AND 'A CBP3 CBP2 CBP1 CBP6 H" SHALL BE FIXED AT TWO DIFFERENT LEVELS BASED ON THE SITE CONDITION AND EARTH MAT SHALL BE EXTENDED ACCORDINGLY.
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 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	1639197.08	522384.09
A2	1639189.91	522388.06

- FOR BILL OF MATERIALS/EQUIPMENTS/STATION STRUCTURES & MOUNTING STRUCTURES REFER ANNEXURE- SCHEDULE OF REQUIREMENTS.
- ROUTE OF PROPOSED CABLE DUCT FOR SSY -1 & SSY-2 TYPES ARE INDICATED IN THE LAYOUT PLAN. FROM MAIN CABLE DUCTS ie. SSY-1 & SSY-2 TYPE TO THE RESPECTIVE EQUIPMENTS 'SSY-3' TYPE HUME PIPE SHALL BE PROVIDED FOR THE COMBINATION OF CONTROL & POWER CABLE 'SSY-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.
- APPROVED IN 91ST TCC MEETING DATED-09.02.2024.
- REVISED AS PER T.O NOTE DTD:07.11.2024.
- OTHER REFERENCE DRAWINGS-
a) SITE PLAN WITH BLOCK LEVEL.
b) CROSS SECTION DRAWING
c) SINGLE LINE DIAGRAM.

TECHNICAL PARTICULARS

SL.NO.	PARTICULARS	110KV RIGID BUS
1.	BASIC INSULATION LEVEL (KV)	550
2.	MINIMUM CLEARANCES a) BETWEEN PHASES b) BETWEEN PHASE TO EARTH (CENTRE LINE OF TOWER) c) SECTIONAL CLEARANCE	2.0 M 2.1 M 3.5 M
3.	a) HEIGHT OF CROSS BUS CONDUCTOR b) BAY WIDTH c) HEIGHT OF MAIN BUS	6.35 M 8.2 M 4.6 M
4.	HEIGHT OF CENTRE OF TERMINAL PAD PERTAINING TO VARIOUS EQUIPMENTS a) ISOLATORS ADJACENT TO MAIN BUS b) OTHER ISOLATORS AND EQUIPMENTS	6.35 M 4.6 M
5.	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	75 MM DIA - 63 MM DIA MOOSE
6.	POST 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	1 110KV 1220 127 4

R2	09.11.2024	REVISED AS PER T.O NOTE DTD:07.11.2024.		
REV No	DATE			
		KARNATAKA POWER TRANSMISSION CORPORATION LIMITED		
TECHNICAL PARTICULARS OF LAYOUT PLAN FOR THE PROPOSED 110/11KV SUB STATION AT BELAGALAPETE IN HANAGAL TALUK, HAVERI DISTRICT.				
DRG.NO. KPTCL/TECH/SS-110/875/R2		DATE:09.11.2024	SCALE:- NTS	SHEET 2 OF 4
A.E	A.E.E	E.E	S.E(TECH)	CEE (P&C)
DRN	CHD	SUB	REC	APPROVED

1639300 N

522250 E

Area Statement of Existing S/S

AREA WITHIN BOUNDARY POINTS

A to D = 2200.0201 Sqmt
= 23880.8185 Sqft
= 0 Acre 21.745 Guntas
= 0.220 Hectares

1639250 N

1639200 N

1639150 N

1639100 N

1639050 N

TEMPORARY BENCH MARK	
TBM NO.	TBM-1
EASTING (X)	522349.72
NORTHING (Y)	1639187.43
ELEVATION (Z)	595.202

TEMPORARY BENCH MARK	
TBM NO.	TBM-2
EASTING (X)	522348.55
NORTHING (Y)	1639164.00
ELEVATION (Z)	592.827

NOTES:-

1. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.

2. a) 110KV SWITCHYARD WITH BOUNDARY 'ABCDEFH' SHALL BE FIXED WITH RESPECT TO THE EXISTING ROAD LEVEL. THE CUTTING & FILLING QUANTITIES SHALL BE FINALISED BASED ON RL FIXED.

