

**FINANCIAL PART (PDF FILE)**  
**To be signed and uploaded with BOQ (MS Excel File) as FINANCIAL PART of the Tender by the Tenderer.**

## Letter of Tender – Financial Part

*INSTRUCTIONS TO TENDERERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE DOCUMENT*

*The Tenderer must prepare this Letter of Tender on stationery with its letterhead clearly showing the Tenderer's complete name and business address.*

*Note: All italicized text is to help Tenderers in preparing this form.*

**Date of this Tender submission:** *[insert date (as day, month and year) of Tender submission]*

**Tender No.:** HORC/HRIDC/C-6/2024

To:

Chief Project Manager/ North,  
Haryana Rail Infrastructure Development Corporation Limited (HRIDC),  
IRCON Tower-2, 3r Floor,  
Plot No. 16, Sector-32,  
Gurugram – 122003  
Tel: +91 9079360542

We, the undersigned, hereby submit the second part of our Tender, the Tender Price and Price Schedule. This accompanies the Letter of Tender – Technical Part.

In submitting our Tender, we declare that:

- (a) **Tender Validity Period:** Our Tender shall be valid for the period specified in TDS 18.1 (as amended, if applicable) after the date fixed for the Tender submission deadline specified in TDS 22.1 (as amended, if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (b) **Tender Price:** The total price of our Tender including Provisional Sum is *[insert the total price of the Tender in words and figures in INR]*;

**Notes:** (i) *The total price of the Tender quoted above shall be the same as shown in Worksheet BOQ5 (Price Schedule –Summary Sheet), MS Excel sheet uploaded on eProcurement portal.*

(ii) *The total price of Tender in Worksheet BOQ5 (Price Schedule –Summary Sheet) of MS-Excel File includes cost of Schedule 'A' plus Schedule 'B' plus Schedule 'C' plus Schedule 'D' plus Provisional Sum. Correction of*

***Arithmetical Errors, if any, observed in MS-Excel sheets uploaded on eProcurement portal shall be carried out in accordance with ITT 36.***

- (c) **Commissions, Gratuities, Fees:** We have paid, or will pay the following commissions, gratuities, or fees with respect to the Tendering process or execution of the Contract: *[insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]*

Name of Recipient	Address	Reason	Amount

*(If none has been paid or is to be paid, indicate “none.”)*

**Name of the Tenderer:** *[insert complete name of the Tenderer]*

**Name of the person duly authorized to sign the Tender on behalf of the Tenderer:** *\*[insert complete name of person duly authorized to sign the Tender]*

**Title of the person signing the Tender:** *[insert complete title of the person signing the Tender]*

**Signature of the person named above:** *[insert signature of person whose name and capacity are shown above]*

**Date signed** *[insert date of signing]* **day of** *[insert month]*, *[insert year]*

\*Person signing the Tender shall have the power of attorney given by the Tenderer. The power of attorney shall be attached with the Letter of Tender.

\*\* The total price of Tender in Worksheet BOQ5 (Price Schedule –Summary Sheet) of MS-Excel File includes cost of Schedule ‘A’ plus Schedule ‘B’ plus Schedule ‘C’ plus Schedule ‘D’ plus Provisional Sum. Correction of Arithmetical Errors, if any, observed in MS-Excel sheets uploaded on eProcurement portal shall be carried out in accordance with ITT 36.

## Appendix A to Financial Part: Schedule of Adjustment Data

### 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) Base month for the purpose of Price Adjustment shall be the month in which the Tender is opened for Civil Works and General Electrical Services Works. The 1st Quarter will start from Base month;
  - b) For Schedule-‘A’, Price adjustment shall be applied on completion of the specified stage of the respective item of work.
  - c) Adjustment for each item of work/stage shall be made separately;
  - d) 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’;

CW = Value of work done under Price Schedule ‘B’;

The following expressions and meanings are assigned to the Cost Centre of Price Schedule ‘A’:

Cost Centre	Description of Cost Centre
1	2
CE	Earthwork and blanketing
CB	Bridges
CS	Station

- e) Price adjustment for change in costs of civil works shall be paid in accordance with the following formula:
  - i) 
$$VEW = 0.85 EW \times [PLB \times (LBi - LBo)/LBo + PF \times (Fi - Fo)/Fo + PMACH \times (MACHi - MACHo)/MACHo + POTH \times (OTHi - OTHo)/OTHo];$$

- ii)  $VBR = 0.85 BR \times [PLB \times (LBi - LBo)/LBo + PC \times (Ci - Co)/Co + PSR \times (SRi - SRo)/SRo + PF \times (Fi - Fo)/Fo + PMACH \times (MACHI - MACHo)/MACHo + POTH \times (OTHi - OTHo)/OTHo]$ ;
- iii)  $VSTN = 0.85 STN \times [PLB \times (LBi - LBo)/LBo + PC \times (Ci - Co)/Co + PSR \times (SRi - SRo)/SRo + PF \times (Fi - Fo)/Fo + PMACH \times ((MACHI - MACHo)/MACHo + POTH \times (OTHi - OTHo)/OTHo)]$ ;
- iv)  $VCW = 0.85 CW \times [PLB \times (LBi - LBo)/LBo + PC \times (Ci - Co)/Co + PSR \times (SRi - SRo)/SRo + PSS \times (SSi - SSo)/SSo + PF \times (Fi - Fo)/Fo + PMACH \times (MACHI - MACHo)/MACHo + POTH \times (OTHi - OTHo)/OTHo]$ ;

Where,

- v) 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 (f);
- vi) 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 (f);
- vii) 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 (f);
- viii) VCW = 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 (f);

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

- ix) 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;
- x) 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

- xi) 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;

- xii) 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;

- xiii) 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;

- xiv) SRo = Average Rate of RINL for Rebar 8 mm (coil) as published for Ludhiana Branch on their website for the Base Month;

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

If only one rate is published for the 3 months of the quarter under consideration, the published rate for that quarter shall be considered for the quarter under consideration.

If no rate is published by RINL for Rebar 8mm (coil) for the 3 months of the quarter under consideration, the value of Si and So will be taken as under:

“SRo”: Wholesale Price Index for ‘MS Bright Bars’ individual commodity of group item (d) Mild Steel- Long products under (N) MANUFACTURE OF BASIC METALS, published by Office of Economic Adviser, Government of India, Ministry of Commerce & Industry Department of Industrial Policy & Promotion (DIIP) for the Base Month;

“SRi”: Average Wholesale Price Index for ‘MS Bright Bars’ individual commodity of group item (d) Mild Steel- Long products under (N) MANUFACTURE OF BASIC METAL, published by Office of Economic Adviser, Government of India, Ministry of Commerce & Industry

Department of Industrial Policy & Promotion (DIIP) for the 3 months of the quarter under consideration;

- xv) “SSo”: Whole Sale Price Index for group item (e) Mild Steel- Flat products under (N) MANUFACTURE OF BASIC METAL, published by Office of Economic Adviser, Government of India, Ministry of Commerce & Industry, Department for Promotion of Industry and Internal Trade (DPIIT) for the Base Month;

“SSi”: Whole Sale Price Index for group item (e) Mild Steel- Flat products under (N) MANUFACTURE OF BASIC METALS, published by Office of Economic Adviser, Government of India, Ministry of Commerce & Industry, Department for Promotion of Industry and Internal Trade (DPIIT) for the 3 months of the quarter under consideration;

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

<b>Component</b>	<b>EW (Cost Centre CE of Price Schedule ‘A’)</b>	<b>BR (Cost Centre CB of Price Schedule ‘A’)</b>	<b>STN (Cost Centre CS of Price Schedule ‘A’)</b>	<b>CW (Price Schedule ‘B’)</b>
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>
<b>Cement (PC)</b>	-	20%	15%	20%
<b>Fuel and lubricants (PF)</b>	30%	20%	15%	15%
<b>Labour (PLB)</b>	20%	10%	25%	10%
<b>Machinery and Plants (PMACH)</b>	40%	15%	05%	10%
<b>Other Materials (POTH)</b>	10%	10%	20%	10%
<b>Reinforcement Steel (PSR)</b>	-	25%	20%	15%
<b>Structural Steel (PSS)</b>	-	-	-	20%
<b>Total</b>	100%	100%	100%	100%

- g) The following expressions and meanings are assigned to the value of the work done for Various General Electrical Services works:

- i) **ELEGWK** = Value of work done for General Electrical Services under Price Schedule ‘C’;
- h) **Price adjustment for changes in cost for various General Electrical Services works shall be paid in accordance with the following formula:**

$$i) \text{VELEGWK} = 0.85 \text{ELEGWK} \times [\text{PLB} \times (\text{LBi} - \text{LBo})/\text{LBo} + \text{POTH} \times (\text{OTHi} - \text{OTHo})/\text{OTHo}]$$

**Where: -**

**VELEGWK** = Increase or decrease in the cost of work done under Price Schedule ‘C’ of ‘**General Electrical Services works**’ with complete accessories during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (i);

PLB and POTH are the percentages of Labor and, All Other Commodities respectively for the relevant item as specified in sub-paragraph (i);

**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 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;

- i) **The following percentages shall govern the price adjustment of the Contract Price for Various General Electrical Services works:**

<b>Component</b>	<b>General Electrical Services Works</b>
<b>Labour (PLB)</b>	20%
<b>All other commodities (POTH)</b>	80 %
<b>Total</b>	100.00%



**j) The following expressions and meanings are assigned to the value of the work done for Signalling & Telecommunication (S&T) Works:**

i) **STWK** = Value of work done for Signalling & Telecommunication (S&T) Works under Price Schedule 'D';

**k) Price adjustment for changes in cost for Signalling & Telecommunication (S&T) Works shall be paid in accordance with the following formula:**

i)  $VSTWK = 0.85 STWK \times [PLB \times (LBI - LBo)/LBo + POTH \times (OTHi - OTHo)/OTHo]$

**Where: -**

**VSTWK** = Increase or decrease in the cost of work done under Price Schedule 'D' of 'Signalling & Telecommunication (S&T) Works' with complete accessories during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (i);

PLB and POTH are the percentages of Labor and, All Other Commodities respectively for the relevant item as specified in sub-paragraph (i);

**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 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;

**l) The following percentages shall govern the price adjustment of the Contract Price for Signalling & Telecommunication (S&T) Works:**

<b>Component</b>	<b>Signalling &amp; Telecommunication (S&amp;T) Works</b>
<b>Labour (PLB)</b>	20%

<b>All other commodities (POTH)</b>	80 %
<b>Total</b>	100.00%

**Table A. Foreign Currency (FC)**

Not applicable as Tenderers are required to quote rates and prices only in INR.

### Table B. 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 Total Tender Price (TTP) $\frac{100 \times C}{TTP}$
<b>For Schedule 'A'</b>				
<b>Local currency (INR)</b>		<b>1.00</b>		
<b>Foreign Currency # 1</b>				
<b>Foreign Currency # 2</b>				
<b>Foreign Currency # 3</b>				
<b>Schedule 'B' Local Currency (INR)</b>		<b>1.00</b>		
<b>Foreign Currency # 1</b>				
<b>Foreign Currency # 2</b>				
<b>Foreign Currency # 3</b>				
<b>Schedule 'C' Local Currency (INR)</b>		<b>1.00</b>		
<b>Foreign Currency # 1</b>				
<b>Foreign Currency # 2</b>				
<b>Foreign Currency # 3</b>				

<b>Schedule 'D' Local Currency (INR)</b>		<b>1.00</b>		
<b>Foreign Currency # 1</b>				
<b>Foreign Currency # 2</b>				
<b>Foreign Currency # 3</b>				
<b>Net Tender Price</b>				
<b>Provisional Sums Expressed in Local Currency (INR)</b>	100,000,000.00	<b>1.00</b>	100,000,000.00	
<b>TOTAL TENDER PRICE (including provisional sum)</b>				<b>100</b>

**Notes:**

1. 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).
2. Total Tender Price quoted above shall be the same as shown in Worksheet BOQ5 (Price Schedule –Summary Sheet), MS Excel sheet uploaded on eProcurement portal. In case of discrepancy between the total price of Tender including provisional sums quoted in Letter of Tender-Financial Part, Table B. Summary of Payment Currencies above and in Worksheet BOQ5 (Price Schedule –Summary Sheet), Total Tender Price in Worksheet BOQ5 (Price Schedule –Summary Sheet) of MS-Excel File shall prevail.
3. Total Tender Price in Worksheet BOQ5 (Price Schedule –Summary Sheet) of MS-Excel File includes cost of Schedule 'A' plus Schedule 'B' plus Schedule 'C' plus Schedule 'D' plus Provisional Sum. Correction of Arithmetical Errors, if any, observed in MS-Excel sheets uploaded on eProcurement portal shall be carried out in accordance with ITT 36.

## Appendix B to Financial Part: Price Schedules

### 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, Functional, Design (Civil & BLT), Construction (Civil & BLT), Outline Design Specifications (ODS)-Civil & BLT, Outline Construction Specifications (OCS)-Civil & BLT, General Electrical Services, Signalling & Telecommunication (S&T) Works, Tender Drawings and Documents, Appendices and the Addenda/Corrigenda (if any). The price quoted by the Contractor for Price Schedules Schedule 'A', Schedule 'B' Schedule 'C' and Schedule 'D' shall include cost of the Works as per Part 2-Employer's Requirements (General, Functional, Design- Civil & BLT, Construction - Civil & BLT, Outline Design specifications (ODS) - Civil & BLT, Outline Construction Specifications (OCS) - Civil & BLT, General Electrical Services, Signalling & Telecom (S&T) Works, Tender Drawings and Documents, Appendices and the Addenda/Corrigenda (if any).
- 1.2. **Schedule 'A'** comprises cost of works to be executed under lump sum contract as detailed in Part 2- Employers' Requirements of Tender Document. Design of all permanent work included in the Scope of Works of Schedule 'A' and Schedule 'B' shall be included in Schedule 'A'. 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 in Clause 5.0 below unless otherwise specified in the Contract..
- 1.3. **Schedule 'B'** comprises of BoQ items for "Retaining Wall, Bridges & other civil works". Schedule 'B' is subdivided into fourteen parts i.e. Sub-Schedules B1, B2, B3, B4, B5, B6, B7, B8, B9, B10, B11, B12, B13 and B14. Cost of design and drawings of all the temporary works, temporary road diversion is deemed to be included in the rates quoted for the relevant item of Schedule 'B' unless otherwise specified in the Contract. The Tenderer has to quote the percentage Excess (+) or Less (-) over the total Estimated amount of each Sub-Schedule of Schedule 'B' (which is shown as "Estimated Rate" against each Sub-Schedule of Schedule 'B' in BOQ2 of MS excel file on eProcurement portal). The payment against this Schedule 'B' will be made on the basis of quantities executed, measured and certified. Under this Schedule, the Contractor is required to carry out all works of retaining walls, bridges and other civil works, which are not covered in Schedule 'A', as per site requirements and as per the direction of the Engineer.
- 1.4. **Schedule 'C'** comprises of BoQ Items for "General Electrical Services works". The Tenderer has to quote the percentage Excess (+) or Less (-) over the total Estimated amount of Schedule 'C' (which is shown as "Estimated Rate" against Schedule 'C' in BOQ3 of MS excel file on eProcurement portal). The quoted rate includes the cost of design and drawings of relevant systems and items as specified in the Contract Documents. The payment against this Schedule will be made on the basis of quantities executed, measured and certified by the Engineer. Under this Schedule,

the Contractor is required to carry out all works of General Electrical Services works, which are not covered in Schedule 'A' or Schedule 'B', as per site requirements and as per the direction of the Engineer.

**1.5.Schedule 'D'** comprises BoQ Items for "Signalling & Telecommunication (S&T) Works".

The Tenderer has to quote the percentage Excess (+) or Less (-) over the total Estimated amount of Schedule 'D' (which is shown as "Estimated Rate" against Schedule 'D' in BOQ4 of MS excel file on eProcurement portal). The quoted rate includes the cost of design and drawings of relevant systems and items as specified in the Contract Documents. The payment against this Schedule will be made on the basis of quantities executed, measured and certified. Under this Schedule, the Contractor is required to carry out all works of shifting of Signalling & Telecommunication (S&T) Gears at DFCCIL New Prithla Station for connection to HORC Prithla Station, which are not covered in Schedule 'A' or Schedule 'B' or Schedule 'C' as per site requirements and as per the direction of the Engineer.

1.6.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.

1.7.The price quoted in the Price Schedules for Schedule 'A', Schedule 'B' Schedule 'C' and Schedule 'D' are for complete and finished items of the work in all respects. The Price quoted in the Price Schedules shall, except otherwise specifically provided, 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, & temporary diversion works, temporary road widening, 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.

1.8.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.

- 1.9.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.
- 1.10.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.
- 1.11.The prices shall be quoted against Schedule 'A', Schedule 'B', Schedule 'C' and Schedule 'D' in the Price Schedule (Excel Workbook) uploaded on the eProcurement portal.
- 1.12.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.
- 1.13.No claims for additional payment shall be allowed for any error or misunderstanding by the Contractor of the work involved.
- 1.14.The rates quoted by the Tenderer are for design and construction of the Works as per approved Alignment Plan & L-Section, approved GADs of bridges and approved drawings of other structures as per Scope of the Works.

## **2 Variations in Price Schedule 'A', Schedule 'B' Schedule 'C' and Schedule 'D'**

- 2.1 Variations in Price Schedules shall be dealt in accordance with Sub Clause 13.3.1 of Part B-Specific Provisions, Section IX- Particular Conditions of Contract.
- 2.2 The through Chainages mentioned in the Scope of the Works/Tender Drawings can undergo some minor corrections, without any impact on the overall length/Scope of the Works.

## **3 Measurement and Payment**

- 3.1 The measurement shall be made as per Price Schedules i.e. Schedule 'A', Schedule 'B', Schedule 'C' and Schedule 'D' and other relevant provisions of the Contract such as Employer's Requirements and the Drawings.
- 3.2 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. No claim by the Contractor on this account shall be payable by the Employer. The Engineer's decision in this regard shall be final.

- 3.3 The Payment shall be made as per Clause 14 [Contract Price and Payment] of the General Conditions and Particular Conditions.
- 3.4 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.
- 3.5 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.
- 3.6 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.
- 3.7 Format for the Contractor's application for payment shall be agreed between the Engineer and the Contractor.
- 3.8 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.
- 3.9 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.
- 3.10 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.
- 3.11 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 Centre	Total Cost of Sub-Head
1	2	3	4	5
C	Civil works	100%	4	C= 1xLS*

\*LS = Total lump sum accepted cost of the 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	1.50%	CD= 0.015x 'C'	100% of SCH 'A'
CE	Earthwork and blanketing	50.50%	CE=0.505x 'C'	
CB	Bridges	38.00%	CB=0.38x 'C'	
CS	Station	10.00%	CS=0.10x 'C'	
Total		100.00%		

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

The percentage figures as filled in column (3) 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			‘CD’- Design and As Built Drawing & Documents	
Weightage of Cost Centre ‘CD’, (X)-			1.5%	
Sub Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
<b>CD1- Design</b>	<b>CD1.1</b>	<b>Preliminary design</b>	Preliminary Design	4.00%
	<b>CD1.2</b>	<b>Formation</b>	Definitive design & Good for Construction Drawings (GFC)	5.00%
	<b>CD1.3</b>	<b>Minor Bridges</b>		
	CD1.3.1		Preparation & approval of GADs	10.00%
	CD1.3.2		Definitive Design	10.00%
	CD1.3.3		Good For Construction (GFC) Drawings	10.00%
	<b>CD1.4</b>	<b>Major Bridges</b>		
	CD1.4.1		Preparation & approval of GADs	7.00%
	CD1.4.2		Definitive Design of OWGs & Composite Girder superstructure of Bridge No.155, 195, 199, 200, 242, 257, 267, 273, 277, 287,300, 303, 304, 343, 346, 375, 384, 5C & 5D with BLT track including GFC	7.00%
	CD1.4.3		Definitive Design including RSI (except OWGs & Composite Girder superstructure of Bridge No. 155, 195, 199, 200, 242, 257, 267, 273, 277, 287,300, 303, 304, 343, 346, 375, 384, 5C & 5D with BLT track including GFC)	8.00%

Cost Centre		‘CD’- Design and As Built Drawing & Documents		
Weightage of Cost Centre ‘CD’, (X)-		1.5%		
Sub Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
	CD1.4.4		Good For Construction (GFC) Drawings (except OWGs & Composite Girder superstructure of Bridge Nos. 155, 195, 199, 200, 242, 257, 267, 273, 277, 287,300, 303, 304, 343, 346, 375, 384, 5C & 5D with BLT track including GFC)	8.00%
	<b>CD1.5</b>	<b>Stations</b>		
	CD1.5.1		Preparation & approval of Architectural Drawings	3.00%
	CD1.5.2		Definitive Design	2.00%
	CD1.5.3		Combined Services Drawings & MEP Drawings	2.00%
	CD1.5.4		Good For Construction (GFC) Drawings	4.00%
<b>CD2- As Built Drawing &amp; Documents</b>	<b>CD 2.1</b>	As Built Drawings	Submission of As Built Drawings	13.00%
	<b>CD 2.2</b>	As Built Documents	Submission of As Built Documents	7.00%
<b>Total</b>				<b>100.00%</b>

**Notes:**

1. The value of each Milestones will be total lump sum accepted cost of Works for Schedule ‘A’ (LS) multiplied by X \* Y. For example, the value of Milestone CD 1.3.1 will be equal to  $LS * X * Y = LS * 0.015 * 0.10$ .
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 bridges 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 bridges 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. No payment shall be made against the Sub-Cost Centre CD 1.4.2, if design & drawing of superstructure of Br. Nos. 155, 195, 199, 200, 242, 257, 267, 273, 277, 287,300, 303, 304, 343, 346, 375, 384, 5C & 5D is not required and standard RDSO spans are adopted with the approval of the Engineer.
6. 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.
7. Payment will be made on Completion of each Milestones as per weightage given in this Cost Centre
8. The cost of Milestones includes cost of design of the formation, Bridges, retaining wall & other Structures included in Schedule 'A' and Schedule 'B' as mentioned in Section VII-2: Functional, Employer's Requirements.

