

HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED

(A Joint Venture Govt. of Haryana and Ministry of Railways)

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Tender No.: HORC/HRIDC/C-2/2022

Date: 21.07 .2022

Reference: Specific Procurement Notice dated 18.06.2022.

CORRIGENDUM NO. 3

Name of Work: C-2: Composite Contract Package in connection with laying of New BG Double Railway Line of HORC project for:

(i) Design and Construction of Civil Works (Earthwork, Bridges, Station Buildings, Retaining Walls and other miscellaneous Works) from Km 55.60 to Km 61.50 and its connectivities to IR network from New Patli to Patli & New Patli to Sultanpur including modifications in Sultanpur station yard,

(ii) Design, Supply, Installation, Testing & Commissioning of OHE (1x25 kV) and General Electrical services from Km 49.70 to Km 61.50 and its connectivities to IR network from New Patli to Patli & New Patli to Sultanpur including modifications in Sultanpur station yard and

(iii) Design, Supply, Installation, Testing & Commissioning of Signalling & Telecommunication from Km 49.70 to Km 61.50 and its connectivities to IR network from Manesar to Patli and New Patli to Patli & New Patli to Sultanpur including modifications in Patli and Sultanpur station yards.

S. No.	Tender Document Part / Section/ Clause No.	Description of Existing Clause	Modified Description of Existing Clause / New Clause
1.	Part 1, Section IV, Tender Forms, Appendix A and Appendix B to Financial part	Appendix A and Appendix B to Financial Part	The existing Appendix A and Appendix B to Financial Part is replaced and annexed as “Attachment-1” of this Corrigendum No. 3.

**Attachment 1
to
Corrigendum No. 3**

Appendix A and Appendix B to Financial Part

Appendix A to Financial Part/R1

1. Price adjustment

1.1 The amounts payable to the Contractor for Works shall be adjusted in accordance with the provisions of this Clause 1.0, Sub-Clause 13.7 of GCC and Sub-Clause 13.7, Specific Provision, Part B, Section IX-PCC.

1.2 The Contract Price shall be adjusted for increase or decrease in rates and prices of labour, materials, fuel and lubricants, equipment, Machinery, Plant and other Materials or inputs in accordance with the principles, procedures and formulae specified below:

- a) Price adjustment shall be applied on completion of the specified stage of the respective item of work in accordance with Schedule-A. Base month for the purpose of Price Adjustment shall be the month in which the Tender is opened for Civil Works, S&T Works and Electrification Works. The 1st Quarter will start from Base month;
- b) Adjustment for each item of work/stage shall be made separately;
- c) The following expressions and meanings are assigned to the value of the work done for Civil works:

EW = Value of work done for the completion of a stage under the Cost Centre 'CE' of Price Schedule 'A' ;

BR = Value of work done for the completion of a stage under the Cost Centre 'CB' of Price Schedule 'A' ;

STN = Value of work done for the completion of a stage under Cost Centre CS of Price Schedule 'A' ;

RW = Value of work done under Price Schedule 'B' ;

MISC = Value of work done under Price Schedule 'C' ;

- d) Price adjustment for change in costs of civil works shall be paid in accordance with the following formula:

$$i) \quad VEW = 0.85 \text{ EW} \times [\text{PLB} \times (\text{LB}_i - \text{LB}_o) / \text{LB}_o + \text{PF} \times (\text{F}_i - \text{F}_o) / \text{F}_o + \text{PMACH} \times (\text{MACH}_i - \text{MACH}_o) / \text{MACH}_o + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o];$$

$$ii) \quad \text{VBR} = 0.85 \text{ BR} \times [\text{PLB} \times (\text{LB}_i - \text{LB}_o) / \text{LB}_o + \text{PC} \times (\text{C}_i - \text{C}_o) / \text{C}_o + \text{PS} \times (\text{S}_i - \text{S}_o) / \text{S}_o + \text{PF} \times (\text{F}_i - \text{F}_o) / \text{F}_o + \text{PMACH} \times (\text{MACH}_i - \text{MACH}_o) / \text{MACH}_o + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o];$$

$$iii) \quad \text{VSTN} = 0.85 \text{ STN} \times [\text{PLB} \times (\text{LB}_i - \text{LB}_o) / \text{LB}_o + \text{PC} \times (\text{C}_i - \text{C}_o) / \text{C}_o + \text{PS} \times (\text{S}_i - \text{S}_o) / \text{S}_o + \text{PF} \times (\text{F}_i - \text{F}_o) / \text{F}_o + \text{PMACH} \times ((\text{MACH}_i - \text{MACH}_o) / \text{MACH}_o + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o)];$$

$$iv) \quad \text{VRW} = 0.85 \text{ RW} \times [\text{PLB} \times (\text{LB}_i - \text{LB}_o) / \text{LB}_o + \text{PC} \times (\text{C}_i - \text{C}_o) / \text{C}_o + \text{PS} \times (\text{S}_i - \text{S}_o) / \text{S}_o + \text{PF} \times (\text{F}_i - \text{F}_o) / \text{F}_o + \text{PMACH} \times (\text{MACH}_i - \text{MACH}_o) / \text{MACH}_o + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o];$$

$$v) \text{ VMISC} = 0.85 \text{ MISC} \times [\text{PLB} \times (\text{LBi} - \text{LBo})/\text{LBo} + \text{PF} \times (\text{Fi} - \text{Fo})/\text{Fo} + \text{PMACH} \times (\text{MACHi} - \text{MACHo})/\text{MACHo} + \text{POTH} \times (\text{OTHi} - \text{OTHo})/\text{OTHo}];$$

Where

VEW = Increase or decrease in the cost under the Cost Centre 'CE' of Price Schedule 'A' during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VBR = Increase or decrease in the cost of Cost Centre 'CB' of Price Schedule 'A' during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VSTN = Increase or decrease in the cost of Cost Centre 'CS' of Price Schedule 'A' during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VRW = Increase or decrease in the cost of work done under Price Schedule 'B' during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VMISC = Increase or decrease in the cost of work done under Price Schedule 'C' during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

PC, PF, PLB, PMACH, POTH and PS are the percentages of cement, fuel and lubricants, labour, Plant Machinery and tools, other materials, and steel/ steel components (including strands and steel cables), respectively for the relevant item as specified in sub-paragraph (e);

Co = The wholesale price index as published by the Ministry of Commerce and Industry, Government of India (hereinafter called "WPI") for sub-group Cement, Lime & Plaster for the Base Month;

Ci = The WPI for sub-group Cement, Lime & Plaster for the average price index of the 3 months of the quarter under consideration;

Fo = The wholesale price index as published by the Ministry of Commerce and Industry, Government of India (hereinafter called "WPI") for group Fuel & Power for the Base Month;

Fi = The WPI for group Fuel & Power for the average price index of the 3 months of the quarter under consideration

LBo = The consumer price index for industrial workers – All India, published by Labour Bureau, Ministry of Labour, Government of India, (hereinafter called "CPI") for the Base Month;

LBi = The CPI for industrial workers – All India for the average price index of the 3 months of the quarter under consideration;

MACHo = The wholesale price index as published by the Ministry of Commerce and Industry, Government of India (hereinafter called “WPI”) for category- k “Manufacturing of Machinery for Mining, quarrying and construction’ under (R) Manufacturing of Machinery and Equipment for the Base Month;

MACHi = The WPI for category- k “Manufacturing of Machinery for Mining, quarrying and construction’ under (R) Manufacturing of Machinery and Equipment for the average price index of the 3 months of the quarter under consideration;

OTHo = The wholesale price index as published by the Ministry of Commerce and Industry, Government of India (hereinafter called “WPI”) for all commodities for the Base Month;

OTHi = The WPI for all commodities for the average price index of the 3 months of the quarter under consideration;

So = Rate of RINL for Rebar 8 mm (coil) as published on their website for the Base Month;

Si = Average rate of RINL for Rebar 8 mm (coil) as published on their website for the 3 months of the quarter under consideration;

- e) The following percentages shall govern the price adjustment of the Contract Price for costs of civil works:

Component	EW (Cost Centre CE of Price Schedule “A”)	BR (Cost Centre CB of Price Schedule “A”)	STN (Cost Centre CS of Price Schedule “A”)	RW (Price Schedule “B”)	MISC (Price Schedule “C”)
(1)	(2)	(3)	(4)	(5)	(6)
Cement (PC)	-	20%	15%	20%	-
Fuel and lubricants (PF)	30%	10%	10%	10%	30%
Labour (PLB)	20%	10%	25%	10%	20%
Machinery and Plants (PMACH)	40%	20%	20%	20%	40%
Other Materials (POTH)	10%	15%	20%	15%	10%
Steel(PS)	-	25%	10%	25%	-
Total	100%	100%	100%	100%	100%

f) The following expressions and meanings are assigned to the value of the work done for signalling and telecommunication works:

SIGWK = Value of signalling works for a stage payment of the item signalling works under cost centers S2, S3, S4, S5 and S6;

INVSIG = Value of inventory for signalling works for a stage payment of the item inventory for signalling works under cost center S7;

INTGTESTSIG = Value of integrated testing and commission for signalling works under cost center S8;

COMWK = Value of telecommunication works for a stage payment of the item telecommunication works under cost centers T2, T3, T4, T5, T6, T7, T8, T9 and T10;

INTGTESTCOM = Value of integrated testing and commission for telecommunication works under cost center T11; and

INVCOM = Value of inventory for telecommunication works for a stage payment of the item inventory for telecommunication works under cost center T12;

g) Price adjustment for changes in cost of signalling works and telecommunication works shall be paid in accordance with the following formula:

$$\mathbf{VSIGWK} = 0.85 \text{ SIGWK} \times [\text{PELEX} \times (\text{ELEX}_i - \text{ELEX}_o) / \text{ELEX}_o + \text{POFC} \times (\text{OFC}_i - \text{OFC}_o) / \text{OFC}_o + \text{PLB} \times (\text{LB}_i - \text{LB}_o) / \text{LB}_o + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o + \text{S24C} \times (\text{P24C}_i - \text{P24C}_o) / \text{P24C}_o + \text{S19C} \times (\text{P19C}_i - \text{P19C}_o) / \text{P19C}_o + \text{S12C} \times (\text{P12C}_i - \text{P12C}_o) / \text{P12C}_o + \text{S6C} \times (\text{P6C}_i - \text{P6C}_o) / \text{P6C}_o];$$

$$\mathbf{VINVSIG} = 0.85 \text{ SIGWK} \times [\text{PELEX} \times (\text{ELEX}_i - \text{ELEX}_o) / \text{ELEX}_o + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o];$$

$$\mathbf{VINTGTESTSIG} = 0.85 \text{ INTGTESTSIG} \times [\text{PLB} \times (\text{LB}_i - \text{LB}_o) / \text{LB}_o + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o];$$

$$\mathbf{VCOMWK} = 0.85 \text{ COMWK} \times [\text{PELEX} \times (\text{ELEX}_i - \text{ELEX}_o) / \text{ELEX}_o + \text{POFC} \times (\text{OFC}_i - \text{OFC}_o) / \text{OFC}_o + \text{PLB} \times (\text{LB}_i - \text{LB}_o) / \text{LB}_o + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o + \text{QC} \times (\text{PQC}_i - \text{PQC}_o) / \text{PQC}_o + \text{PCEQP} \times (\text{CEQP}_i - \text{CEQP}_o) / \text{CEQP}_o];$$

$$\mathbf{VINVCOM} = 0.85 \text{ SIGWK} \times [\text{PELEX} \times (\text{ELEX}_i - \text{ELEX}_o) / \text{ELEX}_o + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o]; \text{ and}$$

$$\mathbf{VINTGTESTCOM} = 0.85 \text{ INTGTESTCOM} \times [\text{PLB} \times (\text{LB}_i - \text{LB}_o) / \text{LB}_o + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o].$$

Where

VSIGWK = Increase or decrease in the cost of signalling works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (h);

VINVSIG = Increase or decrease in the cost of inventory for signalling during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (h);

VINTGTESTSIG = Increase or decrease in the cost of integrated testing and commissioning of signalling works of the HORC Project during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (h);

VCOMWK = Increase or decrease in the cost of communication works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (h);

VINVCOM = Increase or decrease in the cost of inventory for telecommunications works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (h);

VINTGTESTCOM = Increase or decrease in the cost of integrated testing and commissioning of telecommunication works of the HORC Project during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (h);

PCEQP, PELEX, PIC, PLB, POFC, and POTH are the percentages of communication equipment, electronics, PVC insulated cables, labour, optical fibre cables, and other materials respectively;

CEQP_o = The wholesale price index as published by the Ministry of Commerce and Industry, Government of India (hereinafter called “WPI”) for communication equipment for the Base Month ;

CEQP_i = The WPI for communication equipment for the average price index of the 3 months of the quarter under consideration;

ELEX_o = The WPI for electronics for the Base Month;

ELEX_i = The WPI for electronics for the average price index of the 3 months of the quarter under consideration;

P24C_i = Price payable per Km as adjusted in accordance with price variation Clause given in Clause (h1) for size 24C x 1.5 sq mm signalling cable

P24C_o = Price per Km of size 24C x 1.5 sq mm signalling cable for Base month as per Table-2. S24C = Percentage of size 24C x 1.5 sq mm signalling cable as given in Table-1.

P19C_i = Price payable per Km as adjusted in accordance with price variation Clause for size 19C x 1.5 sq mm signalling cable

P19Co = Price per Km of size 19C x 1.5 sq mm signalling cable for Base month as per Table-2. S19C = Percentage of size 19C x 1.5 sq mm signalling cable as given in Table-1.

P12Ci = Price payable per Km as adjusted in accordance with price variation Clause for size 12C x 1.5 sq mm signalling cable

P12Co = Price per Km of size 12C x 1.5 sq mm signalling cable for Base month as per Table-2. S12C = Percentage of size 12C x 1.5 sq mm signalling cable as given in Table-1.

P6Ci = Price payable per Km as adjusted in accordance with price variation Clause for size 6C x 1.5 sq mm signalling cable

P6Co = Price per Km of size 6C x 1.5 sq mm signalling cable for Base month as per Table-2. S6C = Percentage of size 6C x 1.5 sq mm signalling cable as given in Table-1.

PQCi = Price payable per Km as adjusted in accordance with price variation Clause for size 0.9mm dia, 6 Quad cable.

PQCo = Price per Km of size 0.9mm dia, 6 Quad cable for Base month as per Table-2. QC = Percentage of size 0.9mm dia, 6 Quad cable as given in Table-1.

LBo = The consumer price index for industrial workers – All India, published by Labour Bureau, Ministry of Labour, Government of India, (hereinafter called “CPI”) for the Base Month;

LBi = The CPI for industrial workers – All India for the average price index of the 3 months of the quarter under consideration;

OFCo = The WPI for fibre cables for the Base Month;

OFCi = The WPI for fibre cables for the average price index of the 3 months of the quarter under consideration;

OTHo = The WPI for all commodities for the Base Month; and

OTHi = The WPI for all commodities for the average price index of the 3 months of the quarter under consideration.

