



**E-Tender No. MUM/N/EN/Major/Important Bridges/Package-1, date 29.03.2019**

**For**

**Construction of Major / Important Bridge No. 400, 401, 405, 411, 417 & 419  
(Balance Works) between Navsari To Surat Railway station of Virar – Surat  
Section of Mumbai Division of Western Railway in connection with Western  
Dedicated Freight Corridor.**

**FINANCIAL BID  
(PACKET-B)**

**TENDER DOCUMENT  
March 2019**

**Employer:  
DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LIMITED  
CGM/NORTH/MUMBAI UNIT  
(A GOVERNMENT OF INDIA ENTERPRISE)  
Under  
MINISTRY OF RAILWAYS**

FORM No. 3

**SUMMARY OF PRICES**

**Name of work:- Construction of Major / Important Bridge No. 400, 401, 405, 411, 417 & 419 (Balance Work) between Navsari To Surat Railway station of Virar – Surat Section of Mumbai Division of Western Railway in connection with Western Dedicated Freight Corridor.**

Sl. No.	Description of works	Cost as per Schedules	Rates to be quoted in figures & words (Clearly mention above / below / at par on Schedules/Items updated DFCCIL Rate / cost given in column 3)
1	2	3	4
1.	Execution of all works as per Schedule "A"	<b>Rs. 3,09,99,671.00</b>	<b>Rates above / below / at par as per schedules shall be filled separately in Microsoft Excel File.</b>
2.	Execution of all works as per Schedule "B"	<b>Rs. 28,51,37,513.00</b>	
3.	Execution of all works as per Schedule "C"	<b>Rs. 12,61,96,335.00</b>	
4.	Execution of all works as per Schedule "D" <b>(USSOR of Western Railway)</b>	<b>Rs. 50,00,000.00</b>	
	<b>Grand Total</b>	<b>Rs. 44,73,33,519.00</b>	

Notes:

- (i) The above prices are inclusive of all taxes, duties, levies, etc. Except GST.
- GST as applicable from time to time on taxable value of each running account bill shall be paid by DFCCIL.
  - The contractor should adhere to anti profiteering provisions as per section 171 of the CGST Act. Where due to change in the rates of GST / Change in law, the contractor gets any credits / benefits, the same shall be passed on to DFCCIL by way of reduction in prices.

- (ii) The tenderer should quote single percentage above / par / below for each schedule.
- (iii) If the uniform percentage quoted by the Tenderer does not clearly indicate whether the rates are above/at par/below the estimated rates then through sign convention it will be considered to be on plus side and evaluated accordingly.
- (iv) Rate of item payable to contractor shall be as per Above / Below / AT par on rates of schedule.

FORM No. 4

**SCHEDULE -1  
SCHEDULE OF PRICES & TOTAL PRICES**

**NAME OF WORK :- Construction of Major / Important Bridge No. 400, 401, 405, 411, 417 & 419 (Balance Work) between Navsari To Surat Railway station of Virar – Surat Section of Mumbai Division of Western Railway in connection with Western Dedicated Freight Corridor.**

**Schedule- A**

**Schedule of Approximate quantities**

	Item No.	Total Qty.	Item of work	Rate	UNIT	Amount in Rs.
	192010		Earth work in excavation 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. incl. all lift, disposal of surplus soil upto a lead of 300 M, all types of shoring and strutting with all labour and material complete as per drawing and technical specification as directed by Engineer in charge.			
	192011	2160	All kinds of soils	437.53	Cum	9,45,065.00
	192100		Conducting load testing of a single pile Up to following capacity in accordance with IS 2911 (Part IV) including installation of loading platform and preparation of pile head or construction of test cap			

Signature of tenderer (s)

