

SECTION – 9

PRICE SCHEDULES (FINANCIAL BID)

CONTENTS**SECTION 9: PRICE SCHEDULES (FINANCIAL BID)**

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**BANGALORE SUBURBAN RAIL PROJECT (BSRP)
PRICE SCHEDULES (FINANCIAL BID)**

Tender No:

C4 / PACKAGE 1 “Design & Construction of Formation In Embankments /Cuttings Including Blanketing, MIB, RUB, MJB, ERS/Retaining Wall, Drains, Boundary Wall And Fencing Works In At-Grade Section of Length 6.259 Km, Elevated viaduct of length 3.681 km and Other Related Infrastructural Works From Benniganahalli To Jakkur Including Validation of Design And Stability Check Wherever Applicable For Works Executed By Previous Contractor (Excluding 5 Stations and Channasandra RCC Box) between Ch. 22.386 Km and Ch. 33.742 Km of Corridor - 4 of Bengaluru Suburban Transport Project (BSTP)”.

PREAMBLE

1. The Price Schedule shall be read in conjunction with the Instructions to Tenderers, Conditions of Contract & Special Conditions of Contract, Particular Conditions, Contract Data, Notice Inviting Tender, Employer's requirement PART-1 and 2, Scope of work, Technical Specifications, Tender Drawings, Schedule, Annexures and Addendums and any other related document in the Bid Document.
2. The Amounts shall be quoted in each of the following schedules:
 - 2.1 Schedule A: Design and Construction of Elevated Viaduct & associated works
 - 2.2 Schedule B: Design and Construction of At-Grade Formation in embankment/cuttings including Bridges & associated works
 - 2.3 Schedule C: Lumpsum provision for incidental and unforeseen items likely to occur during the execution of work

 These items of Schedule C will be executed under KPWD SR 2023-24 or latest schedule of rates published by KPWD. The cost under this Schedule stands fixed is provided as fixed amount in the summary of Financial Bid/Price Schedule. Whenever KPWD rates are not available other department rates shall be considered with the approval of Employer.
3. The amount for various Schedules and Summary of Price Schedule shall be quoted in Indian Rupees both in figures and in words.
4. The whole cost of complying with all the provisions of the Contract is deemed to have been included in the quoted amount.
5. All columns in the “Summary of Price Schedule” and the total tender amount shown in the bottom shall be filled in figures and words as per the procedure mentioned in e-procurement portal. The person authorized to sign on behalf of the Tenderers shall sign in full at bottom of all pages and at the end of the schedule.
6. General directions and description of works and materials are neither repeated nor summarized in the Price Schedule. They are deemed to have been covered or described elsewhere in the Bid Document or implied as good Engineering & Construction Practices adopted for similar works.
7. The method of measurement of works regulating the interim payment, wherever applicable, shall be in accordance with the requirements as stated in the individual sections of the Technical Specifications and Conditions of Contract.
8. The Tenderer may please note that, to perform this contract, nothing extra will be payable on account of field constraints, availability of front (except for the provisions made elsewhere in the Bid Document), preparation of detailed scheme, for taking necessary clearances and approvals from all the concerned authorities/ local bodies etc. The quoted value shall include the cost of all these items/aspects.
9. The Tenderer's offer shall be inclusive of all taxes and duties payable by them, labour cess and any other cess, levies etc. GST, Income Tax, and any other statutory taxes to be deducted at source, if any, will be deducted by the Employer in accordance with the Income Tax Act and any other acts in force and in accordance with instructions issued by the Authorities on this behalf, from time to time.

10. The Engineer may, in any payment certificate, make any correction or modification that should have been reflected in any previous Payment Certificate. A Payment Certificate shall not be deemed to indicate the Employer's/Engineer's acceptance, approval, consent or notice of no-objection to any of the documents of the contractor or to (any part of) the works.

Important Notes:

- A. The Tenderers should quote their amount against Schedule-A and Schedule-B of Price Schedule in e-Procurement Portal.
- B. The cost under Schedule-C stands fixed as Rs 6,00,00,000 and this amount is provided as fixed amount in the summary of Financial Bid/Price Schedule.
- C. The total value of the Tender quoted by the Tenderer shall be computed based on the total amount quoted in Schedule-A and Schedule-B, duly adding the fixed amount of Schedule-C to the total amount of Schedule-A and Schedule-B.