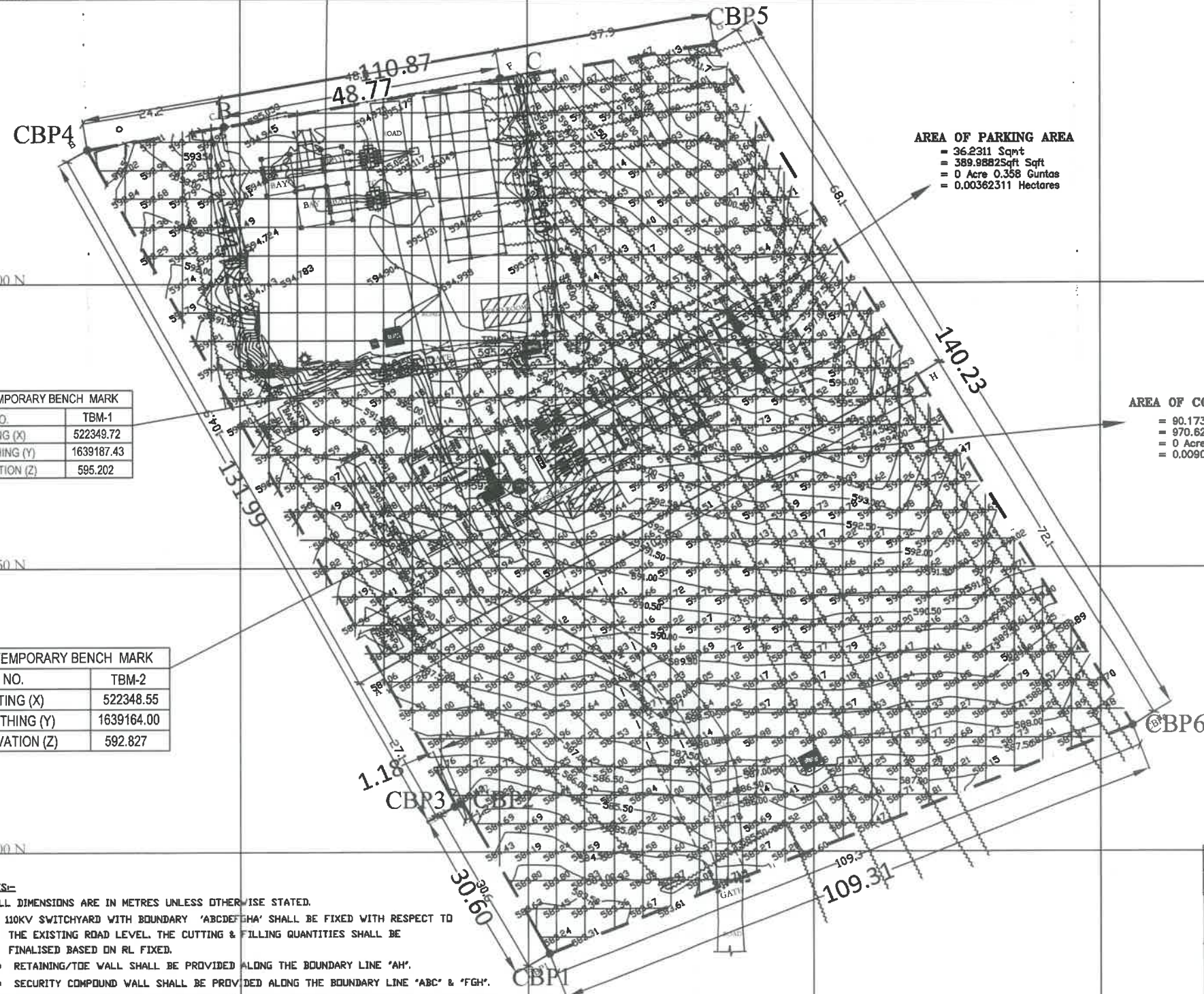
b) RETAINING/TIE WALL SHALL BE PROVIDED ALONG THE BOUNDARY LINE 'AH'.

c) SECURITY COMPOUND WALL SHALL BE PROVIDED ALONG THE BOUNDARY LINE 'ABC' & 'FGH'.

d) PERIPHERY COMPOUND WALL SHALL BE PROVIDED ALONG THE BOUNDARY LINE 'A CBP3 CBP2 CBP1 CBP6 H'.

e) IF REQUIRED THE 110KV SWITCH YARD WITH BOUNDARY 'ABCDFGH' AND 'A CBP3 CBP2 CBP1 CBP6 H' SHALL BE FIXED AT TWO DIFFERENT LEVELS BASED ON THE SITE CONDITION AND EARTH MAT SHALL BE EXTENDED ACCORDINGLY.

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.



AREA OF PARKING AREA

= 36.2311 Sqmt
= 389.85825 Sqft
= 0 Acre 0.358 Guntas
= 0.00362311 Hectares

AREA OF CONTROL ROOM

= 90.1737 Sqmt
= 970.6214 Sqft
= 0 Acre 0.891 Guntas
= 0.00901737 Hectares

N



Area Statement

AREA WITHIN BOUNDARY POINTS

CBP1 to CBP6 = 16103.0102 Sqmt
= 173331.3528 Sqft
= 3 Acre 39.1622 Guntas
= 1.6103 Hectares

NOTE:-

- 1) ALL DIMENSIONS AND LEVELS ARE IN METERS.
- 2) BLOCK LEVELS HAVE BEEN TAKEN AT 5.0 x 5.0 GRID AND CONTOURS HAVE BEEN DRAWN AT 0.50 M INTERVALS.
- 3) A BENCHMARK TBM1 HAS BEEN ESTABLISHED ON THE PLINTH OF SUMP AND ASSIGNING IT TO A VALUE OF +595.202 ARBITRARILY.