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

Cost Centre		CE-Earthwork and Blanketing		
Weightage of Cost Centre ‘CE’, (X)		50.50%		
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
CE.1- Earthwork	CE.1.1	Earthwork in formation from Ch 61500 m to 62000 m for double main line track		
	CE. 1.1.1		Earthwork in embankment / cutting including compaction.	0.28%
	CE. 1.1.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.03%
	CE. 1.1.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.02%
	CE.1.2	Earthwork in formation from Ch 62000 m to 63000 m for double main line track.		
	CE. 1.2.1		Earthwork in embankment/ cutting including compaction.	1.20%
	CE.1.2.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.1%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
	CE.1.2.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted.	0.10%
	CE.1.3	Earthwork in formation from Ch 63000m to 64000m for double main line track, connecting line, loop lines in Badsa Jn station yard		
	CE.1.3.1		Earthwork in embankment / cutting including compaction.	0.70%
	CE.1.3.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.07%
	CE.1.3.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.05%
	CE.1.4	Earthwork in formation from Ch 64000 to 65000 for double main line track, connecting line, loop lines, platform area in Badsa Jn station yard		

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
	CE.1.4.1		Earthwork in embankment / cutting including compaction.	0.80%
	CE.1.4.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.07%
	CE.1.4.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.05%
	CE.1.5	Earthwork in formation from Ch 65000 to 66000 for double main line track, loop lines, platform area in Badsa Jn station yard.		
	CE.1.5.1		Earthwork in embankment / cutting including compaction.	0.65%
	CE.1.5.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.06%
	CE.1.5.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.05%
	CE.1.6	Earthwork in formation from Ch		



Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
		66000 to 67000 for double main line track.		
	CE.1.6.1		Earthwork in embankment / cutting including compaction.	0.40%
	CE.1.6.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.05%
	CE.1.6.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.04%
	CE.1.7	Earthwork in formation from Ch 67000 to 68000 for double main line track.		
	CE.1.7.1		Earthwork in embankment / cutting including compaction.	0.60%
	CE.1.7.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.07%
	CE.1.7.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.06%
	CE.1.8	Earthwork in formation from Ch		

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
		68000 to 69000 for double main line track.		
	CE.1.8.1		Earthwork in embankment / cutting including compaction.	0.45%
	CE.1.8.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.06%
	CE.1.8.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.05%
	CE.1.9	Earthwork in formation from Ch 69000 to 70000 for double main line track.		
	CE.1.9.1		Earthwork in embankment / cutting including compaction.	0.65%
	CE.1.9.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.06%
	CE.1.9.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.05%
	CE.1.10	Earthwork in formation from Ch		

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
		70000 to 71000 for double main line track & platform area in Deverkhana Station.		
	CE.1.10.1		Earthwork in embankment / cutting including compaction.	0.45%
	CE.1.10.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.07%
	CE.1.10.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.05%
	CE.1.11	Earthwork in formation from Ch 71000 to 72000 for double main line track & platform area in Deverkhana Station..		
	CE.1.11.1		Earthwork in embankment / cutting including compaction.	0.39%
	CE.1.11.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.05%
	CE.1.11.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring	0.04%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
			that vegetative cover is properly rooted .	
	CE.1.12	Earthwork in formation from Ch 72000 to 73000 for double main line track.		
	CE.1.12.1		Earthwork in embankment / cutting including compaction.	0.37%
	CE.1.12.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.04%
	CE.1.12.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.04%
	CE.1.13	Earthwork in formation from Ch 73000 to 74000 for double main line track.		
	CE.1.13.1		Earthwork in embankment / cutting including compaction.	1.40%
	CE.1.13.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.13%
	CE.1.13.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12	0.10%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
			months and after ensuring that vegetative cover is properly rooted .	
	CE.1.14	Earthwork in formation from Ch 74000 to 75000 for double main line track.		
	CE.1.14.1		Earthwork in embankment / cutting including compaction.	0.95%
	CE.1.14.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.09%
	CE.1.14.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.07%
	CE.1.15	Earthwork in formation from Ch 75000 to 76000 for double main line track.		
	CE.1.15.1		Earthwork in embankment / cutting including compaction.	1.1%
	CE.1.15.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.11%
	CE.1.15.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12	0.09%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
			months and after ensuring that vegetative cover is properly rooted .	
	CE.1.16	Earthwork in formation from Ch 76000 to 77000 for double main line track, loop lines, platform area in Badli station yard		
	CE.1.16.1		Earthwork in embankment / cutting including compaction.	2.00%
	CE.1.16.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.19%
	CE.1.16.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.12%
	CE.1.17	Earthwork in formation from Ch 77000 to 78000 for double main line track, loop lines, platform area in Badli station yard		
	CE.1.17.1		Earthwork in embankment / cutting including compaction.	1.34%
	CE.1.17.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified)	0.18%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
			and drainage arrangement complete in all respects.	
	CE.1.17.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.12%
	CE.1.18	Earthwork in formation from Ch 78000 to 79000 for double main line track.		
	CE.1.18.1		Earthwork in embankment / cutting including compaction.	0.69%
	CE.1.18.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.07%
	CE.1.18.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.05%
	CE.1.19	Earthwork in formation from Ch 79000 to 80000 for double main line track.		
	CE.1.19.1		Earthwork in embankment / cutting including compaction.	0.85%
	CE.1.19.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including	0.09%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
			coir netting (where specified) and drainage arrangement complete in all respects.	
	CE.1.19.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.06%
	CE.1.20	Earthwork in formation from Ch 80000 to 81000 for double main line track.		
	CE.1.20.1		Earthwork in embankment / cutting including compaction.	0.20%
	CE.1.20.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.02%
	CE.1.20.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.02%
	CE.1.21	Earthwork in formation from Ch 81000 to 82000 for double main line track.		
	CE.1.21.1		Earthwork in embankment / cutting including compaction.	0.52%
	CE.1.21.2		On cutting of extra width & dressing of slopes in profile, compaction, providing	0.05%



Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
			vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	
	CE.1.21.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.04%
	CE.1.22	Earthwork in formation from Ch 82000 to 83000 for double main line track.		
	CE.1.22.1		Earthwork in embankment / cutting including compaction.	0.77%
	CE.1.22.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.07%
	CE.1.22.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.05%
	CE.1.23	Earthwork in formation from Ch 83000 to 84000 for double main line track.		
	CE.1.23.1		Earthwork in embankment / cutting including compaction.	0.61%
	CE.1.23.2		On cutting of extra width & dressing of slopes in profile,	0.08%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
			compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	
	CE.1.23.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.05%
	CE.1.24	Earthwork in formation from Ch 84000 to 85000 for double main line track.		
	CE.1.24.1		Earthwork in embankment / cutting including compaction.	0.73%
	CE.1.24.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.08%
	CE.1.24.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.05%
	CE.1.25	Earthwork in formation from Ch 85000 to 86000 for double main line track.		
	CE.1.25.1		Earthwork in embankment / cutting including compaction.	0.44%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
	CE.1.25.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.05%
	CE.1.25.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.04%
	CE.1.26	Earthwork in formation from Ch 86000 to 87000 for double main line track.		
	CE.1.26.1		Earthwork in embankment / cutting including compaction.	0.84%
	CE.1.26.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.09%
	CE.1.26.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.05%
	CE.1.27	Earthwork in formation from Ch 87000 to 88000 for double main line track.		

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
	CE.1.27.1		Earthwork in embankment / cutting including compaction.	0.28%
	CE.1.27.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.03%
	CE.1.27.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.02%
	CE.1.28	Earthwork in formation from Ch 88000 to 89000 for double main line track.		
	CE.1.28.1		Earthwork in embankment / cutting including compaction.	0.75%
	CE.1.28.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.07%
	CE.1.28.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.05%
	CE.1.29	Earthwork in formation from Ch 89000 to 90000 for double main line		

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
		track, loop lines in Mandothi station yard		
	CE.1.29.1		Earthwork in embankment / cutting including compaction.	1.25%
	CE.1.29.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.13%
	CE.1.29.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.09%
	CE.1.30	Earthwork in formation from Ch 90000 to 91000 for double main line track, connecting line, loop lines, platform area in Mandothi station yard.		
	CE.1.30.1		Earthwork in embankment / cutting including compaction.	3.9%
	CE.1.30.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.3%
	CE.1.30.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12	0.13%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
			months and after ensuring that vegetative cover is properly rooted .	
	CE.1.31	Earthwork in formation from Ch 91000 to 92000 for double main line track, connecting line, loop lines, in Mandothi station yard..		
	CE.1.31.1		Earthwork in embankment / cutting including compaction.	2.00%
	CE.1.31.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.21%
	CE.1.31.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.10%
	CE.1.32	Earthwork in formation from Ch 92000 to 93000 for double main line track.		
	CE.1.32.1		Earthwork in embankment / cutting including compaction.	2.2%
	CE.1.32.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.24%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
	CE.1.32.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.1%
	CE.1.33	Earthwork in formation from Ch 93000 to 94000 for double main line track.		
	CE.1.33.1		Earthwork in embankment / cutting including compaction.	1.67%
	CE.1.33.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.2%
	CE.1.33.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.1%
	CE.1.34	Earthwork in formation from Ch 94000 to 95000 for double main line track, platform area in New Asaudah Station.		
	CE.1.34.1		Earthwork in embankment / cutting including compaction.	1.85%
	CE.1.34.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including	0.21%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
			coir netting (where specified) and drainage arrangement complete in all respects.	
	CE.1.34.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.1%
	CE.1.35	Earthwork in formation from Ch 95000 to 96000 m for double main line track.		
	CE.1.35.1		Earthwork in embankment / cutting including compaction.	1.15%
	CE.1.35.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.11%
	CE.1.35.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.08%
	CE.1.36	Earthwork in formation from Ch 96000 to 97000 for double main line track		
	CE.1.36.1		Earthwork in embankment / cutting including compaction.	0.66%
	CE.1.36.2		On cutting of extra width & dressing of slopes in profile, compaction, providing	0.06%



Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
			vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	
	CE.1.36.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.04%
	CE.1.37	Earthwork in formation from Ch 97000 to 98000 for double main line track.		
	CE.1.37.1		Earthwork in embankment / cutting including compaction.	0.57%
	CE.1.37.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.04%
	CE.1.37.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.04%
	CE.1.38	Earthwork in formation from Ch 98000 to 99000 for double main line track, platform area in Jasur Kheri Station.		
	CE.1.38.1		Earthwork in embankment / cutting including compaction.	0.67%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
	CE.1.38.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.0.6%
	CE.1.38.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.04%
	CE.1.39	Earthwork in formation from Ch 99000 to 100000 for double main line track, platform area in Jasur Kheri Station..		
	CE.1.39.1		Earthwork in embankment / cutting including compaction.	0.94%
	CE.1.39.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.10%
	CE.1.39.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.06%
	CE.1.40	Earthwork in formation from Ch 100000 to 101000 for double main line track		

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
	CE.1.40.1		Earthwork in embankment / cutting including compaction.	0.94%
	CE.1.40.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.10%
	CE.1.40.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.06%
	CE.1.41	Earthwork in formation from Ch 101000 to 102000 for double main line track		
	CE.1.41.1		Earthwork in embankment / cutting including compaction.	0.72%
	CE.1.41.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.08%
	CE.1.41.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.05%
	CE.1.42	Earthwork in formation from Ch 102000 to 103000		

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
		for double main line track		
	CE.1.42.1		Earthwork in embankment / cutting including compaction.	0.48%
	CE.1.42.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.05%
	CE.1.42.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.03%
	CE.1.43	Earthwork in formation from Ch 103000 to 104000 for double main line track		
	CE.1.43.1		Earthwork in embankment / cutting including compaction.	0.35%
	CE.1.43.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.04%
	CE.1.43.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.03%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
	CE.1.44	Earthwork in formation from Ch 104000 to 105000 for double main line track		
	CE.1.44.1		Earthwork in embankment / cutting including compaction.	0.83%
	CE.1.44.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.08%
	CE.1.44.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.06%
	CE.1.45	Earthwork in formation from Ch 105000 to 106000 for double main line track		
	CE.1.45.1		Earthwork in embankment / cutting including compaction.	0.2%
	CE.1.45.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.02%
	CE.1.45.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring	0.02%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
			that vegetative cover is properly rooted .	
	CE.1.46	Earthwork in formation from Ch 106000 to 107000 for double main line track		
	CE.1.46.1		Earthwork in embankment / cutting including compaction.	0.66%
	CE.1.46.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.07%
	CE.1.46.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.05%
	CE.1.47	Earthwork in formation from Ch 107000 to 108000 for double main line track, loop lines in Khrkhoda station yard.		
	CE.1.47.1		Earthwork in embankment / cutting including compaction.	0.52%
	CE.1.47.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.07%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
	CE.1.47.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.04%
	CE.1.48	Earthwork in formation from Ch 108000 to 109000 for double main line track, loop lines, platform area in Kharkhoda station yard.		
	CE.1.48.1		Earthwork in embankment / cutting including compaction.	1.04%
	CE.1.48.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.11%
	CE.1.48.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.06%
	CE.1.49	Earthwork in formation from Ch 109000 to 110000 for double main line track, loop lines, platform area in Kharkhoda station yard.		
	CE.1.49.1		Earthwork in embankment / cutting including compaction.	0.9%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
	CE.1.49.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.10%
	CE.1.49.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.05%
	CE.1.50	Earthwork in formation from Ch 110000 to 111000 for double main line track.		
	CE.1.50.1		Earthwork in embankment / cutting including compaction.	1.22%
	CE.1.50.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.14%
	CE.1.50.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.08%
	CE.1.51	Earthwork in formation from Ch 111000 to 112000 for double main line track.		



Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
	CE.1.51.1		Earthwork in embankment / cutting including compaction.	0.91%
	CE.1.51.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.10%
	CE.1.51.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.06%
	CE.1.52	Earthwork in formation from Ch 112000 to 1130000 for double main line track.		
	CE.1.52.1		Earthwork in embankment / cutting including compaction.	0.62%
	CE.1.52.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.06%
	CE.1.52.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.04%
	CE.1.53	Earthwork in formation from Ch 113000 to 114000 for double main line		

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
		track, loop lines, platform area in Tarakpur station yard.		
	CE.1.53.1		Earthwork in embankment / cutting including compaction.	0.8%
	CE.1.53.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.08%
	CE.1.53.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.05%
	CE.1.54	Earthwork in formation from Ch 114000 to 115000 for double main line track, loop lines, platform area in Tarakpur station yard.		
	CE.1.54.1		Earthwork in embankment / cutting including compaction.	0.9%
	CE.1.54.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.08%
	CE.1.54.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12	0.05%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
			months and after ensuring that vegetative cover is properly rooted .	
	CE.1.55	Earthwork in formation from Ch 115000 to 116000 for double main line track.		
	CE.1.55.1		Earthwork in embankment / cutting including compaction.	0.78%
	CE.1.55.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.08%
	CE.1.55.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.05%
	CE.1.56	Earthwork in formation from Ch 116000 to 117000 for double main line track.		
	CE.1.56.1		Earthwork in embankment / cutting including compaction.	0.55%
	CE.1.56.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.06%
	CE.1.56.3		On completion of maintenance of slopes, drainage system & vegetative	0.04%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
			cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	
	CE.1.57	Earthwork in formation from Ch 117000 to 118000 for double main line track.		
	CE.1.57.1		Earthwork in embankment / cutting including compaction.	1.25%
	CE.1.57.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.17%
	CE.1.57.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.08%
	CE.1.58	Earthwork in formation from Ch 118000 to 119000 for double main line track.		
	CE.1.58.1		Earthwork in embankment / cutting including compaction.	2.30%
	CE.1.58.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.27%
	CE.1.58.3		On completion of maintenance of slopes,	0.1%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
			drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	
	CE.1.59	Earthwork in formation from Ch 119000 to 120000 for double main line track.		
	CE.1.59.1		Earthwork in embankment / cutting including compaction.	2.30%
	CE.1.59.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.18%
	CE.1.59.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.1%
	CE.1.60	Earthwork in formation from Ch 120000 to 121000 for double main line track.		
	CE.1.60.1		Earthwork in embankment / cutting including compaction.	1.71%
	CE.1.60.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.2%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
	CE.1.60.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.1%
	CE.1.61	Earthwork in formation from Ch 121000 to 122000 for double main line track.		
	CE.1.61.1		Earthwork in embankment / cutting including compaction.	1.5%
	CE.1.61.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.17%
	CE.1.61.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.08%
	CE.1.62	Earthwork in formation from Ch 122000 to 123000 for double main line track.		
	CE.1.62.1		Earthwork in embankment / cutting including compaction.	0.25%
	CE.1.62.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified)	0.02%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
			and drainage arrangement complete in all respects.	
	CE.1.62.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.03%
	CE.1.63	Earthwork in formation from Ch 123000 to 124000 for double main line track.		
	CE.1.63.1		Earthwork in embankment / cutting including compaction.	0.38%
	CE.1.63.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.05%
	CE.1.63.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.04%
	CE.1.64	Earthwork in formation from Ch 124000 to 125000 for double main line track, connecting line, loop lines, platform area in New Harsan Kalan station yard.		
	CE.1.64.1		Earthwork in embankment / cutting including compaction.	0.25%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
	CE.1.64.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.04%
	CE.1.64.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.03%
	CE.1.65	Earthwork in formation from Ch 125000 to 126023 for double main line track, connecting line, loop lines, platform area in New Harsan Kalan station yard.		
	CE.1.65.1		Earthwork in embankment / cutting including compaction.	0.16%
	CE.1.65.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.03%
	CE.1.65.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.02%
	CE.1.66	Earthwork in formation from Ch 513 to 3354 for		



Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
		Badsa -Sultanpur connecting line.		
	CE.1.66.1		Earthwork in embankment / cutting including compaction.	0.2%
	CE.1.66.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.03%
	CE.1.66.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.02%
	CE.1.67	Earthwork in formation from Ch 616 to 2000m for Mandothi-Asaudah connecting line.		
	CE.1.67.1		Earthwork in embankment / cutting including compaction.	1.11%
	CE.1.67.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.12%
	CE.1.67.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.08%
	CE.1.68	Earthwork in formation from Ch		

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
		2000 to 3000m for Mandothi -Asaudah connecting line.		
	CE.1.68.1		Earthwork in embankment / cutting including compaction.	0.86%
	CE.1.68.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.08%
	CE.1.68.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.06%
	CE.1.69	Earthwork in formation from Ch 3000 to 4180m for Mandothi -Asaudah connecting line.		
	CE.1.69.1		Earthwork in embankment / cutting including compaction.	0.37%
	CE.1.69.2		On cutting of extra width & dressing of slopes in profile, compaction, providing vegetative cover including coir netting (where specified) and drainage arrangement complete in all respects.	0.05%
	CE.1.69.3		On completion of maintenance of slopes, drainage system & vegetative cover for a period of 12 months and after ensuring that vegetative cover is properly rooted .	0.03%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
CE.2-Blanketing	CE.2.1	Blanketing from Ch 61500 m to 62000 m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.20%
	CE.2.2	Blanketing from Ch 62000m to 63000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.41%
	CE.2.3	Blanketing from Ch 63000 to 64000 for double main line track, connecting line, loop lines in Badsa Jn station yard	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.68%
	CE.2.4	Blanketing from Ch 64000 to 65000 for double main line track, connecting line, loop lines in Badsa Jn station yard	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.61%
	CE.2.5	Blanketing from Ch 65000 to 66000 for double main line track, loop lines in Badsa Jn station yard.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.46%
	CE.2.6	Blanketing from Ch 66000 to 67000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.36%
	CE.2.7	Blanketing from Ch 67000 to 68000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.36%
	CE.2.8	Blanketing from Ch 68000 to 69000m for	Blanketing on subgrade/ prepared subgrade as per	0.36%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
		double main line track.	design profile including compaction complete in all respects.	
	CE.2.9	Blanketing from Ch 69000 to 70000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.36%
	CE.2.10	Blanketing from Ch 70000 to 71000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.35%
	CE.2.11	Blanketing from Ch 71000 to 72000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.32%
	CE.2.12	Blanketing from Ch 72000 to 73000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.37%
	CE.2.13	Blanketing from Ch 73000 to 74000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.43%
	CE.2.14	Blanketing from Ch 74000 to 75000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.43%
	CE.2.15	Blanketing from Ch 75000 to 76000m for double main line track, loop lines in Badli station yard.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.37%
	CE.2.16	Blanketing from Ch 76000 to 77000m for double main line	Blanketing on subgrade/ prepared subgrade as per design profile including	0.52%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
		track, loop lines in Badli station yard	compaction complete in all respects.	
	CE.2.17	Blanketing from Ch 77000 to 78000m for double main line track, loop lines in Badli station yard	Blanketing on subgrade/prepared subgrade as per design profile including compaction complete in all respects.	0.49%
	CE.2.18	Blanketing from Ch 78000 to 79000m for double main line track.	Blanketing on subgrade/prepared subgrade as per design profile including compaction complete in all respects.	0.37%
	CE.2.19	Blanketing from Ch 79000 to 80000m for double main line track.	Blanketing on subgrade/prepared subgrade as per design profile including compaction complete in all respects.	0.36%
	CE.2.20	Blanketing from Ch 80000 to 81000m for double main line track.	Blanketing on subgrade/prepared subgrade as per design profile including compaction complete in all respects.	0.36%
	CE.2.21	Blanketing from Ch 81000 to 82000m for double main line track.	Blanketing on subgrade/prepared subgrade as per design profile including compaction complete in all respects.	0.36%
	CE.2.22	Blanketing from Ch 82000 to 83000 for double main line track.	Blanketing on subgrade/prepared subgrade as per design profile including compaction complete in all respects.	0.36%
	CE.2.23	Blanketing from Ch 83000 to 84000m for double main line track.	Blanketing on subgrade/prepared subgrade as per design profile including compaction complete in all respects.	0.37%
	CE.2.24	Blanketing from Ch 84000 to 85000m for double main line track.	Blanketing on subgrade/prepared subgrade as per design profile including compaction complete in all respects.	0.41%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
	CE.2.25	Blanketing from Ch 85000 to 86000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.36%
	CE.2.26	Blanketing Ch 86000 to 87000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.36%
	CE.2.27	Blanketing from Ch 87000 to 88000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.36%
	CE.2.28	Blanketing from Ch 88000 to 89000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.39%
	CE.2.29	Blanketing from Ch 89000 to 90000m for double main line track, connecting line, loop lines in Mandothi station yard	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.43%
	CE.2.30	Blanketing from Ch 90000 to 91000 for double main line track, loop lines, connecting line in Mandothi station yard.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.75%
	CE.2.31	Blanketing from Ch 91000 to 92000m for double main line track, loop lines, connecting line in Mandothi station yard..	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.43%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
	CE.2.32	Blanketing from Ch 92000 to 93000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.40%
	CE.2.33	Blanketing from Ch 93000 to 94000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.44%
	CE.2.34	Blanketing from Ch 94000 to 95000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.37%
	CE.2.35	Blanketing from Ch 95000 to 96000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.37%
	CE.2.36	Blanketing from Ch 96000 to 97000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.43%
	CE.2.37	Blanketing from Ch 97000 to 98000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.42%
	CE.2.38	Blanketing from Ch 98000 to 99000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.33%
	CE.2.39	Blanketing from Ch 99000 to 100000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.34%
	CE.2.40	Blanketing from Ch 100000 to 101000 m	Blanketing on subgrade/ prepared subgrade as per	0.38%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
		for double main line track.	design profile including compaction complete in all respects.	
	CE.2.41	Blanketing from Ch 101000 to 102000 m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.40%
	CE.2.42	Blanketing from Ch 102000 to 103000 m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.36%
	CE.2.43	Blanketing from Ch 103000 to 104000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.36%
	CE.2.44	Blanketing from Ch 104000 to 105000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.36%
	CE.2.45	Blanketing from Ch 105000 to 106000 m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.36%
	CE.2.46	Blanketing from Ch 106000 to 107000 m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.36%
	CE.2.47	Blanketing from Ch 107000 to 108000 m for double main line track, loop lines in Kharkhoda station yard..	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.36%
	CE.2.48	Blanketing from Ch 108000 to 109000m for double main line	Blanketing on subgrade/ prepared subgrade as per design profile including	0.70%



Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
		track, loop lines in Kharkhoda station yard.	compaction complete in all respects.	
	CE.2.49	Blanketing from Ch 109000 to 110000m for double main line track, loop lines in Kharkhoda station yard.	Blanketing on subgrade/prepared subgrade as per design profile including compaction complete in all respects.	0.56%
	CE.2.50	Blanketing from Ch 110000 to 111000m for double main line track.	Blanketing on subgrade/prepared subgrade as per design profile including compaction complete in all respects.	0.43%
	CE.2.51	Blanketing from Ch 111000 to 112000m for double main line track.	Blanketing on subgrade/prepared subgrade as per design profile including compaction complete in all respects.	0.40%
	CE.2.52	Blanketing from Ch 112000 to 1130000 m for double main line track.	Blanketing on subgrade/prepared subgrade as per design profile including compaction complete in all respects.	0.36%
	CE.2.53	Blanketing from Ch 113000 to 114000 m for double main line track, loop lines in Tarakpur station yard.	Blanketing on subgrade/prepared subgrade as per design profile including compaction complete in all respects.	0.46%
	CE.2.54	Blanketing from Ch 114000 to 115000 m for double main line track, loop lines in Tarakpur station yard.	Blanketing on subgrade/prepared subgrade as per design profile including compaction complete in all respects.	0.54%
	CE.2.55	Blanketing from Ch 115000 to 116000 m for double main line track.	Blanketing on subgrade/prepared subgrade as per design profile including compaction complete in all respects.	0.36%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
	CE.2.56	Blanketing from Ch 116000 to 117000 m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.37%
	CE.2.57	Blanketing from Ch 117000 to 118000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.36%
	CE.2.58	Blanketing from Ch 118000 to 119000 m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.41%
	CE.2.59	Blanketing from Ch 119000 to 120000 m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.44%
	CE.2.60	Blanketing from Ch 120000 to 121000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.35%
	CE.2.61	Blanketing from Ch 121000 to 122000 m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.35%
	CE.2.62	Blanketing from Ch 122000 to 123000m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.30%
	CE.2.63	Blanketing from Ch 123000 to 124000 m for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.30%
	CE.2.64	Blanketing from Ch 124000 to 125000 m	Blanketing on subgrade/ prepared subgrade as per	0.50%

Cost Centre			CE-Earthwork and Blanketing	
Weightage of Cost Centre 'CE', (X)			50.50%	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
		for double main line track, loop lines, in New Harsan Kalan station yard.	design profile including compaction complete in all respects.	
	CE.2.65	Blanketing from Ch 125000 to 126023 m for double main line track, loop lines in New Harsan Kalan station yard.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.50%
	CE.2.66	Blanketing from Ch 513 to 3354 m for Badsa- Sultanpur connecting single line.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.44%
	CE.2.67	Blanketing from Ch 616 to 2000 m for Mandothi- Asaudah connecting single line.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.19%
	CE.2.68	Blanketing from Ch 2000 to 3000 m for Mandothi- Asaudah connecting single line.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.12%
	CE.2.69	Blanketing from Ch 3000 to 4180 m for Mandothi- Asaudah connecting single line.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.21%
			<b>Total</b>	<b>100.00%</b>

**Notes:**

1. The value of each Milestones will be total lump sum accepted cost of Works for Schedule 'A' (LS) multiplied by X \* Y. For example, the value of Milestone CE1.1.1 will be equal to  $LS * X * Y = LS * 0.505 * 0.0028$ .

1. Adjustment to Contract Price

2. Adjustment to Contract Price pursuant to GCC 13.7 shall be applicable to the payments of Works executed under this Sub Heads / Price Schedule.

3. Payment will be made on Completion of each Milestones as per weightage given in this schedule.
4. If owing to site conditions or any other reasons, locations of retaining walls are changed or new retaining walls are constructed or retaining walls are eliminated & normal bank is provided, the variation caused in quantity of earthwork in embankment on this account shall be payable/ recoverable under Item No. NS-4 of Schedule 'B9'.