- h) The following percentages shall govern the price adjustment of the Contract Price for signalling and telecommunication works:

Table-1

Component	Signalling			Telecommunication		
	Signalling Work	Signalling Inventory	Integrated Testing & Commissioning	Telecommunication Work	Telecommunication Inventory	Integrated Testing & Commissioning
Electronics (PELEX)	42%	60%	-	10%	70%	-
Communication Equipment (PCEQP)	-	-	-	15%	-	-
Optical Fibre Cable (POFC)	-	-	-	7%	-	-
24C x 1.5 sq mm signalling cable (S24C)	10%	-	-	-	-	-
19Cx 1.5 sq mm signalling cable (S19C)	3%	-	-	-	-	-
12C x 1.5 sq mm signalling cable (S12C)	8%	-	-	-	-	-
6C x 1.5 sq mm signalling cable (S6C)	2%	-	-	-	-	-
0.9 mm dia, 6 Quad cable (QC)	2%	-	-	10%	-	-
Labour (PLB)	15%	-	95%	12%	-	95%
Other materials	18%	40%	5%	46%	30%	5%
Total	100%	100%	100%	100%	100%	100%

(h1) PRICE VARIATION FORMULA FOR SIGNALING & TELECOM CABLE

The price payable for signalling cables is variable as per Price Variation Formula given below:

For Signalling Copper Cables:

$$P_i = P_o + C_u F (C_u - C_{uo}) + C C F_{cu} (C C - C C_o) + F_e F (F_e - F_{eo})$$

For Telecom Copper Cables For Jelly Filled, 0.9 mm dia, 6 quad cable

$$P_i = P_o + C_u F (C_u - C_{uo}) + A I F (A I - A I_o) + C C F_{cu} (C C - C C_o) + F_e F (F_e - F_{eo})$$

Where,

P_i = Price payable per KM as adjusted in accordance with Price variation clause.

P_o = Price per KM of cable as per Table given below

Table-2
Price per Km (Po and QCo) of S&T cables for Base month

SN	Description of Cable	Price (Rs./Km) as on 01.07.2022	Po and QCo
(1)	(2)	(3)	(4)
1.	Size 24Cx1.5 Sq mm	P24Co =354,316.00	The price of cables given in column (3) are for the month of July 2022. These prices will be updated for Base month as per Clause (h1) for calculating Po and QCo.
2.	Size 19Cx 1.5 Sq mm	P19Co =291,497.00	
3.	Size 12Cx 1.5 Sq mm	P12Co =183,331.00	
4.	Size 6Cx 1.5 Sq mm	P6Co =108,000.00	
5.	Size 6Quad x0.9mm	QCo =242,727.00	

CuF= Variation factor for Copper

Cuo= Price of copper Rod in Rs. Per MT

CCFCu= Variation factor for PVC Compound for Copper Signalling & Telecom cable

CCo= Price of PVC Compound in Rs. Per MT

AlF= Variation factor for Aluminium

Alo= Price of EC grade LME Aluminium rods (Properzi rods) in Rs. Per MT.

FeF= Variation factor for Steel

Feo= Price of Steel for Armour (Flat strip 4 mm. x 0.8mm/ Round 1.4mm dia) in Rs. Per MT

(Prices per MT for Cuo, CCo, Feo, Alo as applicable for the Base month. The above prices and indices are as published by IEEMA vide circular reference no. IEEMA (PVC) /CABLE for the Base month.)

Cu= Price of Copper Rod in Rs. Per MT.

CC= Price of PVC Compound in Rs. Per MT.

Fe= Price of Steel for Armouring (Flat strip 4mm x 0.8 mm/ Round 1.4mm dia) in Rs. Per MT.

Al = Price of EC grade LME Aluminium rods (Properzi rods) in Rs. Per MT.

(Prices per MT for Cu, CC, Fe, Al as prevailing on 1st working day of the calendar month covering the date One month prior to the date of inspection call letter will be applicable for the calculation of updated price. The above prices and indices are as published by IEEMA vide circular reference no. IEEMA (PVC) /CABLE one month prior to the date of inspection.)

The value of variation factors for copper, steel and PVC Compound are different for different sizes of signalling cables. Accordingly, the PVC formula for various types of signalling and Telecom cables is as given under:-

Underground Railway Signalling and Telecom Cable unscreened and armoured copper conductor.

- i) Size 24C x 1.5 sq.mm

$$P_{24Ci} = P_{24Co} + 0.313(Cu - Cu_o) + 0.481(CC - CC_o) + 0.398(Fe - Fe_o)$$
 For armouring, value of steel flat strip of size 4mmx0.8mm is to be taken into consideration.
- ii) Size 19C x 1.5 sq.mm

$$P_{19Ci} = P_{19Co} + 0.248(Cu - Cu_o) + 0.395(CC - CC_o) + 0.343(Fe - Fe_o)$$
 For armouring, value of steel flat strip of size 4mmx0.8mm is to be taken into consideration.
- iii) Size 12C x 1.5 sq.mm

$$P_{12Ci} = P_{12Co} + 0.157(Cu - Cu_o) + 0.277(CC - CC_o) + 0.289(Fe - Fe_o)$$
 For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.
- iv) Size 6Cx 1.5 sq.mm

$$P_{6Ci} = P_{6Co} + 0.078(Cu - Cu_o) + 0.199(CC - CC_o) + 0.329(Fe - Fe_o)$$
 For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.
- v) For Jelly filled, 0.9mm dia, 6 quad cable

$$P_{QCi} = P_{QCo} + 0.135(Al - Al_o) + 0.139(Cu - Cu_o) + 0.515(CC - CC_o) + 0.693(Fe - Fe_o)$$

For PVC Compound Grade CW-22, is to be taken into consideration.

- i) **The following expressions and meanings are assigned to the value of the work done for electrification works:**

- i) OHE = Value of work done for the completion of a stage under cost centre 'E1-Overhead Equipment Work' of Price Schedule 'A';

- ii) SP = Value of work done for the completion of a stage under cost centre 'E2-Switching Posts' of Price Schedule 'A';
- iii) TRANSAUX = Value of work done for the completion of a stage under cost centre 'E3-Auxiliary Transformer Station' of Price Schedule 'A';
- iv) TSS = Value of work done for the completion of a stage under cost centre 'E4-Traction Sub-Station' of Price Schedule 'A';
- v) SCADA = Value of work done for the completion of a stage under cost centre 'E5-SCADA' of Price Schedule 'A';
- vi) ELEGWK = Value of work done for the completion of a stage under cost centre 'E6-Various Electrical General Services Work' & 'E11-Solar Plants with complete accessories' of Price Schedule 'A' and;
- vii) EXTNLTPWRSPLY = Value of work done for the completion of a stage under cost centre 'E7- Extension of LT power supply for CLS work' of Price Schedule 'A' ;
- viii) EXTNPWRSUPPLY = Value of work done for the completion of a stage under cost centre 'E8-Extension/Augmentation of general power supply' of Price Schedule 'A';
- ix) MODELETRICAL = Value of work done for the completion of a stage under cost centre 'E9-Modification to existing electrical works' of Price Schedule 'A';
- x) INVELECTRICAL = Value of work done for the completion of a stage under cost centre 'E10- Electrical Inventory/Spare Items' of Price Schedule 'A';
- j) Price adjustment for changes in cost for electrification works shall be paid in accordance with the following formula:**
- i) $VOHE = 0.85 OHE \times [PLB \times (L_{Bi} - L_{Bo})/L_{Bo} + PC \times (C_i - C_o)/C_o + PSST \times (SST_i - SST_o)/SST_o + PCU \times (CU_i - CU_o)/CU_o + PINS \times (INS_i - INS_o)/INS_o + PSWGR \times (SWGR_i - SWGR_o)/SWGR_o]$;
- ii) $VSP = 0.85 SP \times [PLB \times (L_{Bi} - L_{Bo})/L_{Bo} + PC \times (C_i - C_o)/C_o + PSWGR \times (SWGR_i - SWGR_o)/SWGR_o + PSST \times (SST_i - SST_o)/SST_o]$;
- iii) $VTRANSAUX = 0.85 TRANSAUX \times [PLB \times (L_{Bi} - L_{Bo})/L_{Bo} + PTR \times (TR_i - TR_o)/TR_o]$;
- iv) $VTSS = 0.85 TSS \times [PLB \times (L_{Bi} - L_{Bo})/L_{Bo} + PTR \times (TR_i - TR_o)/TR_o + PC \times (C_i - C_o)/C_o + PSST \times (SST_i - SST_o)/SST_o + PSWGR \times (SWGR_i - SWGR_o)/SWGR_o + POTHS \times (OTH_i - OTH_o)/OTH_o]$;

- v) **VSCADA** = $0.85 \text{ SCADA} \times [\text{PLB} \times (\text{LBi} - \text{LBo})/\text{LBo} + \text{PELEX} \times (\text{ELEXi} - \text{ELEXo})/\text{ELEXo} + \text{POTH} \times (\text{OTHi} - \text{OTHo})/\text{OTHo}]$;
- vi) **VELEGWK** = $0.85 \text{ ELEGW} \times [\text{PLB} \times (\text{LBi} - \text{LBo})/\text{LBo} + \text{POTH} \times (\text{OTHi} - \text{OTHo})/\text{OTHo}]$;
- vii) **VEXTNLTPWRSPLY** = $0.85 \text{ EXTNLTPWRSPLY} \times [\text{PLB} \times (\text{LBi} - \text{LBo})/\text{LBo} + \text{POTH} \times (\text{OTHi} - \text{OTHo})/\text{OTHo}]$;
- viii) **VEXTNPWRSUPLY** = $0.85 \text{ EXTNPWRSUPLY} \times [\text{PLB} \times (\text{LBi} - \text{LBo})/\text{LBo} + \text{POTH} \times (\text{OTHi} - \text{OTHo})/\text{OTHo}]$;
- ix) **VMODELETRICAL** = $0.85 \text{ MODELETRICAL} \times [\text{PLB} \times (\text{LBi} - \text{LBo})/\text{LBo} + \text{POTH} \times (\text{OTHi} - \text{OTHo})/\text{OTHo}]$;
- x) **INVELECTRICAL** = $0.85 \text{ INVELECTRICAL} \times [\text{POTH} \times (\text{OTHi} - \text{OTHo})/\text{OTHo}]$;

Where:-

VOHE = Increase or decrease in the cost under cost centre 'E1' of Price Schedule 'A' of Over Head Equipment and other related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (k);

VSP = Increase or decrease in the cost under cost centre 'E2' of Price Schedule 'A' of Switching Post and other related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (k);

VTRANS AUX = Increase or decrease in the cost under cost centre 'E3' of Price Schedule 'A' of Auxiliary Transformer Station and other related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (k);

VTSS = Increase or decrease in the cost under cost centre 'E4' of Price Schedule 'A' of Traction Sub-Station and other related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (k);

VSCADA = Increase or decrease in the cost under cost centre 'E5' of Price Schedule 'A' of SCADA and related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (k);

VELEGWK = Increase or decrease in the cost under cost centre 'E6' & 'E11' of Price Schedule 'A' of Various Electrical General Services Work and Solar Plants with complete accessories during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (k);

VEXTNLTPWRSPLY = Increase or decrease in the cost under cost centre 'E7' of Price Schedule 'A' of Extension of LT power supply for CLS work and related works during

the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (k);

VEXTNPWRSUPPLY = Increase or decrease in the cost under cost centre 'E8' of Price Schedule 'A' of Extension/Augmentation of general power supply and related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (k);

VMODELETRICAL = Increase or decrease in the cost under cost centre 'E9' of Price -Schedule 'A' of Modification to existing electrical work and related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (k);

VINVELECTRICAL = Increase or decrease in the cost under cost centre 'E10' of Price Schedule 'A' of Electrical Inventory/Spare item during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (k);

PLB, PC, PSST, PCU, PINS, PSWGR, PTR, PELEX, and POTH are the percentages of Labour, Cement, Structural Steel, Copper Wire, Insulators, Electrical Switch Gears, Transformer, Electronic Items and All Other Commodities respectively for the relevant item as specified in sub-paragraph (k);

Co = The wholesale price index as published by the Ministry of Commerce & Industry, Government of India (hereinafter called "WPI") for cement, lime, plaster for the Base month;

Ci = The WPI for cement, lime, plaster for the average price index of the 3 months of the quarter under consideration.

CUo = Copper : (CU) Price of Copper Wire Rod published by IEEMA for the Base month;

CUi = Copper : (CU) Price of Copper Wire Rod published by IEEMA for the average price index of the 3 months of the quarter under consideration;

ELEXo = The WPI for MANUFACTURE OF ELECTRONIC COMPONENTS electronic items for the Base month;

ELEXi = The WPI for MANUFACTURE OF ELECTRONIC COMPONENTS for the average price index of the 3 months of the quarter under consideration;

INSo = The WPI for insulators for the Base month;

INSi = The WPI for insulators for the average price index of the 3 months of the quarter under consideration;

LBo = The consumer price index for industrial workers – All India, published by Labour Bureau, Ministry of Labour, Government of India, (hereinafter called "CPI") for the Base month;

LBi = The CPI for industrial workers – All India for the average price index of the 3 months of the quarter under consideration

OTHo = The WPI for all commodities for the Base month;

OTHi = The WPI for all commodities for the average price index of the 3 months of the quarter under consideration;

SSTo= Price of BLOOMS –Retail (SBLR) 150mmx150mm published by IEEMA for the Base month;

SSTi = = Price of BLOOMS –Retail (SBLR) 150mmx150mm published by IEEMA for the average price index of the 3 months of the quarter under consideration;

SWGRo = The WPI for MANUFACTURE OF ELECTRICAL EQUIPMENT for the Base month;

SWGRi = The WPI for MANUFACTURE OF ELECTRICAL EQUIPMENT for the average price index of the 3 months of the quarter under consideration;

TRo= The WPI for transformers for the Base month;

TRi= The WPI for transformers for the average price index of the 3 months of the quarter under consideration.

k) The following percentages shall govern the price adjustment of the Contract Price for electrification works:

(i) For Overhead Equipment work, Switching Post, Auxiliary Transformer Station, Traction Sub-Station:

Component	Over Head Equipment work except Commissioning and charging (E1)						Switching Posts – Supply of all Electrical items, completion of all works except commissioning and charging (E2 –E2.1, E2.2)	Auxiliary transformer stations – Completion of all works with testing except commissioning (E3 –E3.1)	Traction sub stations except Commissioning and charging (E4)			Commissioning and charging of OHE, SP, Auxiliary Transformer stations TSS at 25kV (E1.7, E2.3, E3.2, E4.4)
	Foundation, mast erection, bracket, erection, insulators			Stringing of catenary and contact wire					Transformers	All works except trans-formers		
	Completion of Design & drawing and Foundation work (E1.1)	Supply of steel (Mast and Portals components only) (E1.2)	Completion of Steel erection (Mast & Portal) & grouting with painting of location Numbers (E1.3)	Completion of erection of Bracket, Guy Rod, anticreep (Complete pre wiring activity), Height gauge & protection screen, Provision of wire and rod insulators on LCs (E1.4)	Supply of Contact & Catenary wire only (E1.5)	Completion of wiring along with erection of balance weight, dropping & clipping including antitheft charging (E1.6)			Supply and erection of transformers (E4.3)	Completion of all civil works for the TSS (works like earth filling, retaining wall, approach road, control building, fencing) (E4.1)	Completion of all supply and erection works of TSS except supply and erection of Transformers (E4.2)	
Labour (PLB)	22.00 %		28.00%			16.00%	24.00%	13.00%	2.00%	30.00%	5.00%	100.00%
Cement (PC)	78.00 %		35.00%	13.00%			22.00%			14.00%	9.00%	
Structural steel (PSST)		100.00 %	37.00%			27.00%	11.00%			8%	43.00%	
Insulators (PINS)						9.00%						
Copper wire (PCU)					100%	48.00%						
Transformer (PTR)								87.00%	98.00%			
Electrical Switch Gear (PSWGR)				87.00%			43.00%				43.00%	
All other commodities (POTH)										48%		

