

### **PUNJAB STATE TRANSMISSION CORPORATION LIMITED** Regd. Office :- PSEB Head Office, The Mall, Patiala – 147001, Punjab, India

O/o SE/Planning, PSTCL, Patiala Fax/Ph:- 0175-2205502, Email:- <u>se-planning@pstcl.org</u> CIN-U40109PB2010SGCO33814

## **Amendment No:24/2024-25**

To

- 1) Dy. CE/TS (Design), PSTCL, Patiala.
- 2) Dy. CE /Grid Construction, PSTCL, Ludhiana.
- 3) Dy. CE /TLSC, PSTCL, Patiala.
- 4) SE /Civil Works, PSTCL, Patiala.

Memo No.481/84/P-2/70A/146

Dated: 22.11.2024

## Subject: Augmentation of line conductor (ACSR 0.4 sq") and line isolators of 66 kV line/link from 220 kV S/Stn Chhajli to 66 kV S/stn Chhajli.

The scope of work is planned as following:

Sr. No.	Name of S/Stn.	Scope of Work	Est. Cost	Remarks
1.	220 kV S/S Chhajli	Augmentation of line conductor (double to quadruple) and line isolators of 66 kV link from 66 kV bus of 220 kV S/s Chhajli to 66 kV Chhajli (from X to Y as shown in attached layout plan of 220 kV S/s Chhajli Drg No.33090) along with augmentation of 66 kV main bus-bar (Double to quadruple conductor) at 220 kV S/s Chhajli	25.93 lacs	1. This work is being planned on basis of Dy.CE/Transmission Planning, PSPCL, Patiala Memo No. 1865 dated 23-05-24 and Dy.CE/P&M circle, PSPCL, Patiala Memo No.3588/89 dated 06-05-2024(copy attached) and as per comments of Sr.Xen/P&M, PSTCL, Patran vide his office email dated 07-10-24.  2. Estimated cost is considered as intimated by Sr.XEN/Grid Const., PSTCL, Patiala vide his office email dated 16-09-2024.  3. The expenditure shall be charged to the head: "Augmentation of bus-bars, extension in control room buildings, providing room for second source for station, battery, etc.", Sr. No. 68 of Annexure-3 of MYT 2023-26 as per provision of Approved Capital Investment Plan for the control period 2023-26.  Expenditure allocated upto Mar-25: Rs.23.8 Crores. Expenditure already booked via amendments till date: Rs 6.25 Crores  Expenditure to be booked for this amendment: Rs 0.327 Cr (including EC & IDC)  Balance expenditure for the control period: Rs. 17.223 Cr  4. This work shall be included in the transmission works for the FY 23-26.  5. This work is subject to ratification by the BoDs.

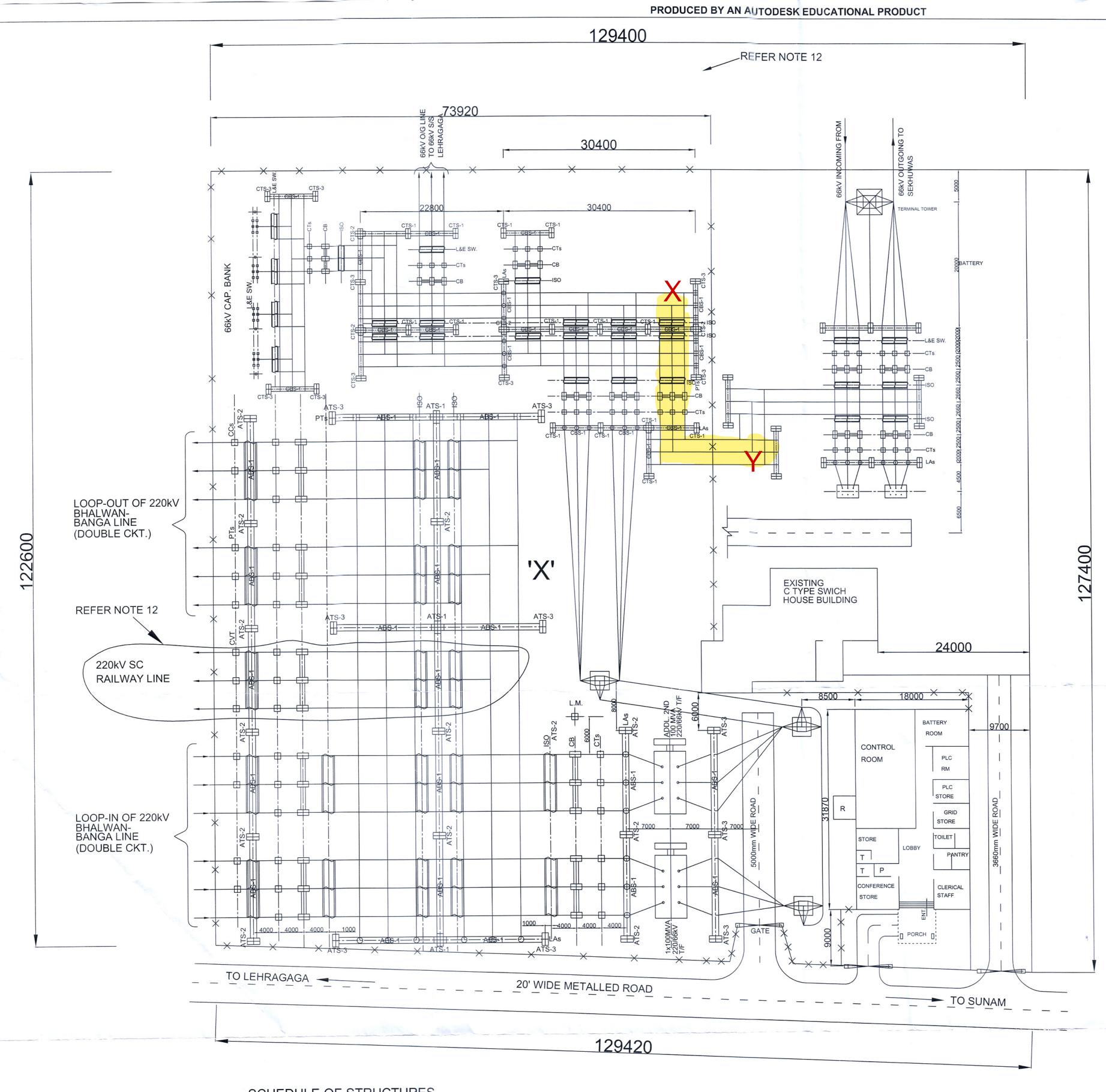
This issues with the approval of the Director/Technical of PSTCL.