### 5.2.3 Milestones of Cost Centre ‘CB’- for Bridges

Cost Centre			CB- Bridges	
Weightage of Cost Centre ‘CB’, (X)			38.00%	
Sub-cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
<b>CB1-Minor Bridges</b>	CB.1.1	Construction of minor bridge No. Nil between Ch 61500 to 62000m.		0%
	CB.1.2	Construction of minor bridge No. 156, 157, 158, 159 & 160 between Ch 62000 to 63000m.	On completion of bridge works in all respects	2.61%
	CB.1.3	Construction of minor bridge No. 161 & 162 between Ch 63000 to 64000m.	On completion of bridge works in all respects	0.43%
	CB1.4	Construction of minor bridge No. 163, 164, 165 & 166 between ch 64000 to 65000m.	On completion of bridge works in all respects	1.39%
	CB1.5	Construction of minor bridge No. 167, 168 & 169 between ch 65000 to 66000m.	On completion of bridge works in all respects	0.49%
	CB1.6	Construction of minor bridge No. 170 & 171 between ch 66000 to 67000.	On completion of bridge works in all respects	0.19%
	CB1.7	Construction of minor bridge No. 173, 174, 175 & 177 between Ch 67000 to 68000.	On completion of bridge works in all respects	1.6%
	CB1.8	Construction of minor bridge No. 179 & 180 between Ch 68000 to 69000.	On completion of bridge works in all respects	0.19%
	CB1.9	Construction of minor bridge No. 181 & 182	On completion of bridge works in all respects	0.44%

Cost Centre			CB- Bridges	
Weightage of Cost Centre 'CB', (X)			38.00%	
Sub-cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
		between ch 69000 to 70000.		
	CB1.10	Construction of minor bridge No. 187 between Ch 70000 to 71000.	On completion of bridge works in all respects	0.10%
	CB1.11	Construction of minor bridge No. 188 between Ch 71000 to 72000m.	On completion of bridge works in all respects	0.10%
	CB1.12	Construction of minor bridge No. 192 & 193 between Ch 72000 to 73000.	On completion of bridge works in all respects	0.21%
	CB1.13	Construction of minor bridge No. 194 & 196 between ch 73000 to 74000.	On completion of bridge works in all respects	0.64%
	CB1.14	Construction of minor bridge No. Nil between Ch 74000 to 75000m.		0%
	CB1.15	Construction of minor bridge No. 202 between Ch 75000 to 76000.	On completion of bridge works in all respects	0.54%
	CB1.16	Construction of minor bridge No. 204 between Ch 76000 to 77000.	On completion of bridge works in all respects	0.47%
	CB1.17	Construction of minor bridge No. 205, 206 & 209 between Ch 77000 to 78000m for main line track.	On completion of bridge works in all respects	1.29%
	CB1.18	Construction of minor bridge No. 210, 211, 212, 213 & 214 between Ch	On completion of bridge works in all respects	0.69%

Cost Centre			CB- Bridges	
Weightage of Cost Centre 'CB', (X)			38.00%	
Sub-cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
		78000 to 79000m for main line track.		
	CB1.19	Construction of minor bridge No. 216, 217 & 218 between Ch 79000 to 80000m for main line track.	On completion of bridge works in all respects	0.78%
	CB1.20	Construction of minor bridge No. 221, 222 & 223 between Ch 80000 to 81000m for main line track.	On completion of bridge works in all respects	0.28%
	CB1.21	Construction of minor bridge No. 225, 226, 227 & 228 between Ch 81000 to 82000m for main line track.	On completion of bridge works in all respects	1.83%
	CB1.22	Construction of minor bridge No. 230, 231, 232 & 233 between Ch 82000 to 83000m for main line track.	On completion of bridge works in all respects	0.92%
	CB1.23	Construction of minor bridge No. 236, 237, 238, 239 & 240 between Ch 83000 to 84000m for main line track.	On completion of bridge works in all respects	0.68%
	CB1.24	Construction of minor bridge No. 241, 243 & 244 between Ch 84000 to 85000m for main line track.	On completion of bridge works in all respects	0.82%
	CB1.25	Construction of minor bridge No. 247 between Ch 85000 to 86000m for main line track.	On completion of bridge works in all respects	0.37%

Cost Centre			CB- Bridges	
Weightage of Cost Centre 'CB', (X)			38.00%	
Sub-cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
	CB1.26	Construction of minor bridge No. 249 & 251 between Ch 86000 to 87000m for main line track.	On completion of bridge works in all respects	0.93%
	CB1.27	Construction of minor bridge No. 252 & 253 between Ch 87000 to 88000m for main line track.	On completion of bridge works in all respects	0.41%
	CB1.28	Construction of minor bridge No. 254 & 256 between Ch 88000 to 89000m for main line track.	On completion of bridge works in all respects	0.2%
	CB1.29	Construction of minor bridge No. 258 & 260 between Ch 89000 to 90000m for main line track.	On completion of bridge works in all respects	1.21%
	CB1.30	Construction of minor bridge No. 262 & 264 between Ch 90000 to 91000m for main line track.	On completion of bridge works in all respects	1.38%
	CB1.31	Construction of minor bridge No. 265 & 266 between Ch 91000 to 92000m for main line track.	On completion of bridge works in all respects	2.64%
	CB1.32	Construction of minor bridge No. 270 & 271 between Ch 92000 to 93000m for main line track.	On completion of bridge works in all respects	1.3%



Cost Centre			CB- Bridges	
Weightage of Cost Centre 'CB', (X)			38.00%	
Sub-cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
	CB1.33	Construction of minor bridge No. 272, 274 & 275 between Ch 93000 to 94000m for main line track.	On completion of bridge works in all respects	1.74%
	CB1.34	Construction of minor bridge No. 276, 279 & 280 between Ch 94000 to 95000m for main line track.	On completion of bridge works in all respects	3.32%
	CB1.35	Construction of minor bridge No. 282 & 284 between Ch 95000 to 96000m for main line track.	On completion of bridge works in all respects	0.6%
	CB1.36	Construction of minor bridge No. 285, 286 & 288 between Ch 96000 to 97000m for main line track.	On completion of bridge works in all respects	0.97%
	CB1.37	Construction of minor bridge No. 289, 290, 291 & 292 between Ch 97000 to 98000m for main line track.	On completion of bridge works in all respects	1.86%
	CB1.38	Construction of minor bridge No. 293, 294, 295 & 296 between Ch 98000 to 99000m for main line track.	On completion of bridge works in all respects	0.79%
	CB1.39	Construction of minor bridge No. 299, 301 & 302 between Ch 99000 to 100000m for main line track.	On completion of bridge works in all respects	1.39%

Cost Centre			CB- Bridges	
Weightage of Cost Centre 'CB', (X)			38.00%	
Sub-cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
	CB1.40	Construction of minor bridge No. Nil between Ch 100000 to 101000m for main line track.		0.00%
	CB1.41	Construction of minor bridge No. 305, 306 & 308 between Ch 101000 to 102000m for main line track.	On completion of bridge works in all respects	0.66%
	CB1.42	Construction of minor bridge No. 309 & 310 between Ch 102000 to 103000m for main line track.	On completion of bridge works in all respects	0.2%
	CB1.43	Construction of minor bridge No. 312, 313, 314 & 315 between Ch 103000 to 104000m for main line track.	On completion of bridge works in all respects	0.81%
	CB1.44	Construction of minor bridge No. 316, 318, 319 & 320 between Ch 104000 to 105000m for main line track.	On completion of bridge works in all respects	1.03%
	CB1.45	Construction of minor bridge No. 321, 322, 323 & 324 between Ch 105000 to 106000m for main line track.	On completion of bridge works in all respects	0.39%
	CB1.46	Construction of minor bridge No. 325, 326 & 327 between Ch 106000 to 107000m for main line track.	On completion of bridge works in all respects	0.30%
	CB1.47	Construction of minor bridge No. 329, 330, 331, 332 & 333 between Ch	On completion of bridge works in all respects	0.67%

Cost Centre			CB- Bridges	
Weightage of Cost Centre 'CB', (X)			38.00%	
Sub-cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
		107000 to 108000m for main line track.		
	CB1.48	Construction of minor bridge No. 334 & 335 between Ch 108000 to 109000m for main line track.	On completion of bridge works in all respects	0.52%
	CB1.49	Construction of minor bridge No. 338, 339, 340, 341 & 342 between Ch 109000 to 110000m for main line track.	On completion of bridge works in all respects	1.11%
	CB1.50	Construction of minor bridge No. 344 & 345 between Ch 110000 to 111000m for main line track.	On completion of bridge works in all respects	0.48%
	CB1.51	Construction of minor bridge No. 347 & 349 between Ch 111000 to 112000m for main line track.	On completion of bridge works in all respects	0.39%
	CB1.52	Construction of minor bridge No. 350 between Ch 112000 to 113000m for main line track.	On completion of bridge works in all respects	0.32%
	CB1.53	Construction of minor bridge No. 353, 354, 355 & 356 between Ch 113000 to 114000m for main line track.	On completion of bridge works in all respects	1.02%
	CB1.54	Construction of minor bridge No. 357 & 358 between Ch 114000 to 115000m for main line track.	On completion of bridge works in all respects	0.41%

Cost Centre			CB- Bridges	
Weightage of Cost Centre 'CB', (X)			38.00%	
Sub-cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
	CB1.55	Construction of minor bridge No. 361, 362 & 364 between Ch 115000 to 116000m for main line track.	On completion of bridge works in all respects	0.33%
	CB1.56	Construction of minor bridge No. 365, 366, 367, 368 & 369 between Ch 116000 to 117000m for main line track.	On completion of bridge works in all respects	1.60%
	CB1.57	Construction of minor bridge No. 370, 371 & 373 between Ch 117000 to 118000m for main line track.	On completion of bridge works in all respects	0.95%
	CB1.58	Construction of minor bridge No. 376 between Ch 118000 to 119000m for main line track.	On completion of bridge works in all respects	1.2%
	CB1.59	Construction of minor bridge No. 377, 378, 379, 380 & 381 between Ch 119000 to 120000m for main line track.	On completion of bridge works in all respects	3.73%
	CB1.60	Construction of minor bridge No. 382 & 383 between Ch 120000 to 121000m for main line track.	On completion of bridge works in all respects	1.00%
	CB1.61	Construction of minor bridge No. 385 & 386 between Ch 121000 to 122000m for main line track.	On completion of bridge works in all respects	1.25%
	CB1.62	Construction of minor bridge No. 387 between	On completion of bridge works in all respects	0.45%

Cost Centre			CB- Bridges	
Weightage of Cost Centre 'CB', (X)			38.00%	
Sub-cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
		Ch 122000 to 123000m for main line track.		
	CB1.63	Construction of minor bridge No. 389 & 392 between Ch 123000 to 124000m for main line track.	On completion of bridge works in all respects	1.19%
	CB1.64	Construction of minor bridge No. Nil between Ch 124000 to 125000m for main line track.		0%
	CB1.65	Construction of minor bridge No. 393 & 394 between Ch 125000 to 126023m for main line track.	On completion of bridge works in all respects	0.20%
	CB1.66	Construction of minor bridge No. 4A & 4B between Ch 513 to 3354 m on Badsa-Sultanpur connectivity line.	On completion of bridge works in all respects	0.76%
	CB1.67	Construction of minor bridge No. 5A between Ch 616 to 2000 m on Badsa-Sultanpur connectivity line.	On completion of bridge works in all respects	0.40%
	CB1.68	Construction of minor bridge No. 5B & 5B1 between Ch 2000 to 3000 m on Badsa-Sultanpur connectivity line.	On completion of bridge works in all respects	1.65%
	CB1.69	Construction of minor bridge No. 5E, 5F & 5G between Ch 3000 to 4180 m on Badsa-Sultanpur connectivity line.	On completion of bridge works in all respects	0.65%

Cost Centre		CB- Bridges		
Weightage of Cost Centre 'CB', (X)		38.00%		
Sub-cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
<b>CB.2-Major Bridges</b>	<b>CB.2.1</b>	<b>Foundation</b>	On completion of the foundation work including pile caps/ well caps and foundations for wing and return walls, and testing.	14%
	<b>CB.2.2</b>	<b>Substructure</b>	On Completion of Abutment/Piers including Abutment/Pier Cap without bearings.	
	CB.2.2.1		Pier/Abutment	2.5%
	CB.2.2.2		Pier/Abutment cap	1.0%
	CB.2.2.3		Completion of the wing walls, return walls in all respects.	2.5%
	<b>CB.2.3</b>	<b>Superstructure</b>		
	CB.2.3.1		On completion of superstructure including launching in position.	8.0%
	CB.2.3.2		On fixing of bearings in position true to line & level and placement of superstructure on bearings including grouting of holding down bolts complete	2.00%
	<b>CB.2.4</b>	<b>Miscellaneous works</b>		
	CB.2.4.1		On completion of backfill, transition system on approaches, Trolley refuge, Pathway on the sides, Inspection arrangement including access ladder etc.as per approved drawings and Employer's Requirements.	5.20%

Cost Centre		CB- Bridges		
Weightage of Cost Centre 'CB', (X)		38.00%		
Sub-cost Centre	Item of Work		Milestone	Weightage
	No.	Description		(Y)
1	2	3	4	5
	CB.2.4.2		On completion of balance works as per drawing like-Protection works including Toe wall, flooring / apron, inspection steps, Bridge plaque, Bridge board, painting of HFL, Height Gauge, approach road, drainage arrangement in RUBs, and Testing on completion, if any, complete in all respect and fit for use.	5.33%
			<b>Total</b>	<b>100.00%</b>

## Notes:

2. The value of each Milestones will be total lump sum accepted cost of Works for Schedule 'A' (LS) multiplied by X \* Y. For example, the value of Milestone CB 1.2 will be equal to  $LS * X * Y = LS * 0.38 * 0.000261$ .
3. Adjustment to Contract Price pursuant to GCC 13.7 shall be applicable to the payments of Works executed under this Sub Head / Price Schedule.
4. CB2.2-Major Bridges:
  - (vi) 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.
  - (vii) 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.
5. 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.
6. 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 against submission of Bank Guarantees: 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%

- 7. The Cost of Milestones includes cost of all temporary works and temporary diversion of roads wherever required, for all bridges included in Schedule 'A', Section VII-2:Functional, Employer's Requirements.
- 8. The Cost of Milestones include cost of all permanent roads diversion and regrading of roads, wherever required, for all bridges included in Schedule 'A'.



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

Cost Centre			‘CS’- Stations Buildings	
Weightage of Cost Centre ‘CS’, (X)-			8.50 %	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
CS.1-Badli	CS.1.1	Station building	Construction of station building complete in all respects.	1.40%
	CS.1.2	Platform & Passenger amenities		
	CS.1.2.1		Construction of platforms including earthwork in filling above formation level and cast-in-situ platform face wall as per the Employer’s requirements.	1.80%
	CS.1.2.2		Surfacing of platform, Precast coping, tactile tiles, fencing at end platform etc.	1.70%
	CS.1.2.3		PF shelters, Mini PF shelters.	0.65%
	CS.1.2.4		Passenger amenities	0.45%
	CS.1.3	Subway		
	CS.1.3.1		On completion of barrel of RCC box.	3.0%
	CS.1.3.2		On completion of stairs & ramp to platforms including retaining wall, shed, portico.	3.25%
	CS.1.3.3		On completion of subway in all respect including flooring, wall cladding, drainage, waterproofing etc.	1.5%
	CS.1.4	Water Supply	Water supply works including bore well, pump house, underground & overhead water storage tanks, water supply distribution system	0.50%
	CS.1.5	Drainage and Sewerage	On completion of drainage and sewerage system.	1.00%
	CS.1.6	Miscellaneous works	On completion of misc. works such as station name boards at station building and platform, platform	0.35%

Cost Centre			'CS'- Stations Buildings	
Weightage of Cost Centre 'CS', (X)-			8.50 %	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
			number boards and other incidental works in railway station area.	
CS.2-Dever Khana	CS.2.1	Station building	Construction of ticket booking office complete in all respects.	0.1%
	CS.2.2	Platform & Passenger amenities		
	CS.2.2.1		Construction of platforms including earthwork in filling above formation level and cast-in-situ platform face wall as per the Employer's requirements.	1.30%
	CS.2.2.2		Surfacing of platform, Precast coping, tactile tiles, fencing at end platform etc.	1.30%
	CS.2.2.3		PF shelters, Mini PF shelters.	0.65%
	CS.2.2.4		Passenger amenities	0.45%
	CS.2.3	Subway		
	CS.2.3.1		On completion of barrel of RCC box.	2.75%
	CS.2.3.2		On completion of stairs & ramp to platforms including retaining wall, shed, portico.	3.00%
	CS.2.3.3		On completion of subway in all respect including flooring, wall cladding, drainage, waterproofing etc.	1.25%
	CS.2.4	Water Supply	Water supply works including bore well, pump house, underground & overhead water storage tanks, water supply distribution system.	0.40%
	CS.2.5	Drainage and Sewerage system	On completion of drainage and sewerage system.	0.70%

Cost Centre			'CS'- Stations Buildings	
Weightage of Cost Centre 'CS', (X)-			8.50 %	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
	<b>CS.2.6</b>	<b>Miscellaneous works</b>	On completion of misc. works such as station name boards at station building and platform, platform number boards area and other incidental works in railway station area.	0.25%
<b>CS.3-New Asaudah</b>	<b>CS.3.1</b>	<b>Station building</b>	Construction of ticket booking office complete in all respects.	0.1%
	<b>CS.3.2</b>	<b>Platform &amp; Passenger amenities</b>		
	CS.3.2.1		Construction of platforms including earthwork in filling above formation level and cast-in-situ platform face wall as per the Employer's requirements.	1.30%
	CS.3.2.2		Surfacing of platform, Precast coping, tactile tiles, fencing at end platform etc.	1.30%
	CS.3.2.3		PF shelters, Mini PF shelters.	0.65%
	CS.3.2.4		Passenger amenities	0.45%
	<b>CS.3.3</b>	<b>Subway</b>		
	CS.3.3.1		On completion of barrel of RCC box.	2.75%
	CS.3.3.2		On completion of stairs & ramp to platforms including retaining wall, shed, portico.	3.00%
	CS.3.3.3		On completion of subway in all respect including flooring, wall cladding, drainage, waterproofing etc.	1.10%

Cost Centre			'CS'- Stations Buildings	
Weightage of Cost Centre 'CS', (X)-			8.50 %	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
	CS.3.4	Water Supply	Water supply works including bore well, pump house, underground & overhead water storage tanks, water supply distribution system.	0.40%
	CS.3.5	Drainage and Sewerage system	On completion of drainage and sewerage system.	0.7%
	CS.3.6	Miscellaneous works	On completion of misc. works such as station name boards at station building and platform, platform number boards area and other incidental works in railway station area.	0.25%
CS.4 Jasur Kheri	CS.4.1	Station building	Construction of ticket booking office complete in all respects.	0.1%
	CS.4.2	Platform & Passenger amenities		
	CS.4.2.1		Construction of platforms including earthwork in filling above formation level and cast-in-situ platform face wall as per the Employer's requirements.	1.30%
	CS.4.2.2		Surfacing of platform, Precast coping, tactile tiles, fencing at end platform etc.	1.30%
	CS.4.2.3		PF shelters, Mini PF shelters.	0.65%
	CS.4.2.4		Passenger amenities	0.45%
	CS.4.3	Subway		
	CS.4.3.1		On completion of barrel of RCC box.	2.75%

Cost Centre			'CS'- Stations Buildings	
Weightage of Cost Centre 'CS', (X)-			8.50 %	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
	CS.4.3.2		On completion of stairs & ramp to platforms including retaining wall, shed, portico.	3.00%
	CS.4.3.3		On completion of subway in all respect including flooring, wall cladding, drainage, waterproofing etc.	1.25%
	CS.4.4	<b>Water Supply</b>	Water supply works including bore well, pump house, underground & overhead water storage tanks, water supply distribution system.	0.40%
	CS.4.5	<b>Drainage and Sewerage system</b>	On completion of drainage and sewerage system.	0.70%
	CS.4.6	<b>Miscellaneous works</b>	On completion of misc. works such as station name boards at station building and platform, platform number boards area and other incidental works in railway station area.	0.35%
	<b>CS.5-Tarakpur</b>	CS.5.1	<b>Station building</b>	Construction of station building complete in all respects.
CS.5.2		<b>Platform &amp; Passenger amenities</b>		
CS.5.2.1			Construction of platforms including earthwork in filling above formation level and cast-in-situ platform face wall as per the Employer's requirements.	1.80%
CS.5.2.2			Surfacing of platform, Precast coping, tactile tiles, fencing at end platform etc.	1.70%

Cost Centre			'CS'- Stations Buildings	
Weightage of Cost Centre 'CS', (X)-			8.50 %	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
	CS.5.2.3		PF shelters, Mini PF shelters.	0.65%
	CS.5.2.4		Passenger amenities	0.45%
	<b>CS.5.3</b>	<b>Subway</b>		
	<b>CS.5.3.1</b>		On completion of barrel of RCC box.	3.15%
	<b>CS.5.3.2</b>		On completion of stairs & ramp to platforms including retaining wall, shed, portico.	3.25%
	<b>CS.5.3.3</b>		On completion of subway in all respect including flooring, wall cladding, drainage, waterproofing etc.	1.25%
	<b>CS.5.4</b>	<b>Water Supply</b>	Water supply works including bore well, pump house, underground & overhead water storage tanks, water supply distribution system	0.50%
	<b>CS.5.5</b>	<b>Drainage and Sewerage</b>	On completion of drainage and sewerage system.	1.00%
	<b>CS.5.6</b>	<b>Miscellaneous works</b>	On completion of misc. works such as station name boards at station building and platform, platform number boards and other incidental works in railway station area.	0.35%
<b>CS.7-Badsa</b>	<b>CS.7.1</b>	<b>Station building</b>	Construction of station building and S&T huts complete in all respects.	1.60%
	<b>CS.7.2</b>	<b>Platform &amp; Passenger amenities</b>		

Cost Centre			'CS'- Stations Buildings	
Weightage of Cost Centre 'CS', (X)-			8.50 %	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
	CS.7.2.1		Construction of platforms including earthwork in filling above formation level and cast-in-situ platform face wall as per the Employer's requirements.	1.80%
	CS.7.2.2		Surfacing of platforms, Precast coping, tactile tiles, fencing at end platform etc.	1.50%
	CS.7.2.3		PF shelters, Mini PF shelters.	0.65%
	CS.7.2.4		Passenger amenities	0.45%
	<b>CS.7.3</b>	<b>Subway</b>		
	CS.7.3.1		On completion of barrel of RCC box.	4.30%
	CS7.3.2		On completion of stairs & ramp to platforms including retaining wall, shed, portico.	3.0%
	CS7.3.3		On completion of subway in all respect including flooring, wall cladding, drainage, waterproofing etc.	1.25%
	<b>CS.7.4</b>	<b>Water Supply</b>	On completion of water supply works including bore well, pump house, underground water storage tanks, water supply distribution system	0.50%
	<b>CS.7.5</b>	<b>Drainage and Sewerage system</b>	On completion of drainage and sewerage system.	1.00%

Cost Centre			'CS'- Stations Buildings	
Weightage of Cost Centre 'CS', (X)-			8.50 %	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
	<b>CS.7.6</b>	<b>Miscellaneous works</b>	On completion of misc. works such as station name boards at station building and platforms, platform number boards and other incidental works in railway station area.	0.35%
<b>CS.8-Mandothi Jn.</b>	<b>CS.8.1</b>	<b>Station building</b>	Construction of station building, and S&T huts complete in all respects.	1.60%
	<b>CS.8.2</b>	<b>Platform &amp; Passenger amenities</b>		
	CS.8.2.1		Construction of platforms including earthwork in filling above formation level and cast-in-situ platform face wall as per the Employer's requirements.	1.75%
	CS.8.2.2		Surfacing of platforms, Precast coping, tactile tiles, fencing at end platform etc.	1.30%
	CS.8.2.3		PF shelters, Mini PF shelters.	0.65%
	CS.8.2.4		Passenger amenities	0.45%
	<b>CS.8.3</b>	<b>Subway</b>		
	CS.8.3.1		On completion of barrel of RCC box.	4.0%
	CS8.3.2		On completion of stairs & ramp to platforms including retaining wall, shed, portico.	3.25%
	CS.8.3.3		On completion of subway in all respect including flooring, wall cladding, drainage, waterproofing etc.	1.15%



Cost Centre			'CS'- Stations Buildings	
Weightage of Cost Centre 'CS', (X)-			8.50 %	
Sub-Cost Centre	Item of Work		Milestone	Weightage (Y)
	No.	Description		
1	2	3	4	5
	CS.8.4	Water Supply	On completion of water supply works including bore well, pump house, underground water storage tanks, water supply distribution system	0.50%
	CS.8.5	Drainage and Sewerage system	On completion of drainage and sewerage system.	1.00%
	CS.8.6	Miscellaneous works	On completion of misc. works such as station name boards at station building and platforms, platform number boards and other incidental works in railway station area.	0.45%
			<b>Total</b>	<b>100.00%</b>

**Notes:**

- The value of each Milestones will be total lump sum accepted cost of Works for Schedule 'A' (LS) multiplied by X \* Y. For example, the value of Milestone CS1.1-will be equal to  $LS * X * Y = LS \times 0.085 \times 0.0114$
- Adjustment to Contract Price pursuant to GCC 13.7 shall be applicable to the payments of Works executed under this Sub Head / Price Schedule.
- 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.
- 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.