Component	Over Head Equipment work except Commissioning and charging (E1)						Switching Posts – Supply of all Electrical items, completion of all works except commissioning and charging (E2 –E2.1, E2.2)	Auxiliary transformer stations – Completion of all works with testing except commissioning (E3 –E3.1)	Traction sub stations except Commissioning and charging (E4)			Commissioning and charging of OHE, SP, Auxiliary Transformer stations TSS at 25kV (E1.7, E2.3, E3.2, E4.4)
	Foundation, mast erection, bracket, erection, insulators				Stringing of catenary and contact wire				Transformers	All works except trans-formers		
	Completion of Design & drawing and Foundation work (E1.1)	Supply of steel (Mast and Portals components only) (E1.2)	Completion of Steel erection (Mast & Portal) & grouting with painting of location Numbers (E1.3)	Completion of erection of Bracket, Guy Rod, anticreep (Complete pre wiring activity), Height gauge & protection screen, Provision of wire and rod insulators on LCs (E1.4)	Supply of Contact & Catenary wire only (E1.5)	Completion of wiring along with erection of balance weight, dropping & clipping including antitheft charging (E1.6)			Supply and erection of transformers (E4.3)	Completion of all civil works for the TSS (works like earth filling, retaining wall, approach road, control building, fencing) (E4.1)	Completion of all supply and erection works of TSS except supply and erection of Transformers (E4.2)	
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

- (ii) For SCADA, Various Electrical General Services Work & Solar Plants with complete accessories, Extension of LT power supply for CLS, Extension/ augmentation of general power supply, Modification to existing electrical works:

Component	SCADA except commissioning (E5 – E5.1, E5.2)	Various Electrical General Services Work accessories (E6 – E6.1, E6.2) & Solar Plants with complete accessories except commissioning (E11 – E11.1, E11.2)	Extension of LT power supply for CLS work except commissioning (E7 – E7.1)	Extension/ augmentation of general power supply (E8 – E8.1)	Modification to existing electrical works (E9 – E9.1)	Commissioning of SCADA system at Switching Post and Division, Extension of LT power supply for CLS work , Various Electrical General Services work and Solar Plants with complete accessories . (E5.3, E6.3, E7.2, E11.3)
Labour (PLB)	7.00%	20%	20.00%	20%	20.00%	100%
Electronics (PELEX)	87.00%	-	-	-	-	-
PVC Insulated Cable (PIC)	-	-	-	-	-	-
Fibre Cable (POFC)	-	-	-	-	-	-
All other commodities (POTH)	6.00%	80 %	80%	80%	80.00%	-
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00 %

(iii) For Electrical Inventory/Spare item:

Component	Electrical Inventory/Spare item (E10 – E10.1)
Labour (PLB)	-
Electronics (PELEX)	-
PVC Insulated Cable (PIC)	-
Fibre Cable (POFC)	-
All other commodities (POTH)	100.00%
Total	100.00%

2. Schedule of Adjustment Data

Refer Clause 1 Price Adjustment of Appendix A to Financial Part

Table A: Deleted

Table B. Foreign Currency (FC)

Not applicable as Tenderer's are required to quote rates and prices only in INR.

Table C. Summary of Payment Currencies

For [insert name of Works]

Name of Payment Currency	A	B	C	D
	Amount of Currency	Rate of Exchange (local currency per unit of foreign)	Local Currency Equivalent $C = A \times B$	Percentage of Net Tender Price (NTP) $\frac{100 \times C}{NTP}$
For Schedule 'A'				
Local currency (INR)		1.00		
USD (\$)				
EUR (€)				
JPY (¥)				
Schedule 'B'		1.00		
Schedule 'C'		1.00		
Net Tender Price				100.00
Provisional Sums Expressed in Local Currency (INR) in million	100,000,000.00	1.00	100,000,000.00	Not Applicable
TOTAL TENDER PRICE (including provisional sum)				

Note: The Tenderer is required to propose and submit the schedules given in tables above as part of the Tender. The rates of exchange shall be the reference rate twenty-eight (28) days prior to the deadline for submission of Tenders published by the Reserve Bank of India (RBI) on its website <https://www.rbi.org.in>. In case the exchange rate of particular currency on given date is not available on RBI web site, it will be as per the web site <https://www.fbil.org.in> of Financial Benchmark India Private Limited (FBIL).

Appendix B to Financial Part: Price Schedules/R1

1 Preamble

- 1.1. The Price Schedules shall be read in conjunction with the Instructions to Tenderers, the General Conditions, the Particular Conditions and the Employer's Requirements (General Specifications, Design Requirements Criteria, Technical Specifications, Drawings) and the Addenda (if any).
- 1.2. **Schedule 'A'** comprises scope of work to be executed under lump sum contract as detailed in Part 2- Employers' Requirements of Tender Document. The Tenderer has to quote a single lump sum amount against Schedule 'A'. Payment to the Contractor will be made in accordance with payment stages/Milestones defined for each Cost Centre detailed below unless otherwise specified in the Contract.
- 1.3. **Schedule 'B'** comprise of percentage rate for Retaining Wall. The work has to be carried out as per the description of items given in Schedule 'B' and directions of the Engineer. The Tenderer has to quote the percentage Excess (+) or Less (-) over the basic amount given in the Schedule 'B'. The payment against this head will be made on the basis of quantities executed, measured and certified. Under this Schedule, the contractor has to do all works *of retaining walls* which are not covered in Schedule 'A', as per site requirements and as per the direction of the Engineer.
- 1.4. **Schedule 'C'** comprises miscellaneous items for Civil, Signalling & Telecommunications and Unchartered Utility Shifting works. The work has to be carried out as per Schedule of items given in this Schedule 'C'. This Schedule contains only Rate and Unit of items of the works. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Engineer and valued at the rates and prices quoted in the Price Schedules. The Tender has to quote the percentage (%) Excess (+) or Less (-) over the basic amount given in Schedule 'C' for items to be executed against this head. Under this Schedule, the Contractor has to undertake items or works not covered in Schedules 'A' and 'B' as per the requirements and directions of the Engineer.
- 1.5. The Schedules may not generally give a full description of the works to be performed and the plant or equipment to be supplied under each item. Tenderers shall be deemed to have read the Employer's Requirements and the other sections of the Tender Documents and reviewed the Drawings to ascertain the full scope of the requirements included in each item prior to filling the rates and prices.
- 1.6. The price quoted in the Price Schedules for Schedule 'A', Schedule 'B' and Schedule 'C' are for complete and finished items of the work in all respects. The Price quoted in the Price Schedules shall, except in so far as it is otherwise provided under the Contract, shall include all design, include all necessary survey work, plants, tools, machinery, Contractor's

equipment, labour, compliance of labour laws, supervision, materials, transportation, handling, loading & unloading, storage, sampling, testing, fuel, oil, consumables, electric power, water, all leads & lifts, dewatering, all temporary works including temporary accesses, staging, form works and false works, stacking, provision and maintenance of all temporary works area, construction of temporary store and buildings, fencing, barricading, lighting, drainage arrangements, erection & maintenance of inspection facilities above and below ground such as brick, concrete and steel etc., reinstatement, remedy of any defects during the Defects Notification Period, safety measures for workmen and road users, preparation of design and drawings pertaining to permanent and temporary works, & traffic diversion works, mobilisation and demobilisation, establishment and overhead charges, labour camps, insurance cost for labour and works, contractor's profit, all taxes including Goods and Service Tax (GST), insurance, royalties, duties, cess, octroi, other levies and other charges together with all general risks, liabilities and obligations set out or implied in the Contract.

The price and rates quoted by Tenderer shall be deemed to have included GST at the rate of 18% as notified by 47th GST Council on 29th June 2022

- 1.7. The whole cost of complying with the provisions of the Contract shall be included in the items provided in the Price Schedules, and where no items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related items of the Work.
- 1.8. To the extent acceptable to the Employer for the purpose of making payments or partial payments, valuing variations or evaluating claims, or for such other purposes as the Engineer may reasonably require, the Contractor may provide the Engineer with a breakdown of any composite or lump sum items included in the Schedules.
- 1.9. The Provisional Sums included and so designated in the Price Schedules shall be expended in whole or in part at the direction and discretion of the Engineer. The Provisional Sum shall be used to cover the Employer's share of the DAAB members' fees and expenses, in accordance with Clause 21. No prior instruction of the Engineer shall be required with respect to the work of the DAAB in accordance with Sub-Clause 13.4 of Part B-Specific Provisions - Particular Conditions of Contract. The Contractor shall submit the DAAB members' invoices and satisfactory evidence of having paid 100% of such invoices as part of the substantiation of those statements submitted under Sub-Clause 14.3. in accordance with Sub-Clauses 13.4 of the General Conditions.
- 1.10. The prices shall be quoted against Schedule 'A', Schedule 'B' and Schedule 'C' in the Price Schedule (Excel Workbook) uploaded on the e-Procurement portal.
- 1.11. The prices quoted shall be comprehensive and must include for complying in all respects with the Price Schedules, Instruction to Tenderers, the General Conditions, the Particular Conditions, Employer's Requirements, Specifications and Drawings and for all matters and things necessary for the proper construction, completion, and making good of any defect in

part or of the whole of the Works.

- 1.12.No claims for additional payment shall be allowed for any error or misunderstanding by the Contractor of the work involved.

2 Measurement and Payment

- 2.1 The measurement shall be made as per Price Schedules i.e. Schedule ‘A’. Schedule ‘B’ and Schedule ‘C’ and other relevant provisions of the Contract such as Employer’s Requirements and the Drawings.
- 2.2 If during execution of the Contract, it is decided by the Employer/Engineer that one or more items of Work/ Milestone of a Cost Centre in a particular Price Schedule is not required to be executed, the proportionate amount against that particular Item of Work/Milestones shall not be paid. The Engineer’s decision in this regard shall be final.
- 2.3 The Payment shall be made as per Clause 14 [Contract Price and Payment] of the General Conditions and Particular Conditions.

3 Procedures for Payment

- 3.1 The Employer shall make interim payments to the Contractor in accordance with the provisions of Sub-Clause 14.6 [Issue of Interim Payment Certificates] of the General Conditions and Particular Conditions, as certified by the Engineer on the basis of the progress achieved for the items of works/stages/Milestones of the works.
- 3.2 The Contractor shall base its claim for interim payment in accordance with Sub-Clause 14.3 [Application for Interim Payment] of the General Conditions and Particular Conditions for each stage for various items of work on the basis of actual progress of work executed (i.e. Milestones achieved) till the end of the month for which the payment is claimed in relation to the Contractor’s total executed quantity, supported with documents and updated programme in accordance with the Employer’s Requirements.
- 3.3 The Employer may carry out necessary tests, either directly or through an independent agency, of the Works done by the Contractor for which payment has been accepted and certified by the Engineer. The payment shall depend upon the outcome of such tests.
- 3.4 Format for the Contractor’s application for payment shall be agreed between the Engineer and the Contractor.
- 3.5 All necessary supplementary details to support progress claims, including all certified Request for Inspection in hard bound copy, shall be included with application for payment. Sketches, drawings, approvals, calculations, test reports etc. shall accompany an application for payment to be substantiated and certified by the Engineer and submitted to the Employer.
- 3.6 Even if no work is executed during the month, or the Contractor does not choose to issue an application for payment, a ‘NIL’ application shall be submitted.
- 3.7 For the purposes of payment, the Contractor shall submit to the Engineer a detailed Price Schedule indicating a further breakdown for each stage of payment contained in the Price Schedules within forty-two (42) days after the receipt of the Letter of Acceptance. Such cost breakdowns shall be subject to approval of the Engineer who shall review and evaluate with

comments and/or issue approval within twenty-eight (28) days of receipt of same. The Contractor shall resubmit the cost breakdown structure corresponding to the Engineer's comments for review, if required.

- 3.8 The Engineer is not obliged to issue an Interim Payment Certificate until such breakdown structure of payment schedule has been submitted and accepted by the Engineer.

4 Methodology for Claiming Payment

- 4.1 The Contractor shall prepare his monthly application for payment in the agreed format in two hard copies and one soft copy. This shall be accompanied by supplementary details in accordance with Sub-Clause 14.3 [Application for Interim Payment Certificates] of the General Conditions. All hard copies shall bear the original signatures of the Contractor's Representative and be submitted to the Engineer.
- 4.2 If these are found in order, in accordance with Sub-Clause 14.6 [Issue of Interim Payment Certificates] of the General Conditions, then the Engineer shall forward two certified copies of the application along with certified supplementary details to the Employer, with his recommendation for payment; otherwise, all documents shall be returned to the Contractor for rectification and resubmission.

5 Price Schedule

- 5.1 Schedule "A"- Breakup of Lump Sum cost of Works under various Sub-Heads shall be as follows:

Sub-Head	Description	Percentage of the quoted lump sum cost of Schedule 'A'	No. of Cost Centres	Total Cost of each Sub-Head
1	2	3	4	5
C	Civil works	76.73	4	$C = 0.7673 \times LS^*$
E	OHE and General Electrical Services	12.51	11	$E = 0.1251 \times LS$
S	Signalling works	08.51	10	$S = 0.0851 \times LS$
T	Telecom works	02.25	15	$T = 0.0225 \times LS$

*LS = Total lump sum cost of Works for Schedule 'A'

5.2 Apportionment of Contract Price for payments under various Cost Centre for Sub-Head 'C'- Civil Works

Cost Centre	Description of Cost Centre	Percentage of Cost Centre 'C'	Total Cost of Cost Centre	Total Cost of Sub-Head 'C'
1	2	3	4	5
CD	Design and As Built Drawing & Documents	05.00%	CD= 0.05x 'C'	76.73% of SCH 'A'
CE	Earthwork and blanketing	38.50%	CE=0.385x 'C'	
CB	Bridges	49.50%	CE=0.495x 'C'	
CS	Station	07.00%	CE=0.07x 'C'	
Total		100%		

Note: Value of 'C' shall be as defined in Sub-Clause 5.1 above.

The percentage figures as filled in column (3) by the Employer for the apportionment of the Contract Price for completion of the Works corresponding to the various Sub-Heads and Cost Centres are fixed and payment will be released for different Cost centre as per above percentage break-up of Contract Price.

