



E-Tender No. MUM/N/EN/Major/Important Bridges/Package-VI, date 23.04.2019

For

Construction of Major / Important Bridge No. 99, 126, 143, 203, 228, 264, 288, 304, 339 & 359 (Balance Work) between Vaitarna - Navsari 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
April 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. 99, 126, 143, 203, 228, 264, 288, 304, 339 & 359 (Balance Work) between Vaitarna - Navsari 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"	Rs. 2,63,73,802.00	Rates above / below / at par as per schedules shall be filled separately in Microsoft Excel File.
2.	Execution of all works as per Schedule "B"	NIL	
3.	Execution of all works as per Schedule "C"	Rs. 19,87,17,742.00	
4.	Execution of all works as per Schedule "D" (USSOR of Western Railway)	Rs. 50,00,000.00	
	Grand Total	Rs. 23,00,91,544.00	

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. 99, 126, 143, 203, 228, 264, 288, 304, 339 & 359 (Balance Work) between Vaitarna - Navsari 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.
	192011	4877	All kinds of soils	437.53	Cum	2133834
	192012	270	Ordinary Rock	451.19	Cum	121821
	201061	10	For spans Design Load up to 100MT	1,11,966.21	Each	1119662
	201062	60	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	6544722
	201051	320	For 80 mm Expansion	14,301.53	RMT	4576490
	221060	1547	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	2132.51	Cum	3298993
	222140	71	Providing cutting, fabricating, treating, fixing, fixing & painting Galvanised iron structural steel conforming 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	97,595.53	MT	6929283

Signature of tenderer (s)

For CGM/N/MUMBAI/DFCCIL

			enamel paints.			
	222150	58	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	8993
	222230	36	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	5958
	222240	30	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 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	1,129.83	Each	33895
	222250	44	Providing cast in situ plaques for bridge foundations details of size	1,263.91	Each	55612

			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			
	242010	63.41	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 (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)	1000	Metre	63410
	241010		Supplying at site			
	241011	769.57	Precast R.C.C standard post (for barbed wire fencing) 1.8m long	330	Each	253958
	241012	636.50	Precast R.C.C standard struts 2.0 meters long	330	Each	210045

	014052	110	Turfing with planted doob grass	7601.63	100 Sqm	836179
	181030	94	Demolishing R.C.C. work including cutting and stacking of steel bars and disposal of unserviceable material within 50m lead.	1,178.53	Cum	110782
	222120	95	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	70165
Total of Schedule "A"						Rs.2,63,73,802.00

Schedule- B					
		Description			Amount in Rs.
Total Amount of Schedule – B			Rs. NIL		

Schedule - C					
Schedule of Approximate quantities					
SN	Total Qty.	Item of work	Rate	UNIT	Amount in Rs.
1	10	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.	27302.00	LS	273020
2	10	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	155125
3	922	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.	4157.35	Cum	3833077
4	72	Providing and laying in situ machine M-15 grade concrete including shuttering mixing in mechanised batch mix plant, compacting, curing etc. complete true	4854.79	Cum	349545

		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.			
5	201829	<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 specified density as per specification, testing as per IS codes incl. cost of water, T&P consumable material and all labour as a complete job.</p> <p>The rates include all material, labours, equipment's, machineries, tools and</p>	296.60	Cum	59862481

		plants and fuel etc.			
6	17964	<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 & 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&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> <p>1) No separate payment shall be made for, blending of material (if required).</p> <p>2) No separate payment shall be made</p>	526.18	Cum	9452298

		for required testing as per relevant IS specification.			
7	9275	<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&P consumable material and all labour as a complete job.</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>	1,236.04	Cum	11464271

8	8451	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	5212408
9	794	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	2337258
10	1544	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 transportation.	1,863.98	Cum	2877985
11	24081	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	1,224.87	Cum	29496094

		etc above bed level with labour and material complete job as per drawing and technical specification of RDSO Guidelines.			
12	1090	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	6699870
13	1956	Providing the masonry/PCC. M.15 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.	264588
14	40	Fabricating, erecting, supplying and painting, River Name Board, Complete in all respected as approved in Drawing 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	11,293.10	Nos.	451724

		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	2043	<p>Providing and laying in position machine mixed, machine vibrated and machine batched Design mix cement concrete M 40 Grade (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 raft, piers , pier cap, abutment, abutment cap, wing/return walls toe walls, girders, slabs, pedestals, stoppers, trolley refuges, RCC Box 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 of reinforcement shall be paid extra.</p> <p>Note:</p> <p>1. The concrete structures which are partially completed may have old</p>	8,329.59	Cum	17017352

		<p>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.</p> <p>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, coupling etc.</p>			
16	55	Providing and laying in position machine mixed, machine vibrated and machine batched Design mix cement concrete M 50 grade (cast -in situ) using 20 mm graded crushed stone aggregate and coarse sand of approved quality in RCC work for various	8,329.59	Cum	458127

		<p>components of Bridges like Deck slab for RCC Box Girder 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</p>			
17	271	<p>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. 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.</p>	69,790.12	MT	18913123

18	271	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	1681555
19	120	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	20849
20	670	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 cost of reinforcement but including cost of cement.	6,312.97	Cum	4229690
21	23216	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	3918396
22	47440	Providing protective coating to exposed	242.00	Sqm	11480480

		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.			
23	376	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.	1895040
24	7	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 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;	5,00,000	LS	3500000

		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	102	<p>Providing & fixing shoring for protection of Railway embankment with steel sheet piles/steel plates, channels, I section, bolt & nuts with all Contractor's material, labour, tools & plants with all lead & lift including excavation concreting, dewatering is any required for flooring including strutting & removing the shoring when not required.</p> <p>Note: -</p> <ol style="list-style-type: none"> 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. 2. Contractor shall provide detailed drawing of shoring supported with detailed design calculation and erection scheme for approval of Railway Engineer. 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. 4. After completion of work released material of shoring will be the property of the Contractor. 5. Execution of this item is solely on 	8,543.00	MT	871386

		discretions of Engineer In charge. His decision is final and binding. 6. Erection and dismantling of shoring within 6.00 m existing track shall be done only in sanction traffic block.			
26	1000	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	2002000
Total Amount of Schedule - C				Rs.19,87,17,742.00	

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
Total Amount of Schedule – D				Rs. 50,00,000.00		
Total of Schedule A, B, C & D				Rs. 23,00,91,544.00		

END OF TENDER DOCUMENTS