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 plinth area of any station 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 respective Sub-Cost Centres as applicable will get modified accordingly on pro rata basis of plinth area.

## 6 Schedule 'B': Retaining Wall, Bridges & other Civil works

Schedule 'B' is subdivided into fourteen (14) Sub-Schedules as given below:

<b>SCHEDULE 'B': Bridges, Retaining Wall &amp; other Civil works</b>					
<b>S. No.</b>	<b>Sub Schedule</b>	<b>Description</b>	<b>Item Range</b>	<b>No. of Items</b>	<b>Estimated Amount (INR)</b>
1.	B1	Bridge Works-Steel Super Structure -Open Web Girder (USSOR Based item)	1	1	2,40,84,54,182.99
2.	B2	Reinforcement (USSOR Based items)	2	1	1,31,38,38,686.16
3.	B3	RCC Works (NS item)	3	1	62,81,10,519.60
4.	B4	Bridge Works-Pile foundation (NS items)	4	1	29,56,59,829.52
5.	B5	Bridge Works-Steel Super Structure-Composite Girder (USSOR Based item)	5	1	27,68,52,971.71
6.	B6	Backfill Material (USSOR Based item)	6	1	20,08,52,246.40
7.	B7	Bridge Works-Precast Concrete Blocks( NS item)	7	1	17,42,30,738.10
8.	B8	Cement (USSOR Based items)	8	1	16,68,01,526.62
9.	B9	Formation Works (USSOR Based & NS items)	9 to 12	4	5,42,41,568.20
10.	B10	Bridge Works-Steel Super Structure - Miscellaneous (USSOR Based items)	13 to 14	2	37,14,11,478.20
11.	B11	Well foundation, Concrete Superstructure, RE wall & Other miscellaneous Works (USSOR Based & NS items)	15 to 56	42	55,97,73,876.08
12.	B12	Road and Building Works (DSR Based & NS items)	57 to 113	57	48,66,90,974.17
13.	B13	Bridge Bearing & Miscellaneous Structural Steel Works (USSOR Based & NS items)	114 to 129	16	31,19,78,644.13
14.	B14	P Way Works-Ballastless Track, Rails & Special Sleepers ](NS items)	130 to 135	6	35,85,30,651.15
<b>Total Estimated Amount of Schedule 'B' (INR)</b>					<b>7,60,74,27,893.03</b>

**6.1 Sub-Schedule 'B1': Bridge Works- Steel Super Structure -Open Web Girder (USSOR Based item)**

<b>SUB SCHEDULE-B1 Bridge Works-Steel Super Structure -Open Web Girder (USSOR Based item)</b>						
<b>S. No.</b>	<b>USSOR Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
1	041010	<p>Supplying, fabrication, assembling of all types of steel girders of specified spans with structural steel conforming to Quality "B0" Grade Designation E250 conforming to IS:2062, erection / slewing / end launching of steel girders with cranes or any other approved launching methods as per site conditions (not requiring traffic block) on sub-structure including provision of trolley refuges etc., complete as per approved QAP and drawings conforming to IRS-B1-2001 and other relevant codes and specifications.</p> <p>Note:</p> <ol style="list-style-type: none"> <li>Detailed fabrication and erection drawings &amp; launching methodology will be prepared by the contractor and got approved from Railway.</li> <li>The item includes fabrication of all types of battens, bracings, ties, stiffeners, packing, diaphragms, shop rivets / welding, T&amp;F bolts, drifts, SAW, templates, jigs, fixtures, accessories, transporting various components from fabrication shop to site including loading &amp; unloading, assembly of girders with drifts/bolts, field riveting /welding /HSFG Bolting, assembling of temporary support for side slewing, raising of girders to the bed block level, providing sliding arrangements and slewing the girder in position, lowering of girder on bearings and bed plates with all temporary arrangements or any other method of launching complete.</li> <li>The bearing sets to be provided with the girders will be paid separately as per relevant item of Sub schedule B13.</li> <li>Payment for addition in weight for rivets / welds shall be made as per clause 45 of IRS B-1-2001.</li> <li>In case of composite work (welding and HSFG bolts), addition in weight shall be 1% for welding and HSFG bolts shall be paid separately under relevant item of Sub scheduleB10.</li> <li>Painting of girders will be paid separately under relevant item of this Sub scheduleB10.</li> <li>Payment Schedule: (i) Receipt of material at plant/workshop against submission of Bank Guarantee: 40%</li> </ol>				

<b>SUB SCHEDULE-B1 Bridge Works-Steel Super Structure -Open Web Girder (USSOR Based item)</b>						
<b>S. No.</b>	<b>USSOR Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
		(ii) Fabrication of girders: 20% (iii) Erection/Launching: 20%(iv) Completion in all respects: 20%				
1a	041012	Open Web Girder Upto 45.7 m Clear Span	8,431	MT	1,63,178.84	1,37,57,60,800.04
1b	041013	Open Web Girder Above 45.7 m Clear Span	5,935	MT	1,74,000.57	1,03,26,93,382.95
<b>Total Estimated Value of SUB SCHEDULE-B1 Bridge Works-Steel Super Structure -Open Web Girder (USSOR Based item)</b>						<b>2,40,84,54,182.99</b>

**6.2 Sub-Schedule 'B2'- Reinforcement (USSOR Based items)**

<b>SUB SCHEDULE-B2 Reinforcement (USSOR Based items)</b>						
<b>S. No.</b>	<b>USSOR Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
2	025070	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete				
2a	025072	Thermo-Mechanically Treated bars of grade Fe-500D or more.	1,64,39,423	Kg	79.92	1,31,38,38,686.16
<b>Total Estimated Value of SUB SCHEDULE-B2 Reinforcement (USSOR Based items)</b>						<b>1,31,38,38,686.16</b>

**6.3 Sub-Schedule 'B3': RCC Works (NS Item)**

<b>SUB SCHEDULE-B3 RCC Works (NS item)</b>						
<b>S. No.</b>	<b>NS Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
3	NS-1	<p>Supplying and laying in position M-35 RCC as per approved design mix with admixtures and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all lifts &amp; leads, having continuous agitated mixer, pumping concrete from transit mixer to site of laying, compacting, finishing &amp; curing, with all labour, material, tools, plants, machinery and equipment, taxes, cess etc., as a complete job, but excluding supplying &amp; fixing form work (centring &amp; shuttering), in accordance with the specification and drawings.</p> <p>Note -</p> <p>(i) Cost of cement is included in the above item.  (ii) Cost of Reinforcement steel is not included in the above item and will be paid separately under relevant item of Sub-Schedule B2.  (iii) Cost of supplying &amp; fixing form work (centring &amp; shuttering) is not included in the above item (except pile cap &amp; open foundation) and will be paid separately under relevant item of Sub-Schedule B11.</p>				
3a	NS-1A	In Pile caps, open foundation & RCC Box/Sub way	44,831	Cum	7,876.40	35,31,06,888.40
3b	NS-1B	In Piers, abutments	7,752	Cum	8,144.57	6,31,36,706.64
3c	NS-1C	Abutment cap & Pier Cap, pedestals, deck slab, Inspection platform, Trolley refuge	7,279	Cum	8,413.40	6,12,41,138.60
3d	NS-1D	Retaining walls, wing walls, return walls, drop walls, curtain walls, Wearing Coat etc. of all heights	18,899	Cum	7,970.04	15,06,25,785.96
<b>Total Estimated Value of SUB SCHEDULE-B3 RCC Works (NS item)</b>						<b>62,81,10,519.60</b>

#### 6.4 Sub-Schedule 'B4': Bridge Works-Pile foundation (NS items)

SUB SCHEDULE-B4 Bridge Works-Pile foundation (NS items)						
S. No.	NS Item No.	Description of Item	Quantity	Unit	Estimated Rate (INR)	Estimated Amount (INR)
4	NS-2	<p>Providing, Boring suitable diameter piles using Hydraulic Rig in all kinds of strata including boulder studded soil, underground structure like channel, sewer manholes, old foundation or any other obstruction, irrespective of sub-soil water level in all conditions whether dry or under water, shoe and temporary casing pipe, if required, with contractor plant, machinery &amp; equipment for pile boring, use of bentonite slurry including all operations, cleaning of bore holes, supplying and laying in-situ with tremie pipe M-35 RCC in piles as per approved design mix with admixtures and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all lifts &amp; leads, having continuous agitated mixer, pumping concrete from transit mixer to site of laying including supplying &amp; fixing form work (centering &amp; shuttering), compacting, finishing, curing, chipping off pile top to remove laitance concrete above cut off level, removal and disposal of surplus excavated earth/debris/muck outside ROW including all lead, lift, ascends, descends, loading, unloading handling, re-handling, crossing of stream, nallahs, railway track, level crossing etc. with all labour, material, tools, plants, machinery and equipment, taxes, cess etc. as a complete job in accordance with the Specification and the Drawings.</p> <p><b>Note -</b></p> <p>i. Cost of cement is included in the above item.  ii. Cost of Reinforcement steel is not included in the above item and will be paid separately under relevant item of Sub-schedule-B2.  iii. Cost of temporary casing pipe is included in the above item. However, the cost of permanent casing pipe is not included in this item and shall be paid separately under relevant item of Sub-schedule-B13, if required and approved by the Engineer.  iv. Rate for using higher diameter piles shall be worked out from the rate of 1200 mm diameter pile in proportion to the area of piles.</p>				



<b>SUB SCHEDULE-B4 Bridge Works-Pile foundation (NS items)</b>						
<b>S. No.</b>	<b>NS Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
4a	NS-2A	1200 mm diameter	23,268	Rmt	12,571.64	29,25,16,919.52
4b	NS-2B	600 mm diameter	1,000	Rmt	3,142.91	31,42,910.00
<b>Total Estimated Value of SUB SCHEDULE-B4 Bridge Works-Pile foundation (NS items)</b>						<b>29,56,59,829.52</b>

### 6.5 Sub-Schedule 'B5': Bridge Works-Steel Super Structure – Composite Girder (USSOR Based item)

SUB SCHEDULE-B5 Bridge Works-Steel Super Structure- Composite Girder (USSOR Based item)						
S. No.	USSOR Item No	Description of Item	Quantity	Unit	Estimated Rate (INR)	Estimated Amount (INR)
5	041020	<p>Supplying, fabrication, assembling of all types of steel Composite girders of specified spans with structural steel conforming to Quality "B0" Grade Designation E250 conforming to IS:2062, erection / slewing / end launching of steel girders with cranes or any other approved launching methods as per site conditions on sub-structure including provision of stud bolts / shear connectors, complete as per approved QAP and drawings conforming to IRS- B1-2001 and other relevant codes and specifications.</p> <p><b>Note:</b></p> <ol style="list-style-type: none"> <li>Detailed fabrication and erection drawings &amp; launching methodology will be prepared by the contractor and got approved from Railway.</li> <li>Rate includes fabrication of all types of battens, bracings, ties, stiffeners, packing, diaphragms, shop rivets / welding, T&amp;F bolts, drifts, SAW, templates, jigs, fixtures, accessories, transporting various components from fabrication shop to site including loading &amp; unloading, assembly of girders with drifts/bolts, field riveting /welding /HSFG Bolting, assembling of temporary support for side slewing, raising of girders to the bed block level, providing sliding arrangements and slewing the girder in position, lowering of girder on bearings and bed plates with all temporary arrangements or any other method of launching complete.</li> <li>The bearing sets to be provided with the girders will be paid separately as per relevant item of Sub schedule B13.</li> <li>Payment for addition in weight for rivets / welds shall be made as per clause 45 of IRS B-1-2001.</li> <li>In case of composite work (welding and HSFG bolts), addition in</li> </ol>				

<b>SUB SCHEDULE-B5 Bridge Works-Steel Super Structure- Composite Girder (USSOR Based item)</b>						
<b>S. No.</b>	<b>USSOR Item No</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
		weight shall be 1% for welding and HSFG bolts shall be paid separately under relevant item of Sub schedule B10.  6. Painting of girders will be paid separately under relevant item of Sub schedule B10. 7. Payment Schedule: (i) Receipt of material at plant/workshop against submission of Bank Guarantee: 40% (ii) Fabrication of girders: 20% (iii) Erection/Launching: 20% (iv) Completion in all respects: 20%				
5a	041021	Composite steel girder of span length up to 36.0m	2,029	MT	1,36,447.99	27,68,52,971.71
<b>Total Estimated Value of SUB SCHEDULE-B5 Bridge Works-Steel Super Structure- Composite Girder (USSOR Based item)</b>						<b>27,68,52,971.71</b>

**6.6 Sub-Schedule 'B6': Backfill Material (USSOR Based item)**

<b>SUB SCHEDULE-B6 Backfill Material (USSOR Based item)</b>						
<b>S. No.</b>	<b>USSOR/NS Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
6	051170	Providing and laying of filter media consisting of granular materials of GW, GP, SW groups as per IS:1498 (latest) in required profile behind boulder filling of abutments, wing walls / return walls etc. above bed level with all labour and material complete job as per drawing and technical specification of RDSO Guidelines.	90,120	Cum	2,228.72	20,08,52,246.40
<b>Total Estimated Value of SUB SCHEDULE-B6 Backfill Material (USSOR Based item)</b>						<b>20,08,52,246.40</b>

**6.7 Sub-Schedule 'B7': Bridge Works-Precast Concrete Blocks (NS item)**

<b>SUB SCHEDULE-B7 Bridge Works-Precast Concrete Blocks (NS item)</b>						
<b>S. No.</b>	<b>USSOR/ NS Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
7	NS-3	<p>Casting, supplying and installation of Pre-cast cement concrete blocks of size 25X25 X20cm. or of required size as directed by the Engineer for protective works at bridges &amp; banks like pitching, toe wall, flooring, drains etc. using M20 design concrete mix with 20mm aggregate size including Contractor's shuttering, leading to bridge site from casting depot, including dressing and levelling of surface, providing gravel backing, laying &amp; jointing blocks with cement mortar 1:3 with Contractor's labour and as directed by Engineer-in-charge (All labour and materials including cement by Contractor).</p> <p><b>Note:</b>            i) Payment for gravel backing will be paid under relevant item of Sub schedule B11.            ii) 60% Payment shall be made after casting of pre-cast concrete blocks and bringing at work site. The balance 40% will be made on completion of laying and finishing.            iii) Measurement is based on quantity calculation of blocks used only (no of blocks x volume of one block).</p>	27,723	Cum	6,284.70	17,42,30,738.10
<b>Total Estimated Value of SUB SCHEDULE-B7 Bridge Works-Precast Concrete Blocks (NS item)</b>						<b>17,42,30,738.10</b>

**6.8 Sub-Schedule 'B8': Cement (USSOR Based items)**

<b>SUB SCHEDULE-B8 Cement (USSOR Based items)</b>						
<b>S. No.</b>	<b>USSOR Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
8	025060	Supply and using Cement at Worksite				
8a	025062	Ordinary Portland Cement 53 grade	1,654	MT	8,773.81	1,45,11,881.74
8b	025063	Pozzolana Portland Cement	19,464	MT	7,824.17	15,22,89,644.88
<b>Total Estimated Value of SUB SCHEDULE-B8 Cement (USSOR Based items)</b>						<b>16,68,01,526.62</b>

**6.9 Sub-Schedule 'B9': Formation Works (USSOR Based & NS items)**

<b>SUB SCHEDULE-B9 Formation Works (USSOR Based &amp; NS items)</b>						
<b>S.NO.</b>	<b>USSOR/NS Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
9	011010	Earthwork in cutting (classified) in formation, trolley refuges, side drains, level crossing approaches, platforms, catch water drains, diversion of nallah & finishing to required dimension and slopes to obtain a neat appearance to standard profile inclusive of all labour, machine & materials and removing & leading all cut spoils either to make spoil dumps beyond 10m from cutting edge or for filling in embankment with leads within 2 km on either side of cutting edge, lifts, ascent, descent, loading, unloading, all taxes / royalty, clearance of site and all incidental charges, bailing & pumping out water, if required, etc. complete as per directions of the Engineer-in-Charge. The work is to be executed as per latest / updated edition of "Guidelines for Earthwork in Railway Projects" issued by RDSO, Lucknow. Cut trees shall be property of HRIDC and to be deposited in the Employers' godown unless specified otherwise in the Special Conditions of Contract. {Note - (i) All usable earth arising from cut spoils shall be led into bank formation and Unusable spoils shall be dumped / stacked (ii) All hard rock /and boulders not fit for filling will be stacked by the contractor and will be property of HRIDC.}				
9a	011011	In all conditions and classifications of soil except rock	2,000	Cum	189.83	3,79,660.00
10	013050	Turfing / planting, including all lead & lift and watering as required until properly rooted with. Note - Initially payment of only 40% will be made. Balance 60% will be paid only after 3 months of maintenance period, if the turfing is properly rooted.				
10a	013053	Planting Sarkanda / sarpat or any other suitable species approved by the engineer	120	100 sqm	8,014.86	9,61,783.20

<b>SUB SCHEDULE-B9 Formation Works (USSOR Based &amp; NS items)</b>						
<b>S.NO.</b>	<b>USSOR/NS Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
11	NS-4	Earthwork in embankment for 32.5t axle load and as per RDSO specification No. RDSO/2020/GE:004 September 2020 "Comprehensive Guidelines and Specification for Railway Formation" with contractor's own earth from borrow areas including all lead, lift, ascent, descent, royalty, taxes, cess, compensation, crossing of nallahs /stream and other obstructions including mechanical compaction in layers with watering, handling, re-handling, dressing of banks to the final profile with all labour, material, tools, plant, machinery and equipment, taxes, cess etc. as a complete job in accordance with the specification and drawings. Note: 10% of payment shall be withheld till the slopes are dressed to the required profile and compacted mechanically with vibratory rollers as per RDSO guidelines.	1,00,000	Cum	339.66	3,39,66,000.00
12	NS-5	Supplying and laying blanketing material produced through mechanical means using crushers and pug mill for 32.5 T axle load as per RDSO specification No. RDSO/2020/GE:004 September 2020 "Comprehensive Guidelines and Specification for Railway Formation" over the top of subgrade including all lead, lift, ascent, descent, royalty, taxes, cess, crossing of nallahs /stream and other obstructions including mechanical compaction in layers not exceeding <b>200</b> mm thick with vibratory rollers, watering, handling, re-handling and dressing of formation to the final profile with all labour, material, tools, plants, machinery and equipment, taxes, cess, etc. as a complete job in accordance with the specification and drawings. Note: 10% of payment shall be withheld till the slopes are dressed to the required profile and compacted mechanically with vibratory rollers as per RDSO guidelines.	7,500	Cum	2,524.55	1,89,34,125.00
<b>Total Estimated Value of SUB SCHEDULE-B9 Formation Works (USSOR Based &amp; NS items)</b>						<b>5,42,41,568.20</b>



**6.10 Sub-Schedule 'B10': Bridge Works-Steel Super Structure -Miscellaneous (USSOR Based items)**

<b>SUB SCHEDULE-B10 Bridge Works-Steel Super Structure -Miscellaneous (USSOR Based items)</b>						
<b>S. No.</b>	<b>USSOR Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
13	041030	Supplying and fixing HSFG bolts of any dia. and any length with suitable nuts including DTI washers conforming to IRS-B1-2001 for bridges and steel structures with contractors labour, tools and plants and lead and lift etc., complete.	6,56,600	Kg	308.27	20,24,10,082.00
14	041050	Metalizing of steel work of girders with sprayed aluminium after surface preparation by Sand/gritblasting, followed by one coat of etch primer (IS:5666) & one coat of Zinc Chrome primer (IS:104)and two coats of aluminium paint (IS:2339) with all labour, T&P and material as a complete job duly conforming to all relevant specifications and process given under Clause 39 of IRS-B1-2001. Note: Nominal Thickness of Aluminium coating shall be 150 microns. DFT of Zinc chrome primer shall be 25-30 microns and DFT of each coat of Aluminium paint shall be 12-14 microns.	1,97,540	Sqm	855.53	16,90,01,396.20
<b>Total Estimated Value of SUB SCHEDULE-B10 Bridge Works-Steel Super Structure -Miscellaneous (USSOR Based items)</b>						<b>37,14,11,478.20</b>

**6.11 Sub-Schedule 'B11': Well foundation, Concrete Superstructure, RE wall & Other miscellaneous Works (USSOR Based & NS items)**

<b>SUB SCHEDULE-B11 Well foundation, Concrete Superstructure, RE wall &amp; Other miscellaneous Works (USSOR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>USSOR Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
15	013130	Shoring with 'Z' section MS sheet piles side by side in all kinds of soil mechanically or manually as per approved drawing with contractor's own arrangement complete in all respects and removal of sheet piles after completion of the work as directed by engineer in-charge. {Note - Payment will be made as per actual driven length of pile}	2,000	Sqm	949.17	18,98,340.00
16	014020	Supplying and laying of drainage composite for use behind abutments, wing walls, return walls and retaining walls geo composite drain (vertical ) as per RDSO Specification No-RDSO/2018/GE: IRS-0006 Latest version with all material, labour ,equipment, tools and plants, lead, lift etc. complete in all respects as per the direction of engineer-in-charge.	6,679	Sqm	781.83	52,21,842.57
17	022010	Earthwork in excavation by mechanical means (Hydraulic Excavator)/Manual Means for foundations and floors of the bridges, retaining walls etc. including setting out, dressing of sides, ramming of bottom, getting out the excavated material, back filling in layers with approved material and consolidation of the layers by ramming and watering etc. including all lift, disposal of surplus soil upto a lead of 300m, all types of shoring and strutting with all labour and material complete as per drawing and technical specification as directed by Engineer. Note: This item will be used for excavation work in connection with other miscellaneous works also like side drains, foundation for OHE masts and other miscellaneous structures in connection with Gauge Conversion, Doubling, New lines.				
17a	022011	All kinds of soils	1,25,998	Cum	244.24	3,07,73,751.52

<b>SUB SCHEDULE-B11 Well foundation, Concrete Superstructure, RE wall &amp; Other miscellaneous Works (USSOR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>USSOR Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
18	022040	Providing and laying in position machine batched, machine mixed and machine vibrated Design Mix Cement Concrete of specified grade ( <b>M-20</b> Cast in-Situ) using 20mm graded crushed stone aggregate and coarse sand of approved quality in RCC raft foundation & Pile cap including finishing, using Admixtures in approved proportions (as per IS:9103), to modify workability & other properties without impairing strength and durability complete as per specifications and direction of the Engineer in charge. Payment for cement, reinforcement and shuttering shall be paid extra.  <b>Note</b> -Cement concrete in drainage and other miscellaneous works shall be paid under this item.	23,257	Cum	3,467.83	8,06,51,322.31
19	022070	Providing and fixing Weep Holes in Abutments, RCC Box, Wing walls and Return walls etc. ,of new bridges with 110mm dia UPVC pipe (IS :13592) Type A ISI marked with all contractor's men, material, transportation, all taxes as per specifications and as directed by Engineer-in-Charge.	16,175	Meter	266.07	43,03,682.25
20	022120	Conducting load testing of a single pile upto following capacity in accordance with IS:2911 (Part IV) including installation of loading platform and preparation of pile head or construction of test cap and dismantling of test cap after test etc. with all labour, material, tool & plants, equipment, machinery, etc. complete as per drawing and specification, as directed by the Engineer.				
20a	022123	Initial load test above 100 ton capacity upto 250 ton capacity pile	11	Each	1,00,898.78	11,09,886.58
20b	022124	Extra for every increase of 50 ton in pile capacity or part thereof over 250 ton	132	Each	9,934.48	13,11,351.36
20c	022127	Routine Load Test above 100 ton capacity upto 250 ton capacity pile	26	Each	67,815.53	17,63,203.78

<b>SUB SCHEDULE-B11 Well foundation, Concrete Superstructure, RE wall &amp; Other miscellaneous Works (USSOR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>USSOR Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
21	022130	Lateral load testing of single pile in accordance with "IS Code of practice IS:2911 (Part-IV) for determining safe allowable lateral load of pile" with all labour, material, tool & plants, equipment, machinery, etc complete as per drawing and specification as directed by the Engineer				
21a	022131	Piles with lateral load capacity of upto 50 ton	11	Each	25,214.65	2,77,361.15
22	022140	Pulse Echo Test (PET) for integrity testing of piles with contractor's men, materials and machines. The rate includes cost of Inspection of site, preparation of pile head and any other unforeseen cost required for the test, submission of reports in triplicate as per satisfaction of the Engineer in Charge at site.	572	Each	3,597.92	20,58,010.24
23	023010	Earth work in OPEN excavation in foundation of bridges, for placing of well curbs of all shapes and designs in all kinds of soil including taking out the excavated soil, levelling, ramming of bottom of excavation and trimming of sides, returning the soil in layers, consolidation, disposal of surplus soil within a lead of 300m, including all lift, dewatering, shoring and strutting complete as per technical specification and as directed by Engineer in charge. (compaction of surplus soil when led to the bank will be paid as per relevant item separately)	9,375	Cum	269.67	25,28,156.25
24	023040	Dry/Wet Sinking of Circular Wells (Other than pneumatic method) in all types of strata except hard rock requiring ballasting, including bailing and pumping out water, removal of excavated soil with all labour and material required for sinking as per drawing and direction of the Engineer in charge, disposal of surplus soil in the adjoining bank/embankment (compaction to be paid separately under the relevant item).				
24a	023041	From initial level of cutting edge & upto 3m depth	4,578	Cum	201.16	9,20,910.48

