

Tender No. MGS/EN/RUB/BBU/172/2/2016



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For

Construction of RUB/LHS at DFC Ch 69.540 and Rly Km 619/22-24 on DFC line at BBU yard between SEB – MGS section of Mughalsarai Division of East Central Railway.

**FINANCIAL BID
(PACKET- B)**

**TENDER DOCUMENT
May' 2016**

**Employer:
DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LIMITED
(A GOVERNMENT OF INDIA ENTERPRISE)
Under
MINISTRY OF RAILWAYS**

Tender No. MGS/EN/RUB/BBU/172/2/2016**GENERAL INFORMATION / DATA SHEET**

TENDER NOTICE NO	MGS/EN/RUB/BBU/172/2/2016 dated 06.06.2016
Name of the work	Construction of RUB/LHS at DFC Ch 69.540 and Rly Km 619/22-24 on DFC line at BBU yard between SEB – MGS section of Mughalsarai Division of East Central Railway.
(a) Tender Value	Rs. 4,54,61,272/-
(b) Completion Period	15 months
(c) Earnest Money	Rs 9,09,225/-
(d) Date and Time of Issue of Tender	From 09.06.2016 to 11.07.2016 on all working days from 10:30 hrs. to 17:00 hrs. against the prescribed fee of Rs. 10,000/- which is non refundable.
(e) Last date and Time of submission of Tender	12.07.2016 upto 15:00 hrs
(f) Date and Time of Opening of Tender (Technical bids -Packet A)	On 12.07.2016 at 15:30 hrs
(g) Validity of offer	90 days
(h) Retention Money / Security Deposit	5% of Contract Value
(i) Performance Bank Guarantee	Performance Guarantee (PG) have to be submitted within 30 (thirty) days from the date of issue of Letter Of Acceptance (LOA), amounting to 5% of the contract value in the form as give in clause 16.4 of GCC

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4.	Execution of all works as per Schedule "B-II" (items as per USSOR 2012 of EC Rly for plane concrete and RCC	1616552.54	+ 10%	17782107.79	(in figures) (In words)
5.	Execution of all works as per Schedule "B-III" (items as per USSOR 2012 of EC Rly for water supply, drainage etc.	172008.95	+ 10%	189209.85	(in figures) (In words)
6.	Execution of all works as per Schedule "B-IV" (items as per USSOR 2012 of EC Rly for Bridge work	7971627.95	+ 10%	8768790.75	(in figures) (In words)
7.	Execution of all works as per Schedule "B-V" (items as per USSOR 2012 of EC Rly for Carriage of material supply of	45982.30	+ 10%	50580.53	(in figures)



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	material.				(In words)
8	Execution of all works as per Schedule "B-VI" (items as per USSOR 2012 of EC Rly for unforeseen item based on USSOR 2012	1000000	+ 10%	1100000	(in figures)
					(In words)
9	Execution of all works as per Schedule "C-I" (items as per USSOR 2012 of EC Rly for supply of cement	6565046.40	+ 10%	7221551.04	(in figures)
					(In words)
9	Execution of all works as per Schedule "C-II" (items as per USSOR 2012 of EC Rly for Reinforcement	8565122.50	+ 10%	9421634.75	(in figures)
					(In words)
	Grand Total			₹ 45461272/-	

Notes:

- (i) The above prices are inclusive of all taxes, duties including Excise duty,

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Sales (s)Tax, Octroi, Local levies, Works Contract Tax etc.

- (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.