For CGM/N/MUMBAI/DFCCIL

			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.			
	192107	2	Initial and Routine Load Test above 100 ton capacity Up to 250 ton capacity pile.	1,99,648.0	Each	3,99,296.00
	192104	16	Extra for every increase of 50T in pile capacity or part thereof over 250 T	57,181.95	Each	9,14,911.00
	201040	4245360	Design, manufacturing, Supplying and fixing in position elastomeric bearing pads under prestressed concrete girder, for Pre-cast as well as cast- in-situ girders as per approved drawing. The rate shall include cost of load test of one No. bearing from DFCCIL approved firms and all fixing materials, equipment's, machineries, labour, taxes, loading, unloading, leading, lifting, etc. complete. Rates include getting the drawing approved from DFCCIL and cost of inspection during manufacturing from DFCCIL approved organization. (Note. 1.The rate is for finished item complete and paid only n after fixing in position below the girder . 2.The volume shall be given in the drawing and no deduction shall be made for inserted steel plates etc.)	1.51	Cucm	64,10,494.00
	201060		Load testing of one or more spans of bridge as selected by the			

			engineer as per approved load test procedure following relevant IS/IRC/Railway codes with contractor's labour, deflection measuring instruments, loading materials, recoding and analysing the load testing results including all lead & lift, etc. complete as required. The rates are all inclusive and will be paid after load test is finished and girder is cleared of the kentledges / loading material etc. The load shall be 1.25 times the stipulated design load Based on Design load & not span.			
	201061	6	For spans Design Load up to 100MT	1,11,966.21	Each	6,71,797.00
	201062	30	Extra for every increase of 100 MT or part thereof in the span load capacity's up to 800 MT	1,09,078.70	Each	32,72,361.00
	201050		Providing and fixing in position of standard performed sealed and slab type or strip seal elastomeric type expansion joints for Railway bridges or Road Over Bridges as per approved drawings and latest MOST/IRC specifications. The rates are inclusive of supplying, fixing with contractors' own materials e.g. inserts, bolts, socket tubes, Neoprene sheet/cap etc. equipment's, machineries, labour all taxes, royalty, all lead & lifts, transport, testing surface preparations complete.			
	201051	441	For 80 mm Expansion	14,301.53	RMT	63,06,975.00

221060	1530	Providing and laying pitching with stone boulders weighing not less than 35 kg each with the voids filled with cement sand mortar 1:4 on slopes laid over	2,132.51	Cum	32,62,740.00
222140	78	Providing cutting, fabricating, treating, fixing, fixing & painting Galvanised iron structural steel confirming to IS in access ladders, inspection, platforms, Trolley refugee, railing etc. joints welded to neat finish incl. one coat of primer & two coats of synthetic enamel paints.	97,595.53	MT	76,12,451.00
222150	39	Providing /fixing/leaving/grouting various size GI-HTS bolts/holding down bolts in concrete column or in other structural steel member with proper nuts bolts, washers/plates as a complete job. Note-Cement used in grouting will be paid separately under relevant item.	155.06	Kg	6,047.00
222230	24	Painting the HFL and danger level marks, year of HFL on bridge abutments and piers with ready mixed plant as per standard in two coats over one coat of primer with all materials, labour, tolls, scaffolding, all lead and lift etc including writing complete.	165.49	Each	3,972.00
222240	24	Providing cast in situ bridge number plaques as per Railway drawing in cement concrete 1:2:4 mix using 20 mm hard stone aggregate embedded in 30mm	1,129.83	Each	27,116.00

			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 back ground with all labour, tools, cement, paints etc. with all lead and lifts			
	222250	56	Providing cast in situ plaques for bridge foundations details of size 45x45x5 cm 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	1,263.91	Each	70,779.00
	242010	600	Providing 1.2m high fencing with 1.8m R.C.C post placed every 3 m apart, embedded in cement concrete blocks, every 15th post (or nearer if there is abrupt change of ground slope), last but one end post and corner post shall be strutted on both sides and end post one side only, and struts embedded in cement concrete blocks, provided with 5 horizontal lines and two diagonals of G.I barbed wire 9.38kg per 100 meters	63.41	Meter	38,046.00