SUMMARY OF PRICE SCHEDULE				
(Centre of E-governance has disabled submission of documents pertaining to financial proposal in e-portal. Bidders are requested to enter the Financial Proposal in the respective cell provided in the e-portal. This format of Financial Proposal is only for reference.)				
Sl. No.	Schedule	Description	Quoted by Tenderer	
			Quoted Amount in INR (Lumpsum Cost)	
			In Figures	In Words
1	2	3	4	5
1	Schedule - A	“Design & Construction of Elevated Viaduct of Length 3.681 Km (1.467 Km Length – Ch: 22.386 Km To 23.853 Km, Length- 0.891 Km Ch: 26.697 Km To 227.588 Km, Length – 0.682 Km Ch: 27.793 Km To 28.475 Km, Length- 0.170 Km – Ch: 32.178 Km To Ch: 32.348 Km, Length – 0.471 Km – Ch: 32.553 Km To Ch: 33.024 Km) and Construction of Special Span By Open Web Girder For BSRP Corridor And Other Related Infrastructural Works From Benniganahalli To Jakkur Including Validation of Design And Stability Check Wherever Applicable For Works Executed By Previous Contractor (Excluding Station Buildings), of Corridor - 4 of Bengaluru Suburban Transport Project (BSTP)”.		
2	Schedule - B	“Design & Construction of Formation In Embankments /Cuttings Including Blanketing, MIB, RUB, MJB, ERS/Retaining Wall, Drains, Boundary Wall And Fencing Works In At-Grade Section of Length 6.259 Km (0.151 Km Length - Ch: 23.853 Km To Ch: 24.004 Km, 1.270 Km Length – Ch: 24.600 Km to Ch: 25.870 Km, 0.622 Km Length – Ch: 26.075 Km To Ch: 26.697 Km, 2.043 Km Length – Ch: 28.475 Km To Ch: 30.518 Km, 1.455 Km Length – Ch: 30.722 Km To Ch: 32.178 Km, 0.718 Km Length – Ch: 33.024 Km To Ch: 33.742 Km) For BSRP Corridor And Other Related Infrastructural Works From Benniganahalli To Jakkur Including Validation of Design And Stability Check Wherever Applicable For Works Executed By Previous Contractor (Excluding Station Buildings), of Corridor - 4 of Bengaluru Suburban Transport Project (BSTP)”.		
3	Schedule -C	Miscellaneous Items for works, which are not covered in Schedule A & B are to be executed under schedule of rates 2023-24, or latest, published by Government Departments KPWD/USSOR/CPWD/ BWSSB/BESCOM/KPTCL).	6,00,00,000/- (Fixed)	Six Crore Only (Fixed)
Grand Total		A+B+C= (In Figures)	₹ /-	
		(In Words)		

Signature of the Tenderer

Notes:

- A. The quoted value covers all items of the work as detailed in the “Employer’s Requirement” contained in Section 8A (Part 1 and Part 2) as well as conforming to all Particular Conditions of Contract in Section 7, Technical Specifications in Section 8B, SHE requirements in Section 8C and all other stipulations laid down in the Bid Document in every other Section including all addenda/corrigenda thereof till the date of submission of Bids.
- B. The quoted value is inclusive of all costs of Designs, Drawings, Reports, Surveys, Site Facilities, Construction, Equipment, Plants, Instruments, Labour, Supervision, Casting Yard Facilities, Launching Girders, Materials, Erection, Testing, Maintenance, Temporary Works, Site Office, Site Access, Safety, Security, Defect Rectification till the end of DLP, Insurance, Profit, Duties, GST, Taxes, Levies, Royalties as per applicable law together with all associated risks etc., and all other liabilities and obligations set out or implied in all the sections of the contract.
- C. Schedule-C consists of Lump sum provision to be operated for incidental and unforeseen items likely to be necessary while executing the work. These items will be executed under latest schedule of rates published by KPWD. The cost under this Schedule stands fixed at ₹ 6,00,00,000/- and this amount is provided as fixed amount in the summary of Financial Bid/Price Schedule.