Schedule-I

Schedule of Prices and Total prices

Schedule – ‘A

Sl. No	Description of item	Unit	Rate	Qty.	Amount	Remarks
1	Loading transportation, unloading and placing of RCC Box segments of internal size 4.00m x 5.5 m and length 1.5 m to 2.0 m including loading from costing yard, Transportation to bridge size placing to correct profile line & level on bridge base with all arrangement of hiring or trailer/Crane etc.	Nos	35315.28	22	776936.16	
2	Removing of existing track including removing rails, sleepers and ballast with all contractor's labour, tools, materials, plants machinery, consumables including all lead, lift, ascent, decent, wastage, temporary establishment etc. Including all incidental works and other expenditure complete in all respect as directed by DFCCIL. This work to be carried out during traffic block for each bridge.	M	158.24	60	9494.40	
3	Laying of track on newly laid box including filling of ballast. Laying rails on PSC sleepers and lifting and packing of track to meet out longitudinal alignment, gauge and level of approaches to make track fit for 20 kmph, all with contractor's labour, material, tool, plants, machinery, consumables including all lead lift, ascent, descent, wastage, temporary establishment etc. including all incidental works and other expenditure complete in all respects as	M	164.01	60	9840.60	
4	Maintenance of track as well as protection track	Tmtr	1.79	120	214.80	
5	Through packing of Sleeper on running line to specified tolerance including lifting in stages up to 75mm at a time to relax the					
(i)	1st Round	Tmtr	30.11	120	3,613.20	
(ii)	2nd Round	Tmtr	27.88	120	3,345.60	
(iii)	3rd Round	Tmtr	27.79	120	3,334.80	
6	Spreading of ballast from the stacks available Cum in formation (already unloaded) uniformly on the track/formations per true profile including all lift, lead up to 100 meters and crossing of track as per direction of Engineer-in-charge.		44.88	60	2,692.80	
Total					8,09,472.36	

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SCHEDULE-B-I

Sl. No	Description of work	Units	Rate	Qty.	Amount	Ref. Item no. of ECR SOR 2012
1	Earthwork 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 boundary entirely arranged by the contractor at his own cost as per RDSO's latest guidelines and specifications and special condition of contract including all leads, royalty, lifts, ascents, descents, crossing of nallas or any other obstructions. The rates shall include all dressing of bank to final profile, demarcation and setting out of profile, site clearance, removing of shrubs, roots of vegetations growth, heavy grass, benching of existing slope of old bank, all handling/re-handling, taxes, octroi and royalty etc. as a complete job. Cut trees shall be property of railways and to be deposited in the railway go down unless specified otherwise in the Special Conditions of Contract.	1 cum	139.23	696	96,904.08	013120
2	Extra for mechanical compaction of earth/blanketing material filled in embankment with contractor's rollers of suitable capacity, type and size to achieve specified density as per specification, testing as per IS codes including cost of water, T&P, consumable material and all labour as a complete job. The work is to be executed as per Latest edition of "Guidelines for Earthwork in Railway Projects" issued by RDSO, Lucknow.	1 cum	14.80	696	10,300.80	013130
Total Rs. =					107,204.88	

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SCHEDULE-B-II (Plain Concrete, RCC)

SI. No	Description of work	Units	Rate	Qty.	Amount	Ref. Item no. of ECR SOR 2012
1	Providing and laying in position cement concrete of M20/M25 grade, excluding the cost of cement and of centering and shuttering, as per direction of the Engineer in charge :					031050
(i)	All works up to plinth level	1 cum	2856.68	5145	14697618.60	031051
2	Providing and laying cement concrete, up to plinth in retaining walls, walls (any thickness) including attached plasters, columns, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets etc, excluding the cost of cement and of shuttering, centering.					031020
(i)	1:2:4 (1 cement : 2 sand : 4 graded stone aggregate 20mm nominal size)	1 cum	2911.03	106	308569.18	031023
3	Providing and laying in position cement concrete of specified proportion excluding cost of cement, centering and shuttering - All works up to plinth level :					031010
(i)	1:3:6 (1 cement : 3 sand : 6 graded stone aggregate 20mm nominal size)	1 cum	2813.60	36.5	102696.40	031011
4	Providing and laying in position M-20 Grade concrete for reinforced concrete structural elements, but excluding cost of centering, shuttering, reinforcement and Admixtures in recommended proportion (as per IS:9103) to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer in charge					041010
(i)	All works in buildings above plinth level upto floor two level	1 cum	3619.33	142	513944.86	041012
5	Centering and shuttering including strutting, propping etc. and removal of form for :					042010
(i)	Suspended floors, roofs, landings, balconies, FOB slabs, walkway slabs and access platform	1 Sqm	230.28	900	207252.00	042013
6	Providing hand packed dry flat brick flooring, class designation 7.5 (FPS Bricks), excluding pointing with joints filled with sand over a bed of dry sand (ordinary) of average thickness 25 mm including ramming sub grade :					091030
(i)	Flat brick	1 Sq m	237.25	1414	335471.50	091032
Total Rs. =					16165552.54	