			(min) between the two posts fitted and fixed with G.I. staples on turn buckles or G.I. binding wire tied to 6 mm bar nibs fixed while casting the post (cost of post, struts and concrete to be paid for separately)			
	241010		Supplying at site			
	241011	198	Precast R.C.C standard post (for barbed wire fencing) 1.8m long	769.57	Each	1,52,375.00
	241012	198	Precast R.C.C standard struts 2.0 meters long	636.50	Each	1,26,027.00
	014050		Turfing / planting, including all lead and 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.			
	014052	90	Turfing with planted doob grass	7601.63	100 Sqm	6,84,147.00
	181030	18	Demolishing R.C.C. work including cutting and stacking of steel bars and disposal of unserviceable material within 50m lead.	1,178.53	Cum	21,214.00
	222120	100	Providing & applying Epoxy for bonding of new concrete to old concrete @ 0.80 kg/sqm with pot life not less than 60-90 minutes and as per specifications including cleaning the surface.	738.58	Sqm	73,858.00
<b>Total of Schedule "A"</b>						<b>Rs. 3,09,99,671.00</b>

Schedule - B					
Schedule of Approximate quantities					
SN	Total Qty.	Item of work	Rate	UNIT	Amount in Rs.
1.		<p>Casting at site or pre casting in casting yard and providing <b>M-50 Grade pre stressed post tensioned concrete Girders (U Girder, Box Girder, Voided Slab &amp; I- Girder etc.) &amp; RCC slab</b> including deck slab, Diaphragm, wearing coat etc. In bridge super structure, as per approved design and drawing and or as directed by the Engineer in charge.</p> <p>The rate includes cost of Cement, all types of steel (SAIL/RINL/TISCO/ESSAR/JINDAL only), all lead, lift, transportation, loading, unloading, handling all materials, labours, equipment's, casting bed, launching of girders, tools &amp; plants, fuel, oil &amp; lubricants etc., complete including crossing of running track etc. to obtain required finished product, following the relevant specifications, approved design and drawing and or as directed by Engineer in charge, required for execution of following activities which are parts of this item;</p> <p>1) Providing and fixing of centring shuttering in required profile and level and design,</p> <p>2) Providing, cutting, bending, hooking, binding (with soft 16 SWG GI</p>			

	<p>wires) and fixing in position Thermo mechanically Treated (TMT) Fe 500 D reinforcing bars (confirming to IS 1786) of various diameters,</p> <p>3) Providing and applying (mechanically sprayed) cement polymer composite coating (CPCC) of approved quality (confirming to CECRI) without hindrance the prevailing property of bond strength, on thoroughly cleared by abrasive cleaning of surface of all the embedded reinforcement bars to protect the un tensioned reinforcement steel bars to protect from corrosive action by alkaline environment present in the surround concrete, before sufficient time of their placement, including cleaning of surface from mil scales, dust , rust oily products if any etc. complete as directed by the Engineer in charge.</p> <p>4) Providing, fabricating &amp; fixing in position to exact design profile, pre-stressing H.T.S. cables of all classification made from Low Relaxation strands conforming to IS 14268-1995 in pre-stressed concrete girders / slabs etc. including supplying, cutting, making into cable with necessary spacers, colour coding, protecting with water soluble oil at all time, anchoring of cable, supplying and placing CORRUGATED HDPE SHEATHING DUCTS conforming to IS 1343-2012 of required diameter / thickness, vent pipe, placing, bending, routing, fixing, stressing and grouting</p>			
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		<p>of cable ducts with cement grout, anchorage sets in required number with provision for future prestressing, if any.</p> <p>Note</p> <p>a. 50 % payment will be released after casting of Girder.</p> <p>b. 20 % payment will be released after prestressing of Girder.</p> <p>c. Balance 30 % payment will be released after final placement of Girder at site.</p>			
	806	For superstructures having spans of greater than 10 m but less than or equal to 16 m (excluding PSC U Girders).	2,56,285.74	RM of Single track	20,65,66,306
2	1301	<p>Providing and installing <b>Bored cast in situ Reinforced cement concrete piles of specified diameter and length below pile cap, using M-40</b> grade Design Mix Cement Concrete (using 20 mm graded crushed stone aggregate and coarse sand of approved quality), to carry a safe working load not less than specified, including the cost of providing and laying steel liner of 1.2m dia, Reinforcement, CPCC, fabrication and lowering of reinforcement cage, Mixing of concrete by batching plant, transportation of concrete, placing of concrete using tremie pipe, chipping off of pile top to remove laitance concrete above cut off level etc, pumping and balling out water.</p>	43,001.90	RM	5,59,45,472