ANNEXURE-1			
SCHEDULE FOR ON ACCOUNT PAYMENTS UNDER LUMP SUM PORTION			
C4 / PACKAGE 1 “Design & Construction of Formation In Embankments /Cuttings Including Blanketing, MIB, RUB, MJB, ERS/Retaining Wall, Drains, Boundary Wall And Fencing Works In At-Grade Section of Length 6.259 Km, Elevated viaduct of length 3.681 km and Other Related Infrastructural Works From Benniganahalli To Jakkur Including Validation of Design And Stability Check Wherever Applicable For Works Executed By Previous Contractor (Excluding 5 Stations and Channasandra RCC Box) between Ch. 22.386 Km and Ch. 33.742 Km of Corridor - 4 of Bengaluru Suburban Transport Project (BSTP)”.			
The payment would be governed by the stage payment schedule as detailed below: Overall percentage 100% i.e., quoted lumpsum price is divided into the following heads. The Percentage breakup of cost component for each Head is as below:			

1. APPORTIONMENT OF CONTRACT PRICE OF SCHEDULE-A:

Schedule	Description	Component	Percentage of Schedule-A
1	2	3	4
Schedule-A	“Design & Construction of Elevated Viaduct of Length 3.714 Km (1.467 Km Length – Ch: 22.386 Km To 23.853 Km, Length- 0.891 Km Ch: 26.697 Km To 227.588 Km, Length – 0.682 Km Ch: 27.793 Km To 28.475 Km, Length- 0.170 Km – Ch: 32.178 Km To Ch: 32.348 Km, Length – 0.471 Km – Ch: 32.553 Km To Ch: 33.024 Km) and Construction of Special Span By Open Web Girder For BSRP Corridor And Other Related Infrastructural Works From Benniganahalli To Jakkur Including Validation of Design And Stability Check Wherever Applicable For Works Executed By Previous Contractor (Excluding Station Buildings), of Corridor - 4 of Bengaluru Suburban Transport Project (BSTP)”.	1. General Items (Head-G)	2%
		2. Design & Drawings (Head-D)	2%
		3. Construction of Viaduct (Head-V)	96%
Total			100%

2. WEIGHTAGES OF COMPONENTS FOR INTERIM PAYMENTS:**2.1 GENERAL ITEMS (HEAD G): 2% OF THE COST OF SCHEDULE-A**

Sl. No	Stage Payments	Percentage of Cost of Schedule -A	Payable Unit	Percentage breakup (Weightages)
1	2	3	4	5
1	Submission of Soil investigations, Topo Survey, including Transfer of TBMs and Detailed survey and Submission of best fit alignment report, Buildings condition survey report and infringement survey report of entire Corridor, Construction/Provision and Commissioning (with all specified furniture, appliances, items etc.) of all Project Offices and Site offices and Maintaining all these of these offices throughout the Contract Period and DLP, Safety Barricading of the entire corridor	2% of the cost of Schedule-A	L.S.	15%
2	Commissioning of site laboratory, submission of quality, safety, environment and public health manuals, Initial Pile Load Tests, submission of Interface Management Plan and submission of instrumentation scheme of entire Corridor and diversion schemes if any and Maintaining of the same throughout the Project duration		LS	10%

3	<ul style="list-style-type: none"> a) Utility Survey, GPR survey, Submission of utility identification report of entire Corridor after actual trenching and making good road etc. complete and submission to utility owning agency, co-ordination as & methodology final scheme for relocation. b) Approval and Co-ordination for Removal of Trees, Tree Translocation, Compensatory Afforestation Proposal including the submission of Methodology. c) Cutting of all trees, Translocation of all specified trees, Compensatory Afforestation of all required trees. 		L.S.	20%
4	<ul style="list-style-type: none"> a) Resources allocated to ESHS management. b) Drafting and updating the ESHS documentation, reporting, inspections. c) Implementation of the Health and Safety Plan: Meetings, health care center, medical check-ups, emergencies and evacuations, safety protective equipment, hygiene. d) Protection of adjacent areas, prevention of erosion and wastewater management. e) Traffic, noise and atmospheric emissions management, land take. f) Waste and hazardous products management. g) Vegetation clearing and site rehabilitation. h) Accommodation, drinking water, meals and transportation of staff. i) Recruitment, Training and management costs. j) Submission of quarterly audit report of SHE requirements of entire Corridor and Action Taken on non-compliance of non-conformance report and its closure during last month. <p>Note: To be paid quarterly on pro-rata basis for submission of quarterly audit report.</p>		LS	8%
5	<ul style="list-style-type: none"> a) Deployment of SHE personnel as per SHE Manual for the entire Corridor. The payment shall be made on monthly basis starting from third month after the Commencement Date. b) Accommodation, drinking water, meals and transportation of staff. c) Training and local recruitment management costs. <p>Notes:</p> <ul style="list-style-type: none"> I. 70% of the apportioned payment as per this Milestone shall be equally spread over 30 months (after initial 3 months) for the purpose of payment. II. Remaining 30% payment shall be released on completion of work, subject to continued deployment of SHE personnel in the period beyond 		LS	20%