<b>SUB SCHEDULE-B11 Well foundation, Concrete Superstructure, RE wall &amp; Other miscellaneous Works (USSOR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>USSOR Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
24b	023042	Above 3m to 10m depth	10,682	Cum	303.34	32,40,277.88
24c	023043	Above 10m to 15m depth	7,630	Cum	440.08	33,57,810.40
24d	023044	Above 15m to 20m depth	7,630	Cum	519.93	39,67,065.90
24e	023045	Above 20m to 25m depth	7,630	Cum	946.29	72,20,192.70
24f	023046	Above 25m to 30m depth	100	Cum	1,175.63	1,17,563.00
25	023090	Providing and laying in position machine batched, machine mixed and machine vibrated Design Mix Cement Concrete of specified grade (Cast in-Situ) using 20mm graded crushed stone aggregate and coarse sand of approved quality in the following elements of well including finishing, using Admixtures in approved proportions (as per IS:9103), to modify workability & other properties without impairing strength and durability complete as per drawings and technical specifications as directed by Engineer. Payment for cement, reinforcement and shuttering shall be made extra.				
25a	023091	In well Curb	1,633	Cum	3,644.34	59,51,207.22
25b	023092	In Steining of wells	19,217	Cum	3,644.34	7,00,33,281.78
25c	023093	In Bottom plug for wells including arrangements for placing concrete under water with tremie or bottom opening skips.	7,536	Cum	4,106.27	3,09,44,850.72
25d	023095	In Intermediate/Top plug with internal shuttering	1,402	Cum	4,404.03	61,74,450.06
25e	023096	In Well cap and corbel, if provided	4,195	Cum	4,404.03	1,84,74,905.85

<b>SUB SCHEDULE-B11 Well foundation, Concrete Superstructure, RE wall &amp; Other miscellaneous Works (USSOR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>USSOR Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
26	023100	Supplying and filling ordinary sand in between bottom plug and top plug in wells including all lead lift handling, re-handling, as a complete job. Sand should be simultaneously filled with water for three days to achieve full compaction so that further chances of shrinkage due to voids are eliminated.				
26a	023102	Using sand from other than River bed (This item is to be operated if suitable sand is not available in River Bed for filling)	18,463	Cum	1,957.10	3,61,33,937.30
27	025020	Providing and applying two coats of coal tar or bitumen conforming to IS:3117- latest version on the top and sides of RCC box/slabs @ 1.70 kg/sqm after cleaning the surface with all labour and materials complete job as directed by the Engineer	16,386	Sqm	189.09	30,98,428.74
28	025030	centering and shuttering including strutting, propping etc. and removal of form for:				
28a	025032	All types of bridge super-structures, e.g. slabs, I-girders, T-girders, Box girders etc. upto 5m above ground level	11,370	Sqm	956.74	1,08,78,133.80
28b	025033	Extra for additional height over item no. 025032 wherever required with adequate bracing, propping etc. over initial height of 5 metres for every additional height of 1 metre or part thereof	30,330	Sqm	120.53	36,55,674.90

<b>SUB SCHEDULE-B11 Well foundation, Concrete Superstructure, RE wall &amp; Other miscellaneous Works (USSOR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>USSOR Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
29	031020	Providing and laying in position machine batched, machine mixed and machine vibrated Design Mix Cement Concrete of specified grade using 20mm graded crushed stone aggregate and coarse sand of approved quality for the Precast Prestressed (Post tensioned) concrete girder/Box (spans upto 30.5m) in contractor's casting yard, including finishing, using Admixtures in approved proportions (as per IS:9103), to modify workability & other properties without impairing strength and durability, complete as per drawings, specifications and direction of the Engineer. Payment for Shuttering, Cement, reinforcement, HTS cables, anchorage cones, stressing of cables and grouting of the ducts will be done extra. Launching of girder/slab in position is not included in this item.	211	Cum	3,132.26	6,60,906.86
29a	031021	Deduct from 0310220 for casting of Slab in place of Girder/Box	211	Cum	98.20	20,719.16
30	031040	Providing, fabricating & fixing in position to exact design profiles, prestressing H.T.S. cables of all classification made from Low Relaxation strands conforming to IS:14268- latest version in Prestressed (Post tensioned) Concrete girders/slabs etc. including supplying, cutting, making into cables with necessary spacers, colour coding, protecting with water soluble oil at all time, anchoring of cables, supplying and placing spiral corrugated type galvanized metal steel ducts sheathing made up of Cold Rolled Cold Annealed (CRCA) mild steel conforming to IS:513 of required diameter/ thickness, vent pipe, placing, bending, routing, fixing, stressing & grouting of cable ducts with cement grout, Anchorage sets in required number with provision for future prestressing if any including all lead and lift with contractor's own materials, labour, equipments etc. complete as per drawings & specifications. Rate also includes covering anchorage pads with epoxy mortar of approved quality to avoid corrosion. Cement for grouting to be paid separately. Payment shall be made in terms of weight of HTS cables as per drawing.	10	MT	2,01,096.11	20,10,961.10

<b>SUB SCHEDULE-B11 Well foundation, Concrete Superstructure, RE wall &amp; Other miscellaneous Works (USSOR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>USSOR Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
31	031060	Extra for Using HDPE Sheathing in place of CRCA Sheathing	1,102	Meter	164.83	1,81,642.66
32	031110	Load testing of one and more span of bridge as selected by the engineer as per approved load test procedure following relevant IS/IRC/Railway code with contractor's labour, deflection measuring instruments, loading material, recording and analyzing the load testing results including all lead and lift, etc. complete as required. The rates are all inclusive and will be paid after load test is finish and girder is cleared of the Kentledges/loading material etc. The load shall be 1.25 times the stipulated design load.				
32a	031111	For Span design load upto 100 MT	93	Each	93,641.49	87,08,658.17
32b	031112	Extra for every increase 1 MT for part there of in the span design load capacity upto 800 MT	7,430	MT	924.60	68,69,755.16
33	031140	Providing and fixing in position GI Drainage Spouts of required length with Grating in RCC slab and filling bitumen along kerb as shown in drawing with contractor's pipes, bitumen, tools, equipment, lead, lifts etc. complete as per specifications and as directed by Engineer in-charge				
33a	031142	100mm dia. Drainage Spouts	643	Meter	1,314.51	8,45,229.93
34	041240	Surface preparation for painting of bridge plate/composite girders and other steel structures where the finishing coat shows signs of deterioration; but primer coat of paint is sufficiently in good condition and there are no signs of rusting etc. Surface shall be cleaned free from oil grease, scaling and other foreign matters without disturbing the primer coat {Rate includes cost of labour, consumables, tools & plants, scaffolding, jhoola, ladder etc.}	12,480	Sqm	27.91	3,48,316.80
35	041260	Painting cleaned bridge plate/composite girders including all scaffolding, shuttering and strutting along with provision of Jhoola / hanging scaffolding ladders etc. where required				



<b>SUB SCHEDULE-B11 Well foundation, Concrete Superstructure, RE wall &amp; Other miscellaneous Works (USSOR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>USSOR Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
35a	041261	With one coat ready mix Zinc Chromate conforming to IS:104 with DFT of 25-30 Microns followed by one coat of Zinc Chromate red oxide conforming to IS:2074 DFT of 25 Microns	12,480	Sqm	105.27	13,13,769.60
36	041270	Painting cleaned bridge triangulated girders including all scaffolding, shuttering and strutting along with provision of Jhoola / hanging scaffolding ladder where required				
36a	041273	With two coats Aluminium paint in dual containers conforming to IS:2339 with DFT of 12-14 Microns for each coat.	32,490	Sqm	119.37	38,78,303.14
37	041330	Launching & fixing in specified Bridge location all types of Steel Plate girders / PSC girders / Slabs including loading/unloading and transport to the site of launching with a lead of five kilometres & lifting to any height as per site requirement, provision of approaches for leading, cleaning of bed block and minor repairs to bed block with epoxy if required, as directed by Engineer in charge with all labour, tools and plant, equipment etc., complete				
37a	041331	PSC girders / slabs	532	MT	5,782.36	30,76,215.52
38	051010	Providing and laying boulders apron on river bed for protection against scour with stone boulders weighing not less than 35 kg each with voids filled with spalls complete as per drawing and Technical Specification	59	Cum	1,547.47	91,300.73
39	051120	Stenciling of Girders with black / blue lettering over yellow background with ready mix paint w.r.t. details of executed inspection, greasing and painting, other details as directed by Engineer incharge	1,740	Each	44.92	78,160.80
40	052220	Painting the HFL mark and Danger level mark, year of HFL on bridge abutments and piers with ready mixed paint as per standard in two coats over one coat of primer with all materials, labour, tools, scaffolding, all lead and lift etc. including writing complete	621	Each	310.36	1,92,733.56

<b>SUB SCHEDULE-B11 Well foundation, Concrete Superstructure, RE wall &amp; Other miscellaneous Works (USSOR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>USSOR Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
41	052230	Providing cast in situ bridge number plaques as per Railway drawing in cement concrete 1:2:4 mix using 20mm hard stone aggregate embedded in 30mm notch in Bridge parapet coping duly engraving the letter and figures and an arrow indicating the direction of flow and finishing the top exposed surface with cement mortar 1:3, painting letters and figures with two coats of black enamel paint on two coats of white background with all labour, tools, cement, paint etc. with all leads and lifts.	42	Each	876.37	36,807.54
42	052240	Providing cast in-situ plaques for bridge foundations details of size 45cmx45cmx5cm in cement concrete 1:2:4 mix using 20mm hard stone aggregate embedded in 30mm deep notch over abutment & piers, engraving the letters & figures with CM 1:3 and finished smooth including painting letters and figures with 2 coats of black enamel and plaque with white enamel with all labour, tools, cement, paint, curing etc. as a complete job.	69	Each	1,147.68	79,189.92
43	052250	Providing & laying non pressure NP-4 Class RCC pipe with collars, jointing with 1:2 cement and ordinary sand mortar including testing of joints, but excluding earthwork with all labour and material as a complete job. Cement for mortar will be paid separately. (Pipes of 600mm dia and above will be laid using crane/hydra).				
43a	052252	450mm dia.	100	Meter	2,853.03	2,85,303.00
44	052260	Supplying, spreading and filling coarse sand (no cohesive materials to be used) of approved quality including watering and ramming in foundation, plinth, behind the abutment, wing wall, retaining wall in layers not exceeding 150mm thick including its compaction as per direction of Engineer-in-charge. The rate includes all lead, lift, ascent, descent, crossing of Railway line etc. complete with contractor's labour, materials, tools and plant.	24,262	Cum	2,070.65	5,02,38,110.30

<b>SUB SCHEDULE-B11 Well foundation, Concrete Superstructure, RE wall &amp; Other miscellaneous Works (USSOR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>USSOR Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
45	191310	Fabrication, supplying and fixing 600mm x 450mm Bridge Board made from 16 SWG MS Sheet duly welded or rivited to back support of two 600mm long horizontal angles of size 25mm x 25mm x 3mm & two 2.5 metre long vertical support of MS Angle of size 50mm x 50mm x 5mm, welded /rivited to board. Vertical supports shall have split ends for proper fixing in ground. Vertical supports of board shall be embedded in ground in M 20 Cement Concrete blocks of size 300mm x300mm x 300mm, complete job including painting & writing of subject matter on bridge board, as directed by Engineer - Incharge {Note : Excavation & concrete work will be paid separately under Sub Schedule-B12}	42	Each	2,810.77	1,18,052.34
46	195030	Centring and shuttering including strutting, propping etc. and removal of form for :				
46a	195032	Abutment, pier, wing walls and return walls	26,080	Sqm	385.67	1,00,58,273.60
46b	195033	Abutment cap, Pier Cap, Inspection Platform & Pedestal over Pier cap, Fender wall, Diaphragm wal etc.	9,801	Sqm	374.32	36,68,710.32
46c	195034	Approach slab at formation level, Dirt wall/ ballast wall at formation level	2,358	Sqm	243.27	5,73,630.66
46d	195038	In Bottom/top slab & side walls of RCC Box , toe wall and sumps haunch filling head walls,,In well Kerb & Steining or any other component	82,699	Sqm	385.67	3,18,94,523.33
47	NS-6	Supplying and laying of 150mm thick well graded stones aggregate/gravel as base layer over the slopes of embankment with manual dressing with water compaction including the cost of supply of all material, labour, lead, lift, tools, plants, crossing of tracks etc. complete as per approved drawings and technical specifications.	20,792	Cum	1,122.86	2,33,46,505.12

<b>SUB SCHEDULE-B11 Well foundation, Concrete Superstructure, RE wall &amp; Other miscellaneous Works (USSOR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>USSOR Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
48	NS-7	Providing Boulder Backing behind wing wall, return wall, retaining wall with hand packed boulders & cobbles not less than 15cm in any direction & not less than 15kg (except smaller boulders required for filling voids) including all lead, lift, labour & other incidental charges as complete work in all respect. Cost of boulder/cobbles is included in this item.	17,019	Cum	1,249.85	2,12,71,197.15
49	NS-8	Providing and fixing of 75mm dia PVC pipe for weep holes in abutments, Wing Wall, Return Wall, Face wall, retaining wall etc. at suitable intervals as directed by the Engineer-in-charge.	1,500	Meter	232.42	3,48,630.00
	NS-9A	<p>Manufacturing, transportation (including loading &amp; unloading) and installation in position (including joining and grouting) M-35 <b>or higher grade</b> precast reinforced cement concrete segmental Platform fencing as shown in the drawing and as per the directions of the Engineer. precast reinforced cement concrete segmental Platform fencing shall be factory-made, and steam cured in a controlled environment with arrangements for handling/transportation. Dimensional tolerances shall be as per IS: 6408 (part 2) for PC Class 6.</p> <p>Note:-</p> <p>1. This item includes cost of cement, all the materials, labour, machinery, tools &amp; plant etc. complete required for manufacture of precast segments except Steel Reinforcement which shall be paid separately under Sub schedule B2.</p> <p>2. Excavation of soil for foundation shall be paid separately under relevant item of this Sub Schedule.</p> <p>3. Payment of M20 concrete used for fixing of Precast RCC Posts shall be made under relevant item of Sub Schedule B11.</p> <p>4. 60% of the rate shall be paid on receipt of the precast retaining wall segments at site and balance 40% will be paid on fixing the same in position in satisfactory condition.</p>	150	Cum	27,828.74	41,74,311.00

<b>SUB SCHEDULE-B11 Well foundation, Concrete Superstructure, RE wall &amp; Other miscellaneous Works (USSOR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>USSOR Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
51	NS-9B	Manufacturing, transportation (including loading & unloading) and installation in position (including joining and grouting) M-35 <b>or higher grade</b> precast reinforced cement concrete U-shaped drain/duct with cover as per the directions of the Engineer. Precast reinforced U-shaped drain shall be factory-made, and steam cured in a controlled environment with inserts for handling/transportation. Dimensional tolerances shall be as per IS: 6408 (part 2) for PC Class 6. Note:-1. This item includes cost of all the materials, labour, machinery, tools & plant etc. complete required for manufacture of precast segments except Steel Reinforcement which shall be paid separately under relevant item of Sub schedule B2.2. Excavation of soil for foundation shall be paid separately under relevant item of this Sub Schedule. 3. Before placing of wall segments, 20 mm thick stiff 1:3 cement mortar bedding layer shall be laid over a levelling course of 50 mm thick of M20 concrete. Payment for M20 concrete shall be made under relevant item of Sub Schedule B11 and for mortar under relevant item of Sub-Schedule- B12.4. 60% of the rate shall be paid on receipt of the precast retaining wall segments at site and balance 40% will be paid on fixing the same in position in satisfactory condition.	748	Cum	27,706.00	2,07,24,088.00
52	NS-9C	Manufacturing, Supplying & Fixing of Pre Fabricated RCC Coping Stone of Size 530mm x 1125mm x 100mm thick as per top face designed and approved by site engineer with M-30 Grade RCC with 8mm dia tor steel at 150mm c/c both ways and manufactured by vibro compaction process using jointless FRP/GRP Steel moulds of required size and shape & design. Note- The item includes cost of cement, reinforcement, transportation etc. under layer cement mortar of 1:3 cement mortar to be laid as per site condition & should be paid separately under relevant item of Sub-Schedule.	8264	Each	1,443.30	1,19,27,398.79

<b>SUB SCHEDULE-B11 Well foundation, Concrete Superstructure, RE wall &amp; Other miscellaneous Works (USSOR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>USSOR Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
53	NS-10	Designing, Providing and erection of specified grade precast RCC Facia Panel of thickness 180 mm made with M-35 Grade Concrete Batching plant, Transit Mixer, Concrete Pump and Vibrator for retaining earth with all element and accessories including reinforcing element complete as per approval drawing and Section 3100 of MORT&H specification including all material labour machinery etc. (Scope of work including designing, getting approval, casting in yad, curing, storing, Transporting, lifting, placing in position, erection with all necessaries fasteners etc complete).The cost of cement & steel are included in this item & no separate payment shall be paid whatsoever. The rate also include cost for excavation, foundation, reinforcing element, fasteners , drainage layer, drain pipe, coping beam and other accessories for which nothing extra shall be paid.Mode of Payment:1- Casting of RE Panel : 60%2- Erection & fixing : 35 %3- Final Bill: 5%	2000	Sqm	6,221.56	1,24,43,120.00
54	NS-11	Providing Placing & Compacting to desired density approved backfill material in layers as per approved methodology including testing of reinforced fill portion in approaches between reinforced soil (RS) wall panels as per approved drawing as per Section 3103 of MORT&H Specification. The soil should be predominantly coarse grained, Not more than 10 % of particles should pass 75 micron sieve. The item shall be measured and paid for the finished volume of backfill and subgrade placed in position excluding the volume of filter media at base and behind the RS RE Wall	6300	Cum	382.70	24,11,010.00

<b>SUB SCHEDULE-B11 Well foundation, Concrete Superstructure, RE wall &amp; Other miscellaneous Works (USSOR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>USSOR Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
55	NS-12	Providing & constructing of RCC Crash Barrier of M35 at the edge of road , approaches to bridge structures and medians, constructed with specified grade of concrete using batching plant , transit mixer, concrete pump and vibrator with 450 mm long at expansion joint filled with premolded asphalt filler board, keyed to the structure on which it is built and installed as per design and dimension in the approved drawing and at location directed by the engineer, all as specific as per Section 809 of MORT&H Specification including all material labour, scaffolding etc.	180	Cum	7,172.53	12,91,055.40
56	NS-12 A	Integrity Pile test using cross hole sonic logging as per the provision of ASTM standard D6760, as per drawings & technical specifications.	100	Nos.	5,831.26	5,83,126.00
<b>Total Estimated Value of SUB SCHEDULE-B11 Well foundation, Concrete Superstructure, RE wall &amp; Other miscellaneous Works (USSOR Based &amp; NS items)</b>						<b>55,97,73,876.08</b>

**6.12 Sub-Schedule 'B12': Road and Building Works (DSR Based & NS items)**

<b>SUB SCHEDULE-B12 Road and Building Works (DSR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>DSR-2021 Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
57	2.27	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete	292	Cum	2,289.61	6,68,566.12
58	3.8	1:3 (1 Cement : 3 coarse sand (zone-III)) cement sand levelling mortar. Item will be used as below precast item. Note:- cost of cement is included in the item.	71	Cum	5,322.68	3,77,910.28
59	4.17	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand (zone-III) derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including necessary excavation, levelling & dressing & finishing the top smooth.	528	Sqm	722.15	3,81,295.20
60	4.6	Providing and fixing at or near ground level precast cement concrete in kerbs, edgings etc. as per approved pattern and setting in position with cement mortar 1:3 (1 Cement : 3 coarse sand), including the cost of required centering, shuttering complete				
60a	4.6.1	1:1½:3 (1 Cement: 1½ coarse sand(zone-III) derived from natural sources: 3 graded stone aggregate 20 mm nominal size derived from natural sources)	20	Cum	8,613.76	1,72,275.20
61	5.1	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level				
61a	5.1.2	1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size de rived from natural sources)	122	Cum	8,861.18	10,81,063.96



<b>SUB SCHEDULE-B12 Road and Building Works (DSR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>DSR-2021 Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
62	5.3	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).	136	Cum	11,356.22	15,44,445.92
63	5.9	Centering and shuttering including strutting, propping etc. and removal of form for				
63a	5.9.1	Foundations, footings, bases of columns, etc. for mass concrete	1,100	Sqm	326.25	3,58,875.00
63b	5.9.2	Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.	1,000	Sqm	709.33	7,09,330.00
63c	5.9.3	Suspended floors, roofs, landings, balconies and access platform	5,000	Sqm	812.10	40,60,500.00
63d	5.9.5	Lintels, beams, plinth beams, girders, bressumers and cantilevers	2,580	Sqm	644.50	16,62,810.00
63e	5.9.6	Columns, Pillars, Piers, Abutments, Posts and Struts	1,480	Sqm	852.04	12,61,019.20
63f	5.9.19	Weather shade, Chajjas, corbels etc., including edges	780	Sqm	863.37	6,73,428.60

<b>SUB SCHEDULE-B12 Road and Building Works (DSR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>DSR-2021 Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
64	5.33	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete. Note:- Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 1.10 times of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement				
64a	5.33.1	All works upto plinth level				
64aa	5.33.1.1	Concrete of M25 grade with minimum cement content of 330 kg /cum	282	Cum	9,199.77	25,94,335.14
64b	5.33.2	All works above plinth level upto floor V level				
64ba	5.33.2.1	Concrete of M25 grade with minimum cement content of 330 kg /cum	776	Cum	10,918.57	84,72,810.32
65	6.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:				
65a	6.1.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	88	Cum	7,053.87	6,20,740.56
66	6.4	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in :				

<b>SUB SCHEDULE-B12 Road and Building Works (DSR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>DSR-2021 Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
66a	6.4.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	991	Cum	8,780.88	87,01,852.08
67	8.31	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete	170	Sqm	1,126.64	1,91,528.80
68	9.7.7	Providing and fixing panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick: Float glass panes				
68a	9.7.7.1	4 mm thick glass pane (weight not less than 10kg/sqm).	134	Sqm	2,009.82	2,69,315.88
69	9.21	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters				
69a	9.21.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	928	Sqm	2,135.52	19,81,762.56
70	9.48	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.				
70a	9.48.1	Fixed to steel windows by welding	600	Kg	191.75	1,15,050.00

<b>SUB SCHEDULE-B12 Road and Building Works (DSR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>DSR-2021 Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
71	9.83	Providing and fixing aluminium die cast body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 35 kg and door width upto 700 mm), with necessary accessories and screws etc. complete	22	Each	1,086.59	23,904.98
72	9.96	Providing and fixing aluminium sliding door bolts, ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868), transparent or dyed to required colour or shade, with nuts and screws etc. complete				
72a	9.96.1	300x16 mm	72	Each	275.82	19,859.04
73	9.97	Providing and fixing aluminium tower bolts, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868 ) transparent or dyed to required colour or shade, with necessary screws etc. complete				
73a	9.97.1	300x10 mm	76	Each	124.64	9,472.64
73b	9.97.4	150x10 mm	20	Each	77.34	1,546.80
74	9.100	Providing and fixing aluminium handles, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete				
74a	9.100.1	125 mm	108	Each	63.62	6,870.96
75	9.101	Providing and fixing aluminium hanging floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete				
75a	9.101.2	Twin rubber stopper	42	Each	65.95	2,769.90

<b>SUB SCHEDULE-B12 Road and Building Works (DSR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>DSR-2021 Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
76	10.13	Providing and fixing T-iron frames for doors, windows and ventilators of mild steel Tee-sections, joints mitred and welded, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer				
76a	10.13.1	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	1,200	Kg	121.46	1,45,752.00
77	10.14	Providing and fixing pressed steel door frames conforming to IS: 4351, manufactured from commercial mild steel sheet of 1.60 mm thickness, including hinges, jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50x25 mm, or base ties of 1.60 mm, pressed mild steel welded or rigidly fixed together by mechanical means, including M.S. pressed butt hinges 2.5 mm thick with mortar guards, lock strike-plate and shock absorbers as specified and applying a coat of approved steel primer after pre-treatment of the surface as directed by Engineer-in-charge:				
77a	10.14.1	Profile B				
77aa	10.14.1.1	Fixing with adjustable lugs with split end tail to each jamb	500	Meter	470.91	2,35,455.00
78	10.17	Providing and fixing M.S. fan clamp type I or II of 16 mm dia M.S. bar, bent to shape with hooked ends in R.C.C. slabs or beams during laying, including painting the exposed portion of loop, all as per standard design complete	48	Each	196.20	9,417.60
79	10.25	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required				
79a	10.25.2	in gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	20,888	Kg	150.76	31,49,074.88