	<p>The rate includes cost of Cement, all types of steel (SAIL/RINL/TISCO/ESSAR/JINDAL only), Empty boring, all lead, lift, transportation, loading, unloading, handling all materials, labours, equipment, tools &amp; plants, fuel, oil, lubricants, Bentonite /Polymer, Chipping, Geotechnical report etc. complete including crossing of running track etc. to obtain required finished product, following the relevant specifications, approved design and drawing and or as directed by Engineer in charge) for all activities of the item.</p> <p>1) Providing, fabricating and installing of MS for board piles for all diameters with specified thickness (bottom most liner 8 mm thick plate and remaining 6 mm thick plate) of steel plate, compete up to refusal or the level as specified in design and /or directed by the Engineer in charge). The rate includes cost of welding, electrodes and power supply etc. Before installation the external surface of liner shall be protected from corrosion by applying 2 coats black paint, having total coat thickness of 150 micron.</p> <p>2) Providing, cutting, bending hooking, binding (with soft 16 SWG GI wires), lowering and fixing in position Thermo mechanically Treated (TMT) Fe 500 D reinforcing bars (confirming to IS 1786) of varies diameters,</p> <p>3) Providing and applying</p>			
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		(mechanically sprayed) Cement Polymer Composite Coating (CPCC) of approved quality (Confirming to CECRI) without hindrance the prevailing property of bond strength, on thoroughly cleaned by abrasive cleaning of surface of all the embedded reinforcement bars to protect the un tensioned reinforcement steel bars to protect from corrosive action by alkaline environment present in the surround concrete, before sufficient time of their placement, including cleaning of surface from mil scales, dust , rust and oily products in any etc. complete as directed by the Engineer in charge.			
3		<p>Constructing the <b>pile caps over the pile groups under piers/abutments, using M-40 Grade</b> Design mixed Reinforced Cement Concrete, of shape, size and levels as mentioned in the approved drawing and or as directed by Engineer in charge. (measured as one pile cap supporting twin track superstructure).</p> <p>The rate includes cost of Cement, Reinforcement steel (SAIL/RINL /TISCO/ESSAR/JINDAL only), all lead, lift transportation , loading, unloading handing of all materials, labours, equipment's, tools &amp; plant , fuel, oil &amp; lubricants etc., complete including crossing of running track etc., to obtain required finished product, following the relevant specification, approved design and drawing and or as directed by Engineer in charge)</p>			

	<p>required for the execution of following activities which are parts of this item :</p> <p>1) Earth work in excavation all kind of soil/soft rock/hard rock as per approved drawings and dumping site or spoil heap, within railway land, including lead and lift, any incidental work, during excavation, soring, complete.</p> <p>2) Dewatering of natural or accumulated water from any location of foundation pit.</p> <p>3) Providing and laying in situ machine mixed M-15 grade concrete, for Levelling course below pile caps, including shuttering, mixing in mechanised batch mix plant, compacting, curing etc. complete true to level and position and/or as directed by Engineer and as per specification. No extra payment shall be paid.</p> <p>4) Providing and fixing of centring, shuttering in required profile, level, shape and size as approved drawing, and/or as directed by Engineer and as per specification.</p> <p>5) Providing, cutting, bending, hooking, binding (with soft 16 SWF GI wires) and fixing in position Thermo mechanically Treated (TMT) Fe 500 D reinforcing bars (confirming to IS 1786) of various diameters,</p> <p>6) Providing and applying</p>			
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		(mechanically sprayed) Cement Polymer Composite Coating (CPCC) of approved quality (Confirming to CECRI) without hindrance the prevailing property of bond strength, on thoroughly cleaned by abrasive cleaning of surface of all the embedded reinforcement bars to protect the un tensioned reinforcement steel bars to protect from corrosive action by alkaline environment present in the surround concrete, before sufficient time of their placement, including cleaning of surface from mil scales, dust , rust and oily products in any etc. complete as directed by the Engineer in charge.			
	4	For spans greater than 16 m but less than or equal to 24 m	56,56,433.74	No.	2,26,25,735
<b>Total Amount of Schedule - B</b>				<b>Rs. 28,51,37,513.00</b>	