CO-ORDINATES

STATION	EASTING	NORTHING
CBP1	522353.79	1639082.11
CBP2	522338.71	1639108.74
CBP3	522337.62	1639108.27
CBP4	522273.41	1639223.59
CBP5	522382.73	1639242.05
CBP6	522456.49	1639122.17

BOUNDARY

STATION	LENGTH M	ANGLE DEGREES
CBP1 CBP2	30.80	88.50°
CBP2 CBP3	1.18	88.50°
CBP3 CBP4	131.99	88.50°
CBP4 CBP5	110.87	70.47°
CBP5 CBP6	140.23	111.00°
CBP6 CBP1	109.31	88.76°

LEGEND

Perimeter Boundary with Pillars, Wire Fence,	— ■ — ■ —
Main Power line with Pylons, Power line, Telegraph/Telephone line	— + — + — + —
Road : Metalled, Unmetalled, Cart track, Footpath	— = — = — =
Building : Permanent, Under construction, Temporary	— [] [] []
Wells : Defined, Undefined, Stream : Defined, Undefined	— [] [] []
Hut, Borewell, Pumphouse, Temple, Hand Pump	— [] [] []
Embankment, Cutting, Quarry, Hedge	— [] [] []
Boulders, Rockground, Relative height	— [] [] []
Contour and form line with value, Sheet rock, Cliff, Field Bund	— [] [] []
Trees : Mango & others, Coconut, Bamboo, Silver oak	— [] [] []
Temporary Bench Mark, Spot level	— BM [] []

CLIENT KARNATAKA POWER TRANSMISSION CO.LTD

TITLE Conducting Contouring /Block level survey for Up gradation Existing 33/11KV S/S to 110/11KV S/S at Belagalpeth Village in Hanagal Taluk, Haveri Dist.

SURVEY CONSULTANTS NIKETAN CONSULTANTS
Address for Correspondence : # 583, 3rd Cross, 10th Main
BSR, 1st Stage, 1st Block Bangalore - 560001
Pc: 080-26671668, 94482 91659