5.2.1 Stages of Payment i.e. Milestones of Cost Centre ‘CD’- Design and As Built Drawing & Documents

Cost Centre	Sub Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre ‘CD’ (Y)
		No.	Description			
1	2	3	4	5	6	7
CD- Design and As Built Drawing & Documents	CD1- Design	CD1.1	Inception report	Inception report	10%	5%
		CD1.2	Formation	Definitive design & Good for Construction drawings (GFC)	10%	
		CD1.3	Minor			
		CD1.3.1		GAD	10%	
		CD1.3.2		Definitive design	10%	
		CD1.3.3		Good For Construction (GFC) drawings	8%	
		CD1.4	Major Bridge (substructure & bearings)			
		CD1.4.1		GAD	4%	
		CD1.4.2		Definitive design	4%	
		CD1.4.3		Good For Construction (GFC) drawings	4%	
		CD1.5	Retaining Wall			
		CD1.5.1		Definitive Design	5%	
		CD1.5.2		Good For Construction (GFC) drawings	5%	
		CD1.6	Station			
		CD1.6.1		Architectural/GAD drawings	4%	

Cost Centre	Sub Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CD' (Y)
		No.	Description			
1	2	3	4	5	6	7
		CD1.6.2		Definitive Design	3%	
		CD1.6.3		Combined Services Drawings & MEP drawings	4%	
		CD1.6.4		Design and drawings for circulating area, passenger amenities, water supply, drainage, rainwater harvesting systems and landscaping	4%	
	CD2- As Built Drawing & Documents	CD 2.1	As Built Drawings	On submission of As Built Drawings	10%	
		CD 2.2	As Built Documents	On submission of As Built Documents	5	
				Total	100%	

Note:

1. The value of each Milestones will be 76.73% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for CD 1.3.2, Value will be = 0.7673 of Lump sum quoted price of Sch A * X * Y = 0.7673 * 0.1 * 0.05 of lump sum quoted price of Schedule 'A'.
2. Adjustment to Contract Price pursuant to GCC 13.7 shall **NOT** be applicable to the payments of Works executed under this Cost Centre.
3. All minor bridge shall have equal weightage. Payment of each stage/Milestones shall be made on pro rata basis on completion of a stage for a bridge.
4. All major bridge shall have equal weightage. Payment of each stage/Milestones shall be made on pro rata basis on completion of a stage for a bridge.
5. All stations shall have equal weightage. Payment of each stage/Milestones shall be made on pro rata basis on completion of a stage for a station.
6. Payment will be made on Completion of each Milestones as per weightage given in this Cost Centre

5.2.2 Stages of Payment i.e. Milestones of Cost Centre ‘CE’- Earthwork and Blanketing

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre ‘CE’ (Y)	
		No.	Description				
1	2	3	4	5	6	7	
CE- Earthwork and Blanketing	CE.1- Earthwork	CE.1.1	Earthwork in formation from Ch 55.600 to 56.000 for double main line track.			38.5%	
			CE.1.1.1		Earthwork in embankment / cutting including compaction.	6.2%	
			CE.1.1.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.4%	
			CE.1.1.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.2%	
			CE.1.2	Earthwork in formation from Ch 56.000 to 56.500 for double main line track.			
			CE.1.2.1		Earthwork in embankment/	8.2%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
				cutting including compaction.		
		CE.1.2.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.6%	
		CE.1.2.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted	0.2%	
		CE.1.3	Earthwork in formation from Ch 56.500 to 57.000 for double main line track.			
		CE.1.3.1		Earthwork in embankment / cutting including compaction.	6.3%	
		CE.1.3.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.4%	
		CE.1.3.3		On completion of maintenance period	0.2%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
				of 4 months for turfing, if the turfing is properly rooted.		
		CE.1.4	Earthwork in formation from Ch 57.000 to 57.300 for double main line track.			
		CE.1.4.1		Earthwork in embankment / cutting including compaction.	3.3%	
		CE.1.4.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.2%	
		CE.1.4.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.1%	
		CE.1.5	Earthwork in formation from Ch 57.300 to 57.500 in New Patli yard for main, loop & connecting			

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
			lines and platform area.			
		CE.1.5.1		Earthwork in embankment / cutting including compaction.	3.1%	
		CE.1.5.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.2%	
		CE.1.5.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.1%	
		CE.1.6	Earthwork in formation from Ch 57.500 to 58.000 in New Patli yard for main, loop & connecting lines and platform area.			
		CE.1.6.1		Earthwork in embankment /	8.2%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
				cutting including compaction.		
		CE.1.6.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.6%	
		CE.1.6.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.2%	
		CE.1.7	Earthwork in formation from Ch 58.000 to 58.500 in New patli yard for main, loop & connecting lines and platform area.			
		CE.1.7.1		Earthwork in embankment / cutting including compaction.	8.3%	
		CE.1.7.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory	0.6%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
				roller, turfing & drainage arrangement complete in all respects.		
		CE.1.7.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.2%	
		CE.1.8	Earthwork in formation from Ch 58.500 to 58.700 in New Patli yard for main, loop & connecting lines and platform area.			
		CE.1.8.1		Earthwork in embankment / cutting including compaction.	2.7%	
		CE.1.8.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.2%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
		CE.1.8.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.1%	
		CE.1.9	Earthwork in formation from Ch 58.700 to 59.200 for main line and Sultanpur connecting line.			
		CE.1.9.1		Earthwork in embankment / cutting including compaction.	3.5%	
		CE.1.9.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.3%	
		CE.1.9.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.2%	
		CE.1.10	Earthwork in formation from Ch 59.200 to			

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
			59.500 for double main line track.			
		CE.1.10.1		Earthwork in embankment / cutting including compaction.	2%	
		CE1.10.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.1%	
		CE1.10.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.1%	
		CE.1.11	Earthwork in formation from Ch 59.500 to 60.000 for double main line track.			
		CE1.11.1		Earthwork in embankment / cutting including compaction.	2.9%	
		CE.1.11.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage	0.2%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
				arrangement complete in all respects.		
		CE.1.11.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.1%	
		CE.1.12	Earthwork in formation from Ch 60.000 to 60.500 for double main line track.			
		CE.1.12.1		Earthwork in embankment / cutting including compaction.	3.6%	
		CE.1.12.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.3%	
		CE.1.12.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.1%	
		CE.1.13	Earthwork in formation from Ch			

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
			60.500 to 61.000 for double main line track.			
		CE.1.13.1		Earthwork in embankment / cutting including compaction.	3.0%	
		CE.1.13.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.2%	
		CE.1.13.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.1%	
		CE.1.14	Earthwork in formation from Ch 61.000 to 61.500 for double main line track.			
		CE.1.14.1		Earthwork in embankment / cutting including compaction.	3.8%	
		CE.1.14.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing &	0.2%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
				drainage arrangement complete in all respects.		
		CE.1.14.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.1%	
		CE.1.15	Earthwork in formation from Ch 0.614 to 1.000 for New Patli - Patli connecting line			
		CE.1.15.1		Earthwork in embankment / cutting including compaction.	1.5%	
		CE.1.15.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.1%	
		CE.1.15.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.1%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
		CE.1.16	Earthwork in formation from Ch 1.000 to 1.500 for New Patli - Patli connecting line.			
		CE.1.16.1		Earthwork in embankment / cutting including compaction.	1.5%	
		CE.1.16.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.1%	
		CE.1.16.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.1%	
		CE.1.17	Earthwork in formation from Ch 1.500 to Ch 2.000 for New Patli-Patli connecting line			

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
		CE.1.17.1		Earthwork in embankment / cutting including compaction.	0.6%	
		CE.1.17.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.1%	
		CE.1.17.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.05%	
		CE.1.18	Earthwork in formation from Ch 2.000 to Ch 2.500 for New Patli-Patli connecting line			
		CE.1.18.1		Earthwork in embankment / cutting including compaction.	0.2%	
		CE.1.18.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement	0.05%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
				complete in all respects.		
		CE.1.18.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.05%	
		CE1.19	Earthwork in formation from Ch 2.500 to Ch 2.700 for New Patli-Patli connecting line	Earthwork in embankment / cutting including compaction. Cutting of extra earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects and on completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.05%	
		CE.1.20	Earthwork in formation from Ch 0.703 to 1.500 for New Patli-Sultanpur connecting line			

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
		CE.1.20.1		Earthwork in embankment / cutting including compaction.	2.3%	
		CE.1.20.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.1%	
		CE.1.20.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.1%	
		CE.1.21	Earthwork in formation from Ch 1.500 to 2.000 for New Patli-Sultanpur connecting line			
		CE.1.21.1		Earthwork in embankment / cutting including compaction.	1.9%	
		CE.1.21.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement	0.1%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
				complete in all respects.		
		CE.1.21.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.1%	
		CE.1.22	Earthwork in formation from Ch 2.000 to 2.500 for New Patli-Sultanpur connecting line			
		CE.1.22.1		Earthwork in embankment / cutting including compaction.	1.3%	
		CE.1.22.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.05%	
		CE.1.22.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.05%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
		CE.1.23	Earthwork in formation from Ch 2.500 to 3.000 for New Patli-Sultanpur connecting line			
		CE.1.23.1		Earthwork in embankment / cutting including compaction.	1.3%	
		CE.1.23.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.05%	
		CE.1.23.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.05%	
		CE.1.24	Earthwork in formation from Ch 3.000 to 3.500 for New Patli-Sultanpur connecting line	Earthwork in embankment / cutting including compaction. Cutting of extra earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement	0.3%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
				complete in all respects and on completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.		
		CE.1.25	Earthwork in formation from Ch 3.500 to 4.000 for New Patli-Sultanpur connecting line	Earthwork in embankment / cutting including compaction. Cutting of extra earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects and on completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.05%	
		CE.1.26	Earthwork in formation from Ch 4.000 to 4.119 for New Patli-Sultanpur connecting line	Earthwork in embankment / cutting including compaction. Cutting of extra earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all	0.05%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
				respects and on completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.		
		CE.1.27	Earthwork in formation in Sultanpur Station yard (Km 0.861 towards Garhi Harsaru side & Km 0.530 towards Badsa side)	Earthwork in embankment / cutting including compaction. Cutting of extra earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects and on completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.10%	
	CE.2-Blanketing	CE.2.1	Blanketing from Ch 55.600 to 56.000 for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.5%	
		CE.2.2	Blanketing from Ch 56.000 to 56.500 for	Blanketing on subgrade/ prepared subgrade as per design profile including	0.7%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
			double main line track.	compaction complete in all respects.		
		CE.2.3	Blanketing from Ch 56.500 to 57.000 for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.7%	
		CE.2.4	Blanketing from Ch 57.000 to 57.300 for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.5%	
		CE.2.5	Blanketing from Ch 57.300 to 57.500 in New Patli yard for main, loop & connecting lines.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.7%	
		CE.2.6	Blanketing from Ch 57.500 to 58.000 in New Patli yard for main, loop & connecting lines.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	1.8%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
		CE.2.7	Blanketing from Ch 58.000 to 58.500 in New patli yard for main, loop & connecting lines.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	1.5%	
		CE.2.8	Blanketing from Ch 58.500 to 58.700 in New Patli yard for main, loop & connecting lines.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.8%	
		CE.2.9	Blanketing from Ch 58.700 to 59.200 for main line and Sultanpur connecting line.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	1.2%	
		CE.2.10	Blanketing from Ch 59.200 to 59.500 for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.5%	
		CE.2.11	Blanketing from Ch	Blanketing on subgrade/ prepared	0.6%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
			59.500 to 60.000 for double main line track.	subgrade as per design profile including compaction complete in all respects.		
		CE.2.12	Blanketing from Ch 60.000 to 60.500 for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.6%	
		CE.2.13	Blanketing from Ch 60.500 to 61.000 for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.6%	
		CE.2.14	Blanketing from Ch 61.000 to 61.500 for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.6%	
		CE.2.15	Blanketing from Ch 0.614 to 1.000 for New Patli - Patli connecting line	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.2%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
		CE.2.16	Blanketing from Ch 1.000 to 1.500 for New Patli - Patli connecting line.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.4%	
		CE.2.17	Blanketing from Ch 1.500 to Ch 2.000 for New Patli - Patli connecting line	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.4%	
		CE.2.18	Blanketing from Ch 2.000 to Ch 2.500 for New Patli - Patli connecting line	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.4%	
		CE.2.19	Blanketing from Ch 2.500 to Ch 2.700 for New Patli - Patli connecting line	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.4%	
		CE.2.20	Blanketing from Ch 0.703 to 1.500 for New Patli - Sultanpur	Blanketing on subgrade/ prepared subgrade as per design profile including compaction	0.4%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
			connecting line	complete in all respects.		
		CE.2.21	Blanketing from Ch 1.500 to 2.000 for New Patli-Sultanpur connecting line	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.4%	
		CE.2.22	Blanketing from Ch 2.000 to 2.500 for New Patli-Sultanpur connecting line	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.4%	
		CE.2.23	Blanketing from Ch 2.500 to 3.000 for New Patli-Sultanpur connecting line	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.4%	
		CE.2.24	Blanketing from Ch 3.000 to 3.500 for New Patli-Sultanpur connecting line	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.4%	
		CE.2.25	Blanketing from Ch 3.500 to 4.000 for	Blanketing on subgrade/ prepared subgrade as per design profile	0.4%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
			New Patli-Sultanpur connecting line	including compaction complete in all respects.		
		CE.2.26	Blanketing from Ch 4.000 to 4.119 for New Patli-Sultanpur connecting line	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.1%	
		CE.2.27	Blanketing in Sultanpur Station yard (Km 0.861 towards Garhi Harsaru side & Km 0.530 towards Badsa side)	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.5%	
				Total	100%	

Note:

1. Adjustment to Contract Price pursuant to GCC 13.7 shall be applicable to the payments of Works executed under this Sub Heads / Price Schedule.
2. Payment will be made on Completion of each Milestones as per weightage given in this schedule.