<b>Schedule - C</b>					
<b>Schedule of Approximate quantities</b>					
<b>SN</b>	<b>Total Qty.</b>	<b>Item of work</b>	<b>Rate</b>	<b>UNIT</b>	<b>Amount in Rs.</b>
1	6	Clearing and grubbing site/road/land including uprooting all vegetation, grass, bush shrubs, saplings and trees with girth, removal of stumps of trees of girth of all sizes including removing stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable materials as directed by Engineer with all leads and lifts etc. complete as per specification before commencement and after commencement and after completion of the work.	27,302.00	LS	1,63,812
2	6	Marking of the centre line along longitudinal axis and etc. with total station theodolite including making drawings and providing all soft copies as directed by engineer in charge.	15,512.50	LS	93,075
3	45	Providing and laying in situ machine mixed M-15 grade concrete including shuttering, mixing in mechanised batch mix plant, compacting, curing etc. complete true to level and position as directed by Engineer and as per specification. The rate includes all lead, lift, materials (Including Cement), Labour, tools plant, fuel etc.	4,854.79	Cum	2,18,466
4	38	Conducting pile low strain integrity test as per ASTM D 5882 latest version (Code of American Society for testing) or as per IS 14893 on cast-in-situ RCC	1,406.55	Nos.	53,449

		<p>pile of 1200 mm diameter inclusive of analysis, with all contractor's equipment, manpower, site preparation, lead and lifts etc complete as per standard procedure, and as directed by the Engineer in charge.</p> <p>1) All equipment 2) All labour and consumable required 3) Mobilisation of equipment, staff etc. 4) Preparation and submission of Reports in 3 copies 5) Site Preparation</p>			
5	114101	<p>Supplying, laying (not exceeding layers of 30 cm each), spreading, levelling, dressing and compacting (mechanical compaction), the earth in filling in embankment, guide bunds, around buried type abutments, bridge gaps, trolley refuges, rain bunds if provided, platforms etc. with earth excavated from outside railway/DFCC boundary entirely arranged by the contractor at his own cost as per RDSO's guidelines and specifications as per RDSO/2007/GE : 0014 and special condition of contract including all leads, royalty, lifts, ascents, descents, loading, unloading, transportation, crossing of nallahs or any other obstructions. The rates shall include all dressing of bank to final profile, demarcation and setting out of profile, benching of existing slope of old bank, all handling/re-handling taxes, octroi and royalty etc. as a complete job.</p> <p>The earth shall be spread in layers not exceeding 30cm, levelled and compacted mechanically, to achieve</p>	296.60	Cum	3,38,42,357

		<p>specified density as per specification, testing as per IS codes incl. cost of water, T&amp;P consumable material and all labour as a complete job.</p> <p>The rates include all material, labours, equipment's, machineries, tools and plants and fuel etc.</p>			
6	13272	<p>Supplying, laying, spreading, levelling (each layer of 30 cm in loose state), dressing and compacting (mechanical compaction), the Subgrade materials, over embankment/cutting, in total depth of 1 m (Compacted Depth) as per RDSO Guide line - RDSO/2007/GE : 0014, specification and special condition of contract including all leads, lifts, ascents, descents, loading, unloading, transportation, crossing of nallahs or any other obstructions. The rates shall include all dressing of bank to final profile, initial site clearance, cutting of shrubs, removal of roots of vegetation growth &amp; heavy grass, surfacing and levelling to give required slope, benching if required on existing bank slope, demarcation and setting out of profile, all handling/re-handling taxes, octroi and royalty etc. as a complete job.</p> <p>The earth shall be spread in layers not exceeding 30 cm, levelled and compacted mechanically, to achieve specified density as per specification, testing as per IS codes incl. cost of water T&amp;P consumable material and all labour as a complete job.</p>	526.18	Cum	69,83,461