	<p>30 months.</p> <p>III. Any shortfall of deployment of SHE Personnel from the numbers indicated in the SHE Manual will attract penalty at the rate of 3 times the pro-rata shortfall. For example, if the SHE Manual requires 17 staff and the deployment is 16 staff for a particular month, then $[3 \times 1/17 = 17.65\%]$ of the payment due for that month will be permanently deducted. Likewise, shortage of 2 staff will result in 35.3% lesser payment and so on. This penalty shall also apply to 30% final payment also on pro rata manner.</p>			
6	<p>IT requirements of BI-RIDE (online project management platform, documentation management system, enterprise work program platform, BIM modeling, PMIS etc.) – Refer relevant Para under Employer's Requirements for details.</p> <p>Notes:</p> <p>a. 30% of the apportioned payment under this Milestone shall be released after Contractor put in place the necessary hardware, IT center and software licenses. This should be accomplished not later than 3 months from commencement date.</p> <p>b. 40% of the apportioned payment under this Milestone shall be equally spread over 30 months after completion of SN -1 above and deployment of requisite IT staff in full as per requirement. Shortfall of staff shall attract penalty in similar manner as for SHE staff as per Sl. No.5 above.</p> <p>c. Balance 30% will be released on completion of work, subject to continued deployment of IT staff in the period beyond above 30 months.</p>		LS	15%
7	<p>Regular maintenance and repair of existing road, service road, foot path, construction and maintenance of temporary diversions as required for traffic management during construction period to keep them in traffic worthy condition. Restoration of road damaged for construction purpose is also included for the entire Corridor of 46.88 km.</p> <p>Note: To be paid monthly on pro-rata basis. Payment of this item will start from 6 months from commencement of project.</p>		L.S.	12%
Total				100%

2.2 DESIGN & DRAWING (HEAD D): 2% OF THE COST OF SCHEDULE-A

Sl. No.	Stage Payments	Percentage of Cost of Schedule -A	Payable Unit	Percentage breakup (Weightages)
1	2	3	4	5
1.	Preliminary Design, GADs	2% of the cost of Schedule-A	LS	15%
2.	Definitive Design, Construction Drawings, GFC Drawings		LS	60%
3.	Completion Drawings/As Built Drawings		LS	25%
Total				100%

2.3 CONSTRUCTION OF VIADUCT (HEAD V): 96% OF THE COST OF SCHEDULE-A

Sl. No.	Stage Payments	Percentage of Cost of Schedule -A	Payable unit	Percentage breakup (Weightages)
1	2	3	4	5
1.	Commissioning of Casting Yard (Contractor and Engineer shall make joint program of commissioning of various activities of casting yard. Payment shall be released on monthly basis based on progress achieved as certified by Engineer).	96% of the cost of Schedule-A	Proportionately till Commissioning	1%
2.	Pile Foundations including testing of Piles, routine pile load tests, ND Tests, Soil Boring, Trial trenching, GPR Survey at specific locations etc.		Per Pile Group	22%
3.	Pile Caps, Open Foundations including PCC, shoring, Plate Load Test.		Per Pile Cap/Open Foundations	19%
4.	Piers including Pier Caps, Portal, Eccentric Piers, Precast Pier Caps & Pre-stressing, Pedestals, Median, Crash Barrier & Shear Keys/Stopppers.		per pier	17%
5.	Casting of segments of Box Girders / U Girders / I-Girders including parapet.		per span	19%
6.	Supply and Erection of Composite Steel Girders/open web girder for viaduct. a. Receipt of material at site – 40% (of 3%) (On submission of Indemnity bond etc.) b. Fabrication- 20% (of 3%) c. Transportation / Erection / Launching - 20% (of 3%) d. Completion in all respects- 20% (of 3%)		per span	4%
7.	Erection of segments of Box Girders / U Girders / I-Girders including parapet including pre-stressing, grouting etc., all complete.		per span	12%
8.	Bearing - Supply and fixing for all spans including Elastomeric Bearing and POT-PTFE Bearings. Note: 50 % on supply and 50% on fixing.		per span	1%
9.	Providing & Fixing Expansion Joints (Omega Joints and Strip Seal Joints)		per span	1%