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SCHEDULE-B-III (Water supply, drainage etc)

Sl. No	Description of work	Units	Rate	Qty.	Amount	Ref. Item no. of ECR SOR 2012
1	Providing and laying non-pressure NP3 class (medium duty) R.C.C. pipes including bends etc. with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete upto 800mm dia.					142030
(i)	450mm dia. R.C.C. pipe	1 metre	833.44	200	166688.00	142033
2	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) R.C.C. top slab with 1:2:4 (1 cement : 2 coarse sand : 4graded stone aggregate 20mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement complete as per standard design					143010
(i)	Inside size 90cmx80cm and 45 cm deep including C.I. cover with frame (light duty) 455mm x610mm internal dimensions total weight of cover and frame to be not less than 38 kg (weight of cover 23kg and weight of frame 15kg) with F.P.S. bricks class designation 7.5	1 Each	5320.95	1	5320.95	143011
Tota					172008.95	

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SCHEDULE-B-IV (Bridge work)

SI. No	Description of work	Units	Rate	Qty.	Amount	Ref. Item no. of ECR SOR 2012
1	Exploratory drilling of boreholes down to required depth ,drilling of 150 mm dia ,boreholes in all type of soils except hard rock & large boulders etc. where necessary in dry area.					191010
(i)	0.00 to 10 m	1 Metre	1451.88	10	14518.80	191011
2	Extra for 150 mm dia bore in hard rock/large Boulder at all levels	1 Metre	5970.11	1	5970.11	191030
3	Taking out 100 mm dia & 450 mm long undisturbed samples of soil from bore holes , including provision of air tight containers for packing and, labeling incl. transporting the samples to laboratory . Piston sampler shall be used for extracting undisturbed samples where necessary . Samples shall be collected as per IS: 2720	1 Each	118.24	2	236.48	191100
4	Taking out 100 mm dia & 450 mm long disdrubed samples of soil from bore holes , including provision of air tight containers for packing and, labelling and transporting the samples to laboratory . Samples shall be collected as per IS: 2720	1 Each	146.35	6	878.10	191110
5	Conducting standard penetration test as per IS: 2131 at approximate 1.5 m intervals in bore holes as directed by the Engineer in charge	1 Each	196.29	6	1177.74	191120
6	Collection of water samples at required intervals	1 Each	198.38	1	198.38	191130
7	Conducting laboratory Tests on collected soil samples as per relevant IS code.					191140
(i)	Moisture Contents / Dry Density	1 Each	290.38	6	1742.28	191141
(ii)	Attreberg Limit	1 Each	696.90	6	4181.40	191142
(iii)	Specific Gravity	1 Each	309.73	6	1858.35	191143
(iv)	Grain size analysis including Hydrometer analysis	1 Each	569.14	6	3414.84	191144
(v)	Direct Shear Test	1 Each	2293.96	2	4587.92	191145
(vi)	Natural Density	1 Each	309.73	6	1858.35	191146
(vi)	Unconfined Compression Test	1 Each	2323.00	2	4646.00	191148
(vii)	Tri-axial Test	1 Each	2947.89	2	5895.78	191149
8	Conducting Chemical analysis of ground water samples to determine suitability for concreting and aggressiveness in relation to attack on concrete/ reinforcement including determination of pH value	1 Each	3223.16	1	3223.16	191160
9	Conducting chemical analysis of soil samples to determine aggressiveness in relation to attack on concrete/ reinforcement including determination of pH value	1 Each	3774.88	1	3774.88	191170
10	Preparation and submission of Final report giving complete and comprehensive record of investigations ,laboratory test reports and calculations in approved format.	1 Each	66786.25	1	66786.25	191180
	Earthwork in cutting (classified) in formation, trolley refuges, side drains, level crossing approaches, platforms, catch water drains, diversion of nallah & finishing to required dimension and slopes to obtain a neat appearance to standerd profile.	Cum	163.81	2250	368572.50	013110