		<p>The rates include all material, labours, equipment's, machineries, tools and plants and fuel etc.</p> <p>1) No separate payment shall be made for, blending of material (if required).</p> <p>2) No separate payment shall be made for required testing as per relevant IS specification.</p>			
7	6620	<p>Supplying, laying, spreading, levelling (each layer of 25 cm in loose state), dressing and compacting (mechanical compaction), the Blanket materials, over Subgrade in embankment/cutting, in total depth of 0.6m (Compacted Depth) as per RDSO Guide line - RDSO/2007/GE : 0014, specification and special condition of contract including all leads, royalty, lifts, ascents, descents, loading, unloading, transportation, crossing of nallahs or any other obstructions over embankment/cutting in layers of 30 cm in loose state to make the embankment of designed profile as per specifications. The rate is inclusive of demarcation and setting out of profile, benching if required on existing octroi and royalty etc., using contractors own labour, material, machinery, fuel etc.</p> <p>The earth shall be spread in layers not exceeding 30 cm, levelled and compacted mechanically, to achieve specified density as per specification, testing as per IS codes incl. cost of water T&amp;P consumable material and all labour as a complete job.</p>	1,236.04	Cum	81,82,585

		<p>1) No separate payment shall be made for, blending of material (if required).</p> <p>2) No separate payment shall be made for required testing as per relevant IS specification.</p>			
8	3313	Providing Boulder backing behind Abutment, wing wall, return wall with hand packed boulders & cobbles with smaller size boulders toward the back including all lead, lift, labour & other incidental charges as complete work in all respect.	616.78	Cum	20,43,392
9	330	Supplying, laying, spreading, levelling and compacting the Dry lean concrete, with 20mm to 80mm Coarse Aggregate, sand and cement, in 1m depth (from top to formation) x 4.8 m width ad 6m length, in layers not exceeding 30 cm each, as Transition system, Behind the Abutment, as per RDSO Report GE:R-50, with contractors own, labours, materials, equipment's, machineries, tools, and plants and fuel etc. The rate includes all lead lift, loading, mixing, unloading and transportation. No extra payment shall be made for cement.	2,943.65	Cum	9,71,405
10	913	Supplying, laying, spreading, levelling and compacting 20mm to 80mm Coarse Aggregate, in layers not exceeding 30cm each, as Transition system, Behind the Abutment, as Per RDSO Report GE:R-50, with contractors own, labours, materials, equipment's, machineries, tools and plants and fuel etc. The rate includes all lead lift, loading, mixing, unloading and	1,863.98	Cum	17,01,814

		transportation.			
11	9527	Providing and laying of filter media consisting of granular materials of GW. SP,SW groups as per IS 1498-1970 in required profile behind boulder filling of abutments, wing walls/return walls etc above bed level with labour and material complete job as per drawing and technical specification of RDSO Guidelines.	1,224.87	Cum	1,16,69,336
12	910	Providing and laying in situ Design mixed M-25 grade Cement concrete, with 6mm to 20mm Coarse Aggregate, Sand and Cement, in Toe Wall and Drop Wall etc, including shuttering, mixing in mechanised batch mix plant, compacting, curing etc. complete true to level and position as per approved drawing or/and as directed by Engineer and as per specification. The rate includes all lead, lift, materials (including Cement), loading, unloading, transportation, royalty, labours, tools-plant, Machinery and fuel etc.	6,146.67	Cum	55,93,470
13	1274	Providing the masonry steps on approaches to the bridge, rate includes all the material including cement, sand, masonry stone, etc, labour, tools & plants, machinery, lead, lift and transportation etc. complete to obtain finished product as per relevant specifications and directions by the Engineer in charge.	135.27	Nos.	172334
14	24	Fabricating, erecting, supplying and painting, River Name Board, Complete in all respected as approved in Drawing	11,293.10	Nos.	2,71,034