ASE/Planning-2 PSTCL, Patiala.

CC: - 485/491/ P-2/70A/146

Dated: 22.11.2024

- 1. Director/Technical, PSTCL, Patiala.
- 2. Engineer in Chief /TS, PSTCL, Patiala.
- 3. Chief Engineer/Planning, PSPCL, Patiala.
- 4. Chief Engineer/P&M, PSTCL, Ludhiana.
- 5. Chief Engineer/P&M, PSPCL, Ludhiana.
- 6. Dy. CE/Transmission Planning, PSPCL, Patiala.
- 7. Dy. CE /P&M Circle, PSTCL, Patiala



# SCHEDULE OF STRUCTURES

220 KV

	220 KV			
SR. NO	DESCRIPTION	STD DRWG NO.	EXISTING QTY.	NEW QTY. FOR RAILWAY BAY
1	TOWER TYPE ATS-1	HW/ST - 5861	3	5.2
2	TOWER TYPE ATS-2	HW/ST - 5862	12	2
3	TOWER TYPE ATS-3	HW/ST - 5863	9	1.0
4	BEAM TYPE ABS-1	HW/ST - 5864	20	- 41
5	BEAM TYPE ABS-2	HW/ST - 5865	-	-
6	BUS & T/F ISO STR	HW/ST - 5618	16	2
7	LINE & EARTH SW STR	HW/ST - 5618	4	1
8	CIRCUIT BREAKER STR	TO BE SUPPLIED BY THE FIRM	7	
9	CT'S STR	HW/ST - 5434R1	21	-
10	PT'S	HW/ST - 5434R1	6	-
11	CC/CVT	HW/ST - 5434R1	8	3
12	LA'S	HW/ST - 5434R1	12	0.0

	66 KV		
SR. NO.	DESCRIPTION	STD DRWG NO.	EXISTING QTY
1	TOWER TYPE CTS-1	HW/ST - 5874	14
2	TOWER TYPE CTS-2	HW/ST - 5876	4
3	TOWER TYPE CTS-3	HW/ST - 5876	10
4	BEAM TYPE CBS-1	HW/ST - 5876	22
5	ISOLATOR/ L & E'S	HW/ST - 5416	21
6	CT'S	SKS 850 R1	18
7	PT'S	SKS 850 R1	6
8	LA'S	SKS 850 R1	12
9	CB'S	TO BE SUPPLIED BY THE FIRM	6
10	NCT'S	SKS 850 R1	-

## REFERENCES.

1. FOR PREVIOUS GENERAL LAYOUT PLAN, REFER DRG. NO. PSTCL/SS-32937/R-3.

## YARD LIGHT

1. FOR YARD LIGHTING REFER DRG. NO. HW/TS 19577/R2. 2. FOR GENERAL LIGHTING ARRANGEMENT OF SWITCH YARD AS SHOWN ON THE DRG. THE FOLLOWING FIXTURES ARE TO BE PROVIDED AS UNDER:-I) 4 NOS. FLOOD LIGHT FITTING SUITABLE FOR 250 WMH LAMP SHALL BE INSTALLED ON THE LIGHTING MAST AT THE HEIGHT OF 18 MTR. SHOWN AS II) 26 NOS. COBRA LIGHT FITTING SUITABLE FOR 250 WMH LAMP SHALL BE INSTALLED AT HEIGHT

