

# SECTION – 9

## PRICE SCHEDULES (FINANCIAL BID)

## CONTENTS

### SECTION 9: PRICE SCHEDULES (FINANCIAL BID)

SI No.	Description	Page No.
1	PREAMBLE.	860
2	SUMMARY OF PRICE SCHEDULE.	862
3	SCHEDULE – A, SCHEDULE – B & SCHEDULE – C.	873
4	ANNEXURE-1 & 2 FOR APPORTIONMENT OF CONTRACT PRICE & WEIGHTAGES OF COMPONENTS FOR INTERIM PAYMENTS.	

K-RIDE

**BANGALORE SUBURBAN RAIL PROJECT (BSRP)  
PRICE SCHEDULES (FINANCIAL BID)  
Tender No: KRIDE / BSRP / 16 / 2023**

**NAME OF WORK:** Design and Construction of Elevated Viaduct of length 8.960 km and At-Grade Formation of length 37.920 km (excluding Station Buildings) including associated Works between Heelalige and Rajanukunte of Corridor-4 of Bengaluru Suburban Railway Project (BSRP)

**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 schedule of rates 2021-22, published by KPWD. The cost under this Schedule stands fixed as ₹. 19,00,00,000/- and this amount 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 ₹. 19,00,00,000/- 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.

K-RIDE

<b>SUMMARY OF PRICE SCHEDULE</b>				
(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.)				
<b>NAME OF WORK:</b> Design and Construction of Elevated Viaduct of length 8.960 km and At-Grade Formation of length 37.920 km (excluding Station Buildings) including associated Works between Heelalige and Rajanukunte of Corridor-4 of Bengaluru Suburban Railway Project (BSRP)				
<b>Tender no: K-RIDE / BSRP / 16 / 2023</b>			<b>Date –20.01.2023</b>	
Sl. No.	Schedule	Description	Quoted by Tenderer	
			Quoted Amount in INR (Lumpsum Cost)	
			In Figures	In Words
1	2	3	4	5
1	<b>Schedule - A</b>	Design and Construction of Elevated Viaduct of length 8.96 km (km. 14.625 to km. 17.950, km. 22.665 to km. 23.750, km.34.450 to km. 36.025 and km. 36.275 to km. 39.250) and 2.11 km of common corridor for C1 & C4 at Yelahanka (km. 36.401 to km. 38.511) including ramps, ROR, Utility Diversions and other related infrastructure and miscellaneous works excluding stations buildings from Heelalige to Rajanukunte and excluding 740 m long alignment near Benniganahalli station from km. 21.925 to km. 22.665, of Corridor - 4 of Bengaluru Suburban Railway Project (BSRP)		
2	<b>Schedule - B</b>	Design and Construction of AT Grade section of length km. 37.92 km (-) 0.635 to km. 14.625, km. 17.950 to km. 21.925, km. 23.750 to km. 34.450, km. 36.025 to km. 36.275 & km. 39.250 to km. 46.985 formation in Embankments/Cuttings including Blanketing, construction of Major Bridges, extension of Minor Bridges/RUBs/ROBs, ROR, Retaining Walls, and Drains, Diversions of Civil Engg. related and any other hitherto uncharted Utilities and other related Infrastructural and miscellaneous Works excluding station buildings from Heelalige to Rajanukunte and excluding 740 m long alignment near Benniganahalli station from km. 21.925 to km. 22.665, of Corridor - 4 of Bengaluru Suburban Railway Project (BSRP)		
3	<b>Schedule -C</b>	Miscellaneous Items for works, which are not covered in Schedule A & B are to be executed under schedule of rates 2021-22, published by KPWD	19,00,00,000/- (Fixed)	Nineteen Crore (Fixed)
<b>Grand Total</b>		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 schedule of rates 2021-22, published by KPWD. The cost under this Schedule stands fixed at Rs 19,00,00,000/- and this amount is provided as fixed amount in the summary of Financial Bid/Price Schedule.

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## Section 9: PRICE SCHEDULES

<b>ANNEXURE-1</b>	
<b>SCHEDULE FOR ON ACCOUNT PAYMENTS UNDER LUMP SUM PORTION</b>	
<b>Name of Work:</b> Design and Construction of Elevated Viaduct of length 8.960 km and At-Grade Formation of length 37.920 km (excluding Station Buildings) including associated Works between Heelalige and Rajanukunte of Corridor-4 of Bengaluru Suburban Railway Project (BSRP)	
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
<b>Schedule-A</b>	Design and Construction of Elevated Viaduct of length 8.96 km [km. 14.625 to km. 17.950, km. 22.665 to km. 23.750, km. 34.450 to km. 36.025 and km. 36.275 to km. 39.250] and 2.11 km of common corridor for C1 & C4 at Yelahanka (km. 36.401 to km. 38.511) including ramps, ROR, Utility Diversions and other related infrastructure and miscellaneous works excluding station buildings from Heelalige to Rajanukunte and excluding 740 m long alignment near Benniganahalli station from km. 21.925 to km. 22.665, excluding all station buildings of Corridor - 4 of Bengaluru Suburban Railway Project (BSRP)	1. General Items (Head-G)	2%
		2. Design & Drawings (Head-D)	2%
		3. Construction of Viaduct (Head-V)	96%
Total			<b>100%</b>