		or as directed by Engineer in-charge. The name board shall be fixed in cement concrete at location as specified in the bridge manual, with cost of all material including cement, sand, coarse aggregate etc. labour, lead lift loading, unloading tools & plants machinery and fuel etc. to obtain finished product. Rates inclusive of writing the details, Name of River, Bridge Number & span specified in approved drawing, no extra charge shall be paid for welding electrodes or any fasteners, washers, bolts etc.			
15	2208	Providing and laying in position machine mixed, machine vibrated and machine batched Design mix cement concrete <b>M 40 Grade</b> (cast -in situ ) using 20 mm graded crushed stone aggregate and coarse sand of approved quality in RCC work for various components of Bridges like <b>raft, piers , pier cap, abutment, abutment cap, wing/return walls toe walls, girders, slabs, pedestals, stoppers, trolley refuges, RCC Box etc</b> including finishing using Admixture in recommended proportions (as per IS 9103), if approved in Mix design to accelerate or retard setting of concrete and / or improve workability with our impairing strength and durability compel as per specification and direction of the Engineer in Charge. The rates inclusive of all material (except for steel Reinforcement), labour, T&P and Machinery, cantering and shuttering, mixing, loading, transporting, leading,	8,329.59	Cum	1,83,91,735

	<p>lifting pumping etc required for execution of work. Payment of reinforcement shall be paid extra.</p> <p><b>Note:</b></p> <ol style="list-style-type: none"> <li>1. The concrete structures which are partially completed may have old reinforcements projecting out of these structures which may be main reinforcement/any other reinforcement which will become the integral part of bridge structure after completion. Prior to start of new reinforcement binding with old reinforcement. The old reinforcement shall be cleaned with wire brush to remove any dust etc., old reinforcement shall be treated with anti-corrosive coating. The anti-corrosive coating product shall be got approved from Employer's representative/Employer. No additional payment for old reinforcement cleaning/treatment will be paid.</li> <li>2. If at any structure old reinforcement is more corroded or reinforcement is cut or unavailable then new reinforcement shall be provided duly making drilling, providing coupling and provision of epoxy grouting etc. The payment for new reinforcement will be made separately however no payment will be made for drilling/joining/epoxy grouting,</li> </ol>			
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		coupling etc.			
16	30	Providing and laying in position machine mixed, machine vibrated and machine batched Design mix cement concrete <b>M 50 grade</b> (cast -in situ ) using 20 mm graded crushed stone aggregate and coarse sand of approved quality in RCC work for various components of Bridges like <b>Deck slab for RCC Box Girder</b> etc including finishing using Admixture in recommended proportions (as per IS 9103), if approved in Mix design to accelerate or retard setting of concrete and / or improve workability with our impairing strength and durability compel as per specification and direction of the Engineer in Charge. The rates inclusive of all material (except for steel Reinforcement), labour, T&P and Machinery, cantering and shuttering, mixing, loading, transporting, leading, lifting pumping etc required for execution of work. Payment for reinforcement shall be paid extra	8,329.59	Cum	2,49,888
17	227	Providing, cutting, bending, hooking binding soft 16 SWG GI wires and fixing in position Thermo Mechanically Treated bar (TMT) Fe500 D reinforcing bars (SAIL/RINL /TISCO/ESSAR/JINDAL only), confirming to IS 1786, of various diameters for the RCC works in various components of bridges structures such as raft , piers, pier cap, abutment, abutment cap, wing/return walls, toe walls, Girders, slabs, pedestals, stoppers, trolley refuges. RCC Box etc.	69,790.12	MT	1,58,42,357

		as per detailed designs and drawings schedule, with Contractor's labour, material, T&Ps, Machinery & Fuel including all lead, lift and transportation, all complete as per specification and as directed by Engineer. The rate includes coast of 16 SWG GI. Wires.			
18	227	Providing and applying (mechanically sprayed) cement polymer composite coating (CPCC) of approved quality (confirming to CECRI) without hindrance the prevailing property of bond strength, on thoroughly cleaned by abrasive cleaning of surface of all the embedded reinforcement present in the surround concrete, before sufficient time of their placement, including cleaning of surface from mil scales, dust, rust and oily products if any etc. complete as directed by the Engineer in charge.	6,205.00	MT	14,08,535
19	139	Providing weep holes by keeping suitable length of 100 mm dia. PVC pipe in Reinforced concrete abutment, wing wall/return wall at interval as specified in drawing etc. complete	173.74	Meter.	24,150
20	516	Providing & casting in situ controlled machine mixed cement concrete M-35 for average 40 mm thick wearing coat laid as directed including tamping, vibrating finishing curing & filling in joint by as may be directed by Engineer in charge & as per the details specification by VDS/Trimix excluding coast of reinforcement but including	6,312.97	Cum	32,57,493