SEASON MAY-2023

SCALE 5M 0 5 10 15 20 25M

1 : 0.500

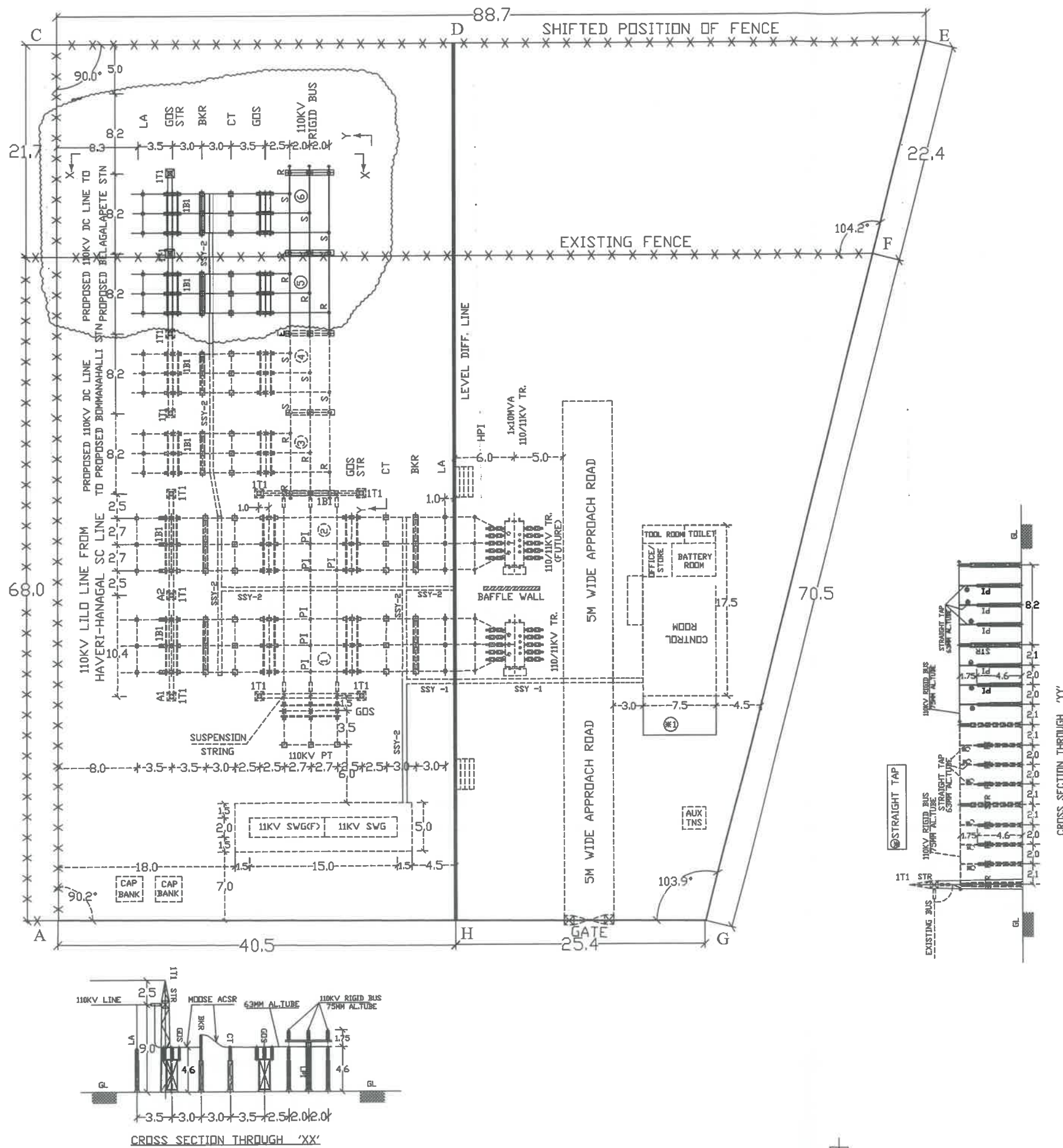
DRAWN DRAWING No. REV

R2	09.11.2024	
REV No	DATE	REVISED AS PER T.O NOTE DTD:07.11.2024.

KARNATAKA POWER TRANSMISSION CORPORATION LIMITED






BLOCK LEVEL DRAWING FOR THE PROPOSED 110/11KV S/S
AT BELAGALAPETE IN HANAGAL TALUK, HAVERI DISTRICT.

DRG.NO. KPTCL/TECH/SS-110/875-R1	DATE 09.11.2024	SCALE- NTS	SHEET 1 OF 4
A.E	A.E.E	E.E	SEEKTECH
DRN	CHD	SUB	REC
			APPROVED



NOTE:-

1. ALL DIMENSIONS ARE IN METRES.
2. FULL LINES INDICATES PROPOSED. DOTTED LINE INDICATES EXISTING.
3. ALL NON CURRENT CARRYING METALLIC PARTS TO BE EARTHED AND CONNECTED TO GROUND MAT.
4. SOME OF THE EXISTING DETAILS ARE NOT SHOWN FOR CLARITY.
5. CABLE DUCT SHALL BE CONSTRUCTED AS PER SITE CONDITION.
6. RIGID BUS IS PROPOSED TO TERMINATE 110KV PROPOSED LINE TERMINAL BAYS (BAY NOS. 5 & 6) AS INDICATED IN THE DRAWING.
7. THE LINE TB'S FOR PROPOSED 110/11KV BOMMANAHALLI AND BELAGALAPETE SUB STATION SHOWN IN BAY NO. 3,4,5&6 ARE INDICATIVE ONLY. HOWEVER THE LINES SHALL BE TERMINATED TO THE RESPECTIVE BAYS IN ACCORDANCE WITH DETAILED SURVEY REPORT TO AVOID CROSSING OF LINES.
8. THE SWITCHYARD FENCE AVAILABLE AT 'BF' INFRINGE THE PROPOSED LINE TB AND SAME SHALL BE SHIFTED AS INDICATED IN THE DRAWING.
9. IF REQUIRED EARTH MAT SHALL BE EXTENDED IN CONSULTATION WITH SEE(R&D).
10. IF REQUIRED CONTROL ROOM SHALL BE EXTENDED IN CONSULTATION WITH SEE(CIVIL).
11. RIGID BUS SUPPORT STRUCTURE TYPICAL DRAWINGS ARE ENCLOSED HEREWITH.

R1	09.11.2024			
REV No	DATE	REVISED AS PER T.O NOTE DTD:07.11.2024.		
	KARNATAKA POWER TRANSMISSION CORPORATION LIMITED			
LAY OUT DIAGRAM FOR THE PROPOSED 110/11kV SUB STATION AT AKKIALUR HANAGAL Tq, HAVERI DIST.-INDICATING 110KV BELAGALAPETE LINE TB.				
DRG.NO.KPTCL/TECH/SS-110/785-A/R1		DATE:09.11.2024	SCALE- NTS	SHEET 1 OF 4
				
A.E	A.E.E	E.E	S.E. TECH	CEE (P&C)
DRN	CHD	SUB	REC	APPROVED