**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	<b>2% of the cost of Schedule-A</b>	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%

## Section 9: PRICE SCHEDULES

3	<p>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 &amp; methodology final scheme for relocation.</p> <p>b) Approval and Co-ordination for Removal of Trees, Tree Translocation, Compensatory Afforestation Proposal including the submission of Methodology.</p> <p>c) Cutting of all trees, Translocation of all specified trees, Compensatory Afforestation of all required trees.</p>		L.S.	20%
4	<p>a) Resources allocated to ESHS management.</p> <p>b) Drafting and updating the ESHS documentation, reporting, inspections.</p> <p>c) Implementation of the Health and Safety Plan: Meetings, health care center, medical check-ups, emergencies and evacuations, safety protective equipment, hygiene.</p> <p>d) Protection of adjacent areas, prevention of erosion and wastewater management.</p> <p>e) Traffic, noise and atmospheric emissions management, land take.</p> <p>f) Waste and hazardous products management.</p> <p>g) Vegetation clearing and site rehabilitation.</p> <p>h) Accommodation, drinking water, meals and transportation of staff.</p> <p>i) Recruitment, Training and management costs.</p> <p>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> <p><b>Note:</b> To be paid quarterly on pro-rata basis for submission of quarterly audit report.</p>		LS	8%
5	<p>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.</p> <p>b) Accommodation, drinking water, meals and transportation of staff.</p> <p>c) Training and local recruitment management costs.</p> <p><b>Notes:</b></p> <p>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.</p> <p>II. Remaining 30% payment shall be released on completion of work, subject to continued deployment of SHE personnel in the period beyond</p>		LS	20%



## Section 9: PRICE SCHEDULES

	30 months. 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.			
6	IT requirements of K-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. <b>Notes:</b> 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. 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. c. Balance 30% will be released on completion of work, subject to continued deployment of IT staff in the period beyond above 30 months.		LS	15%
7	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. <b>Note:</b> To be paid monthly on pro-rata basis. Payment of this item will start from 6 months from commencement of project.		L.S.	12%
<b>Total</b>				<b>100%</b>

## Section 9: PRICE SCHEDULES

## 2.2 DESIGN &amp; 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%
<b>Total</b>				<b>100%</b>

## 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	15%
3.	Pile Caps, Open Foundations including PCC, shoring, Plate Load Test.		Per Pile Cap/Open Foundations	10%
4.	Piers including Pier Caps, Portal, Eccentric Piers, Precast Pier Caps & Pre-stressing, Pedestals, Median, Crash Barrier & Shear Keys/Stopppers.		per pier	15%
5.	Casting of segments of Box Girders / U Girders / I-Girders including parapet.		per span	30%
6.	Supply and Erection of Composite Steel Girders/open web girder for viaduct.		per span	3%
7.	Erection of segments of Box Girders / U Girders / I-Girders including parapet including pre-stressing, grouting etc., all complete.		per span	13%
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	2%
9.	Providing & Fixing Expansion Joints (Omega Joints and Strip Seal Joints) Note: 50 % on supply and 50% on fixing.		per span	1%
10.	Misc. Items: Completion of the work in all respects including railing, G.I. Brackets for cable, earthing, manholes, rainwater		per span	7%

## Section 9: PRICE SCHEDULES

	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.			
11.	All other balance works to complete the entire work as per the scope & specifications and handing over of viaduct to K-RIDE.		LS	3%
<b>TOTAL</b>				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 K-RIDE. The decision of K-RIDE is final in this regard and the same is binding on the contractor.

**Signature of Tenderer**

## Section 9: PRICE SCHEDULES

<b>ANNEXURE-2</b>	
<b>SCHEDULE FOR ON ACCOUNT PAYMENTS UNDER REGULARITY PAYMENT LUMP SUM PORTION (Schedule-B)</b>	
<b>Name of Work:</b> Design and Construction of Elevated Viaduct of length 8.960 km and At-Grade Formation of length 37.920 km (excluding Station Buildings) including associated Works between Heelalige and Rajanukunte of Corridor-4 of Bengaluru Suburban Railway Project (BSRP)	
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
<b>Schedule-B</b>	Design and Construction of At Grade section of length 37.92 km [km. (-) 0.635 to km. 14.625, km. 17.950 to km. 21.925, km. 23.750 to km. 34.450, km. 36.025 to km. 36.275 & km. 39.250 to km. 46.985] formation in Embankments/Cuttings including Blanketing, construction of Major Bridges, extension of Minor Bridges/RUBs/ROBs, ROR, Retaining Walls, and Drains, Diversions of Civil Engg. related and any other hitherto uncharted Utilities of At-Grade section and other related Infrastructural and miscellaneous Works excluding station buildings from Heelalige to Rajanukunte and excluding 740 m long alignment near Benniganahalli station from km. 21.925 to km. 22.665, of Corridor - 4 of Bengaluru Suburban Railway Project (BSRP)	1. Design & Drawings	2%
		2. Earthwork, Retaining Wall & Drains	58%
		3. Minor Bridges	9%
		4. Major Bridges	9%
		5. RUB (Road Under Bridges) 14nos	15%
		6. ROB (Road Over Bridges) 2 Nos	2%
		7. All other balance works to complete the entire work as per the scope & specifications, handing over to K-RIDE	5%
<b>Total</b>			<b>100%</b>