		cost of cement.			
21	3781	Providing two coats of anticorrosive coal tar epoxy Hi Build compound over one primer coat of epoxy zinc phosphate with all lead and lift with all labour, material tools & plants etc. complete	168.78	Sqm	6,38,157
22	42125	Providing protective coating to exposed concrete face of bridge as CECRI, Karalkudi - Integrated 4 coat system having 1st coat of micaceous iron oxide under coat, second coat polyimide primer, third coat of polyimide finish coat and last coat aliphatic acrylic polyethene finish coat (Bergethane or similar paint) as per specification.	242.00	Sqm	1,01,94,250
23	400	Manufacturing, Supplying and fixing in position of Vertical Bearing of size 300 x 160 x 22 mm with back plate, sleeves bolts, washers etc. The rate shall include cost of load test of one No. bearing from DFCCIL approved firms, inspection during manufacture and all fixing materials, equipment's, machineries, labour, taxes, loading, unloading, leading, lifting, etc. complete. Reference drawings No.PP/SOMA_DFCC/BOX/35 TON-TYPE-B, No.PP/SOMA_DFCC/BOX/40 TON-TYPE-A, No.PP/SOMA_DFCC/BOX/40 TON-TYPE-B, No.PP/SOMA_DFCC/BOX/50 TON-TYPE-A,	5,040.00	Per Nos.	20,16,000
24	1	Site Office Providing, arranging, managing and maintaining 500 sq.ft. well furnished AC office and well equipped Laboratory with 3 tables, 10 chairs, 2 steel almirah, one computer with printer & operator, sufficient	5,00,000	LS	5,00,000

		number of display etc. to the satisfaction of the Project Manager including Electrical, Water expenses etc. For execution of this item the date of start shall be considered only when the Contractor has rented /constructed the required premises established the office & Laboratory as per requirement. This item shall remain valid only for original contact period; no additional payment shall be made for whatsoever reason even if time extension is provided or date of completion is extended. This office and laboratory including furniture and all other equipment shall be property of contractor after completion of Project. This office shall be provided at bridge no. 417.			
25	60	<p>Providing &amp; fixing shoring for protection of Railway embankment with steel sheet piles/steel plates, channels, I section, bolt &amp; nuts with all Contractor's material, labour, tools &amp; plants with all lead &amp; lift including excavation concreting, dewatering is any required for flooring including strutting &amp; removing the shoring when not required.</p> <p>Note: -</p> <ol style="list-style-type: none"> <li>1. This item will be operated only for protection of existing embankment of Railway track for extension of bridge having embankment height more than 3.00 m.</li> <li>2. Contractor shall provide detailed drawing of shoring supported with detailed design calculation and erection scheme for approval of</li> </ol>	8,543.00	MT	5,12,580

		<p>Railway Engineer.</p> <p>3. The mode of measurement for this item is weight of structural steel used for shoring. The weight of structural member shall be restricted to size of member required as per approved design whichever is less.</p> <p>4. After completion of work released material of shoring will be the property of the Contractor.</p> <p>5. Execution of this item is solely on discretions of Engineer In charge. His decision is final and binding.</p> <p>6. Erection and dismantling of shoring within 6.00 m existing track shall be done only in sanction traffic block.</p>			
26	600	Preparing and submitting to Railways, 1 sets of completion drawings (all detailed drawings) after completion of work, on polyester based tracing films (min. 75 microns thick, one side mat of superior quality) in black indelible ink duly incorporating all additions and alternations in red ink, along with a copy of the same on a CD, 6 blue / White paper prints.	2,002.00	Sqm	12,01,200
<b>Total Amount of Schedule - C</b>				<b>Rs. 12,61,96,335.00</b>	

Schedule- D						
		Description			Amount in Rs.	
1.	USSOR	USSOR of W. Rly. items requiring for successful completion of the work as advised by in-charge of the work.				50,00,000.00
<b>Total Amount of Schedule – D</b>				<b>Rs. 50,00,000.00</b>		
<b>Total of Schedule A, B, C &amp; D</b>				<b>Rs. 44,73,33,519.00</b>		

**END OF TENDER DOCUMENTS**