	Note: 50 % on supply and 50% on fixing.			
10.	Misc. Items: Completion of the work in all respects including railing, G.I. Brackets for cable, earthing, manholes, rainwater harvesting, clearing of sites in all respects so that area is in traffic worthy condition, drainage pipes, hand rails, drainage spouts, down take pipes including connecting to rain water harvesting, Traffic/Cautioning Sign Boards, Road Diversions, Setting out, Span Load testing of Girders, Dismantling and transportation, etc.		per span	2%
11.	All other balance works to complete the entire work as per the scope & specifications and handing over of viaduct to BI-RIDE.		LS	2%
TOTAL				100%

The details are shown in tentative GAD enclosed with the tender. In case of variation in route length on either side, i.e., increase or decrease, the total value of viaduct, i.e., "V" (Construction of Viaduct) & "D" (Design & Drawing), will get modified accordingly on prorata basis for payment purpose.

The Contractor will submit a quantity schedule for the work as per the details finalized by them for the components listed in the table above, which will be subject to review and approval by the employer/engineer. Unit payment of the items shall be governed by the Quantity schedule within the total % payment specified against that item. For example, if 'V' is the accepted value of viaduct and if there are 'N' no of units in a sub-item, out of which, payment for 'y' units is claimed and the applicable percentage of payment for that sub-item is 'S', and the applicable percentage of payment for that main item is 'P', the payment due on completion of 'y' no. of units would be $(V \times P \times S \times y / N)$.

The quantity schedule after being approved by the Engineer will be used for making all interim payments. The Contractor should note that while interim payment will be governed by the quantity schedule, total cost of the 'Lump Sum' component would remain unchanged for the specified work subject to adjustment for the length if need be of the viaduct brought out in (1) above.

Payment will be made on the submission of the IPC with quantity schedule versus progress achieved for review and certification and recommendation of the Engineer to the Employer for various items. Further bifurcation or redistribution of price centres, if need be, within the overall % age or amongst sub works will be agreed mutually with the contractor.

Further bifurcation/redistribution/minute distribution of price centres, if need be, within the overall % age or amongst sub works will be the right of BI-RIDE. The decision of BI-RIDE is final in this regard and the same is binding on the contractor.

Signature of Tenderer

ANNEXURE-2			
SCHEDULE FOR ON ACCOUNT PAYMENTS UNDER REGULARITY PAYMENT LUMP SUM PORTION (Schedule-B)			
<p>“Design & Construction of Formation In Embankments /Cuttings Including Blanketing, MIB, RUB, MJB, ERS/Retaining Wall, Drains, Boundary Wall And Fencing Works In At-Grade Section of Length 6.259 Km (0.151 Km Length - Ch: 23.853 Km To Ch: 24.004 Km, 1.270 Km Length – Ch: 24.600 Km to Ch: 25.870 Km, 0.622 Km Length – Ch: 26.075 Km To Ch: 26.697 Km, 2.043 Km Length – Ch: 28.475 Km To Ch: 30.518 Km, 1.455 Km Length – Ch: 30.722 Km To Ch: 32.178 Km, 0.718 Km Length – Ch: 33.024 Km To Ch: 33.742 Km) For BSRP Corridor And Other Related Infrastructural Works From Benniganahalli To Jakkur Including Validation of Design And Stability Check Wherever Applicable For Works Executed By Previous Contractor (Excluding Station Buildings), of Corridor - 4 of Bengaluru Suburban Transport Project (BSTP)”.</p>			
The payment would be governed by the stage payment schedule as detailed below:			
Overall percentage 100% i.e., quoted lumpsum price shall be divided in following heads. The Percentage breakup of cost component for each Head is as below:			