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11	Earthwork 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. including all lift, disposal of surplus soil upto a lead of 300m, all types of shoring and strutting with all labour and material complete as per drawing and technical specification as directed by Engineer in charge						192010
(i)	All kinds of soils	1	cum	292.93	7459	2184964.87	192011
12	Extra for the quantity of works, executed in or underwater and/or liquid mud including pumping out water as required	1	cum	58.59	250	14647.50	192020
13	Providing and laying Plain Cement Concrete 1:3:6 with graded stone aggregate of 40mm nominal size, in foundation and floors, retaining walls of bridges including mechanical mixing, .. contd. -	1	cum	2234.33	174	388773.42	192030
14	Supply and laying of coarse sand including consolidation, supply of all materials, labour, lead, lift, tools, plants, crossing of tracks as per drawing and technical specification as directed by the Engineer in charge in case loose slush is encountered at site of foundation before casting the foundation or before laying the filtering media	1	cum	1386.33	292.5	405501.52	222040
15	Providing and laying in position machine mixed, machine vibrated and machine batched Design Mix Cement Concrete M25/M35 grade (Cast in-Situ) using 20mm graded crushed stone aggregate and coarse sand of approved quality for the following Reinforced cement concrete structural elements up to height of 10m from foundation top level, including finishing, using Admixtures in recommended proportions (as per IS:9103), if approved in Mix design to accelerate or retard setting of concrete and/or improve workability without impairing strength and durability complete as per specifications and direction of the Engineer in charge. Payment for cement, reinforcement & shuttering shall be paid extra.						192060
(i)	Wing wall and Return wall	1	cum	3020.34	757	2286397.38	192062
16	Providing and laying in position machine mixed, machine vibrated and machine batched Design Mix Cement Concrete M30/M35 grade (Cast in-Situ) in bottom/top slab, side walls, toe wall and sumps haunch filling head walls or any other component using 20mm graded crushed stone aggregate and coarse sand of approved quality of cast in-situ RCC box of size upto 5m (bigger inside dimension) including finishing, Admixtures in recommended proportions (as per IS:9103), if approved in Mix design, to accelerate, retard setting of concrete, improve workability without impairing strength and durability, complete as per drawings and technical specifications as directed by Engineer in charge. Payment for cement, reinforcement and shuttering shall be paid extra.	1	cum	2745.77	370	1015934.90	194010
17	Centering and shuttering including strutting, propping etc. and removal of form for :						195030
(i)	Abutment, pier, wing walls and return walls	1	Sqm	227.40	2335	530979.00	195032
(ii)	In Bottom/top slab, side walls, toe wall and sumps haunch filling head walls or any other component	1	Sqm	227.40	1167	265375.80	195038
18	Providing and laying pitching with stone boulders weighing not less than 35kg each with the voids filled with spalls on slopes laid over prepared filter media including boulder apron laid dry in front of toe of embankment complete as per drawing and Technical specifications (filter media to be paid separately under the relevant item)	1	cum	1066.06	90	95945.40	221050

