

**EDFC FIELD UNIT-KOLKATA-CIVIL/EDFC
TENDER DOCUMENT**

Tender No: KKK-EN-GAD-KQR-DTR-PH-I

Closing Date/Time: 02/06/2023 15:00

CGM/DFCCIL/Kolkata acting for and on behalf of The President of India invites E-Tenders against Tender No **KKK-EN-GAD-KQR-DTR-PH-I** Closing Date/Time 02/06/2023 15:00 Hrs. Bidders will be able to submit their original/revised bids upto closing date and time only. Manual offers are not allowed against this tender, and any such manual offer received shall be ignored.

1. NIT HEADER

Name of Work	Preparation of General Arrangement Drawing for Major Bridges, Minor Bridges, Tunnels, Viaducts, Road Over Bridges, Road Under Bridges, Animal Overpass, Bridge Cum Animal overpass, Animal Overpass, Animal Underpass etc. over DFCCIL proposed alignment in Koderma detour section including Geotechnical Investigation as per requirement, under GM/Co-Ordination/Kolkata jurisdiction		
Bidding type	Normal Tender		
Tender Type	Open	Bidding System	Single Packet System
Tender Closing Date Time	02/06/2023 15:00	Date Time Of Uploading Tender	11/05/2023 17:56
Pre-Bid Conference Required	No	Pre-Bid Conference Date Time	Not Applicable
Advertised Value	5531923.96	Tendering Section	JHARKHAND
Bidding Style	Single Rate for Each Schedule	Bidding Unit	
Earnest Money (Rs.)	110600.00	Validity of Offer (Days)	60
Tender Doc. Cost (Rs.)	5900.00	Period of Completion	4 Months
Contract Type	Works	Contract Category	Expenditure
Bidding Start Date	19/05/2023	Are Joint Venture (JV) firms allowed to bid	No
Ranking Order For Bids	Lowest to Highest	Expenditure Type	Capital (Works)

2. SCHEDULE

S.No.	Item Code	Item Qty	Qty Unit	Unit Rate	Basic Value	Escl.(%)	Amount	Bidding Unit
Schedule A-Preparation of General Arrangement Drawing							2842000.00	Above/ Below/Par
1	Please see Item Breakup for details.				2842000.00	AT Par	2842000.00	
	Description:- Preparation of GAD of Bridges, Tunnel, ROB, RUBs, Viaducts, Animal Overpass & Underpass etc.							

S.No.	Item Code	Item Qty	Qty Unit	Unit Rate	Basic Value	Escl.(%)	Amount	Bidding Unit
Schedule B-Geotechnical Investigation							2689923.96	Above/ Below/Par
1	Please see Item Breakup for details.				3012705.20	(-) 10.71	2689923.96	
	Description:- Geotechnical Investigation in Sonnagar-Andal Section							

3. ITEM BREAKUP

Schedule	Schedule A-Preparation of General Arrangement Drawing								
Item- 1	Preparation of GAD of Bridges, Tunnel, ROB, RUBs, Viaducts, Animal Overpass & Underpass etc.								
S No.	Item No	Description of Item				Unit	Qty	Rate	Amount

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1	NS-1	Preparation of the General Arrangement Drawing for Road Over Bridges (ROB) including approaches as per relevant IR, BIS, IRC and other codes for DFCCIL Line Corridor through MX Rail/ AutoCAD for Railway standards and as per DFCCIL SOD and RDSO Standard based on finalized L - section for the proposed alignment and Geotechnical investigation carried out by DFCCIL at proposed locations, on good quality tracing paper and submitting the same to DFCCIL for approval and carrying out the corrections as instructed by DFCCIL with all consultants men, material, tools & plants, Computer systems etc., as directed by Engineer in charge. Notes: ROB GAD should include incorporation of - a)Modification of alignment of ROB as suggested by DFCCIL and other stake holders are to be incorporated and resubmitted. b)The rate includes preliminary site survey required for this item and nothing extra shall be paid for site survey conducted for this purpose. c)Integrated Key Plan of entire ROB alignment covering DFCCIL portion, take-off and landing approaches, arrangements of ROB approaches with NHAI/other roads department will be developed and included in GAD as per the Technical Requirement mentioned in the SCC. d)As far as possible Standard RDSO span should be provided for super structure. In case Non-standard span to be adopted, prior consent of DFCCIL EIC is required.	Each	19.00	22000.00	418000.00
2	NS-2	Preparation of the Group General Arrangement Drawing for all Minor bridges through MX Rail/ AutoCAD for Railway standards and as per DFCCIL SOD and RDSO Standard based on finalized L - section for the proposed DFCCIL alignment & Geotechnical investigation carried out by the DFCCIL at proposed bridge locations, on good quality tracing paper and submitting the same to DFCCIL administration for approval and carrying out the corrections as instructed by DFCCIL with all consultants own men, material, tools & plants, Computer systems etc., as directed by Engineer in charge.: Notes: Group Minor Bridge GAD should include incorporation of: a)Sub structure details , type of foundation (pile / open), depth of foundations, footing details / pile founds details, foundation pressure, abutments / pier / Box details duly showing bore log details of sub soil along with SBC details of every soil strata at every abutment & piers / Box locations. b)Span arrangements with details of Bed level, HFL, Vertical Clearance, Free board, Rail level, formation level, Clear span, effective span c)Super structure details like type of structure (Steel / PSC / RCC), type girder / slab / Box details, depth of construction, bearing details, wearing coat, track structure with cushion details. d)As far as possible Standard RDSO span should be provided for super structure. In case Non-standard span to be adopted, prior consent of DFCCIL EIC is required	Each	13.00	12000.00	156000.00