5.2.3 Milestones of Cost Centre ‘CB’- for Bridges

Cost Centre	Sub-cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Sub-Cost Centre ‘CB’ (Y)	
		No.	Description				
1	2	3	4	5	6	7	
CB-Bridges	CB1-Minor Bridges	CB1.1	Construction of minor bridge No. Nil between ch 55.600 to 56.000 for main line track.	On completion of RCC box bridge including *	0%	49.5%	
		*wing wall, return wall, drop wall, curtain wall, flooring, backfill, protection works, inspection steps, bridge number plaque, painting of HFL, height gauge, drainage arrangement, road works in RUBs and other balance works complete as per approved drawings & TS.					
		CB.1.2	Construction of minor bridge Nos. 137,138 & 139 between ch 56.000 to 56.500 for main line track.	On completion of RCC box bridge including *	5.11%		
		CB1.3	Construction of minor bridge No. 140 between ch 56.500 to 57.000 for main line track.	On completion of RCC box bridge including *	0.76%		
		CB1.4	Construction of minor bridge No. 141 between ch 57.000 to 57.300 for main line track.	On completion of RCC box bridge including *	2.92%		
		CB.1.5	Construction of minor bridge No. Nil between ch 57.300 to 57.500 for main & New patli -Patli connecting lines.	On completion of RCC box bridge including *	0%		
		CB1.6	Construction of minor bridge No. 142, 143 & 144 between ch 57.500 to 58.000 in	On completion of RCC box bridge including *	11.76%		

Cost Centre	Sub-cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Sub-Cost Centre 'CB' (Y)
		No.	Description			
			New Patli yard.			
		CB1.7	Construction of minor bridge No.145 between ch 58.000 to 58.500 in New Patli yard.	On completion of RCC box bridge including *	3.52%	
		CB1.8	Construction of minor bridge No.146 between ch 58.500 to 58.700 in New Patli yard.	On completion of RCC box bridge including *	0.83%	
		CB1.9	Construction of minor bridge No. Nil between ch 58.700 to 59.200 for main & New Patli-Sultanpur connecting lines.	On completion of RCC box bridge including *	0%	
		CB.1.10	Construction of minor bridge No. Nil between ch 59.200 to 59.500 for main line.	On completion of RCC box bridge including *	0%	
		CB1.11	Construction of minor bridge No.149 between ch 59.500 to 60.000 for main line track.	On completion of RCC box bridge including *	1.76%	
		CB1.12	Construction of minor bridge No.150 between ch 60.000 to 60.500 for main line track.	On completion of RCC box bridge including *	2.16%	
		CB1.13	Construction of minor bridge No.151A, 151B, 151C & 151D between ch 60.500 to	On completion of RCC box bridge including *	24.9%	

Cost Centre	Sub-cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Sub-Cost Centre 'CB' (Y)
		No.	Description			
			61.000 for main line track			
		CB1.14	Construction of minor bridge No. 152 between ch 61.000 to 61.500 for main line track.	On completion of RCC box bridge including *	0.62%	
		CB1.15	Construction of minor bridge No. 3 between Ch 0.614 to 1.000 for New Patli to Patli connecting line.	On completion of RCC box bridge including *	1.19%	
		CB1.16	Construction of minor bridge No. 4 between ch 1.000 to 1.500 for New Patli to Patli connecting line.	On completion of RCC box bridge including *	0.37%	
		CB1.17	Construction of minor bridge no. 5 between ch 1.500 to 2.000 for New Patli to Patli connecting line.	On completion of RCC box bridge including *	0.48%	
		CB1.18	Construction of minor bridge No. 6 between ch 2.000 to 2.500 for New Patli to Patli connecting line	On completion of RCC box bridge including *	2.55%	
		CB1.19	Construction of minor bridge No. 7 between ch 2.500 to 2.700 for New Patli to Patli connecting line	On completion of RCC box bridge including *	0.24%	
		CB1.20	Construction of minor bridge No. Nil between ch 0.703 to 1.500 for New Patli to Sultanpur connecting line	On completion of RCC box bridge including *	0%	

Cost Centre	Sub-cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Sub-Cost Centre 'CB' (Y)
		No.	Description			
		CB1.21	Construction of minor bridge Nos. 1 & 2 between ch 1.500 to 2.000 for New Patli to Sultanpur connecting line	On completion of RCC box bridge including *	1.35%	
		CB1.22	Construction of minor bridge No. Nil between ch 2.000 to 2.500 for New Patli to Sultanpur connecting line	On completion of RCC box bridge including *	0%	
		CB1.23	Construction of minor bridge Nos. 3 & 4 Between ch 2.500 to 3.000 for New Patli to Sultanpur connecting line	On completion of RCC box bridge including *	1.46%	
		CB1.24	Construction of minor bridge No. Nil between ch 3.000 to 3.500 for New Patli to Sultanpur connecting line	On completion of RCC box bridge including *	0%	
		CB1.25	Construction of minor bridge No. Nil between ch 3.500 to 4.000 for New Patli to Sultanpur connecting line	On completion of RCC box bridge including *	0%	
		CB1.26	Construction of minor bridge No. Nil between ch 4.000 to 4.119 for New Patli to Sultanpur connecting line	On completion of RCC box bridge including *	0%	

Cost Centre	Sub-cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Sub-Cost Centre 'CB' (Y)
		No.	Description			
		CB1.27	Construction of minor bridge No. Nil Sultanpur Station yard	On completion of RCC box bridge including *	0%	
	CB.2-Major Bridges	CB.2.1	Foundation	On completion of the foundation work including pile caps/ well caps and foundations for wing and return walls, and testing.	7.0%	
		CB.2.2	Substructure	On Completion of Abutment/Piers including Abutment/Pier Cap without bearings.		
		CB.2.2.1		Pier/Abutment	3%	
		CB.2.2.2		Pier/Abutment cap	0.5%	
		CB.2.2.3		Completion of the wing walls, return walls in all respects	1.4%	
		CB.2.3	Superstructure			
		CB.2.3.1		On completion superstructure including launching in position.	20%	
		CB.2.3.2		On fixing of bearings in position true to line & level and	1.6%	

Cost Centre	Sub-cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Sub-Cost Centre 'CB' (Y)
		No.	Description			
				placement of superstructure on bearings including grouting of holding down bolts complete.		
		CB.2.4	Track works			
		CB.2.4.1		Transportation/sifting of rails	0.2%	
		CB.2.4.2		On completion of installation of track on H-beam sleepers including fixing of guard rails, gang pathway.	0.82%	
		CB.2.5	Miscellaneous works			
		CB.2.5.1		On completion of Trolley refuse, Pathway on the sides, Inspection arrangement including access ladder etc.as per approved drawings and Employers requirement,	1%	
		CB.2.5.2		On completion of balance works as per drawing like-Protection works including Toe wall, Pitching, inspection steps,	2.5%	

Cost Centre	Sub-cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Sub-Cost Centre 'CB' (Y)
		No.	Description			
				Bridge plaque, Bridge board, painting of HFL, Height Gauge, drainage arrangement in RUBs, and Testing on completion, if any, complete in all respect and fit for use.		
				Total	100%	

Note:

1. Adjustment to Contract Price pursuant to GCC 13.7 shall be applicable to the payments of Works executed under this Sub Head / Price Schedule.
2. Payment will be made on Completion of each Milestones as per weightage given in this schedule.
3. CB2.2-Major Bridges:
 - (i) For the purpose of stage payment/Milestones, cost of a bridge shall be taken in proportion to its linear length measured along the alignment to the total linear length of all major bridges.
 - (ii) Payment of each stage/Milestones for a bridge will be made on completion of the relevant stage as per the weightage given in this schedule in proportion to the cost of the bridge.
4. Stages CB.2.1 to CB.2.2 will further be subdivided into the number of piers + 2 abutments, as applicable as per approved drawing by the Engineer, and Milestones for completed work for each pier and abutment shall be made as per the requirement of the stages stated above.
5. For steel Open Web Girder (OWG) and Composite girders payment against Cost centre CB.2.3.1 shall be released as per following schedule-
 - (i) Receipt of material at approved location: 40%
 - (ii) Fabrication of girder and transportation to site: 25%

(iii)Erection/launching and completion of all other balance works: 35%,
and for PSC girder/slabs payment against sub cost centre 2.3.1 shall be released as per following schedule-

- (i) On casting of PSC girder/slabs: 50%
- (ii) On first stage prestressing: 20%
- (iii) On completion in all respect: 30%

5.2.4 Stages of Payment i.e. **Milestones of Cost Centre ‘CS’- Stations**

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre ‘CS’ (Y)
		No.	Description			
1	2	3	4	5	6	7
CS-Station	CS.1-Sultanpur Station	CS.1.1	Station building	Construction of railway station buildings and service buildings complete in all respects including fixing doors, windows, sanitary, water supply works and all other specified and incidental works.	4.9%	7%
		CS.1.2	Platform			
		CS.1.2.1		Construction of platforms including earthwork in filling above formation level, platform wall but excluding items mentioned in item no 1.2.2 and 1.2.3 as shown in tender drawings & TS..	10.5%	
		CS.1.2.2		Surfacing of platforms.	2.5%	
		CS.1.2.3		Provision of passenger amenities including shelters.	2.3%	
		CS.1.3	Drainage works of station	On completion of drainage works of station yard & platform as shown in tender drawings & TS	0.8	
		CS.1.4	Misc. works	On completion of water supply works including bore well, pump house, storage tank, sanitary works, pathway for passengers across tracks,	2.48%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CS' (Y)
		No.	Description			
1	2	3	4	5	6	7
				station name board, signages, rain water harvesting, approach road to station and other incidental works in railway station area.		
	CS.2 New Patli Station	CS.2.1	Station building			
		CS.2.1.1		On completion of earthwork in filling below station building, ramp, staircase and between station building & adjacent track	1.0%	
		CS.2.1.2		Construction of railway station buildings and service buildings complete in all respects including fixing doors, windows, sanitary, water supply works and all other specified and incidental works.	8%	
		CS.2.1.3		On completion of stairs & ramp connected to station building.	2.6%	
		CS.2.2	Platform			
		CS.2.2.1		Construction of platforms including earthwork in filling above formation level platform fencing /Wall but excluding items mentioned in item no 2.2.2 and 2.2.3 as shown in tender drawings & TS.	7.4%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CS' (Y)
		No.	Description			
1	2	3	4	5	6	7
		CS.2.2.2		Surfacing of platform in the full length.	6.0%	
		CS.2.2.3		Provision of passenger amenities including shelters.	7.0%	
		CS2.3	Subway			
		CS2.3.1		<i>On completion of barrel of RCC box.</i>	9.5%	
		CS2.3.2		On completion stairs to platform including shed, lift well & provision for escalator.	2.5%	
		CS2.3.3		On completion of subway in all respect including surfacing, drainage, railing etc. complete.	3.5%	
		CS2.4	Retaining Wall	On completion of retaining wall at entrance near the subway including filter layer & backfill complete in all respects.	19%	
		CS.2.5	Drainage works of station	On completion of drainage works of station yard & platform as shown in tender drawings & TS	5.25	
		CS.2.6	Misc. works	On completion of water supply works including bore well, pump house, storage tank, sanitary and plumbing works, pathway for passengers across tracks, station name board, signages, rain water harvesting,	4.77%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CS' (Y)
		No.	Description			
1	2	3	4	5	6	7
				station internal road and other incidental works in railway station area.		
				Total	100%	

Note:

1. Adjustment to Contract Price pursuant to GCC 13.7 shall be applicable to the payments of Works executed under this Sub Head / Price Schedule.
2. CS1.1 and CS2.1 Station Building- Unit of measurement is plinth area in square meters. For the buildings having more than one storey, the total area shall be found out by adding the area of each storey. Unit cost shall be determined on pro rata basis with respect to the total area of all stations and service buildings.
 - 50% Payment shall be paid after completion of structural works i.e beam, columns & slab in case of framed structure or walls & slabs in case of other buildings and
 - 30% Payment shall be paid after completion of finishing and
 - 20% Payment on final completion of works in all respects ready for use.
3. CS 1.2 and CS 2.2 Platform- Unit of measurement is *area measured in square meter*. Unit cost shall be determined on pro rata basis with respect to the total area of all *platforms at the station*.
4. CS 2.5 Retaining Wall- Unit of measurement is linear length. Payment shall be made on pro rata completion of a stage. *Retaining wall at entrance near subway* is part of lump sum Schedule “A” and shall not be paid under Schedule “B”.
5. Payment will be made on Completion of each Milestones as per weightage given in this schedule.
6. Variation in ‘Station *building*’:
In case of variation in the floor area of any station *and service building* on either side i.e. increase or decrease with respect to the area shown in the Tender Drawings, the total value of station as mentioned in Sub-Cost Centre CS1.1 and CS2.1 as applicable will get modified accordingly on pro rata basis of floor area.

6.0 APPORTIONMENT OF THE CONTRACT PRICE FOR SCHEDULE A UNDER VARIOUS COST CENTRE FOR SUB-HEAD OHE AND GENERAL ELECTRICAL SERVICES

Cost Centre	Description of Cost Centre	Percentage of Cost Centre	Total Cost of Cost Centre	Total Cost of Sub-Head “E”
1	2	3	4	
E1	Overhead Equipment work	67.52%	$E1=0.6752 \times "E"$	12.51% of Schedule ‘A’
E2	Switching Post	8.91%	$E2=0.0891 \times "E"$	
E3	Auxiliary Transformer Station	0.34%	$E3=0.0034 \times "E"$	
E4	Traction Sub-Station	NIL	NIL	
E5	SCADA	0.44%	$E5=0.0044 \times "E"$	
E6	Various Electrical General Services Work	12.30%	$E6=0.1230 \times "E"$	
E7	Extension of LT power supply for CLS work	0.67%	$E7=0.0067 \times "E"$	
E8	Extension/Augmentation of general power supply	0.38%	$E8=0.0038 \times "E"$	
E9	Modification to existing electrical work	0.005%	$E9=0.00005 \times "E"$	
E10	Electrical Inventory/Spare item	4.765%	$E10=0.04675 \times "E"$	
E11	Solar Plants with complete accessories	2.72%	$E11=0.0272 \times "E"$	
E12	Maintenance and Manning	1.95%	$E12=0.0195 \times "E"$	
Total		100%		

6.1 Stages of Payment i.e. Milestones of cost centre E1 – Overhead Equipment Work.

Cost Centre	Sub Cost Centre	Item Of Work		Milestone	Weightage (X)	Weightage of Cost Centre "E1" (Y)
		No	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
E1 Overhead Equipment Work	E1	E1.1	Drawings & Design and Foundation work	Completion of Design & drawing and Foundation work yards	13.50%	67.52%
		E1.2	Supply of Mast & Portal	Supply of steel (Mast and Portal components only)	24.57%	
		E1.3	Mast & Portal erection	Completion of steel erection (Mast & Portal) & grouting with painting of location numbers	7.75%	
		E1.4	Erection of other OHE items	Completion of erection of Bracket, Guy Rod, and creep (Complete pre wiring activity), Height gauge & protection screen, Provision of wire and rod insulators on LCs	8.67%	
		E1.5	Supply of Contact & catenary wire	Supply of Contact & Catenary wire	25.78%	

				only		
		E1.6	Wiring & other items	Completion of wiring along with erection of balance weight, dropping & clipping including antitheft charging	14.70%	
		E1.7	Commissioning	Commissioning and charging at 25kv	5.03%	
				Total	100%	

Note:

- 1 The value of each Milestone will be 12.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for E1.1, Value will be 0.1251 of Lump sum quoted price of Sch A * X * Y= 0.1251 x 0.1350x0.6752 of lumpsum quoted price of Schedule 'A'.
- 2 Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'E1'.
- 3 Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
- 4 Payment for each Milestone shall be made on TKM basis measured on pro rata basis with reference to total TKM.
- 5 Payment against the Sub Cost Centre E1.2 and E1.5 shall be made for quantities as per the Approved Layout, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.
- 6 Payment against the Sub Cost Centre E1.7 shall be made only on completion of work under Sub Cost Centre E2.3.

6.2 Stages of Payment i.e., Milestones of Cost Centre E2 – Switching posts

Cost Centre	Sub Cost Centre	Item Of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'E2' (Y)
		No	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
E2- Switching Posts	E2	E2.1	Supply of all Electrical Item <i>as per PS</i> (Section VII-7)	Supply of all electrical item	70%	8.91%
		E2.2	Completion of Switching Posts as per PS (Section VII-7)	Completion of all works	20%	
		E2.3	Commissioning of Switching Posts	Commissioning and charging at 25 KV.	10%	
				Total	100%	

Note:

1. The value of each Milestone will be 12.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for E2.1, Value will be 0.1251 of Lump sum quoted price of Sch A * X * Y = 0.1251 x 0.7 x 0.0891 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'E2'.
3. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
4. Payment shall be made for each Milestone for a switching post, measured in number of switching posts on pro rata basis with reference to the total switching posts covered in this Package.