<b>SUB SCHEDULE-B12 Road and Building Works (DSR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>DSR-2021 Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
80	10.26	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer				
80a	10.26.1	M.S. tube	404	Kg	166.49	67,261.96
80b	10.26.3	G.I. pipes	468	Kg	190.91	89,345.88
81	10.29	Providing & fixing fly proof wire gauze to windows, clerestory windows & doors with M.S. Flat 15x3 mm and nuts & bolts complete				
81a	10.29.1	Galvanised M.S. Wire gauze with 0.63 mm dia wire and 1.4 mm aperture on both sides	240	Sqm	775.71	1,86,170.40
82	11.20	Chequerred precast cement concrete tiles 22 mm thick in footpath & courtyard, jointed with neat cement slurry mixed with pigment to match the shade of tiles, including rubbing and cleaning etc. complete, on 20 mm thick bed of cement mortar 1:4 (1 cement: 4 coarse sand)				
82a	11.20.1	Light shade pigment using white cement	1,200	Sqm	1,306.32	15,67,584.00
83	11.21	Providing and fixing 10 mm thick acid and/or alkali resistant tiles of approved make and colour using acid and/or alkali resisting mortar bedding, and joints filled with acid and/or alkali resisting cement as per IS : 4457, complete as per the direction of Engineer-in-Charge				
83a	11.21.1	In flooring on a bed of 10 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand)				
83aa	11.21.1.1	Acid and alkali resistant tile	320	Sqm	1,605.50	5,13,760.00
83b	11.21.2	In dado/skirting on 12 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand)				

<b>SUB SCHEDULE-B12 Road and Building Works (DSR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>DSR-2021 Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
83ba	11.21.2.1	Acid and alkali resistant tile	380	Sqm	1,735.01	6,59,303.80
84	11.27	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	1,200	Sqm	2,159.68	25,91,616.00
85	11.38	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick bed of cement mortar 1:4 (1 Cement : 4 Coarse sand), jointing with grey cement slurry @ 3.3 kg/ sq.m including pointing the joints with white cement and matching pigments etc., complete	120	Sqm	1,172.83	1,40,739.60
86	11.41	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joints with white cement and matching pigments etc., complete				
86a	11.41.2	Size of Tile 600x600 mm	1,462	Sqm	1,500.82	21,94,198.84
87	11.55	Providing and laying flamed finish Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge :				

<b>SUB SCHEDULE-B12 Road and Building Works (DSR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>DSR-2021 Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
87a	11.55.1	Flamed finish granite stone slab Jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	200	Sqm	2,743.79	5,48,758.00
88	13.1	12 mm cement plaster of mix				
88a	13.1.2	1:6 (1 cement: 6 fine sand)	7,400	Sqm	298.76	22,10,824.00
89	13.2	15 mm cement plaster on the rough side of single or half brick wall of mix				
89a	13.2.2	1:6 (1 cement: 6 fine sand)	2,840	Sqm	343.57	9,75,738.80
90	13.16	6 mm cement plaster of mix				
90a	13.16.1	1:3 (1 cement : 3 fine sand)	2,720	Sqm	268.09	7,29,204.80
91	13.42	Distempering with 1st quality acrylic distemper (ready mixed) having VOC content less than 50 gms/litre, of approved manufacturer, of required shade and colour complete, as per manufacturer's specification				
91a	13.42.1	Two or more coats on new work	5,360	Sqm	98.26	5,26,673.60
92	13.45	Finishing walls with textured exterior paint of required shade				
92a	13.45.1	New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including priming coat of exterior primer applied @ 2.20kg/10 sqm	2,840	Sqm	259.56	7,37,150.40
93	13.47	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade				
93a	13.47.1	New work (Two or more coats applied @ 1.43 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	3,600	Sqm	172.00	6,19,200.00
94	13.48	Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications :				



<b>SUB SCHEDULE-B12 Road and Building Works (DSR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>DSR-2021 Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
94a	13.48.2	Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @0.75 ltr/10 sqm of approved brand and manufacture	448	Sqm	153.51	68,772.48
94b	13.48.3	Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @ 0.90 ltr/ 10 sqm over an under coat of primer applied @ 0.80 ltr/ 10 sqm of approved brand and manufacture	1,060	Sqm	148.37	1,57,272.20
95	13.50	Applying priming coat:				
95a	13.50.1	With ready mixed pink or Grey primer of approved brand and manufacture on wood work (hard and soft wood)	508	Sqm	65.10	33,070.80
96	13.60	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade				
96a	13.60.1	Two or more coats on new work	4,340	Sqm	146.04	6,33,813.60
97	13.61	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade				
97a	13.61.1	Two or more coats on new work	1,222	Sqm	139.26	1,70,175.72
98	13.80	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete	13,360	Sqm	131.21	17,52,965.60

<b>SUB SCHEDULE-B12 Road and Building Works (DSR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>DSR-2021 Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
99	16.54	Providing and laying Dense Graded Bituminous Macadam using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equipped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers as per specifications to achieve the desired compaction and density, complete as per specifications and directions of Engineer-in-Charge				
99a	16.54.1	50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.	429	Cum	10,608.27	45,50,947.83
100	16.57	Providing and laying Bituminous concrete using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equipped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction and density as per specification, complete and as per directions of Engineer-in-Charge				
100a	16.57.1	40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity	227	Cum	11,516.67	26,14,284.09

<b>SUB SCHEDULE-B12 Road and Building Works (DSR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>DSR-2021 Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
101	16.69	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge)	2,614	Cum	9,125.35	2,38,53,664.90
102	16.75	Providing and laying C.C. pavement of mix M-25 with ready mixed concrete from batching plant. The ready mixed concrete shall be laid and finished with screed board vibrator, vacuum dewatering process and finally finished by floating, brooming with wire brush etc. complete as per specifications and directions of Engineer-in-charge. (The panel shuttering work shall be paid for separately). (Note:- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/recoverable separately).	13,763	Cum	8,769.39	12,06,93,114.57
103	16.78	Construction of granular sub-base by providing close graded Material conforming to specifications, mixing in a mechanical mix plant at OMC, carriage of mixed material by tippers to work site, for all leads & lifts, spreading in uniform layers of specified thickness with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge				
103a	16.78.2	With material conforming to Grade-II (size range 53 mm to 0.075 mm ) having CBR Value-25	13,470	Cum	2,940.57	3,96,09,477.90

<b>SUB SCHEDULE-B12 Road and Building Works (DSR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>DSR-2021 Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
104	16.79	Providing, laying, spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm ) to wet mix macadam (WMM) specification including premixing the material with water at OMC in for all leads & lifts, laying in uniform layers with mechanical paver finisher in sub- base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge.	11,250	Cum	2,970.24	3,34,15,200.00
105	16.80	Construction of dry lean cement concrete sub base over a prepared sub-grade with coarse and fine aggregate conforming to IS:383, the size of coarse aggregate not exceeding 25 mm, aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per specifications, cement content not to be less than 150 Kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, for all leads & lifts, laid with a mechanical paver, compacting with 8-10 tonne vibratory roller, finishing and curing etc. complete as per direction of Engineerin- charge	17,589	Cum	4,375.98	7,69,69,112.22
106	16.90	Providing and laying tactile tile (for vision impaired persons as per standards) of size 300x300x9.8mm having with water absorption less than 0.5% and conforming to IS:15622 of approved make in all colours and shades in for outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge	2,000	Sqm	1,821.14	36,42,280.00

<b>SUB SCHEDULE-B12 Road and Building Works (DSR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>DSR-2021 Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
107	16.91	Providing and laying factory made chamfered edge Cement Concrete paver blocks in footpath, parks, lawns, drive ways or light traffic parking etc, of required strength, thickness & size/ shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand. complete all as per direction of Engineer-in-Charge.				
107a	16.91.1	60mm thick cement concrete paver block of M-35 grade with approved colour, design & pattern.	200	Sqm	987.75	1,97,550.00
107b	16.91.2	80 mm thick C.C. paver block of M-30 grade with approved color design and pattern.	4,500	Sqm	1,071.28	48,20,760.00
108	19.1	Providing, laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete :				
108a	19.1.2	150 mm diameter	108	RMT	626.54	67,666.32
109	19.6	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete :				
109a	19.6.5	450 mm dia. R.C.C. pipe	200	RMT	1,569.58	3,13,916.00
109b	19.6.7	600 mm dia. R.C.C. pipe	200	RMT	2,222.77	4,44,554.00

<b>SUB SCHEDULE-B12 Road and Building Works (DSR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>DSR-2021 Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
110	19.36	Providing and laying Non Pressure NP-4 class (Heavy duty) R.C.C. pipes including collars/spigot jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete				
110a	19.36.5	1200 mm dia RCC pipes. (Laying by manual/mechanical means)	60	RMT	10,457.78	6,27,466.80
111	21.1	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / panelling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, panelling and dash fasteners to be paid for separately)				
111a	21.1.1	For fixed portion				
111aa	21.1.1.1	Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	1,220	Kg	459.73	5,60,870.60
111b	21.1.2	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)				
111ba	21.1.2.1	Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	1,280	Kg	563.40	7,21,152.00
112		Items included in Delhi Schedule of Rate-(Horticulture & Landscaping) 2020		LS		10,00,000.00

<b>SUB SCHEDULE-B12 Road and Building Works (DSR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>DSR-2021 Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
113	NS-13	Earthwork in filling with contractor's own earth of approved quality from borrow areas including all lead all lead, lift, ascent, descent, royalty, taxes, cess, compensation, crossing of nallahs /stream and other obstructions including mechanical compaction in layers with watering to 95% of MDD (as per IS 2720 part 8), handling, re-handling, dressing to the final profile with all labour, material, tools, plant, machinery and equipment, taxes, cess etc. as a complete job in accordance with the specification and drawings Note:- This item will be used for earthwork in filling for other than railway embankment work.	4,35,237	Cum	266.32	11,59,12,317.84
<b>Total Estimated Value of SUB SCHEDULE-B12 Road and Building Works (DSR Based &amp; NS items)</b>						<b>48,66,90,974.17</b>

**6.13 Sub-Schedule 'B13': Bridge Bearing & Miscellaneous Structural Steel Works (USSOR Based & NS items)**

<b>SUB SCHEDULE-B13 Bridge Bearing &amp; Miscellaneous Structural Steel Works (USSOR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>USSOR/NS Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
114	022100	Providing, fabricating and installing permanent casing pipe for bored piles for all diameters with specified thickness of steel plate including all labour, materials, pumping and bailing out water wherever required, complete as per technical specifications as directed by Engineer in charge. This will include the weight of plate only and no cognizance will be given for the fittings, i.e. rivets and welding etc	513	MT	93,966.70	4,82,04,917.10
115	023030	Supplying, Fabrication, assembly, erection & placing in position the cutting edge of well curb with structural steel including MS sheet/Plates of specified thickness for pier/abutment complete as per approved plans and as per direction of Engineering In charge including all operations like cutting, bending, straightening, drilling holes, bolting, riveting, welding, threading, jointing of steel sections including outer and inner plates liners and skin plates, stiffeners, hooks, bottle nuts, bond rods etc. as per design including all ascent, descents, leads, lifts, handing, re-handling, all other obstructions whatsoever, diverting channels, pumping / bailing out of water wherever required including cost of steel such as flats, sheets, angles, steel bars etc. with all labour and material as a complete job	108	MT	1,03,513.04	1,11,79,408.32



<b>SUB SCHEDULE-B13 Bridge Bearing &amp; Miscellaneous Structural Steel Works (USSOR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>USSOR/NS Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
116	031090	Design, manufacturing, supplying and fixing in position elastomeric bearing true to line and level conforming to IS:3400, IS:226, BS-5400 under prestressed concrete girders/ Steel Girders, for Precast as well as cast-in-situ girders as per approved drawing. The rate shall include cost of load test of one no. bearing from Railway approved firms and all fixing materials, equipments, machineries, labour, taxes, loading, unloading, leading, lifting etc. complete. Rates include getting the drawing approved from Railway and cost of inspection during manufacturing from railway approved organization. Note : 1. The rate is for finished item complete and paid only after fixing in position below the girder. 2. The volume shall be given in the drawing and no deduction shall be made for inserted	7,74,144	Cu.Cm.	1.73	13,39,269.12
117	041060	Providing and fixing railing used in rows for footpath or anti-crash barrier railing with B class G.I. pipe 65/50 mm nominal dia including cost of M.S. angle and channels in vertical posts, welding / bolting, priming painting with one coat ready mix Zinc Chromate conforming to IS:104 with DFT of 25-30Microns, followed by one coat of Zinc Chrome red oxide conforming to IS:2074 with DFT of 25 Microns with all material, labour, T&P as a complete job.	19,816	Kg	108.38	21,47,658.08
118	041080	Providing and fixing various size HTS holding down bolts conforming to IS:1364 in concrete column or in other structures with proper nuts, bolts, washers/plates, grouting of holes with all material, labour, T&P as a complete job. Note: Cement used in grouting will be paid separately under relevant item.	2,000	Kg	166.42	3,32,840.00

<b>SUB SCHEDULE-B13 Bridge Bearing &amp; Miscellaneous Structural Steel Works (USSOR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>USSOR/NS Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
119	041180	Design, supply and fixing 300MT capacity Spherical Bearing in position true to line and level consisting of set of concave and convex mating steel backing plate with a low friction sliding interface, flat sliding elements ,guides and restraining rings; with all components conforming to approved drawing and technical specifications & Bridge Code including grouting of holes for anchor bolts and underside of baseplate with approved non-shrink epoxy grout with all material, labour, T&P as a complete job. Note: Sliding surface with PTFE or UHMWPE low friction thermoplastic material and steel for backing plate of Mild steel in accordance to IS:2062 grade-B. Cast steel in accordance with IS 1030 Grade 280-520W. Stain less steel in accordance with AISI 304/316.Low friction thermo -plastic sliding PTFE material either pure polytetrafluroethalyne (PTFE) Or Ultra High Molecular weight Polythylene (UHMWPE). Austanitic steel is of stainless steel for the sliding interface shall be in accordance with AISI 316L or O2 Cr17 NI12 of IS-6911. The thickness of the stain less steel sheet shall be 3mm minimum. The stainless steel sheet shall be attached to its backing plate either by screwing/riveting or by continuous fillet weld. Hard chromium plated surface shall be entire curved surface of the convex steel plate mating with hard chromium plated concave sliding surface. The thickness of the hard chromium plating shall be at least 100 microns and the final surface roughness of the plated surface shall not exceed 3 microns. Bearing manufacturer shall give the guarantee for satisfactory performance of bearing for period specified				
119a	041181	Spherical Fixed Bearing	97	Each	1,21,917.91	1,18,26,037.27
119b	041182	Spherical Free Float Bearing	97	Each	1,33,115.26	1,29,12,180.22
119c	041183	Spherical Slide Guide (L) Bearing	97	Each	1,33,608.41	1,29,60,015.77

<b>SUB SCHEDULE-B13 Bridge Bearing &amp; Miscellaneous Structural Steel Works (USSOR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>USSOR/NS Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
119d	041184	Spherical Slide Guide (T) Bearing	97	Each	1,33,347.32	1,29,34,690.04
120	041390	Supplying fabricating and erecting welded and/or bolted and/or riveted steel work in built up sections, trusses and framed work, staging, racks etc.for Steel Structures other than bridge girders, using RSJ, tees, angles and channels/flats, plates, gussets, round or square bars, cleats, bolts etc., with contractors own steel including cutting, bending, straightening, drilling, riveting, hoisting, fixing, erecting, welding, bolting etc., with Providing stiffeners wherever required as per approved drawing including applying a priming coat of a approved steel primer with all contractor's materials, labour, tools & plants, lead & lift including crossing of tracks if required etc., complete as per specification and as directed by Engineer-in-charge.	531	MT	1,05,850.00	5,62,06,350.00
121	191260	Supplying & fixing MS chequered plates 6 to 8mm thick between guard rails on unballasted deck bridge for gang pathway, overlapping at regular intervals of 2m to 2.5m with rail screws or bolts duly drilling holes in chequered plate, as directed [Note : Overlapping of chequered plates shall not fall in between sleepers]	5	MT	94,839.71	4,74,198.55
122	NS-14	construction of Mild Steel pipe of 323.9 mm outer diameter in the embankment at approximately 500m interval (except in station yards) for crossing utilities in future as shown in drawings	100	RMT	3,909.00	3,90,900.00
123	NS-15	Supplying, fabrication and fixing pathway on Open Web Girder bridges & Composite with hollow steel, rolled and chequered plate including welding / bolting, priming painting with one coat ready mix Zinc Chromate conforming to IS:104 with DFT of 25-30Microns, followed by one coat of Zinc Chrome red oxide conforming to IS:2074 with DFT of 25 Microns with all material, labour, T&P as a complete job as RDSO drawing No. CBS 0045 & CBS 0046	1,003	MT	1,18,082.40	11,84,36,647.20

<b>SUB SCHEDULE-B13 Bridge Bearing &amp; Miscellaneous Structural Steel Works (USSOR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>USSOR/NS Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
124	NS-16	Supplying and fixing M.S. Angles 100mmx 100mmx 10mm size conforming to IS:2062 in expansion joint of Composite girder bridges including provision of 10mm dia dowel bar & 12mm dia anchor bolts at 150 mm centre to centre ,and 250mm wide GI plate over the top of angles as per relavent RDSO standard drawing with all material, labour, T&P as a complete job.	261	Each	6,353.64	16,58,300.04
125	NS-17	supplying, fabricating, transportation and fixing galvanized H-Beam sleepers as per RDSO drawingRDSO/B/1636/4/R & RDSO/B/1636/5 with latest alteration and specifications thereto complete with all fittings and fixtures including the cost of all steel sections, all fittings and fixtures ,elastomeric pad, galvanized bolts, nuts, washer,split pin,fish plates 1m and 0.6m long along with fish bolts and nuts for 60Kg running rail and 52Kg gaurd rail respectively, track fittings and fastenings (Zero Toe Load Fastening) for 60 kg running rail and 52 Kg guard rail as per RDSO drg -RDSO/T-8759 to RDSO/T8765. labour, lead, lift, plants and equipments including galvanized work of full steel components complete in all respects as per approved drawing and technical specifications & as per direction of Engineer on Open Web Girder(OWG) bridges .The rate is also inclusive of the cost of supply of approved quality of epoxy/adhesive and fixing of elastomeric pads with different components of steel sleepers & girder in accordance with approved drawings. The steel to be supplied by the contractor for fabrication of steel H-Beam sleepers shall conform to IS-2062-2006, Grade B0 only. The rate is also inclusive of inspection charges of components of sleepers including all fixtures & fastening, galvanization etc. from the reputed laboratory/organization. Elastomeric pad plate and other track fittings shall be procured from RDSO approved source. Note: Payment under this item shall be made in following manner; i. 75% of the rate shall be paid after fabrication, galvanization and transportation of H beam sleepers to the site and submission of material test certificate of manufacturer and inspection certificate of the agency nominated by Engineer.	135	Each	30,859.85	41,66,079.75

<b>SUB SCHEDULE-B13 Bridge Bearing &amp; Miscellaneous Structural Steel Works (USSOR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>USSOR/NS Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
		ii. 15% of the rate shall be paid after supply of fittings to the site and submission of inspection certificate of the agency nominated by _____ Engineer. iii. 10% of the rate will be paid after fixing H Beam sleepers to the girder in satisfactory manner. iv. In case fixing is not required, then balance payment will be released on handing over of the sleepers after making recovery @ Rs.850/- per sleeper.				
126	NS-18A	Providing and fixing stainless steel ( Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	13,789	Kg	673.98	92,93,510.22
127	NS-18B	Manufacturing, Supplying and installation of Stainless Steel Benches as per RDSO Type Plan No. RDSO/WKS/2018/2 and specification.	32	Each	32,770.64	10,48,660.53
128	NS-19	Supply, fabrication and erection of bed plate of approved sizes(as per relevant RDSO drawing No. RDSO/B-11751/4R2, B-11753/5R1, B-11754/3R2 with uptodate corrections), in exact position over bed block on pier/abutments by giving full and even bearing, setting them on the layer of free flow non-shrinkable grouting compound, scrapping or chipping of bed block, if required, fabrication and fixing of HD bolts of suitable sizes alongwith nuts, washers etc., drilling holes of required size,				

<b>SUB SCHEDULE-B13 Bridge Bearing &amp; Miscellaneous Structural Steel Works (USSOR Based &amp; NS items)</b>						
<b>S. No.</b>	<b>USSOR/NS Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
		grouting of holes by epoxy mortar after fixing HD bolts with all labour, material, T & P as a complete job.				
128a	NS-19A	More than 12.2m and upto 18.3m clear span	15,400	Kg	233.52	35,96,208.00
129	NS-20	Supply and fixing of Metallic Guided Bearing in position true to line and level as per RDSO drawing No. RDSO/B-11754/3R2 and IRC:83 pt. III-2018 including supply & grouting of anchor bolts with approved non-shrinking epoxy grout with all material, labour, T&P as a complete job.	56	Each	51,263.82	28,70,773.92
<b>Total Estimated Value of SUB SCHEDULE-B13 Bridge Bearing &amp; Miscellaneous Structural Steel Works (USSOR Based &amp; NS items)</b>						<b>31,19,78,644.13</b>

**6.14 Sub-Schedule 'B14': P Way Works-Ballastless Track, Rails & Special Sleepers (NS items)**

<b>SUB SCHEDULE-B14 P Way Works-Ballastless Track, Rails &amp; Special Sleepers (NS items)</b>						
<b>S. No.</b>	<b>NS Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
130	NS-21	Construction of ballast less track on straight, curved track on bridges including linking of track with 60 Kg rails in LWR including, supply and fixing of rail fittings/ fastening, Construction of derailment guard , as per design approved by the Engineer. The item include supply and leading of all material, labour and tools & plants as a complete job including welding of track in LWR, destressing, drainage arrangement as per the approved drawing complete in all respect. Nothing extra shall be paid. Note:- 1- Supply of 60 Kg 350 R Rails shall be paid under item no NS-25 of this Sub-Schedule	4,173	Rmt	54,223.73	22,62,75,625.29
131	NS-22	Construction of Transition system of ballastless track to ballasted track on bridge approach including linking of track with 60 Kg rails in LWR including , supply and fixing of rail fittings/ fastening, Construction of derailment guard , as per design approved by the Engineer. The item include supply and leading of all material, labour and tools & plants as a complete job including welding of track in LWR, destressing, drainage arrangement as per the approved drawing complete in all respect. Nothing extra shall be paid. Note:- 1- Supply of 60 Kg 350 R Rails shall be paid under item no NS-25 of this Sub-Schedule	38	Each	11,71,230.13	4,45,06,744.94

<b>SUB SCHEDULE-B14 P Way Works-Ballastless Track, Rails &amp; Special Sleepers (NS items)</b>						
<b>S. No.</b>	<b>NS Item No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Estimated Amount (INR)</b>
132	NS-23	Linking of track on H- beam sleepers on Open Web Girder (OWG) bridges with 60 Kg running rail and 52 kg guard rail with track fittings/fastenings including leading of Running and guard rails from bridge approach and fixing of running rails & guard rails, bending of guard rails, notching, drilling of holes, cutting of rails etc., as directed and making track structure fit for sectional speed. (Rails will be supplied by Employer)	82	RTM	1,460.07	1,19,725.74
133	NS-24	Supplying at site of work including leading, loading, unloading and stacking of special PSC wider base sleepers for bridge approaches with provision of guard rails as per RDSO Drawing No. T-8673 to T-8680 for 60 Kg Rail.	4	Set	49,622.71	1,98,490.84
134	NS-25	Supplying, Transporting of Rail 60 kg Class 'A' , <b>R350</b> rail of 13/26 meter length as per IRS: T-12/2009 Specifications with latest amendments issued by RDSO.	11706	Rmt	7,396.29	8,65,80,970.74
135	NS-26	Supplying, Transporting of Rail 60 kg Class 'IU' as per IRS: T-12/2009 Specifications with latest amendments issued by RDSO.	164	Rmt	5,177.40	8,49,093.60
<b>Total Estimated Value of SUB SCHEDULE-B14 P Way Works-Ballastless Track, Rails &amp; Special Sleepers (NS items)</b>						<b>35,85,30,651.15</b>
<b>Total Estimated Amount of Schedule 'B' (B1 B2+B3+B4+B5+B6+B7+B8+B9+B10+B11+B1+B13+B14)</b>						<b>7,60,74,27,893.03</b>

**Total Estimated Amount of Schedule 'B': INR: 7,60,74,27,893.03**



**7 Schedule 'C': General Electrical Services**

<b>Item No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate (INR)</b>	<b>Amount (INR)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>1</b>	<b>CONDUITS, WIRING, PLUGS, FAN AND DISTRIBUTION BOARDS</b>				
1.1	Point Wiring By 3x2.5 sqmm Copper Cable (With Modular Switches & Socket) with Conduits.	Nos	1990	457.82	911,061.80
1.2	Supply of Material and Erection of 3x2.5 Sqmm Copper Cable along with Conduits.	m	13785	95.19	1312,194.15
1.3	Supply of Material and Erection of 3x6 Sqmm Copper Cable along with Conduits.	m	2120	144.89	307,166.80
1.4	Supply and Installation of 6A Modular Switch Socket.	Nos	1489	257.03	382,717.67
1.5	Supply and Installation of 16A Modular Power Switch Socket.	Nos	395	284.35	112,318.25
1.6	Supply and Installation of 02 Module Plate GI Box.	Nos	275	110.51	30,390.25
1.7	Supply and Installation of 04 Module Plate GI Box.	Nos	739	152.73	112,867.47