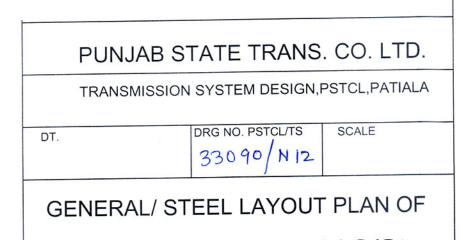
OF 8 MTR. SHOWN AS III) MINOR ALTERATION IN THE LOCATION OF LIGHTING FIXTURE MAY BE DONE TO SUIT THE SITE CONDITIONS.

- 1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE
- 2. EQUIPMENT OUTLINES ARE ONLY INDICATIVE & NOT TO
- 3. THE SIZE OF CONDUCTOR TO BE USED FOR 220KV BUS BAR SHALL BE TWIN ZEBRA CONDUCTOR. THE SIZE OF CONDUCTOR TO BE USED FOR 66KV BUS BAR SHALL BE QUADZEBRA (0.4 SQ. INCHES) CONDUCTOR
- 4. a)SIZE OF THE CONDUCTOR FOR 66 KV BAYS SHALL BE TWIN ZEBRA AND FOR 66 KV T/F BAY OF 160 MVA POWER T/F WILL BE QUAD ZEBRA.
  - b)66 KV CONNECTIVITY BETWEEN 66 KV BUS(PSTCL) &66 KV BUS (PSPCL) SHALL BE THROUGH A SHORT DC LINE OF TWIN ZEBRA.
- 5. THE FIRE FIGHTING EQUIPMENT MAY BE PROVIDED AT THE S/S AT SUITABLE PLACE.
- 6. ADDITIONAL POST/ STRING INSULATORS MAY BE PROVIDED WHEREVER REQUIRED FOR SUPPORTING LONG JUMPERS.
- 7. POSITION OF 220KV TERMINAL TOWER TO BE FIXED BY ASE/SR.XEN/TLSC KEEPING IN VIEW THE SITE CONDITION.
- 8. MINOR ADJUSTMENT MAY BE MADE AT SITE & INTIMATED TO THIS OFFICE.
- 9. BI-METALLIC CONDUCTORS FOR 220KV & 66KV ISOs, CBs & CTs/NCT BE USED
- 10. JUMPERING AT ALL PLACES BE DONE WITH C-WEDGE CONNECTORS.
- 11. FOUNDATION DETAILS DRG OF VARIOUS EQUIPMENT MUST BE FOLLOWED DURING EXECUTING THE WORK.
- 12. (a) THIS DRG. HAS BEEN PREPARED IN COMPLIANCE OF ISSUING 220kV BAY AGAINST DEPOSIT WORK OF 220kV RAILWAY LINE OF M/s SENIOR DIVISIONAL ELECTRICAL ENGINEER, NORTHERN RAILWAY SUNAM (RID NO. 17280) BY USING EXISTING 220kV BAY OF BUS COUPLER FOR RAILWAY LINE AND BY REPLACING 220kV BUS COUPLER WITH HYBRID SWITCHGEAR MODULE SOLUTION AT NEW LOCATION 'X' AS SHOWN IN THE DRG.

(b) THIS WORK HAS BEEN DONE AS PER REVISED FEASIBILITY CLEARANCE REPORT ISSUED BY SR. XEN/SALES-4 FOR: CE/COMMERCIAL, PSPCL, PATIALA VIDE HIS OFFICE MEMO NO. 972/SWS/RID NO. 17280 DT. 02.07.2021 AND CHANGES PROPOSED VIDE CE/TS, PSTCL, PATIALA LETTER NO. 475 DATED 04.06.2021.

(c) DIRECTION OF 220kV RAILWAY LINE OF M/s SENIOR DIVISIONAL ELECTRICAL ENGINEER, NORTHERN RAILWAY SUNAM (RID NO. 17280) HAS BEEN MARKED/VETTED BY ADDL. SE/TLSC DIVN., PATIALA VIDE HIS EMAIL DATED 03.12.2020.

(d) STRUCTURES MAY BE VARIED AT THE TIME OF INSTALLATION AND HENCE MAY BE WITHDRAWN/RETURNED AS PER THE REQUIREMENT OF WORK BY THE CONCERNED GRID CONSTRUCTION DIVISION.



DRAWN W AAE/TS	220 kV S/Stn CHAJJLI		
SUBMITTED  AE/TS AEE/TS	RECOMMENDED  SR. VEN /TS-VII	APPROVED  DY.CE/TS(D)	