6.3 Stages of Payment i.e., Milestones of cost center E3 – Auxiliary Transformers Stations

Cost Centre	Sub Cost Centre	Item Of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'E3' (Y)
		No	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
E3-Auxiliary Transformers Stations	E3	E3.1	Auxiliary Transformer Stations	Completion of all works with testing	90%	0.34%
		E3.2		Commissioning and charging at 25 kV	10%	
				Total	100%	

Note:

1. The value of each Milestone will be 12.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for E3.1, Value will be 0.1251 of Lump sum quoted price of Sch A * X * Y= 0.1251 x 0.9 x 0.0034 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'E3'.
3. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
4. Payment shall be made for each Milestone *for Auxiliary Transformer at each Station or Switching post*, measured in number of Auxiliary Transformers on pro rata basis with reference to the total Auxiliary Transformers covered in this Package.

6.4 Stages of Payment i.e., Milestones of cost center E4 – Traction Sub-Station

Cost Centre	Sub Cost Centre	Item Of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'E4' (Y)
		No	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
E4-Traction Sub station	E4	E4.1	Traction Sub-stations	Completion of all civil works for the TSS (works like earth filling, retaining wall, approach road, control building, fencing)	NIL	NIL
		E4.2	Completion of all supply and erection works of TSS except supply and erection of Transformers	NIL	NIL	NIL
		E4.3	Supply and erection of transformers	NIL	NIL	NIL
		E4.4	Completion and commissioning of TSS and charging at 25 KV.	NIL	NIL	NIL
				Total	NIL	

6.5 Stages of Payment i.e., Milestones of Cost Centre E5 – SCADA

Cost Centre	Sub Cost Centre	Item Of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'E5' (Y)
		No	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
E5-SCADA	E5	E5.1	SCADA	Supply and erection of SCADA at remote control center at division	22.08%	0.44%
		E5.2		Supply and erection of remote terminal units at switching post.	59.58%	
		E5.3		Commissioning of SCADA system at Switching Post and Division	18.34%	
				Total	100%	

Note:

1. The value of each Milestone will be 12.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for E5.1, Value will be 0.1251 of Lump sum quoted price of Sch A * X * Y = 0.1251 x 0.2208 x 0.0044 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'E5'.
3. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.

6.6 Stages of Payment i.e., Milestones of cost center E6 – Various Electrical General Services Works

Cost Centre	Sub Cost Centre	Item Of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'E6' (Y)
		No	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
E6- Various Electrical General Services Works	E6	E6.1	Various Electrical General services works	Supply of Major Electrical Item (like- CSS, DG, all type of Panels, cables, octagonal poles and LED light fittings)	65%	12.30%
		E6.2		Erection	20%	
		E6.3		Commissioning of various electrical general services items	15%	
				Total	100%	

Note:

1. The value of each Milestone will be 12.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for E6.1, Value will be 0.1251 of Lump sum quoted price of Sch A * X * Y= 0.1251 x 0.65 x 0.1230 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'E6'.
3. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
4. Payment shall be made for each Milestone after completion of related work on pro rata basis for individual station wise on basis of percentages given as (Manesar -6.59%, New Patli-4.59% and Sultanpur-1.12%).

6.7 Stages of Payment i.e., Milestones of cost center E7 – Extension of LT power supply for CLS works

Cost Centre	Sub Cost Centre	Item Of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'E7' (Y)
		No	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
E7-- Extension of LT power supply for CLS works	E7	E7.1	Extension of LT power supply for CLS Works	Completion of work including testing.	90%	0.67%
		E7.2		Commissioning	10%	
				Total	100%	

Note:

1. The value of each Milestone will be 12.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for E7.1, Value will be 0.1251 of Lump sum quoted price of Sch A * X * Y= 0.1251 x 0.90 x 0.0067 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'E7'.
3. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
4. Payment shall be made for each Milestone after completion of related work on pro rata basis for individual station wise on basis of percentages given as (Manesar-0.26%, New Patli-0.26%, Sultanpur-0.15%)

6.8 Stages of Payment i.e., Milestones of cost center E8 – Extension/Augmentation of General power supply

Cost Centre	Sub Cost Centre	Item Of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'E8' (Y)
		No	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
E8-Extension/Augmentation of General power supply	E8	E8.1	Extension/Augmentation of General power supply	Completion including commissioning	100%	0.38%
				Total	100%	

Note:

1. The value of each Milestone will be 12.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for E8.1, Value will be 0.1251 of Lumpsum quoted price of Sch A * X * Y= 0.1251 x 1 x 0.0038 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'E8'.
3. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
4. Payment shall be made for each Milestone after completion of related work on pro rata basis for individual station wise on basis of percentages given as (Manesar-0.26%, New Patli-0.11% and Sultanpur-0.01%)

6.9 Stages of Payment i.e., Milestones of cost center E9 – Modification to existing *electrical* works

Cost Centre	Sub Cost Centre	Item Of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'E9' (Y)
		No	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
E9- Modification to existing <i>electrical</i> works	E9	E9.1	Modification to existing <i>electrical</i> works	Modification Dismantling, Transportation of existing electrical structure/material including all associated work and testing at existing Sultanpur Station	100%	0.005%
				Total	100%	

Note:

1. The value of each Milestone will be 12.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for E9.1, Value will be 0.1251 of Lump sum quoted price of Sch A * X * Y= 0.1251 x 1.0 x .00005 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'E9'.
3. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.

6.10 Stages of Payment i.e., Milestones of cost center E10 – Electrical Inventory/Spare Item

Cost Centre	Sub Cost Centre	Item Of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'E10' (Y)
		No	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
E10 <i>Electrical Inventory/Spare item</i>	E10	E10.1	<i>Electrical Inventory/Spare item</i>	Supply of tools equipment, Materials for supply to stores	100%	4.765%
				Total	100%	

Note:

- 1 .The value of each Milestone will be 12.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by $X * Y$. For example, for E10.1, Value will be 0.1251 of Lump sum quoted price of Sch A * $X * Y = 0.1251 \times 1.0 \times 0.04765$ of lumpsum quoted price of Schedule 'A'.
- 2.Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'E10'.
3. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.

6.11 Stages of Payment i.e., Milestones of cost center E11 – Solar Plants with complete accessories

Cost Centre	Sub Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'E11' (Y)
		No	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
E11- Solar Plants with complete accessories	E11	E11.1	Supply, Installation, Testing & Commissioning of solar plants with complete accessories	Supply of electrical item(like – solar panels and inverter)	70%	2.72%
		E11.2		Completion of all work as per PS (Section VII X)	20%	
		E11.3		Commissioning of solar plants in all respect	10%	
				Total	100%	

Note:

1. The value of each Milestone will be 12.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for E11.1, Value will be 0.1251 of Lump sum quoted price of Sch A * X * Y= 0.1251 x 0.70 x 0.0272 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'E11'.
3. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
4. Payment shall be made for each Milestone after completion of related work on pro rata basis for individual station wise on basis of percentages given as (Manesar-1.74%, New Patli-0.87% and Sultanpur-0.11%).

6.12 Stages of Payment i.e., Milestones of cost center E12 – Maintenance and Manning

Cost Centre	Sub Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'E12' (Y)
		No	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
E12 Maintenance and Manning	E12	E12.1	Maintenance and Manning of Electrical system	Maintenance and Manning of Electrical system	100%	1.95
				Total	100%	

Note:-

1. The value of each Milestone will be 12.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for E12.1, Value will be 0.1251 of Lump sum quoted price of Sch A * X * Y= 0.1251 x 1.0 x 0.0195 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'E12'.
3. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
4. Payment shall be made after completion of related work on monthly pro rata basis

7. Apportionment of Contract Price for Schedule ‘A’ under various Cost Centres for Sub-Head-Signalling Works:

Cost Centre	Description of Cost Centre	Percentage of Cost Centre ‘S’	Total Cost of Cost Centre	Total Cost of Sub-Head ‘S’
(1)	(2)	(3)	(4)	(5)
S1	Design and Documentation for Signalling works	4%	S1=0.04x ‘S’	8.51% of SCH ‘A’
S2	Signalling Works at Manesar Jn.	26%	S2=0.26x ‘S’	
S3	Signalling Works at New Patli Jn.	24%	S3=0.24x ‘S’	
S4	Signalling Works at Sultanpur station of IR	18%	S4=0.18x ‘S’	
S5	Modification in existing IR Patli Yard for commissioning of Signalling works of Phase-I	8%	S5=0.08x ‘S’	
S6	Modification in existing IR Patli Yard for commissioning of Signalling works of Phase-II	6%	S6=0.06x ‘S’	
S7	Supply of Contract Spares and Special Tools & Test Equipment for Signalling works	8%	S7=0.08x ‘S’	
S8	Integrated Testing & Commissioning and Final Taking – Over of Signalling works	4%	S8=0.04x ‘S’	
S9	Training for Signalling system	1%	S9=0.01x ‘S’	
S10	Maintenance of Signalling system for 01 year	1%	S10=0.01x ‘S’	
Total		100%		

7.1 Stages of payment i.e. Milestone of Cost Centre ‘S1’- Design And Documentation For Signalling Works

Cost Centre	Sub Cost Centre	Item of work		Milestone	Weightage (X)	Weightage of Cost Centre ‘S’ (Y)
		No.	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
S1[Design and Documentation for Signaling works]	S1- Design and Documentation for Signaling works	S1.1	Preliminary Designs & Documents including	Submission of Preliminary Designs & Documents	15%	4%
		S1.2	Detailed Designs & Documents	Submission of All Detailed Designs & Documents and Interface specification	45%	
		S1.3	Construction/Installation Designs & Documents	Submission of Construction /Installation Designs & Documents	10%	
		S1.4	As-Built Drawings & Documents	Submission of As-Built Drawings & Documents	20%	
		S1.5	Operation & Maintenance Manuals, Station working rules, Documents for NI etc. for Signalling system	Submission of Operation & Maintenance Manuals, Station working rules, Documents for NI etc. for Signalling system	10%	
Total					100%	

Note:

1. The value of each Milestone will be 8.51% of total Lumpsum cost of Works under Schedule ‘A’ multiplied by X * Y. For example, for S1.1, Value will be 0.0851 of Lump sum quoted price of Sch A * X * Y= 0.0851 x 0.15 x 0.04 of lumpsum quoted price of Schedule ‘A’.
2. Adjustment to Contract Price shall NOT be applicable to the payments of Works executed under Cost Centre ‘S1’.

3. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.

7.2 Stages of payment i.e. Milestones of Cost Centre ‘S2’- signalling works at Manesar Jn.

Cost Centre	Sub Cost Centre	Items of work		Milestone	Weight age (X)	Weightage of Cost Centre ‘S’ (Y)
		No.	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
S2 [Signalling Works at Manesar Jn.]	S2.1- Supply of material	S2.1.1	Supply of cables	Supply of Signalling Cable, Power Cable and Quad Cable	22%	26%
		S2.1.2	Supply of EI system	Supply of EI hardware equipment along with associated software and accessories	16%	
		S2.1.3	Supply of Power supply system	Supply of power supply equipment and batteries along with associated accessories	2%	
		S2.1.4	Supply of track vacancy detection system	Supply of Track Vacancy Detection Hardware equipment along with associated software and accessories	19%	
		S2.1.5	Supply of Signals, Point machines etc.	Supply of signals and point machines along with associated accessories	5%	
		S2.1.6	Supply of balance indoor equipment.	Supply of balance indoor equipment	9%	
		S2.1.7	Supply of balance outdoor equipment.	Supply of balance outdoor equipment	1%	
		S2.1.8	Supply of BPAC equipment.	Supply of BPAC equipment	7%	

S2.2- Instal lation	S2.2.1	Laying of outdoor Signalling cables	Laying, Termination & Testing of outdoor cables	4%
	S2.2.2	Installation of indoor Signalling equipment	Installation of all indoor equipment	1%
	S2.2.3	Installation of outdoor Signalling equipment	Installation of all outdoor equipment	4%
	S.2.2.4	Installation of earthing and surge protection equipment for Signalling work.	Installation of Earthing and Surge Protection equipment for complete works	3%
S2.3- Any other item	S2.3.1	Any other item required for Signalling work.	Any other item required to be supplied, installed and tested for complete works	1%
S2.4- Syste m Accep tance Test	S2.4.1	System acceptance test of Signalling system	Supply and installation of software and system acceptance test	6%
			Total	100%

Note:

1. The value of each Milestone will be 8.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for S2.1.1, Value will be 0.0851 of Lump sum quoted price of Sch A * X * Y= 0.0851 x 0.22 x 0.26 of lumpsum quoted price of Schedule 'A'.
2. The boundary of Signalling Works at Crossing Station shall be from First Stop signal to Last Stop Signal including controlling track sections and distant signals in both directions.
3. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'S2'.
4. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
5. Payment against the Cost Centre S2.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

7.3 Stages of payment i.e. Milestone of Cost Centre ‘S3’- Signalling works at New Patli Jn.

Cost Centre	Sub Cost Centre	Items of work		Milestone	Weightage (X)	Weight age of Cost Centre ‘S’ (Y)
		No.	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
S3 [Signalling Works at New Patli Jn.]	S3.1-Supply of material	S3.1.1	Supply of cables	Supply of Signalling Cable, Power Cable and Quad Cable	24%	24%
		S3.1.2	Supply of EI system	Supply of EI hardware equipment along with associated software and accessories	17%	
		S3.1.3	Supply of Power supply system	Supply of power supply equipment and batteries along with associated accessories	2%	
		S3.1.4	Supply of track vacancy detection system	Supply of Track Vacancy Detection Hardware equipment along with associated software and accessories	19%	
		S3.1.5	Supply of Signals, Point machines etc.	Supply of signals and point machines along with associated accessories	5%	
		S3.1.6	Supply of balance indoor equipment.	Supply of balance indoor equipment	3%	
		S3.1.7	Supply of balance outdoor equipment.	Supply of balance outdoor equipment	2%	
		S3.1.8	Supply of BPAC equipment.	Supply of BPAC equipment	9%	
	S3.2-Installation	S3.2.1	Laying of outdoor Signalling cables	Laying, Termination & Testing of outdoor cables	5%	

		S3.2.2	Installation of indoor Signalling equipment	Installation of all indoor equipment	1%	
		S3.2.3	Installation of outdoor Signalling equipment	Installation of all outdoor equipment	4%	
		S.3.2.4	Installation of earthing and surge protection equipment for	Installation of Earthing and Surge Protection equipment for complete works	3%	
	S3.3-Any other item	S3.3	Any other item required for Signalling work.	Any other item required to be supplied, installed and tested for complete works	1%	
	S3.4-System Acceptance Test	S3.4	System acceptance test of Signalling system	Supply and installation of software and system acceptance test	5%	
				Total	100%	

Note:

1. The value of each Milestone will be 8.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for S3.1.1, Value will be 0.0851 of Lump sum quoted price of Sch A * X * Y= 0.0851 x 0.24 x 0.24 of lumpsum quoted price of Schedule 'A'.
2. The boundary of Signalling Works at Crossing Station shall be from First Stop signal to Last Stop Signal including controlling track sections and distant signals in both directions.
3. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'S3'.
4. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
5. Payment against the Cost Centre S3.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

7.4 Stages of payment i.e. Milestones of Cost Centre ‘S4’- Signalling works at Sultanpur station of IR

Cost Centre	Sub Cost Centre	Items of work		Milestone	Weightage (X)	Weightage of Cost Centre ‘S’ (Y)
		No.	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
S4 [Signalling Works at Sultanpur station of IR]	S4.1-Supply of material	S4.1.1	Supply of cables	Supply of Signalling Cable, Power Cable and Quad Cable	16%	18%
		S4.1.2	Supply of EI system	Supply of EI hardware equipment along with associated software and accessories	23%	
		S4.1.3	Supply of Power supply system	Supply of power supply equipment and batteries along with associated accessories	2%	
		S4.1.4	Supply of track vacancy detection system	Supply of Track Vacancy Detection Hardware equipment along with associated software and accessories	13%	
		S4.1.5	Supply of Signals, Point machines etc.	Supply of signals and point machines along with associated accessories	3%	
		S4.1.6	Supply of balance indoor equipment.	Supply of balance indoor equipment	4%	
		S4.1.7	Supply of balance outdoor equipment.	Supply of balance outdoor equipment	2%	
		S4.1.8	Supply of BPAC equipment.	Supply of BPAC equipment	16%	
	S4.2-Installation	S4.2.1	Laying of outdoor Signalling cables	Laying, Termination & Testing of outdoor cables	5%	
		S4.2.2	Installation of indoor Signalling equipment	Installation of all indoor equipment	1%	

		S4.2.3	Installation of outdoor Signalling equipment	Installation of all outdoor equipment	4%	
		S4.2.4	Installation of earthing and surge protection equipment for Signalling work.	Installation of Earthing and Surge Protection equipment for complete works	4%	
	S4.3-Any other item	S4.3.1	Any other item required for Signalling work.	Any other item required to be supplied, installed and tested for complete works	1%	
	S4.4-System Acceptance Test	S4.4.1	System acceptance test of Signalling system	Supply and installation of software and system acceptance test	6%	
				Total	100%	

Note:

1. The value of each Milestone will be 8.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for S4.1.1, Value will be 0.0851 of Lump sum quoted price of Sch A * X * Y= 0.0851 x 0.16 x 0.18 of lumpsum quoted price of Schedule 'A'.
2. The boundary of Signalling Works at Crossing Station shall be from First Stop signal to Last Stop Signal including controlling track sections and distant signals in both directions.
3. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'S4'.
4. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
5. Payment against the Cost Centre S4.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

7.5 Stages of payment i.e. Milestone of Cost Centre ‘S5’- Signalling works for Modification in existing IR Patli yard for commissioning Signalling work in Phase-I

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘S’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
S5 [Signalling Works for Modification in existing IR Patli yard for commissioning of Signalling work in Phase-I]	S5-Supply of materials, installation , Testing & commissioning	S5.1	Supply of Signalling Cable, Power Cable and Quad Cable, EI hardware equipment along with associated software and accessories, Power supply equipment and batteries along with associated accessories, Track Vacancy Detection Hardware equipment along with associated software and accessories, Signals and Point machines along with associated accessories, BPAC equipment, balance indoor equipment, balance outdoor equipment for Phase-I.	80%	8%
		S5.2	Laying, Termination & Testing of outdoor cables, Installation of all indoor equipment, Installation of all outdoor equipment, Installation of Earthing and Surge Protection equipment for complete works, Any other item required to be installed for complete works of Phase-I.	16%	
		S5.3	Supply and installation of software and system acceptance test for Phase-I.	4%	
			Total	100%	

Note:

1. The value of each Milestone will be 8.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for S5.1, Value will be 0.0851 of Lump sum quoted price of Sch A * X * Y= 0.0851 x 0.80 x 0.08 of lumpsum quoted price of Schedule 'A'.
2. The boundary of Signalling Works at Crossing Station shall be from First Stop signal to Last Stop Signal including controlling track sections and distant signals in both directions.
3. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'S5'.
4. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
5. Payment against the Cost Centre S5.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

7.6 Stages of payment i.e. Milestone of Cost Centre ‘S6’- Signalling works for Modification in existing IR Patli yard for commissioning Signalling work in Phase-II

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘S’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
S6 [Signalling Works for Modification in existing IR Patli yard for commissioning Signalling work in Phase-II]	S6-Supply of materials, installation , Testing & commissioning	S6.1	Supply of Signalling Cable, Power Cable and Quad Cable, EI hardware equipment along with associated software and accessories, Power supply equipment and batteries along with associated accessories, Track Vacancy Detection Hardware equipment along with associated software and accessories, Signals and Point machines along with associated accessories, Block instruments, balance indoor equipment, balance outdoor equipment for Phase-II.	80%	6%
		S6.2	Laying, Termination & Testing of outdoor cables, Installation of all indoor equipment, Installation of all outdoor equipment, Installation of Earthing and Surge Protection equipment for complete works, Any other item required to be installed for complete works of Phase-II.	16%	
		S6.3	Supply and installation of software and system acceptance test for Phase-II.	4%	
			Total	100%	

Note:

- The value of each Milestone will be 8.51% of total Lumpsum cost of Works under Schedule ‘A’ multiplied by X * Y. For example, for S6.1, Value will be 0.0851 of Lump sum quoted price of Sch A * X * Y= 0.0851 x 0.80 x 0.06 of lumpsum quoted price of Schedule ‘A’.

2. The boundary of Signalling Works at Crossing Station shall be from First Stop signal to Last Stop Signal including controlling track sections and distant signals in both directions.
3. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'S6'.
4. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
5. Payment against the Cost Centre S6.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

7.7 Stages of payment i.e. Milestone of Cost Centre ‘S7’- Supply of contract spares, special tools and test equipment for Signalling work

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘S7’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
S7 [Supply of Contract Spares, Special Tools and Test equipment for Signalling system]	S7.1- Supply of Contract Spares	S7.1	Supply of Contract Spares along with all other associated accessories for Signalling system	80	8%
	S7.2- Supply of Special Tools and Test equipment	S7.2	Supply of Special Tools & Test equipment for Signalling system	20	
			Total	100%	

Note:

1. The value of each Milestone will be 8.51% of total Lumpsum cost of Works under Schedule ‘A’ multiplied by X * Y. For example, for S7.1, Value will be 0.0851 of Lumpsum quoted price of Sch A * X * Y= 0.0851 x 0.80 x 0.08 of lumpsum quoted price of Schedule ‘A’.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre ‘S7’.
3. Payment will be made on completion of each Milestone as per weightage given in this Cost Centre.
4. Payment against the Cost Centre S7 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor’s depot, production of inspection certificates & other documents and against BG of equivalent amount.

7.8 Stages of payment i.e. Milestone of Cost Centre ‘S8’- Integrated Testing & Commissioning and Final Taking-Over of Signalling work

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘S8’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
S8 [Integrated Testing & Commissioning and Final Taking-Over of Signalling work]	S8- Integrated Testing & Commissioning and Final Taking-Over	S8.1	Successful Completion of Integrated Testing & Commissioning for Signalling work of Phase 1.	15%	4%
		S8.2	Successful Completion of Integrated Testing & Commissioning for Signalling work of Phase 2.	35%	
		S8.3	Final Taking-Over Certificate for the complete Signalling work	50%	
			Total	100%	

Note:

1. The value of each Milestone will be 8.51% of total Lumpsum cost of Works under Schedule ‘A’ multiplied by X * Y. For example, for S8.1, Value will be 0.0851 of Lumpsum quoted price of Sch A * X * Y= 0.0851 x 0.15 x 0.04 of lumpsum quoted price of Schedule ‘A’.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre ‘S8’.
3. Payment will be made on completion of each Payment Stage as per weightage given in this Cost Centre.

7.9 Stages of payment i.e. Milestone of Cost Centre ‘S9’- training for signalling system

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘S9’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
S9 [Training for Signalling system]	S9- Training	S9.1	Training	100%	1%
			Total	100%	

Note:

1. The value of each Milestone will be 8.51% of total Lumpsum cost of Works under Schedule ‘A’ multiplied by X * Y. For example, for S9.1, Value will be 0.0851 of Lump sum quoted price of Sch A * X * Y= 0.0851 x 1.0 x 0.01 of lumpsum quoted price of Schedule ‘A’.
2. Adjustment to Contract Price shall NOT be applicable to the payments of Works executed under Cost Centre ‘S9’
3. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.

7.10 Stages of payment i.e. Milestone of Cost Centre ‘S10’- Maintenance of Signalling system for one year

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘S’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
S10 [Maintenance of Signalling system for one year]	S10-Maintenance	S10.1	Maintenance for one year	100%	1%
Total				100%	

Note:

1. The value of each Milestone will be 8.51% of total Lumpsum cost of Works under Schedule ‘A’ multiplied by $X * Y$. For example, for S10.1, Value will be 0.0851 of Lump sum quoted price of Sch A * $X * Y = 0.0851 \times 1.0 \times 0.01$ of lumpsum quoted price of Schedule ‘A’.
2. Adjustment to Contract Price shall NOT be applicable to the payments of Works executed under Cost Centre ‘S10’.
3. Payment will be made on completion of each Milestone as per weightage given in this Cost Centre.

8.0 Apportionment of Contract Price for Schedule ‘A’ under various Cost Centres for Sub-Head- Telecommunication Works:

Cost Centre	Description of Cost Centre	Percentage of Cost Centre ‘T’ (%)	Total Cost of Cost Centre	Total Cost of ‘T’ Sub-Head
(1)	(2)	(3)	(4)	(5)
T1	Design and Documentation for Telecommunication works	5%	$T1=0.05x'T'$	2.25% of SCH ‘A’
T2	Telecommunication works at New Patli Jn.	15%	$T2=0.15x'T'$	
T3	Telecommunication works at existing IR station Sultanpur	11%	$T3=0.11x'T'$	
T4	Telecommunication works at existing IR station Patli (Phase-I)	2%	$T4=0.02x'T'$	
T5	Telecommunication works at existing IR station Patli (Phase-II)	2%	$T5=0.02x'T'$	
T6	Telecommunication works at Manesar junction	34%	$T6=0.34x'T'$	
T7	Telecommunication works in Mid -section between Manesr Jn. & New Patli Jn.	2%	$T7=0.02x'T'$	
T8	Telecommunication works in mid -section between Manesar Jn. & IR station Patli (Phase-I).	4%	$T8=0.04x'T'$	
T9	Telecommunication works in mid -section between New Patli Jn. & IR station Patlii (Phase-II).	3%	$T9=0.03x'T'$	
T10	Telecommunication works in mid -section between New Patli Jn. & IR station Sultanpur.	3%	$T10=0.03x'T'$	
T11	Integrated Testing and Commissioning and Final Taking-Over of Telecommunication works	5%	$T11=0.05x'T'$	
T12	Supply of Contract Spares for Telecommunication system	6%	$T12=0.06x'T'$	
T13	Supply of Special Tools & Test Equipment for Telecommunication system	4%	$T13=0.04x'T'$	
T14	Training for Telecommunication system	2%	$T14=0.02x'T'$	
T15	Maintenance of Telecommunication system for one year	2%	$T15=0.02x'T'$	
Total		100%		

8.1 Stages of payment i.e. Milestone of Cost Centre ‘T1’- Design And Documentation For Telecommunication Works

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘T1’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T1 [DESIGN AND DOCUMENTATION FOR TELECOMMUNICATION WORKS]	T1- Design and Documents	T1.1	All Preliminary Design & documents	10	5%
		T1.2	All Detailed Design Documents & Interface Specification for complete works	40	
		T1.3	All Good for construction/ Installation Design Documents for complete works	10	
		T1.4	O&M Manual for Completed Works	15	
		T1.5	As-Built Drawings for Completed Works	20	
		T1.6	Balance documents required to be given as part of the Contract	5	
			Total	100%	

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule ‘A’ multiplied by X * Y. For example, for T1.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y= 0.0225 x 0.1 x .05 of lumpsum quoted price of Schedule ‘A’.
2. Adjustment to Contract Price shall NOT be applicable to the payments of Works executed under Cost Centre ‘T1’
3. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre

8.2 Stages of payment i.e. Milestone of Cost Centre ‘T2’- Telecommunication Works at New Patli Junction

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘T2’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T2 [Telecommunication works at New Patli Jn.]	T2.1 Supply of material	T2.1.1	Supply of OFC, 6-Quad, and PIJF Telephone Cables with associated accessories	32	15%
		T2.1.2	Supply of OFC System Hardware along with associated software & accessories	35	
		T2.1.3	Supply of Power Supply System Hardware along with associated software & accessories	01	
		T2.1.4	Supply of Telephone System Hardware along with associated software & accessories.	02	
		T2.1.5	Supply of Master Clock System Hardware along with associated software & accessories	01	
		T2.1.6	Supply of VHF communication System Hardware along with associated software & accessories	01	
		T2.1.7	Supply of balance indoor and outdoor equipment	01	
	T2.2 Installation	T2.2.1	Installation of all indoor equipment	04	
		T2.2.2	Installation of all outdoor equipment	01	
		T2.2.3	Laying, Termination & Testing of Outdoor Telecom cables	18	
		T2.2.4	Installation of Earthing and Surge Protection equipment	01	
	T2.3 System Acceptance Test	T2.3.1	Supply and installation of software and System Acceptance Test	03	
Total				100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for T2.1.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y= 0.0225 x 0.32 x 0.15 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'T2'.
3. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.
4. Payment against the Cost Centre T2.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

8.3 Stages of payment i.e. Milestone of Cost Centre ‘T3’- Telecommunication Works at existing IR station Sultanpur

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘T3’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T3 [Telecommunication Works at existing IR station Sultanpur]	T3.1- Supply of material	T3.1.1	Supply of OFC, 6-Quad, and PIJF Telephone Cables with associated accessories	35	11%
		T3.1.2	Supply of OFC System Hardware along with associated software & accessories	33	
		T3.1.3	Supply of Power Supply System Hardware along with associated software & accessories	02	
		T3.1.4	Supply of Telephone System Hardware along with associated software & accessories.	01	
		T3.1.5	Supply of Master Clock System Hardware along with associated software & accessories	01	
		T3.1.6	Supply of VHF communication System Hardware along with associated software & accessories	01	
		T3.1.7	Supply of balance indoor and outdoor equipment	01	
	T3.2- Installation	T3.2.1	Installation of all indoor equipment	04	
		T3.2.2	Installation of all outdoor equipment	01	
		T3.2.3	Laying, Termination & Testing of Outdoor Telecom cables	16	

		T3.2.4	Installation of Earthing and Surge Protection equipment	01	
	T3.3-System Acceptance Test	T3.3.1	Supply and installation of software and System Acceptance Test	04	
			Total	100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for T3.1.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y= 0.0225 x 0.35x 0.11 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Sub Cost Centre 'T3'.
3. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.
4. Payment against the Cost Centre T3.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