1. APPORTIONMENT OF CONTRACT PRICE OF SCHEDULE-B:

Schedule	Description	Component	Percentage of Schedule-B
1	2	3	4
Schedule-B	“Design & Construction of Formation In Embankments /Cuttings Including Blanketing, MIB, RUB, MJB, ERS/Retaining Wall, Drains, Boundary Wall And Fencing Works In At-Grade Section of Length 6.259 Km (0.151 Km Length - Ch: 23.853 Km To Ch: 24.004 Km, 1.270 Km Length – Ch: 24.600 Km to Ch: 25.870 Km, 0.622 Km Length – Ch: 26.075 Km To Ch: 26.697 Km, 2.043 Km Length – Ch: 28.475 Km To Ch: 30.518 Km, 1.455 Km Length – Ch: 30.722 Km To Ch: 32.178 Km, 0.718 Km Length – Ch: 33.024 Km To Ch: 33.742 Km) For BSRP Corridor And Other Related Infrastructural Works From Benniganahalli To Jakkur Including Validation of Design And Stability Check Wherever Applicable For Works Executed By Previous Contractor (Excluding Station Buildings), of Corridor - 4 of Bengaluru Suburban Transport Project (BSTP)”.	1. Design & Drawings	2%
		2. Earthwork, ERS/Retaining Wall & Drains	77%
		3. Minor Bridges 15no's	2%
		4. Major Bridges 1 no	3%
		5. RUB (Road Under Bridges) 3 no's	6%
		6. All other balance works to complete the entire work as per the scope & specifications, handing over to Bi-RIDE	10%
Total			100%

WEIGHTAGES OF COMPONENTS FOR INTERIM PAYMENTS:

1.1 DESIGN & DRAWING : 2% OF THE COST OF SCHEDULE-B

Sl. No.	Stage Payments	Percentage of Cost of Schedule -B	Payable Unit	Percentage breakup (Weightages)
1	2	3	4	5
1.	Preliminary Design, GADs	2% of the cost of Schedule-B	LS	15%
2.	Definitive Design, Construction Drawings, GFC Drawings		LS	60%
3.	Completion Drawings/As Built Drawings		LS	25%
Total				100%

Further bifurcation/redistribution/minute distribution of price centres, if need be, within the overall % age or amongst sub works will be the right of BI-RIDE. The decision of BI-RIDE is final in this regard and the same is binding on the contractor.

1.2 EARTHWORK, RETAINING WALL & DRAINS: 77% OF THE COST OF SCHEDULE-B

Sl. No.	Stage Payments	Percentage of Cost of Schedule -B	Payable unit	Percentage breakup (Weightages)	Payment Procedure
1	2	3	4	5	6
1.	General clearance, ground improvement, embankment/cutting including compaction so as to achieve 50% of desired height below the bottom of blanketing layer.	77% of the cost of Schedule-B		4%	1. Unit of measurement is linear length along alignment. Payment of each stage will be made on pro-rata basis on completion of a stage in a continuous length of minimum 500 m as per weightage given in this Schedule. 2. Provided that payment for the blanketing layer shall be made on completion of minor bridges including slab/RCC box in the length for which stage payment is claimed. For the avoidance of doubt, payment for minor Bridges shall be payable separately in accordance with relevant item.
2	Balance earthwork in embankment/ cutting including compaction up to bottom of blanketing layer.			4%	
3.	Earthwork in Blanketing layer complete in all respect. Including bitumen / Asphalt layer as per IR specification and Geo-textile layers.			9%	
4.	Finishing the formation to the final finished level with camber/cross slope and other incidental works, complete.		LS	7%	
5.	Longitudinal/cross drains including cable ducts on either side of drain, Earth retaining structures (ERS), retaining walls, sacrificial retaining walls, pitching, turfing, catch water drains, toe walls.			76%	
TOTAL				100%	

Notes:

- i) Payment can be processed on execution of various sub works recorded by the contractor & submitted to GC/ Engineer for review certification and recommendation of the Engineer to the Employer for various items of the work Progressed.
- ii) Track centre, Ground level, formation level etc. shown in indicative plan (Tender Drawings) and profile are indicative which may change as per design and site conditions. However, stage payment shall be made as per approved definitive plan and profile. The rates shall be inclusive of all minor variations
- iii) Minor Variation is considered up to $\pm 5\%$ in total barrel length and/or perimeter in case of Minor Bridge, $\pm 5\%$ in the clear span of Major Bridge /RUB.
- iv) Beyond these limits, the extra quantities of items will be paid extra as per lumpsum payment as per the rate derived in KPWD or as per the relevant conditions.
- v) LS = Lumpsum.
- vi) Further bifurcation/redistribution/minute distribution of price centres, if need be, within the overall % age

or amongst sub works will be the right of BI-RIDE. The decision of BI-RIDE is final in this regard and the same is binding on the contractor.