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19	Providing and laying of filter media consisting of granular materials of GW, GP, SW groups as per IS:1498-1970 in required profile behind boulder filling of abutments, wing walls / return walls etc. above bed level with all labour and material complete job as per drawing and technical specification of RDSO Guidelines	1	cum	943.42	299	282082.58	222180
20	Dewatering of natural or accumulated water from any location. Payment to be done for Horse power of pump multiplied by pumping hours.	1	HP Hour	22.74	330	7504.20	222300
Total Rs. =						7971627.89	

SCHEDULE - B-V (Carriage of material supply of materials)

Sl. No	Description of work	Units		Rate	Qty.	Amount	Ref. Item no. of ECR SOR 2012
1	Loading/Unloading G.I. sheets, rails, joists, built up sections, angles, C.I./Ductile pipes, A.C Pipes, or G.I. pipes RCC/PCC beams/slabs and other miscellaneous ironwork or wood work including lead upto 50m and stacking properly into/from trucks, trailers or wagons						021130
(i)	Individual length upto 3.5m	1	MT	118.83	15	1782.45	021131
(ii)	Individual length more than 3.5m	1	MT	130.01	10	1300.10	021132
2	Leading miscellaneous materials such as iron work, rails, fitting & fastenings, pipes, wooden logs, stones over pitching stone size, RCC/PCC beams/slabs etc. and all similar articles (each individual article or bundle being not more than 3.5m long in the longest direction) including picking up unloading and stacking, lead upto 50m	1	MT	115.68	25	2892.00	021140
3	Additional lead for every subsequent 50m or part thereof over 50m and upto 500m over item no. 021140	1	MT	32.00	225	7200.00	021141
4	Leading miscellaneous materials such as iron work, rails, fittings & fastenings, pipes, wooden logs, stones over pitching stone size, RCC/PCC beams/slabs etc. and all similar articles (each individual article or bundle being not more than 3.5m long in the longest direction) including all loading, unloading and stacking, lead over 500m and upto 10 km. Note : Lead under this item is payable when the same exceeds 500m.	1	MT	160.31	25	4007.75	021150
Sto	1	C	1508.	480	60	28800.00	
Total Rs. =						45982.30	

SCHEDULE - B-VI (Unforeseen items based on USSOR/12)

Sl.No	Description of item	unit	Basic cost	Rate in Fig	Rate in Words
1	Over all percentage above/below/at par over the rates under Mugalsarai Division, Engineering Department, USSOR, E.C.Railway 2012 as per items not covered by the items of schedule A-I, A-II, Schedule- B to B-XI and Schedule C-I, C-II and C-III	% above % below at per	1000000		

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SCHEDULE-C-I (supply of cement)

S.N.	Description of Item	Unit		Rate	Qty.	Amount	Ref. ECR USSOR 2012
1	Supply and using cement at worksite : OPC 43 Grade	1	Tonne	6631.36	990	6565046.40	033061
						6565046.40	

SCHEDULE-C-II

S.N.	Description of Item	Unit		Rate	Qty.	Amount	Ref. ECR USSOR 2012
1	Supplying reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete. High yield strength deformed bars.	1	Kg	64.46	132875	8565122.50	045014
						8565122.50	

Explanatory Notes for BOQ:

- (i) Contractor shall quote rates of shuttering and curing for all heights.
- (ii) All ECR USSOR items contain item nos., if any discrepancy is found in nomenclature, schedule nomenclature will prevail.
- (iii) Tenderer must quote their rates for supply and erection of RCC Boxes with their own material including loading, transportation and unloading at site. DFCCIL shall not provide any assistance for procurement of raw material for manufacturing the boxes tendered for.
- (v) The rates shall also be inclusive of all taxes legally leviable and / or any other taxes, license fee and royalty charges etc. if any.
- (vi) The above quantity is approximate:-The DFCCIL reserve the right to increase / decrease the same.
- (vii) The contractor has to submit launching scheme and detailed drawing of each component of the Railway safety and nothing extra shall be paid for this activity.