8.4 Stages of payment i.e. Milestone of Cost Centre 'T4'- Telecommunication Works at existing IR station Patli (Phase-I)

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre 'T4' (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T4 [Telecommunication Works at existing IR station Patli (Phase-I)]	T4.1-Supply of material	T4.1.1	Supply of OFC, 6-Quad, and PIJF Telephone Cables with associated accessories	17	2%
		T4.1.2	Supply of OFC System Hardware along with associated software & accessories	30	
		T4.1.3	Supply of Power Supply System Hardware along with associated software & accessories	03	
		T4.1.4	Supply of Telephone System Hardware along with associated software & accessories.	06	
		T4.1.5	Supply of Master Clock System Hardware along with associated software & accessories	00	
		T4.1.6	Supply of VHF communication System Hardware along with associated software & accessories	01	
		T4.1.7	Supply of balance indoor and outdoor equipment	16	
	T4.2-Installation	T4.2.1	Installation of all indoor equipment	04	
		T4.2.2	Installation of all outdoor equipment	02	
		T4.2.3	Laying, Termination & Testing of Outdoor Telecom cables	14	

		T4.2.4	Installation of Earthing and Surge Protection equipment	03	
	T4.3-System Acceptance Test	T4.3.1	Supply and installation of software and System Acceptance Test	04	
			Total	100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for T4.1.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y = 0.0225 x 0.17 x 0.02 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'T4'.
3. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.
4. Payment against the Cost Centre T4.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

8.5 Stages of payment i.e. Milestone of Cost Centre 'T5'- Telecommunication Works at existing IR station Patli (Phase-II)

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Sub-Cost Centre 'T5' (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T5 [Telecommunication Works at existing IR station Patli (Phase-II)]	T5.1- Supply of material	T5.1.1	Supply of OFC, 6-Quad, and PIJF Telephone Cables with associated accessories	38	2%
		T5.1.2	Supply of OFC System Hardware along with associated software & accessories	45	
		T5.1.3	Supply of Power Supply System Hardware along with associated software & accessories	00	
		T5.1.4	Supply of Telephone System Hardware along with associated software & accessories.	01	
		T5.1.5	Supply of Master Clock System Hardware along with associated software & accessories	00	
		T5.1.6	Supply of VHF communication System Hardware along with associated software & accessories	01	
		T5.1.7	Supply of balance indoor and outdoor equipment	01	
	T5.2- Installation	T5.2.1	Installation of all indoor equipment	06	
		T5.2.2	Installation of all outdoor equipment	01	
		T5.2.3	Laying, Termination & Testing of Outdoor Telecom cables	02	
		T5.2.4	Installation of Earthing and Surge Protection equipment	00	

	T5.3- System Acceptan ce Test	T5.3.1	Supply and installation of software and System Acceptance Test	05	
			Total	100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for T5.1.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y= 0.0225 x 0.38 x 0.02 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'T5'.
3. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.
4. Payment against the Cost Centre T5.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

8.6 Stages of payment i.e. Milestone of Cost Centre 'T6'- Telecommunication Works at Manesar Jn.

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre 'T6' (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T6 [Telecommunication Works at Manesar Jn.]	T6.1- Supply of material	T6.1.1	Supply of OFC, 6-Quad, and PIJF Telephone Cables with associated accessories	16	34%
		T6.1.2	Supply of OFC System Hardware along with associated software & accessories	40	
		T6.1.3	Supply of Power Supply System Hardware along with associated software & accessories	01	
		T6.1.4	Supply of Telephone System Hardware along with associated software & accessories.	05	
		T6.1.5	Supply of Master Clock System Hardware along with associated software & accessories	01	
		T6.1.6	Supply of VHF communication System Hardware along with associated software & accessories	01	
		T6.1.7	Supply of balance indoor and outdoor equipment	14	
	T6.2- Installation	T6.2.1	Installation of all indoor equipment	08	

		T6.2.2	Installation of all outdoor equipment	01	
		T6.2.3	Laying, Termination & Testing of Outdoor Telecom cables	08	
		T6.2.4	Installation of Earthing and Surge Protection equipment	01	
	T6.3-System Acceptance Test	T6.3.1	Supply and installation of software and System Acceptance Test	04	
			Total	100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for T6.1.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y= 0.0225 x 0.16 x 0.34 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'T6'.
3. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.
4. Payment against the Cost Centre T6.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

8.7 Stages of payment i.e. Milestone of Cost Centre ‘T7’- Telecommunication Works in mid-section between Manesar Jn. & New Patli Jn.

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘T7’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T7 [Telecommunication Works in MID-SECTION between Manesar Jn. & New Patli Jn.]	T7.1 Supply of material	T7.1.1	Supply of OFC, 6-Quad, and PIJF Telephone Cables with associated accessories	45	2%
		T7.1.2	Supply of OFC System Hardware along with associated software & accessories	14	
		T7.1.3	Supply of Power Supply System Hardware along with associated software & accessories	01	
		T7.1.4	Supply of Telephone System Hardware along with associated software & accessories.	03	
		T7.1.5	Supply of Master Clock System Hardware along with associated software & accessories	04	
		T7.1.6	Supply of VHF communication System Hardware along with associated software & accessories	00	
		T7.1.7	Supply of balance indoor and outdoor equipment	01	
	T7.2 Installation	T7.2.1	Installation of all indoor equipment	03	
		T7.2.2	Installation of all outdoor equipment	06	
		T7.2.3	Laying, Termination & Testing of Outdoor Telecom cables	22	
		T7.2.4	Installation of Earthing and Surge Protection equipment	00	

	T7.3 System Acceptance Test	T7.3.1	Supply and installation of software and System Acceptance Test	01	
			Total	100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for T7.1.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y= 0.0225 x 0.45 x 0.02 of lumpsum quoted price of Schedule 'A'.
2. Telecom Works in Block sections shall cover all Telecom Works between two adjacent Crossing Stations/ Junction Stations and shall also include Telecom Works at TSS, SP, SSP and other Buildings/Structures.
3. 'Adjustment to Contract Price shall be applicable to the payments of Works executed under Sub Cost Centre 'T7'.
4. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.
5. Payment against the Cost Centre T7.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

8.8 Stages of payment i.e. Milestone of Cost Centre ‘T8’- Telecommunication Works in mid-section between Manesar Jn. & IR station Patli (Phase-I)

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘T8’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T8 [Telecommunication Works in MID-SECTION between Manesar Jn. & IR station Patli (Phase-I)]	T8.1 Supply of material	T8.1.1	Supply of OFC, 6-Quad, and PIJF Telephone Cables with associated accessories	64	4%
		T8.1.2	Supply of OFC System Hardware along with associated software & accessories	01	
		T8.1.3	Supply of Power Supply System Hardware along with associated software & accessories	01	
		T8.1.4	Supply of Telephone System Hardware along with associated software & accessories.	01	
		T8.1.5	Supply of Master Clock System Hardware along with associated software & accessories	01	
		T8.1.6	Supply of VHF communication System Hardware along with associated software & accessories	00	
		T8.1.7	Supply of balance indoor and outdoor equipment	00	
	T8.2 Installation	T8.2.1	Installation of all indoor equipment	01	
		T8.2.2	Installation of all outdoor equipment	01	
		T8.2.3	Laying, Termination & Testing of Outdoor Telecom cables	29	

		T8.2.4	Installation of Earthing and Surge Protection equipment	00	
	T8.3 System Acceptance Test	T8.3.1	Supply and installation of software and System Acceptance Test	01	
			Total	100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for T8.1.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y= 0.0225 x 0.64 x 0.04 of lumpsum quoted price of Schedule 'A'.
2. Telecom Works in Block sections shall cover all Telecom Works between two adjacent Crossing Stations/ Junction Stations and shall also include Telecom Works at TSS, SP, SSP and other Buildings/Structures.
3. 'Adjustment to Contract Price shall be applicable to the payments of Works executed under Sub Cost Centre 'T8'.
4. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.
5. Payment against the Cost Centre T8.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

8.9 Stages of payment i.e. Milestone of Cost Centre ‘T9’- Telecommunication Works in mid-section between New Patli Jn. & IR station Patli (Phase-II)

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘T’ (Y)		
		No.	Milestone				
(1)	(2)	(3)	(4)	(5)	(6)		
T9 [Telecommunication Works in MID-SECTION between New Patli Jn. & IR station Patli (Phase-II)]	T9.1 Supply of material	T9.1.1	Supply of OFC, 6-Quad, and PIJF Telephone Cables with associated accessories	55	3%		
		T9.1.2	Supply of OFC System Hardware along with associated software & accessories	00			
		T9.1.3	Supply of Power Supply System Hardware along with associated software & accessories	00			
		T9.1.4	Supply of Telephone System Hardware along with associated software & accessories.	01			
		T9.1.5	Supply of Master Clock System Hardware along with associated software & accessories	00			
		T9.1.6	Supply of VHF communication System Hardware along with associated software & accessories	00			
		T9.1.7	Supply of balance indoor and outdoor equipment	14			
	T9.2 Installation	T9.2.1	Installation of all indoor equipment	00			
		T9.2.2	Installation of all outdoor equipment	01			
		T9.2.3	Laying, Termination & Testing of Outdoor Telecom cables	28			
		T9.2.4	Installation of Earthing and Surge Protection equipment	00			
	T9.3 System Acceptance Test	T9.3.1	Supply and installation of software and System Acceptance Test	01			
				Total		100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for T9.1.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y= 0.0225 x 0.55 x 0.03 of lumpsum quoted price of Schedule 'A'.
2. Telecom Works in Block sections shall cover all Telecom Works between two adjacent Crossing Stations/ Junction Stations and shall also include Telecom Works at TSS, SP, SSP and other Buildings/Structures.
3. Adjustment to Contract Price shall be applicable to the payments of Works executed under Sub Cost Centre 'T9'.
4. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.
5. Payment against the Cost Centre T9.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

8.10 Stages of payment i.e. Milestone of Sub-Cost Centre ‘T10’- Telecommunication Works in mid-section between New Patli Jn. & IR station Sultanpur

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘T10’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T10 [Telecommunication Works in MID-SECTION between Manesar Jn. & IR station Sultanpur]	T10.1 Supply of material	T10.1.1	Supply of OFC, 6-Quad, and PIJF Telephone Cables with associated accessories	50	3%
		T10.1.2	Supply of OFC System Hardware along with associated software & accessories	00	
		T10.1.3	Supply of Power Supply System Hardware along with associated software & accessories	00	
		T10.1.4	Supply of Telephone System Hardware along with associated software & accessories.	01	
		T10.1.5	Supply of Master Clock System Hardware along with associated software & accessories	00	
		T10.1.6	Supply of VHF communication System Hardware along with associated software & accessories	00	
		T10.1.7	Supply of balance indoor and outdoor equipment	17	
	T10.2 Installation	T10.2.1	Installation of all indoor equipment	00	
		T10.2.2	Installation of all outdoor equipment	03	
		T10.2.3	Laying, Termination & Testing of Outdoor Telecom cables	27	
		T10.2.4	Installation of Earthing and Surge Protection equipment	01	

	T10.3 System Acceptance Test	T10.3.1	Supply and installation of software and System Acceptance Test	01	
			Total	100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for T10.1.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y = 0.0225 x 0.50 x 0.03 of lumpsum quoted price of Schedule 'A'.
2. Telecom Works in Block sections shall cover all Telecom Works between two adjacent Crossing Stations/ Junction Stations and shall also include Telecom Works at TSS, SP, SSP and other Buildings/Structures.
3. Adjustment to Contract Price shall be applicable to the payments of Works executed under Sub Cost Centre 'T10'.
4. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.
5. Payment against the Cost Centre T10.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

8.11 Stages of payment i.e. Milestone of Cost Centre ‘T11’- Integrated Testing & Commissioning and Final Taking-Over for Telecommunication works

Cost Centre	Sub Cost Centre	Items of work			Weightage (X)	Weightage of Sub-Cost Centre ‘T11’ (Y)
		No.	Milestone			
(1)	(2)	(3)	(4)		(5)	(6)
T11 [Integrated Testing & Commissioning and Final Taking-Over of Telecommunication works]	Integrated Testing & Commissioning and Final Taking-Over	T11.1	Successful Completion of Integrated Testing & Commissioning of Phase 1.	&	15%	5%
		T11.2	Successful Completion of Integrated Testing & Commissioning of Phase 2.	&	35%	
		T11.3	Final Taking-Over Certificate for the complete work		50%	
			Total		100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule ‘A’ multiplied by X * Y. For example, for T11.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y= 0.0225 x 0.15 x 0.05 of lumpsum quoted price of Schedule ‘A’.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Sub Cost Centre T11.

Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre

8.12 Stages of payment i.e. Milestone of Cost Centre ‘T12’- Supply of Contract spares for Telecommunication works

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Sub-Cost Centre ‘T12’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T12 [Supply of Contract Spares for Telecommunication works]	Contract Spares	T12.1	Supply of Contract Spares along with all other associated accessories	100	6%
			Total	100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule ‘A’ multiplied by X * Y. For example, for T12.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y= 0.0225 x 1.0 x 0.06 of lumpsum quoted price of Schedule ‘A’.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under this Sub Cost Centre ‘T12’.
3. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.
4. Payment against this Cost Centre shall be made for quantities as per the Approved final Design, on receipt of Material at contractor’s depot, production of inspection certificates & other documents and against BG of equivalent amount.

8.13 Stages of payment i.e. Milestone of Cost Centre ‘T13’- Supply of Special Tools & Test Equipment for Telecommunication works

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘T13’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T 13 [Supply of Special Tools & Test Equipment for Telecommunication works]	Special Tools and Test Equipment	T 13.1	Supply of Special Tools and Test Equipment along with other associated accessories, Operation and Maintenance Manual and Calibration Certificate	100	4%
			Total	100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule ‘A’ multiplied by X * Y. For example, for T13.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y= 0.0225 x 1.0 x 0.04 of lumpsum quoted price of Schedule ‘A’.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under this Sub Cost Centre ‘T13’.
3. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.
4. Payment against this Cost Centre shall be made for quantities as per the Approved final Design, on receipt of Material at contractor’s depot, production of inspection certificates & other documents and against BG of equivalent amount.

8.14 Stages of payment i.e. Milestone of Cost Centre ‘T14’- Training for Telecommunication works

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘T14’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T14 [Training for Telecommunication system]	Training	T14.1	Training	100%	2%
			Total	100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule ‘A’ multiplied by X * Y. For example, for T14.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y= 0.0225 x 1.0 x 0.02 of lumpsum quoted price of Schedule ‘A’.
2. Adjustment to Contract Price shall NOT be applicable to the payments of Works executed under this Sub Cost Centre ‘T14’.
3. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.

8.15 Stages of payment i.e. Milestone of Cost Centre ‘T15’- Maintenance of Telecommunication gears for one year

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘T15’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T15 [Maintenance of Telecommunication gears for one year]	Maintenance for one year	T15.1	Maintenance for One year	100%	2%
Total				100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule ‘A’ multiplied by X * Y. For example, for T15.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y= 0.0225 x 1.0 x 0.02 of lumpsum quoted price of Schedule ‘A’.
2. Adjustment to Contract Price shall NOT be applicable to the payments of Works executed under this Sub Cost Centre ‘T15’.
3. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.