<b>Item No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate (INR)</b>	<b>Amount (INR)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
1.8	Supply and Installation of 08 Module Plate GI Box.	Nos	305	263.24	80,288.20
1.9	Supply and Installation of 12 Module Plate GI Box.	Nos	38	283.11	10,758.18
1.10	Supply, Installation, Testing and Commissioning (SITC) of 1200 mm Sweep Ceiling Fan with Fan Regulator.	Nos	559	2806.82	1569,012.38
1.11	Supply, Installation, Testing and Commissioning (SITC) of 300 mm Sweep Exhaust Fan.	Nos	95	1640.95	155,890.25
1.12	Supply, Installation, Testing and Commissioning of Double Door, with MCB TPN 440V, 8 Module Distribution Boards (DB).	Nos	54	20227.48	1092,283.92
1.13	Supply, Installation, Testing and Commissioning of Double Door, with DP MCB 40A, SP, 12 Way Distribution Board (DB).	Nos	70	9610.50	672,735.00
1.14	Supply, Installation, Testing and Commissioning of 440V, 3-phase Change Over Distribution Board.	Nos	6	26177.88	157,067.28

<b>Item No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate (INR)</b>	<b>Amount (INR)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
1.15	Supply, Installation, Testing and Commissioning of MCCB 200A, 440V, 3-phase, (4 Pole, 36 kA) with enclosure.	Nos	13	34903.83	453,749.79
1.16	Supply, Installation, Testing and Commissioning of Double Door, with 63A, 240V, MCB SP, 8 Way Distribution Board.	Nos	39	4805.25	187,404.75
1.17	Supply and Installation of Junction Box Size 390(H)x305(B)x170(D) mm.	Nos	32	3119.47	99,823.04
1.18	Supply and Installation of Metal Clad Plug Socket 20A, 240V, Single Phase with 32A MCB with enclosure.	Nos	65	1110.08	72,155.20
1.19	Supply and Installation of Metal Clad Plug Socket 16A, 240V, Single Phase with 20A MCB with enclosure.	Nos	38	888.06	33,746.28
1.20	Supply, installation, testing and commissioning of 25 mm dia GI Conduit.	m	1900	150.09	285,171.00
1.21	Supply, installation, testing and commissioning of 32 mm dia GI Conduit.	m	260	192.12	49,951.20

Item No.	Item Description	Unit	Quantity	Unit Rate (INR)	Amount (INR)
1	2	3	4	5	6
1.22	Design and Drawing of conduits, wiring, panels, distribution board, as built drawings, survey, calculation etc. for Item no. 1.1 to 1.21.	LS	LS		1,61,775.06
<b>2</b>	<b>LT &amp; HT CABLES AND LAYING</b>				
2.1	Supply of 2 Core x 10 Sqmm, 1.1 kV Copper Cable.	m	10210	156.49	1597,762.90
2.2	Supply of 2 Core x 16 Sqmm, 1.1 kV Copper Cable.	m	22840	250.38	5718,679.20
2.3	Supply of 2 Core x 35 Sqmm, 1.1 kV Copper Cable.	m	7560	547.71	4140,687.60
2.4	Supply of 2 Core x 70 Sqmm, 1.1 kV Copper Cable.	m	3150	1095.40	3450,510.00
2.5	Supply of 2 Core x 95 Sqmm, 1.1 kV Copper Cable.	m	6930	1486.62	10302,276.60
2.6	Supply of 4 Core x 120 Sqmm, 1.1 kV Copper Cable.	m	5670	3755.66	21294,592.20
2.7	Supply of 4 Core x 240 Sqmm, 1.1 kV Copper Cable.	m	1890	7511.32	14196,394.80

<b>Item No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate (INR)</b>	<b>Amount (INR)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
2.8	Supply, Installation, Testing and Commissioning of 1.1 kV Heat Shrinkable Straight Through Joint.	Nos	63	2636.42	166,094.46
2.9	Supply of 3 Core x 120 Sqmm 11 kV Copper Cable.	m	1890	7486.70	14149,863.00
2.10	Supply and Installation of End Termination Kit for 3 core 70 to 185 Sqmm, 11 kV Copper Cable.	Nos	76	14965.57	1137,383.32
2.11	Laying of LT/ HT Cables (All Size) In Air/ Pipe/ Cable Tray/ Trench Etc.	m	63665	47.96	3053,373.40
2.12	Excavation and Refilling of Trench of Size 500 mm Wide and depth up to 1200 mm (as per design) for cables.	m	63665	133.87	8522,833.55
2.13	Excavation and Refilling of Trench of Size 500 mm Wide and depth up to 1200 mm with brick protection (as per design) for cables.	m	6615	340.87	2254,855.05
2.14	Supply and Laying of HDPE Pipe (90 mm outside dia).	m	26460	137.78	3645,658.80
2.15	Supply and Laying of HDPE Pipe (90 mm outside dia) at platform along with pit and cover.	m	7560	151.55	1145,718.00

Item No.	Item Description	Unit	Quantity	Unit Rate (INR)	Amount (INR)
1	2	3	4	5	6
2.16	Supply and Laying of HDPE Pipe (125 mm outside dia).	m	10080	476.31	4801,204.80
2.17	Supply and Laying of HDPE Pipe (160 mm outside dia).	m	1890	609.68	1152,295.20
2.18	Supply and Laying of GI Pipe (nominal bore 125 mm).	m	5670	1714.05	9718,663.50
2.19	Supply and Installation of Cable Route Marker.	Nos	665	2191.36	1457,254.40
2.20	Drilling of horizontal bore below Railway track or road by pushing method for laying of HDPE/GI pipe.	m	3780	2787.66	10537,354.80
2.21	Design and Drawing of cable layout, trench layout, route markers, cable and pipe schedule, as built drawings, survey, calculation etc. for Item no. 2.1 to 2.20.	LS	LS		24,48,869.11
<b>3</b>	<b>LIGHTING, STREET LIGHT POLE AND HIGH MAST</b>				
3.1	Provision of 22 Watt LED Tube Light with fitting.	Nos	1498	756.31	1132,952.38
3.2	Provision of 40 Watt LED Street Light with Fitting.	Nos	335	5239.09	1755,095.15

<b>Item No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate (INR)</b>	<b>Amount (INR)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
3.3	Provision of 120 Watt LED Street Light with Fitting.	Nos	335	13097.72	4387,736.20
3.4	Provision of Rechargeable Batten Type 240 Watt Emergency Light.	Nos	26	3212.28	83,519.28
3.5	Provision of Outdoor LED Type Flood Light Luminaries (200 Watt).	Nos	180	33441.04	6019,387.20
3.6	Supply, installation, testing and commissioning of 11 meter high cast iron decorative street light pole.	Nos	630	30000.00	18900,000.00
3.7	Supply, Installation, Testing and Commissioning of (OFF Delay) Modular Digital Timers.	Nos	45	6595.91	296,815.95
3.8	Supply, Installation, Testing and Commissioning of 20 Meter High Mast.	Nos	15	539402.50	8091,037.50
3.9	Design and Drawing of high masts, street poles, digital timer, foundation, lighting lux calculations, earthing, calculation, survey, as built drawings etc. for Item no. 3.1 to 3.8.	LS	LS		8,13,330.87
<b>4</b>	<b>ELECTRICAL EQUIPMENTS (PUMPS, AIR-CONDITIONERS, UPS, WATER COOLER, ETC.)</b>				
4.1	Supply of Submersible Pump Set of 7.5 kW.	Nos	9	70013.25	630,119.25

<b>Item No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate (INR)</b>	<b>Amount (INR)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
4.2	Supply, Installation, Testing and Commissioning of Automatic Control Panel for 7.5 kW, 440V, 3- Phase Submersible Pump.	Nos	9	20239.71	182,157.39
4.3	Installation, Testing and Commissioning of Submersible Pump Set of 7.5 kW.	Nos	9	4552.07	40,968.63
4.4	Supply, installation, testing and commissioning of Mono-Block Pump 1.5 kW, 240V, complete with all accessories and control panel.	Nos	3	16119.75	48,359.25
4.5	Supply, Installation, Testing, Commissioning of 3 Core, 10 Sqmm Copper Flat Cable.	m	4300	201.16	864,988.00
4.6	Supply of Mono Block Pump 3.75 kW, 440V, 3-phase.	Nos	6	35006.63	210,039.78
4.7	Supply, Installation, Testing and Commissioning of Automatic Control Panel with DOL Starter for 3.75 kW, 440V, 3-Phase Pump.	Nos	6	10119.86	60,719.16
4.8	Installation, Testing and Commissioning of 3.75 kW, 440V, 3-phase Mono Block Pump Set.	Nos	6	2731.24	16,387.44



<b>Item No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate (INR)</b>	<b>Amount (INR)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
4.9	Supply and Installation of G.I. Pipe 40 mm nominal dia Medium Class with bends, fitting bends, sockets, flanges, delivery valve, non-return valve etc. as required.	m	300	278.94	83,682.00
4.10	Supply and Installation of G.I. Pipe 50 mm nominal dia Medium Class with bends, fitting bends, sockets, flanges, delivery valve, non-return valve etc. as required.	m	300	348.67	104,601.00
4.11	Supply and Installation of G.I. Pipe 65 mm nominal dia Medium Class with bends, fitting bends, sockets, flanges, delivery valve, non-return valve etc. as required.	m	300	453.27	135,981.00
4.12	Supply and Installation of G.I. Pipe 80 mm nominal dia Medium Class with bends, fitting bends, sockets, flanges, delivery valve, non-return valve etc. as required.	m	300	557.87	167,361.00
4.13	Supply, Installation, Testing and Commissioning of 32A, 240V, DP MCB with enclosure.	Nos	38	2189.38	83,196.44
4.14	Supply, Installation, Testing and Commissioning of Heavy Duty 5 Star, 1.5 Ton Split Inverter Type Air Conditioner, 240V.	Nos	36	50956.24	1834,424.64

Item No.	Item Description	Unit	Quantity	Unit Rate (INR)	Amount (INR)
1	2	3	4	5	6
4.15	Supply, Installation, Testing and Commissioning of Heavy Duty 5 Star, 2 Ton Split Inverter Type Air Conditioner, 240V.	Nos	62	67941.66	42,12,382.92
4.16	Supply, Installation, Testing and Commissioning of 2 KVA, 240 Volt, AC, Pure Sine Wave Online UPS cum Inverter.	Nos	12	55625.00	667,500.00
4.17	Supply, Installation, Testing and Commissioning of Water Cooler (150 Litre).	Nos	21	79503.00	1669,563.00
4.18	Supply, Installation, Testing and Commissioning of 5 star rated storage geyser 25 litre capacity.	Nos	12	4812.83	57,753.96
4.19	Design and Drawing of pumps, control panels, AC, water coolers, geyser, UPS, survey, calculation, as built drawings etc. for Item no. 4.1 to 4.18.	LS	LS		2,21,403.70
<b>5</b>	<b>SUBSTATION 11kV/ 0.44 KV, HT PANEL, LT PANEL, APFC PANEL, DG SET AND EARTHING</b>				
5.1	Supply, Installation, Testing and Commissioning Of 11kV/0.44kV, 1x250 kVA, Compact Substation (CSS).	Nos	7	1097570.91	7682,996.37

<b>Item No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate (INR)</b>	<b>Amount (INR)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
5.2	Supply, Installation, Testing and Commissioning of Automatic Power Factor Correction Panel (APFC panel) with 150 kVAR shunt capacitors complete in all respect.	Nos	6	114548.69	687,292.14
5.3	Supply, Installation, Testing and Commissioning of Indoor Type 400A LT Panel.	Nos	6	212247.75	1273,486.50
5.4	Supply, Installation, Testing and Commissioning of Indoor Type 160A LT Panel.	Nos	3	127348.65	382,045.95
5.5	Supply, Installation, Testing and Commissioning of Indoor Type 160A Essential LT Panel.	Nos	2	133716.08	267,432.16
5.6	Supply and Installation of 3 mm Thick Rubber Mat.	Sqm	190	3619.98	687,796.20
5.7	Supply, Installation, Testing and Commissioning of 125 kVA Capacity, Radiator Cooled Silent DG Set.	Nos	2	1264870.22	2529,740.44
5.8	Supply, Installation, Testing and Commissioning of Feeder Pillar.	Nos	18	115740.07	2083,321.26

<b>Item No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate (INR)</b>	<b>Amount (INR)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
5.9	Supply, Installation, Testing and Commissioning of Earth Electrode Complete with RCC chamber etc.	Nos	125	3820.91	477,613.75
5.10	Supply, Installation, Testing and Commissioning Earth Electrode buried in ground complete.	Nos	430	3629.87	1560,844.10
5.11	Supply and Installation of 40x5 mm Copper Strip on Surface or in Recess or in GI Pipe.	m	320	1719.61	550,275.20
5.12	Supply and laying of 40mm x 6mm GI Flat.	m	3450	139.34	480,723.00
5.13	Supply and installation of lightning conductor finials (air conductor) of 25 mm dia 1000 mm long GI pipe having a single copper prong.	Nos	45	1031.75	46,428.75
5.14	Supply and Installation of 5 mm Dia GI Wire.	m	14200	71.53	1015,726.00
5.15	Supply, Installation, Testing and Commissioning of Clean agent gas based panel flooding system for Electrical LT panels (Clean agent panel flooding system - Fire tube system) complete as required.	Nos	11	307089.32	3377,982.52

<b>Item No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate (INR)</b>	<b>Amount (INR)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
5.16	Design and Drawing of Sub-station, LT panels, APFC Panel, DG set, earthing, feeder pillar, fire trace system, as-build drawings, calculations, survey etc. for Item no. 5.1 to 5.15.	LS	LS		4,62,074.09
<b>6</b>	<b>FIRE FIGHTING EQUIPMENTS</b>				
6.1	Supply and Installation of Safety Items in the Substation.	Set	9	18769.54	168,925.86
6.2	Supply and installation of Set of 04 fire buckets (10 litre) capacity with one GI stand and GI cover.	Set	16	6785.55	108,568.80
6.3	Supply and installation of Portable fire extinguisher Dry Chemical Powder (5 kg).	Nos	104	1277.33	132,842.32
6.4	Supply and installation of Carbon dioxide fire extinguishers complete as required, capacity 4.5 kg.	Nos	104	6374.36	662,933.44
<b>7</b>	<b>MISCELLANEOUS</b>				
7.1	Supply, Installation, Testing and Commissioning of 25 Litre Fully Automatic with Auto Cut-Off RO water purification system.	Nos	15	17000.00	255,000.00

Item No.	Item Description	Unit	Quantity	Unit Rate (INR)	Amount (INR)
1	2	3	4	5	6
7.2	Supply, Installation, Testing and Commissioning of Single Sided LED Signage Board.	Sqm	100	26060.88	2606,088.00
7.3	Supply, Installation, Testing and Commissioning of Double Sided LED Signage Board.	Sqm	50	32322.59	1616,129.50
7.4	Dismantling of Rail Pole, Cable Pole, Overhead Line, Cable Tray Complete.	Nos	38	700.94	26,635.72
7.5	Supply and Installation of GI Cable Duct 40x60 mm (wxh) Minimum 2 mm Thick.	m	790	108.04	85,351.60
7.6	Supply and Installation of Stainless Steel Wire Mesh 25mm x 25mm (of 5 mm dia wire) Welded on GI Angle.	Kg	1575	88.86	139,954.50
7.7	Supply, Installation, Testing and Commissioning of GI Perforated Cable Tray of Size 150x50 mm with Thickness 2 mm.	m	1260	649.36	818,193.60
7.8	(1) Hiring of AC vehicle Bolero on monthly basis at Manesar/Gurugram for 2500 km per month. Two Vehicles shall be provided at all the time.	Vehicle Month	96	54019.58	5185,879.68
	(2) Extra charge beyond 2500 km per month per vehicle (96x500=48000).	km	48000	13.69	657,120.00

<b>Item No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate (INR)</b>	<b>Amount (INR)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>7.9</b>	<b>Spares</b>				
7.9.1	Digital Earth Testers	Nos	4	9991.00	39,964.00
7.9.2	Earth Leakage Detector 1000 V	Nos	4	24849.00	99,396.00
7.9.3	Digital Insulation Tester 2.5 kV	Nos	4	8559.00	34,236.00
7.9.4	Digital Insulation Tester 0 – 1000 V	Nos	4	2175.00	8,700.00
7.9.5	Digital Vernier Caliper	Nos	10	12872.00	128,720.00
7.9.6	Portable Diesel Generating set, 3 kVA, 240 V AC	Nos	2	110400.00	220,800.00
7.9.7	Digital micrometer	Nos	10	9957.00	99,570.00
7.9.8	Digital Multi-meter	Nos	10	1490.00	14,900.00
7.9.9	Safety Helmet	Nos	20	995.00	19,900.00
7.9.10	Tool Kit Box	Nos	6	6603.00	39,618.00
7.9.11	Portable Grinder Electrically Operated	Nos	4	8463.00	33,852.00
7.9.12	Portable Electrical Drill	Nos	4	14914.00	59,656.00

<b>Item No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate (INR)</b>	<b>Amount (INR)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
7.10	Operation and Maintenance Manuals	LS	LS		222,743.03
7.11	Training to Staff	LS	LS		556,857.57
	<b>Total of Schedule 'C'</b>				<b>22,35,22,629.75</b>

**Total Estimated amount of Schedule 'C': INR 22,35,22,629.75**



**8 Schedule 'D': Signalling & Telecommunication (S&T) Works**

<b>Schedule 'D': Signalling &amp; Telecommunication (S&amp;T) Works</b>					
<b>S. No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Quantity</b>	<b>Estimated Amount (INR)</b>
<b>D1</b>	<b>Supply of Signalling and Telecom equipment and associated material (S. No. 1 - 29)</b>				
1	Supply of Relays- Q series AC immune, plug in type, style QNA1, DC neutral line relay, 24 V DC 8F/8B, metal to carbon contacts with plug board retaining clip & connectors conforming to BRS:931A and RDSO specification IRS:S-34, S-23, S-60, IRS: S 60-78 Amdt.1 (latest) as applicable. The interlocking code for this unit shall be ABDGH.	Nos.	5,302	15	79,530
2	Supply of QTA2 relays AC immunised plug in type DC 9 Ohm neutral track relay miniature tractive armature with 2F/1B contacts as per BRS : 939A or latest amendments if any, BRS :966-F2, IRS-S-34 & IRS-S-23 (as applicable)	Nos.	6,106	2	12,212
3	Supply of Track feed Battery Charger as per RDSO Specn. No. IRS: S-89/2013 Ver.1.0 or latest. Charging capacity rating should be suitable for charging 80 AH Battery.	Nos.	7,023	2	14,046
4	Supply of Adjustable Track Feed Resistance 30 Ohms (Disc Type), Phenolic moulded base, as per RDSO Drg. No. SA-20161-66/M or latest.	Nos.	2,714	2	5,428

<b>Schedule 'D': Signalling &amp; Telecommunication (S&amp;T) Works</b>					
<b>S. No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Quantity</b>	<b>Estimated Amount (INR)</b>
5	Supply of B Type Choke as per RDSO Specn.No.IRS:S-65/83 (Amnd. 3) or latest.	Nos.	7,033	4	28,132
6	Supply of Fiber type Track lead Jn. Box as per IRS(s) Drg. No.SA- 20101/M made of FRP material (FRP material conforming to RDSO SPN 151/97 or latest) complete with 450 mm long 25 mm dia. pipe.	Nos.	1,494	6	8,964
7	Supply of Lead acid secondary cell 2V/80 AH with tubular positive & pasted negative plates assembled in hard rubber case container as per spec no IRS-S- 88/2004 Ver. 1 or latest. (Inspection: RDSO)	Nos.	3,348	6	20,088
8	Supply of 16/0.2mm (0.5 sq mm)size PVC insulated multi strand, single core tinned copper conductor wire as per RDSO specification No. IRS: S 76/89 (Amend 3) (latest) in different colours (to be supplied in coils of 100m)	Mtrs	13	1,500	19,500
9	Supply of Colour Light Signal Post, Tubular Mild steel, 4.6 meter length, 140 mm Dia, as per RDSO spec. No. IRS: S-6/81 or latest and Supply of cast iron Main signal surface base (As per RDSO Drg. No. 2011/M or latest), with CLS ladder assembly suitable for colour light signal 4.5 meter	Nos.	30,080	1	30,080

<b>Schedule 'D': Signalling &amp; Telecommunication (S&amp;T) Works</b>					
<b>S. No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Quantity</b>	<b>Estimated Amount (INR)</b>
	long, as per RDSO drg. No. SA 23153 and signal front staging complete assembly and complete signal back staging for CLS unit.				
10	Supply of Offset brackets for Main Signal, made of Mild Steel, outer diameter 140 mm (5.5 inch), thickness of pipe 4.5 mm with fixing arrangement on Main Signal post as per Drawing No. SA-23080/Adv. along with fixing U bolts, nut and clamps.	Nos.	1,436	1	1,436
11	Supply of Non Metallic (FRP) colour light signal housing multi unit type for railway signalling suitable for RE area FOUR Aspects, complete without lenses, lamps and signal transformer as per RDSO Drg. No. SA 23001 A/M (Adv.) and as per RDSO spec. No. RDSO/SPN/194/2006 (Rev 2.0) or latest and FRP material as per RDSO SPEC. No. RDSO/SPN/ 151/ 1997 (latest).	Nos.	50,263	1	50,263
12	Supply of Junction route indicator unit 1/2 way, made of FRP, (Without Lenses & Holder) as per Drg. No. SA 23401-06 (Adv.) (as applicable)suitable for LED Signal Lighting Unit and as per RDSO spec.No. IRS: S-66/84 Amd.-1 or latest and RDSO/SPN/194/2006 Rev.2 or latest.(Supply of LED Unit is not covered in this item)	Nos.	52,911	1	52,911

<b>Schedule 'D': Signalling &amp; Telecommunication (S&amp;T) Works</b>					
<b>S. No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Quantity</b>	<b>Estimated Amount (INR)</b>
13	Supply of Calling ON Signal Unit, Non metallic, with Brackets, clamps and fixing accessories, suitable to LED signal lighting unit and as per RDSO spec. No. RDSO/SPN/194/2006 (Rev. 2.0) or latest. The FRP material shall conform to RDSO/SPN/151/1997 or latest. Calling On Signal Unit shall conform to RDSO Drg No. SA-24351(Adv) Alt1 or latest without lamp, lamp-holder and lens.	Nos.	13,880	1	13,880
14	Supply of Position Light Shunt Signal Unit Complete, independent type along with base and post, hood, cover etc. non-metallic, made of FRP as per Drg. No. SA-23840 (Adv.) suitable for LED Signal Lighting Unit. (Supply of LED Unit is not covered in this item)	Nos.	17,603	1	17,603
15	Supply of Position Light Shunt Signal Unit Complete, along with offset bracket (Mild steel 4.5mm), hood, cover, fixing arrangement etc. Non-Metallic, made of FRP as per Drg. No. SA-23840 (Adv.) suitable for LED Signal Lighting Unit. (Supply of LED Unit is not covered in this item)	Nos.	10,536	1	10,536
16	High power LED Aspect for main signal with Polycarbonate lens conforming to Indian railway chromatically standard and the specification no. RDSO/SPN/199/2010 rev.1.1 (latest). This includes AC LED ECR with inbuilt current regulator, health monitoring unit, fuses and other accessories required for fixing.				
	a) For Red Aspect	Nos.	10,371	1	10,371

<b>Schedule 'D': Signalling &amp; Telecommunication (S&amp;T) Works</b>					
<b>S. No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Quantity</b>	<b>Estimated Amount (INR)</b>
	b) For Yellow Aspect	Nos.	10,377	2	20,754
	c) For Green Aspect	Nos.	11,769	1	11,769
17	Supply of LED signal (ROUTE Aspect), 110V AC retrofittable in existing CLS housing and compatible with AC LED ECR as per RDSO Specn.No. RDSO/SPN/153/2023 (Rev.5.0) or latest.	Nos.	7,169	5	35,845
18	Supply of LED signal (CALLING ON Aspect), 110V AC retrofittable in existing CLS housing and compatible with AC LED ECR as per RDSO Specn.No. RDSO/SPN/153/2023 (Rev.5.0) or latest.	Nos.	8,788	1	8,788
19	Supply of LED signal (SHUNT Aspect), 110V AC compatible with AC LED ECR as per RDSO Specn. No. RDSO/SPN/153/2023 (Rev.5.0) or latest.	Nos.	7,207	5	36,035
20	Supply of cartridge fuse block made of PBT for Railway signalling as per IRS-S:75/2006 Rev 2 or latest, fuses non-deteriorating type low voltage, to suit Specn. No. IRS: S-78/92 or latest, 2 Amp/4 Amp/10 Amp/16 Amp fuses in ratio of 50:20:20:10. Fuse block shall be suitable for round head type fuses as per drg. no. SA- 23748 (Alt.-4) or latest.	Nos.	290	50	14,500