1.3 MINOR BRIDGES: 2% OF THE COST OF SCHEDULE-B

Sl. No.	Stage Payments	Percentage of Cost of Schedule -B	Payable unit	Percentage breakup (Weightages)	Payment Procedure
1	2	3	4	5	6
1.	On ground clearance, ground improvement if required to suit design bearing capacity and testing, completion of the foundation works, On completion of RCC Boxes, abutment, piers for slab/girder bridges etc.	2 % of the Cost of Schedule-B	LS	75%	1. Cost of each bridge shall be determined on pro rata basis with respect to the total linear length (Barrel length in case of RCC box and length of slab for slab bridges) of Minor Bridges.
2.	On completion of balance works as per drawing like walkway, footpath, cable duct, railings, wing walls, return walls, Ballast Retainer, hand railing, all types of protection work, pitching, turfing, back filling and approaches, river training works, if any, etc. complete in all respects.		LS	25%	2. Payment shall be made on completion of each component/ stage of a Minor Bridge as per the weightage given in this schedule.
TOTAL				100%	

Notes:

- Payment will be made on certification and recommendation of the Engineer to Employer for various items.
- If a bridge is constructed using precast elements, then 50 % payment against the cost of the item shall be released upon finishing casting of elements and transporting all such elements to the site of bridge construction. Balance 50% shall be released after completion of erection/laying in all respects. The rates shall be inclusive of all minor variations.
- LS= Lumpsum
- Further bifurcation/redistribution/minute distribution of price centres, if need be, within the overall % age or amongst sub works will be the right of BI-RIDE. The decision of BI-RIDE is final in this regard and the same is binding on the contractor.
- The above weightage shall be further sub divided for components of works with mutual consent and approval by the Engineer/Employer.

1.4 MAJOR BRIDGES: 3% OF THE COST OF SCHEDULE-B

Sl. No.	Stage Payments	Percentage of Cost of Schedule -B	Payable unit	Percentage breakup (Weightage s)	Payment Procedure
1	2	3	4	5	6
1.	Foundation: Ground clearance, preparation of base below the pile cap or below the pier base for open foundation as applicable, ground preparation work, completion of the foundation works for wing walls and return walls and testing.	3% of the cost of Schedule-B	LS	25%	(a) Cost of each bridge shall be determined on pro rata basis with respect to the total linear length of the Major Bridges. (b) Payment shall be made on completion of each component/stage of a Major Bridge as per the weightage given in this schedule. (c) For item no. 3 Superstructure: if a bridge is constructed using pre-cast concrete element / composite girders/plate girders: 50% payment shall be released upon finishing casting of concrete pre-cast elements/Assembled plate girders/open web girders & transportation to site.
2.	Substructure: Completion of abutment, piers including Pier caps/bed blocks, Pedestals (without bearings) as applicable, work up to the bottom of super-structure, completion of wing walls and return walls in all respects.		LS	15%	
3.	Superstructure: Completion of super structure including bearings ready for track linking, walkway footpath, cable duct, testing etc.		LS	45%	
4.	Misc. works: Completion of balance works as per drawing, hand rails, curtain walls, all protection works, pitching, completion of approaches including back filling, turfing, river training works if any, testing on completion etc. complete in all respects and fit for use.		LS	15%	
TOTAL				100%	

Notes:

- Payment will be made on certification and recommendation of the Engineer to Employer for various items.
- The rates shall be inclusive of all minor variations.
- LS= Lumpsum
- Further bifurcation/redistribution/minute distribution of price centres, if need be, within the overall % age or amongst sub works will be the right of BI-RIDE. The decision of BI-RIDE is final in this regard and the same is binding on the contractor.

1.5 RUB (ROAD UNDER BRIDGES) : 6 % OF THE COST OF SCHEDULE-B

Sl. No.	Stage Payments	Percentage of Cost of Schedule -B	Payable unit	Percentage breakup (Weightage s)	Payment Procedure
1	2	3	4	5	6
1.	On ground clearance, ground improvement if required to suit design bearing capacity and testing, Road diversion works, completion of the foundation works, on completion of RCC Boxes (Barrel), abutments, piers & slab for slab bridges etc.,	6% of the cost of Schedule-B	LS	80%	1. Cost of each bridge shall be determined on prorata basis with respect to the total linear length (Barrel length in linear meter) of the RUBs. 2. Payment shall be made on completion of each component/stage of RUB as per the weightage given in this schedule.
2.	On completion of balance works as per drawing like walkway, footpath, cable duct, railings, wing walls, return walls, Ballast Retainer, hand railing, all types of protection works, pitching, turfing, back filling, drains, retaining wall for approach roads, approach roads, river training works, if any, etc. complete in all respects.		LS	20%	
TOTAL				100%	