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3	NS-3	Preparation of the Group General Arrangement Drawing for all Animal Under pass through MX Rail/ AutoCAD for Railway standards and as per DFCCIL SOD, specification mentioned in " Eco-Friendly Measures to Mitigate Impacts of Linear Infrastructures on Wild life" published by Wild Life Institute India (for forest and wildlife division) and RDSO Standard based on finalized L - section for the proposed DFCCIL alignment & Geotechnical investigation carried out by the DFCCIL at proposed bridge locations, on good quality tracing paper and submitting the same to DFCCIL administration for approval and carrying out the corrections as instructed by DFCCIL with all consultants own men, material, tools & plants, Computer systems etc., as directed by Engineer in charge: Notes: Group GAD should include incorporation of: a)Sub structure details , type of foundation (pile / open), depth of foundations, footing details / pile founds details, foundation pressure, abutments / pier / Box details duly showing bore log details of sub soil along with SBC details of every soil strata at every abutment & piers / Box locations. b)Span arrangements with details of Bed level, HFL, Vertical Clearance, Free board, Rail level, formation level, Clear span, effective span. c)Super structure details like type of structure (Steel / PSC / RCC), type girder / slab / Box details, depth of construction, bearing details, wearing coat, track structure with cushion details. d)As far as possible Standard RDSO span should be provided for super structure. In case Non-standard span to be adopted, prior consent of DFCCIL EIC is required.	Each	10.00	12000.00	120000.00
4	NS-4	Preparation of the Group General Arrangement Drawing for all Animal Over pass/ Bridge Cum Animal Overpass through MX Rail/ AutoCAD for Railway standards and as per DFCCIL SOD, specification mentioned in " Eco-Friendly Measures to Mitigate Impacts of Linear Infrastructures on Wildlife" published by Wild Life Institute India (for forest and wildlife division) and RDSO Standard based on finalized L - section for the proposed DFCCIL alignment & Geotechnical investigation carried out by the DFCCIL at proposed bridge locations, on good quality tracing paper and submitting the same to DFCCIL administration for approval and carrying out the corrections as instructed by DFCCIL with all consultants own men, material, tools & plants, Computer systems etc., as directed by Engineer in charge Notes: Group GAD should include incorporation of: a) Sub structure details , type of foundation (pile / open), depth of foundations, footing details / pile founds details, foundation pressure, abutments / pier / Box details duly showing bore log details of sub soil along with SBC details of every soil strata at every abutment & piers / Box locations. b) Span arrangements with details of Bed level, HFL, Vertical Clearance, Free board, Rail level, formation level, Clear span, effective span. c) Super structure details like type of structure (Steel / PSC / RCC), type girder / slab / Box details, depth of construction, bearing details, wearing coat, track structure with cushion details. d) As far as possible Standard RDSO span should be provided for super structure. In case Non-standard span to be adopted, prior consent of DFCCIL EIC is required.	Each	5.00	12000.00	60000.00

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5	NS-5	Preparation of the General Arrangement Drawing for all Major Bridge/ Cut & Cover Tunnel for DFCCIL Line Corridor through MX Rail/ AutoCAD for Railway standards and as per DFCCIL SOD, and RDSO Standard based on finalized L - section for the proposed alignment & Geotechnical investigation carried out by DFCCIL at proposed bridge locations, on good quality tracing paper and submitting the same to Railway administration for approval and carrying out the corrections as instructed by railway with all consultants own men, material, tools & plants, Computer systems etc., as directed by Engineer in charge. Notes: Major Bridge/ Cut & Cover Tunnel GAD should include incorporation of: a) Sub structure details with type of construction, type of foundation (pile / open / well foundation), depth of foundations, footing details / pile foundation details, foundation pressure, abutments / pier details duly showing bore log details of sub soil along with SBC details of every soil strata at every abutment & piers locations b) Span arrangements with details of Bed level, HFL, Vertical Clearance, Free board, Scour depth, Rail level, formation level, Clear span, effective span. c) Super structure details like type of structure (Steel / PSC), type girder / slab details, depth of construction, bearing details, wearing coat, track structure with cushion details) Approach details like trolley refuges, parapets / steel railings, inspection platforms with ladder arrangements, dirt walls, approach slab, back fill material as per RDSO specifications, protective works such as wingwalls, bank toe walls, pitching, type of flooring / drop wall / curtain wall details as per scour depth & silt factor criteria. d) As far as possible Standard RDSO span should be provided for super structure. In case Non-standard span to be adopted, prior consent of DFCCIL EIC is required	Each	6.00	22000.00	132000.00
6	NS-6	Preparation of the General Arrangement Drawing and preliminary design for all Tunnels through MX Rail/ AutoCAD or any other suitable software for Railway standards and as per DFCCIL SOD and RDSO Standard based on finalized L - section for the proposed DFCCIL alignment & Geotechnical investigation carried out by the DFCCIL , on good quality tracing paper and submitting the same to DFCCIL administration for approval and carrying out the corrections as instructed by DFCCIL with all consultants own men, material, tools & plants, Computer systems etc., as directed by Engineer in charge. Notes: Tunnel GAD should include incorporation of: a) The shape and the dimensions of the cross section of tunnel for two lane track. b) Depth of foundations duly showing bore log details of sub soil shall be shown in GAD. c) Details of Bed level, Invert Level, Rail level, formation level, Clear opening. d) Details of Track structure with cushion details e) Details of Drainage and ventilation arrangement	Each	5.00	50000.00	250000.00