<b>Schedule 'D': Signalling &amp; Telecommunication (S&amp;T) Works</b>					
<b>S. No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Quantity</b>	<b>Estimated Amount (INR)</b>
21	Supply of disconnect terminal block for Four conductor with screwing Cage Clamp type/sliding switch disconnect as per RDSO Specification No. RDSO/SPN/189/2004 version 3 (latest), for each conductor size upto 2.5 sq.mm. Equivalent of M6 Terminals. Each Terminal block equipped with two markers on top and bottom, an end plate, 2 end clamps & adequate length rails for fitting terminal blocks.	Nos.	230	200	46,000
22	Supply of ARA terminal block (M6 terminals) 25 mm spacing small M-6 terminal made of PBT as per RDSO drg. no.SA-23741-A, (Alt.-4) spec. no. IRS-S 75/2006 rev.2 (latest).	Nos.	142	200	28,400
23	PVC Insulated Armoured, Unscreened, Underground Railway Signalling Cable Copper Conductor as per specification no. IRS-S-63/2014 {Rev. 4.0} (latest) Size 12 Core x 1.5 Sq.mm	Kms	2,54,086	8	20,32,688
24	PVC insulated armoured, unscreened, underground railway Signalling cable copper conductor as per Specification No.IRS:S-63/2014 (Rev.4.0) (latest) size 6 core x 1.5 Sq.mm	Kms	1,63,123	2	3,26,246
25	Supply of Power cable as per IRS specification No. S-63/2014 (Rev 4.0) or latest with latest amendments (2 x 25 sq. mm, Red & Black colour).	Kms	1,42,980	3	4,28,940
26	Supply of 6 Quad, 0.9 mm dia. copper conductor, jelly filled underground, screened, armoured, cable as per spec. No. IRS TC:30/2005 [Ver.1] with amend. 5 (latest).	Kms	3,93,307	5	19,66,535

<b>Schedule 'D': Signalling &amp; Telecommunication (S&amp;T) Works</b>					
<b>S. No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Quantity</b>	<b>Estimated Amount (INR)</b>
27	24 Fiber, Armoured optical fiber cable (OFC) as per RDSO Spec. No. RDSO/SPN/110/2020	Kms	1,07,318	3	3,21,954
28	Supply of Permanently Lubricated High Density Polyethylene (PLB-HDPE) duct of dia 40/33 mm , for use as underground cable conduits for armoured optical fibre cable.as per RDSO specn. No. RDSO/SPN/TC/45/2013 Revision 2.0. along with all accessories like end caps, collars, bends, couplers etc.	Kms	83,040	3	2,49,120
29	Supply of High Availability Single Section digital axle counter (HASSDAC) with Dual sensor system as per RDSO/SPN/177/2012 (Version 3) or latest. This includes the supply of High frequency web mounting type Tx coil/Rx coil, VR/PR Box duly wired, Vital relays, PR Relays, Clamp with deflector plates & hardware, Dual display reset box/monitoring console with auto resetting facility, Surge voltage protection devices and filter card to be mounted on DIN rail etc as per OEM for complete installation & testing & commissioning of(HASSDAC) system. Note: One set of HASSDAC system will include equipment required to monitor One Up line or One DN line of a full Block Section between two stations.	SET	6,01,022	1	6,01,022
			<b>Sub Total of 'D1' (INR)</b>		<b>65,03,576</b>
<b>D2</b>	<b>Signalling Installation, Testing &amp; Commissioning (S. No. 30 -67)</b>				

<b>Schedule 'D': Signalling &amp; Telecommunication (S&amp;T) Works</b>					
<b>S. No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Quantity</b>	<b>Estimated Amount (INR)</b>
30	Final location joint survey of proposed cable route plan(Quad/OFC Cable) and submission for approval of Railway. The details instruction/guidelines regarding joint survey and preparation of cable route plan are enclosed in Tender document. Contractor will submit two copies of prints with soft copy for checking by Railways. If alterations are suggested by Railways, then again two copies of prints will be provided for advance approval after carrying out all the alterations as submission of final cable route plan on 75 microne standard polyester film which includes details of entire section in which Quad /OFC Cables are laid. Once Railway has approved/signed tracings for cable route plan then contractor will submit 6 (Six) sets of zerox copies for cable route plan in proper binding form.	Kms	1,026	6	6,156
31	Installation, Testing and Commissioning of High Availability Single Section digital axle counter (HASSDAC) with Dual sensor system as per RDSO/SPN/177/2012 (Version 3) or latest. This include fixing of track device, relays, wiring, lacing /dressing, cable termination with lug eyelet, drilling holes in rails, Installation of track devices and make it functional along with existing UFSBF block instrument. Material required other then supply item of HASSDAC shall be arranged by contactor to make it functional. Note: One set of HASSDAC system will include equipment required to monitor One Up line or One Dn line of a full Block Section between two stations.	Set	1,50,256	1	1,50,256



<b>Schedule 'D': Signalling &amp; Telecommunication (S&amp;T) Works</b>					
<b>S. No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Quantity</b>	<b>Estimated Amount (INR)</b>
32	Installation of DC track circuits to suit RE area as per std. Practice. This will include following:-a) Drilling of holes 7.2 mm dia or size as required. Provision of continuous GI wire bonding on switch portion & crossing of points with two bond wires at each joints. 8 SWG GI soft bond wire, channel bond pins & all other material required will be supplied by the contractor.b) Jumpering from rail to rail or to track lead junction box including polarity jumpers /cables in case of point track circuit as per drg. No.NR/S&T/CON/3.1/97 and as per jumpering plan. This includes drilling holes, fixing of jumpers to the rails , terminating the jumpers in the TLJBs and fixing the jumper as per site requirement and instructions of site Engineer. One TLJB to be provided extra for each polarity jumper/cable. All materials including fiber TLJBs,GI pipe are to be supplied by the contractor.				
	(i) Installation & wiring of Berthing and straight track circuit.	Nos	11,869	1	11,869
	(ii) Installation & wiring of Point track circuit having single point (excluding traps. Trap points & one main point to be counted as single track circuit).	Nos	20,524	1	20,524
33	Supply of Apparatus Case/Location Box Full as per RDSO drg. No. RDSO/S-11500 or latest, with 'E' type lock and key ward No. 42,. The key and handle should be supplied at the rate of one no. per four Apparatus cases. The 'E' type key	Nos	32,730	6	1,96,380

<b>Schedule 'D': Signalling &amp; Telecommunication (S&amp;T) Works</b>					
<b>S. No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Quantity</b>	<b>Estimated Amount (INR)</b>
	lock is as per RDSO Spec.No. IRS;S-30/64 or latest, RDSO drg. No. SA 3376/M or latest and Key is as per Drg. No. 3377/M or latest. Note: This item includes the supply of 2 Nos E Type Lock fitted on both doors, along with two Keys.				
34	Supply of Apparatus Case/Location Box Half as per RDSO drg. No. RDSO/S-11507 or latest, with 'E' type lock and key ward No. 42,. The key and handle should be supplied at the rate of one no. per four Apparatus cases. The 'E' type key lock is as per RDSO drg. No. SA3376/M or latest and Key is as per Drg. No. 3377/M or latest. Note: This item includes the supply of 2 Nos E Type Lock fitted on both doors, along with two Keys.	Nos	23,691	2	47,382
35	Supply of phenolic laminated Sheet, resin bonded, grade P3 in standard size of 1220 X 1220 x 10 mm as per spec. No. IS 2036 of 1995 or latest. Test report of manufacture to be supplied.	Nos	6,848	2	13,696
36	Excavation, casting, curing of foundation and Installation and Erection of Apparatus case Full (Apparatus Case as per RDSO drg. No. RDSO/S-11500 or latest) with contractor's own frame, cement and other material in the ratio 1:3:6. 'E' type lock to be supplied and installed with Apparatus case. This includes filling of location foundations with river bed sand and plastering on top with a mixture of 1:4 of cement and sand. It covers fixing of lamp holder, switch and lamp etc. in Apparatus Case (Full).	Nos	14,607	6	87,642

<b>Schedule 'D': Signalling &amp; Telecommunication (S&amp;T) Works</b>					
<b>S. No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Quantity</b>	<b>Estimated Amount (INR)</b>
37	Excavation, casting, curing of foundation and Installation and Erection of Apparatus case Half (Apparatus Case as per RDSO drg. No. RDSO/S-11507 or latest) with contractor's own frame, cement and other material in the ratio 1:3:6.'E' type lock to be supplied and installed with Apparatus case. This includes filling of location foundations with river bed sand and plastering on top with a mixture of 1:4 of cement and sand. It covers fixing of lamp holder, switch and lamp etc. in Apparatus Case (Half).	Nos	12,292	2	24,584
38	Fabrication and fixing of phenolic laminated sheet of grade P3, minimum 10 mm thick, as per Apparatus case diagram/plan, in location box by providing all fixtures like ARA/Disconnect terminals, fuse blocks, fuses, relays on square bars etc. including fixing of PVC coated string rods at the back side for cable support with contractor's own material like iron angle, nuts, bolts etc. The iron angle for fixing shall be minimum 3 mm thick. This also includes fixing of teak wood shelf minimum 25 mm thick for holding equipments. The work shall be done as per instructions of Engineer. (Apparatus case Full)	Nos	5,327	6	31,962
39	Fabrication and fixing of phenolic laminated sheet of grade P3, minimum 10 mm thick, as per Apparatus case diagram/plan, in location box by providing all fixtures like ARA/Disconnect terminals, fuse blocks, fuses, relays on square bars etc. including fixing of PVC coated string rods at the back side for cable support with contractor's own material like iron angle, nuts, bolts etc. The iron angle for	Nos	2,890	2	5,780

<b>Schedule 'D': Signalling &amp; Telecommunication (S&amp;T) Works</b>					
<b>S. No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Quantity</b>	<b>Estimated Amount (INR)</b>
	fixing shall be minimum 3 mm thick. This also includes fixing of teak wood shelf minimum 25 mm thick for holding track circuit equipments. The work shall be done as per instructions of engineer at site. (Apparatus case Half)				
40	Casting, concreting and curing of foundation for main signal post in the ratio of 1:3:6 as per NCR drg. No. TYP/013/14/SIG FOUND. dtd 12.11.2014 (total 2 sheets of drawing) issued vide NCR Letter No. S&T/NCR/DRG/TYP dated 13.11.2014, using standard size of foundation/galvanized anchor bolts complete, required for erection of colour light signal post. Anchor bolts complete should comply with the RDSO drg. No. SA 116 A/M. Item includes excavation, ramming of CC using vibrator, curing and plastering with 1:4 cement-sand mixture (aggregate will not exceed 3.8 cm). Aggregate, cement, sand and holding down bolts will be supplied by contractor. Any machines & tools, if required for foundation, will be arranged/provided by contractor.	Nos	16,075	1	16,075
41	Casting, concreting and curing of foundation for position light shunt signal as per Drg. No. NR/S&T/Const/2.2/97 using standard size of foundation/galvanized anchor bolts complete, required for erection of shunt signal post. Anchor bolts complete should comply with the RDSO drg. No. SA 116 A/M. Item includes excavation, ramming of CC using vibrator, curing and plastering with 1:4 cement sand mixture. Aggregate cement, sand and holding down bolts, will be supplied by contractor. Any machines and tools, if	Nos	4,366	1	4,366

<b>Schedule 'D': Signalling &amp; Telecommunication (S&amp;T) Works</b>					
<b>S. No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Quantity</b>	<b>Estimated Amount (INR)</b>
	required for foundation, will be arranged/provided by contractor.				
42	Erection of CLS Post with base and signal unit on top or on Offset Bracket including erection of auxiliary signals like calling on, shunt signal if any. It includes fixing of all LEDs and wiring of complete signal including route and auxiliary signals, if any. It includes fixing of front and back staging, ladder and guards, signal name plates / boards, with contractor's own brackets and fixing materials. The work shall be done as per instructions of Railway engineer at site. It also includes provision & fixing of maintenance platform as per design given by engineer/incharge at site. The Item includes cutting of signal post if required.	Nos	6,996	1	6,996
43	Erection of Position Light Shunt signal with Base, Post, Signal unit, complete fixing of LEDs and wiring of full signal. It includes fixing of number plates. The work shall be done as per instructions of engineer at site.	Nos	1,131	1	1,131
44	Fixing of Junction type Route Indicator on top of signal post and complete wiring, 1-Way/2-Way/3-Way/4-Way/5-Way/6-Way/theater type.	Nos	1,324	1	1,324
45	Supply, fabrication and fixing of the Calling On board/BSLB board as per RDSO Drg. No. SA 2373 (Adv)/Stop/Warning board as per drg. No. SA-2380 (Adv), or as applicable, on concrete foundation and painting with	Nos	9,651	1	9,651

<b>Schedule 'D': Signalling &amp; Telecommunication (S&amp;T) Works</b>					
<b>S. No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Quantity</b>	<b>Estimated Amount (INR)</b>
	Retro reflective paint. All work to be carried out as per site engineer instructions.				
46	Fixing of ARA(M-6) Terminals /Screwing connectors / modular disconnect terminal blocks and fuse blocks on phenolic laminated sheets and fixing by stainless steel/brass nuts & bolts. This includes provision of two additional holes on the board on either side for cable conductor entry. The work shall be carried out as per instructions of Engineer incharge.	Nos	21	200	4,200
47	Termination of Outdoor Cables ( Main Cables / tail cables) at ARA/Disconnect type terminals provided in Apparatus Cases, Cable termination rack in relay room, station building, generator room etc. The item includes dressing of cables and wires with dressing threads as per standard practice. All material required for this item will be supplied by contractor. The outdoor cable shall be terminated in Relay Room, DG Room, ASM Room etc under supervision and instructions issued by Engr. incharge of the work.	Nos	17	852	14,484
48	Dismantling and releasing of existing Location boxes/Apparatus cases/Jn boxes including releasing of terminal boards, release, terminals, fittings installed therein complete with fittings. All the released material will be transported to the SSE/Consignee depot.	Nos	1,098	8	8,784

<b>Schedule 'D': Signalling &amp; Telecommunication (S&amp;T) Works</b>					
<b>S. No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Quantity</b>	<b>Estimated Amount (INR)</b>
49	Excavation of cable trench as per cable route plan, 1.0 meter deep and of 0.3 meter to 0.6 meter wide at bottom as per RDSO sketch No. SDO/CABLE LAYING/003, issued vide RDSO document No. RDSO/SI/G/2010 Version 1.1 dated 04.02.2014 or latest, alongside the track in normal ( All type ) soil/strata, conforming to distances as per cable route plan and refilling and ramming of loose soil. This work includes clearing of route from bushes etc, covering of cable laid in trench by loose soil for a layer of 50mm thickness approximately before covering by bricks. The work shall be done as per the extant practice on North Railway and instructions of Engineer at site. In case the 1.0 m depth of trench is not achievable due to site conditions Protective works/RCC shall be done at no extra cost.	Mtrs	90	6,000	5,40,000
50	Cutting of all types of platforms/road crossing and trenching and excavation to a width and depth of 300 mm x 300 mm, laying of DWC/HDPE/GI pipe in the trench and refilling and concreting it afterwards as per original condition. In hard rocky ground area, cables will be laid normally on layer of soft earth of 0.05 meter thickness previously deposited at bottom of the trench. The cutting to be filled and finished with cement/concrete, as per the RDSO drawing No. SDO/Cable laying/008, issued vide RDSO document No. RDSO/SI/G/2010 Version 1.1 dated 04.02.2014 or latest.	Mtrs	189	100	18,900

<b>Schedule 'D': Signalling &amp; Telecommunication (S&amp;T) Works</b>					
<b>S. No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Quantity</b>	<b>Estimated Amount (INR)</b>
51	Supply of Double Walled Corrugated (DWC) Pipe/duct with associated collars etc. as per RDSO Specification No. RDSO/SPN/204/2011 or latest anti rodent & antioxidant and Non flame propagating type in 6 meter straight length and of size 120 mm outer dia, & 103.5 mm inner dia. (The manufacturers, suppliers must produce valid IS license and should be certified under ISO 9000 and shall submit copy of certificate). One coupler with suitable rubber O-ring should be supplied with every 6m of pipe length. DWC pipe shall be marked at every 1 mtr length in such a way that manufacturer's name, vendor name and year of manufacture can be easily identified.	Mtrs	367	200	73,400
52	Laying and fixing of Placing of DWC HDPE/GI pipes along with collars in trenches at places near track and road, crossings, platform cuttings etc.	Mtrs	37	200	7,400
53	Supply of Half Split Double wall corrugated pipe of HDPE in 2 or 3 Mtr. Length produced out of full round DWC pipes with IS 14930 part- II mark on it. The pipe should have necessary fixing and coupling arrangements. Size : 200 mm outer dia. And 175 mm inner dia.	Mtrs	469	6,000	28,14,000
54	Laying and fixing of Placing of Half Split Double wall corrugated pipe of HDPE in 2 or 3 Mtr. Length produced out of full round DWC pipes with IS 14930 part- II mark on it. The pipe should have necessary fixing and coupling	Mtrs	37	6,000	2,22,000



<b>Schedule 'D': Signalling &amp; Telecommunication (S&amp;T) Works</b>					
<b>S. No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Quantity</b>	<b>Estimated Amount (INR)</b>
	arrangements. Size : 200 mm outer dia. And 175 mm inner dia.				
55	Supply of Medium class GI pipes 100 mm dia (4.5 mm thickness) with thread collars as per IS 1239 (Part 1) 2004 or latest with coupling on culverts/bridges, perforated at a distance of 20 cm or less with 10 mm dia hole, or at any other locations as decided by Engineer. It includes supply of all material required for fixing arrangement. Contractor will also supply flexible/corrugated HDPE pipe at the end of GI pipe to protect the cables from sharp edges and sudden bends.	Mtrs	1,180	200	2,36,000
56	Laying and fixing of Medium class GI pipes 100 mm dia (4.5 mm thickness) as per IS 1239 ( Part 1) 2004 or latest with coupling on culverts/bridges, perforated at a distance of 20 cm or less with 10 mm dia hole, or at any other locations as decided by Site Engineer. The GI pipe is to be filled with chattered compound. It includes supply of all material required for fixing arrangement. Contractor will also supply flexible/corrugated HDPE pipe at the end of GI pipe to protect the cables from sharp edges and sudden bends. The laying and fixing to be done as per RDSO drawings No. SDO/cable laying/011 and SDO/cable laying/012, issued vide RDSO document No. RDSO/SI/G/2010 Version 1.1 dated 04.02.2014, or latest.	Mtrs	421	200	84,200

<b>Schedule 'D': Signalling &amp; Telecommunication (S&amp;T) Works</b>					
<b>S. No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Quantity</b>	<b>Estimated Amount (INR)</b>
57	Supply and fixing of RCC cable route marker, made with concrete in the ratio 1:3:6, engraved "HORC" "S&T" on top portion and painted on both sides, along the route at every 50 meter and at route diversion. The cable marker is to be fabricated as per RDSO drawing No. SDO/cable laying/020, issued vide RDSO document No. RDSO/SI/G/2010 Version 1.1 dated 04.02.2014, or latest. The fixing work is to be done as per extant practice of Railway and as advised by Engineer.	Nos	510	100	51,000
58	Horizontal direction drilling (HDD)/ Trenchless digging/ machine drilling/Manual moling without damage to surface road/ track for laying/ insertion of HDPE/ GI/ DWC pipe. The bore shall be done at the depth of minimum 1400 mm from the ground level. The ground level shall be considered ignoring the bank height of the bank of the road. Note:- DWC/HDPE/GI Pipe Supply is not covered under this item. Contactor shall provide all material required for work and adequate nos. of labours for proper laying of cables into the bore. Cable shall be laid cautiously so that it should not get damage due to rough handling & pressure on cable. Payment of boring shall be made only after DWC/HDPE/GI pipe is laid in the bore."	Mtrs	733	50	36,650

<b>Schedule 'D': Signalling &amp; Telecommunication (S&amp;T) Works</b>					
<b>S. No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Quantity</b>	<b>Estimated Amount (INR)</b>
59	Laying of S&T Cables of various sizes and protection work GI pipes/ RCC pipes/ DWC pipes etc. as per the site requirement and as per approved cable route plan. This also includes laying of cables in track crossings & road crossings leading in buildings. (Cables will be meggered before and after its laying by contractor under supervision of Engineer and he will submit the meggering report of each testing). Length of the cable laid includes the length of the cable coiled for termination purposes.	Mtrs	8	18,000	1,44,000
60	Laying of HDPE duct as per the approved cable route plan in the excavated trenches/other protected works/RCC channel etc. including all accessories like end caps, collars, bends, couplers etc. The ends of the duct to be sealed with end plugs till OFC blowing is done. Important: The laying of OFC cable independently or along with Quad cable/PIJF cable in the same trench shall be governed by the RDSO drawings No. RDSO/TCDO/COP-6(a) and RDSO/TCDO/COP-8 (a) respectively, issued vide Chapter-XIII of the Telecomm Manual.	Mtrs	10	3,000	30,000
61	Blowing/drawing of OFC cable in the HDPE pipe duct and protective work already provided in the trench. The cable shall be laid only after the successful completion of the DIT (Duct Integrity test). The DIT should be certified by the engineer at site. All the equipments/machinery required shall be arranged by the contractor.	Mtrs	20	3,000	60,000

<b>Schedule 'D': Signalling &amp; Telecommunication (S&amp;T) Works</b>					
<b>S. No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Quantity</b>	<b>Estimated Amount (INR)</b>
62	Supply of 24 fiber optical fiber cable straight joint enclosure (SJC) complete with all accessories along with enclosures with heat shrinkable splice protection sleeve as per RDSO spec. RDSO/SPN/TC68/2014 Revision 1.0, Amndt. 1.0 or latest.	Nos	6,550	3	19,650
63	Splicing of 24 core optic fibre cable and making the splicing joint with contractor's own machine and tools. Joint should be prepared in such a way that the top of the enclosure should be at a depth of minimum 1.2 meter and the enclosure should be covered with soft soil and bricks. Splice loss of each fi bre should be less than 0.05 dB.	Nos	14,290	3	42,870
64	Supply and installation of earth electrode as per standard practice and as per NCR Drawing No. S&T/CONST/6.4/97. It includes supply of GI pipe of 3 meter length. It includes connecting the earth electrode to the equipments which are required to be earthed including digging of earth pit 3 meter deep and fixing earth electrode pipe, casting of cement concrete enclosure with cover (as per drawing No. S&T/CONST/6.3/97). It includes installation of 7 strand GI wires as earth lead wires, supported on MS flat size 5mm x 40 mm, soldering and nut bolt both, one end of both earth lead wire and MS flat to earth electrode and other end to location boxes, block equipments, power equipments, cable sheath, signals etc. as per site requirement and as per instructions given by engineer/incharge.	Nos	4,106	10	41,060

<b>Schedule 'D': Signalling &amp; Telecommunication (S&amp;T) Works</b>					
<b>S. No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Estimated Rate (INR)</b>	<b>Quantity</b>	<b>Estimated Amount (INR)</b>
65	Supply of thermo shrink jointing kit for 6Quad cable as per RDSO Specn.No. IRS: TC 77-2012 (Rev.3.0) with (Amdt.-1 to 3) or latest, suitable for 6 Quad/jelly filled cables for straight through/derivation joints. It includes supply of all the accessories, without transformer.	Nos	4,000	10	40,000
66	Installation of thermo shrink jointing kit as per RDSO Specn.No. IRS: TC 77- 2012 (Rev.3.0) with (Amdt.-1 to 3) or latest, suitable for 6 Quad/jelly filled cables for straight through/derivation joints.	Nos	2,002	5	10,010
67	Supply and installation of 1120:470/1120:600 Ohms VF isolation transformer rack mounting type as per RDSO specification IRS/TC/22/76 with latest amendment applicable on the date of opening of the tender.	Nos	1,498	5	7,490
<b>Sub Total of 'D2' (INR)</b>					<b>51,41,872</b>
<b>Total Estimated Amount of Schedule 'D ' (D1+D2)</b>					<b>1,16,45,448</b>

**Total Estimated amount of Schedule 'D' - INR 1,16,45,448**

**Notes for Schedule 'D'**

**1. Payment Terms**

**A) Supply of equipment & material:**

**i) 70% of payment for items shall be made to the Contractor on receipt of:**

- a) Bill/ Tax invoice
- b) Receipt of material at site/ Employer's project depot managed by the Contractor
- c) Insurance of material for the project execution period
- d) Inspection certificate from the competent inspecting authority
- e) Delivery Challan
- f) Certificate from the Contractor & OEM that material being supplied is new with latest version and complies with the Specification
- g) Commitment from OEM for support to the Contractor/ HORCL/ Railway for the product being supplied and minimum for 7 years.

**ii) 20% payment shall be made on installation & commissioning of equipment/ material at site****iii) 10% payment shall be made on commissioning of complete work & issue of Taking Over Certificate.****B) Installation & Commissioning:****i) 90% payment shall be made on execution/ installation & commissioning of item at site.****ii) 10% of payment shall be made on commissioning of complete work & issue of Taking Over Certificate.**