1.6 All other balance works to complete the entire work as per the scope & specifications, handing over to Bi-RIDE 10% OF THE COST OF SCHEDULE-B

Sl. No.	Stage Payments	Percentage of Cost of Schedule -B	Payable unit	Percentage breakup (Weightage s)	Payment Procedure
1	2	3	4	5	6
1.	Fencing between IR and BSTP Supply and fixing of structural steel fencing with chain link (built up steel columns) over the pile cap with 300mm dia screw pile as per the drawing and as directed by Engineer.	10% of the cost of Schedule-B	LS	13%	
2.	RCC/ Precast wall over ERS wall towards BSTP side for supporting cable hangers for traction, signal, Telecom, solar and E&M as per the drawing and as directed by Engineer.		LS	84%	
3.	OHE Mast RCC foundations along the BSTP and / or Indian Railway as per the drawing and as directed by Engineer.		LS	3%	
TOTAL				100%	

Notes:

- a. Payment will be made on certification and recommendation of the Engineer to Employer for various items.
- b. The rates shall be inclusive of all minor variations.
- c. LS= Lumpsum
- d. Further bifurcation/redistribution/minute distribution of price centres, if need be, within the overall % age or amongst sub works will be the right of BI-RIDE. The decision of BI-RIDE is final in this regard and the same is binding on the contractor.

- A. Earthwork, Retaining Wall and Drains:** Unit of measurement is linear length along the alignment, in case of variation in route length on either side, i.e. increase or decrease, the total value of component of Earthwork, Retaining wall and drains will get modified accordingly on prorata basis for payment purpose. The component of design and drawing charges for Earthwork, retaining wall and drains also worked out proportionately on the basis of component value of Earthwork, retaining wall and drains as per schedule-B and the variations shall be calculated on prorata basis. Note: The variations in width and height of Earthwork, retaining wall and drains are deemed to have been included in the lumpsum cost.
- B. Minor Bridges:** Cost of each bridge shall be determined on pro rata basis with respect to the total linear length (Barrel length in case of RCC box and width of slab for slab bridges) of the Minor Bridges. In case the variation in barrel length on either side i.e., increase or decrease, the total value of the component of Minor bridges will get modified accordingly on pro rata basis for payment purpose. The component of design and drawing charges for Minor bridges also worked out proportionately on the basis of component value of Minor bridges as per schedule-B and the variations shall be calculated on prorata basis. Note: The variations in span and height of minor bridges are deemed to have been included in the lumpsum cost.
- C. Major Bridges:** Cost of each bridge shall be determined on pro rata basis with respect to the total linear length of the Major Bridges. In case the variation in total linear length (along the alignment) on either side i.e., increase or decrease, the total value of the component of Major bridges will get modified accordingly on prorata basis for payment purpose. The component of design and drawing charges for Major bridges also worked out proportionately on the basis of component value of Major bridges as per schedule-B and the variations shall be calculated on prorata basis. Note: The variations in width and height of major bridges are deemed to have been included in the lumpsum cost.
- D. RUB:** Cost of each bridge shall be determined on pro rata basis with respect to the total linear length (Barrel length in linear meter) of the RUBs. In case the variation in barrel length on either side i.e., increase or decrease, the total value of the component of RUB will get modified accordingly on pro rata basis for payment purpose. The component of design and drawing charges for RUB also worked out proportionately on the basis of component value of RUB's as per schedule-B and the variations shall be calculated on pro rata basis. Note: The minor variations due to span and height of minor bridges are included in the barrel length cost.

Note: The variations in width and height of major bridges are deemed to have been included in the lumpsum cost.

The Contractor will submit a quantity schedule for the work as per the details finalized by them for the components listed in the table above, which will be subject to review and approval by the Employer/Engineer. The decision of the Employer in this regard is final and binding on the contractor.

The quantity schedule after being approved by the Employer/Engineer will be used for making all interim payments. The Contractor should note that while interim payment will be governed by the quantity schedule, total cost of the 'Lump Sum' component would remain unchanged for the specified work.

For all Schedules, further bifurcation/redistribution/minute distribution of price centres, if need be, within the overall % age or amongst sub works will be the right of BI-RIDE. The decision of BI-RIDE is final in this regard and the same is binding on the contractor.