**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	<b>2% of the cost of Schedule-B</b>	LS	15%
2.	Definitive Design, Construction Drawings, GFC Drawings		LS	60%
3.	Completion Drawings/As Built Drawings		LS	25%
<b>Total</b>				<b>100%</b>

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

## Section 9: PRICE SCHEDULES

## 1.2 EARTHWORK, RETAINING WALL &amp; DRAINS: 58% 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.	58% of the cost of Schedule-B		7%	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.			20%	
3.	Earthwork in Blanketing layer complete in all respect. Including bitumen / Asphalt layer as per IR specification and Geo-textile layers.			18%	
4.	Finishing the formation to the final finished level with camber/cross slope and other incidental works, complete.		LS	20%	
5.	Longitudinal/cross drains including cable ducts on either side of drain, retaining structures, retaining walls, sacrificial retaining walls, pitching, turfing, catch water drains, toe walls.			35%	
<b>TOTAL</b>				<b>100%</b>	

**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,  $\pm 5\%$  in case of linear length of ROB.
- 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 K-RIDE. The decision of K-RIDE is final in this regard and the same is binding on the contractor.

## 1.3 MINOR BRIDGES: 9% 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.	9% 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. Payment shall be made on completion of each component/ stage of a Minor Bridge 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 work, pitching, turfing, back filling and approaches, river training works, if any, etc. complete in all respects.		LS	25%	
<b>TOTAL</b>				<b>100%</b>	

**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 K-RIDE. The decision of K-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: 9% 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.	<b>Foundation:</b> 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	9% 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.

## Section 9: PRICE SCHEDULES

	for wing walls and return walls and testing.				(b) Payment shall be made on completion of each component/stage of a Major Bridge as per the weightage given in this schedule.
2.	<b>Substructure:</b> 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%		(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.
3.	<b>Superstructure:</b> Completion of super structure including bearings ready for track linking, walkway footpath, cable duct, testing etc.	LS	45%		
4.	<b>Misc. works:</b> 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%		
<b>TOTAL</b>				<b>100%</b>	

**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 K-RIDE. The decision of K-RIDE is final in this regard and the same is binding on the contractor.

**1.5 RUB (ROAD UNDER BRIDGES) : 15% 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.,	<b>15% of the cost of Schedule-B</b>	LS	80%	<ol style="list-style-type: none"> <li>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.</li> <li>Payment shall be made on completion of each</li> </ol>

## Section 9: PRICE SCHEDULES

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%	component/stage of RUB as per the weightage given in this schedule.
<b>TOTAL</b>				<b>100%</b>	

**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 1 above 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 K-RIDE. The decision of K-RIDE is final in this regard and the same is binding on the contractor.

**1.6 ROB (ROAD OVER 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.	<b>Foundation:</b> 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.	<b>2% of the cost of Schedule-B</b>	LS	25%	(a) Cost of each bridge shall be determined on pro rata basis with respect to the total linear length of the ROBs including approaches.  (b) Payment shall be made on completion of each stage of a ROB 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
2.	<b>Substructure:</b> 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.	<b>Superstructure:</b> Completion of super structure including bearings, walkway footpath, cable duct, testing etc.		LS	45%	
4.	<b>Misc. works:</b> Completion of balance works as per drawing, hand rails, walls, all protection		LS	15%	



## Section 9: PRICE SCHEDULES

works, pitching, completion of approaches including back filling, turfing, river training works if any, testing on completion, Approach roads, retaining walls, drains etc. complete in all respects and fit for use. Protective works in OHE territory.			elements / Assembled plate girders/open web girders & transportation to site.
<b>TOTAL</b>		<b>100%</b>	

**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 K-RIDE. The decision of K-RIDE is final in this regard and the same is binding on the contractor.

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## Section 9: PRICE SCHEDULES

- 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.

- E. ROB/ROR:** Cost of each bridge shall be determined on pro rata basis with respect to the total linear length (span from abutment face to abutment face) of the ROBs along the road. The cost of ROB is including the approaches. In case the variation in total linear length (span from abutment face to abutment face) along the road on either side i.e., increase or decrease, the total value of the component of ROB will get modified accordingly on pro rata basis for payment purpose. The component of design and drawing charges for ROB also worked out proportionately on the basis of component value of ROB as per schedule-B and the variations shall be calculated on pro rata basis

Note: Minor variations, as defined above, in span, width and height 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.

**Section 9: PRICE SCHEDULES**

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 K-RIDE. The decision of K-RIDE is final in this regard and the same is binding on the contractor.

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