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7	NS-7	Preparation of the General Arrangement Drawing for all Viaducts through MX Rail/ AutoCAD for Railway standards and as per DFCCIL SOD, and RDSO Standard based on finalized L - section for the proposed DFCCIL alignment & Geotechnical investigation carried out by the DFCCIL at proposed bridge locations, on good quality tracing paper and submitting the same to DFCCIL administration for approval and carrying out the corrections as instructed by DFCCIL with all consultants own men, material, tools & plants, Computer systems etc., as directed by Engineer in charge. Notes: GAD of Viaducts Bridges should incorporate: a)Sub structure details , type of foundation (pile / open / well foundation), depth of foundations, footing details / pile founds details, foundation pressure, abutments / pier details duly showing bore log details of sub soil along with SBC details of every soil strata at every abutment & piers locations. b)Span arrangements with details of Bed level, HFL, VC, Free board, Scour depth, Rail level, formation level, Clear span, effective span. c)Super structure details like type of structure (Steel / PSC), type girder / slab details, depth of construction, bearing details, wearing coat, track structure with cushion details) Approach details like trolley refuges, parapets / steel railings, inspection platforms with ladder arrangements, dirt walls, approach slab, back fill material as per RDSO specifications, protective works such as wingwalls, bank toe walls, pitching, type of flooring / drop wall / curtain wall details as per scour depth & silt factor criteria. d)As far as possible Standard RDSO span should be provided for super structure. In case Non-standard span to be adopted, prior consent of DFCCIL EIC is required e)Additional payment will be made for each sheet beyond 2 km of running length.	Each	31.00	50000.00	1550000.00
8	NS-8	Preparation of the General Arrangement Drawing for Road Under Bridge through MX Rail/ AutoCAD for Railway standards and as per DFCCIL SOD and RDSO Standard based on finalized L - section for the proposed DFCCIL alignment & Geotechnical investigation carried out by the DFCCIL at proposed bridge locations, on good quality tracing paper and submitting the same to DFCCIL administration for approval and carrying out the corrections as instructed by DFCCIL with all consultants own men, material, tools & plants, Computer systems etc., as directed by Engineer in charge. Notes: Road Under Bridge GAD should include incorporation of: a)Sub structure details with type of construction, type of foundation , depth of foundations, footing details details, foundation pressure, Box details duly showing bore log details of sub soil along with SBC details of every soil strata at every Box locations b)Span arrangements with details of Bed level, HFL, VC, Free board, Scour depth, Rail level, formation level, Clear span, effective span c)Super structure details like type of structure (Steel / PSC / RCC), type of Box details, depth of construction, bearing details, wearing coat, track structure with cushion details d) connectivity of Road including wing wall, footpath etc. d)As far as possible Standard RDSO span should be provided for super structure. In case Non-standard span to be adopted, prior consent of DFCCIL EIC is required	Each	13.00	12000.00	156000.00
					Total	2842000.00
Schedule	Schedule B-Geotechnical Investigation					
Item- 1	Geotechnical Investigation in Sonnagar-Andal Section					
S No.	Item No	Description of Item	Unit	Qty	Rate	Amount

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		Exploratory drilling of boreholes down to required depth, drilling of 150mm dia. boreholes in all type of soils except hard rock & large boulders (boulder core more than 30cm) including refilling, reinstating surface and disposing off surplus material including use of mechanical rigs with power operated winches as well as percussion/chiselling tool for advancing through occasional seams of hard strata to be employed, where necessary in Dry area.				
1	021011	0m to 10m	Metre	500.00	1182.96	591480.00
2	021012	10m to 20m	Metre	90.00	1352.44	121719.60
3	021013	20m to 30m	Metre	60.00	1433.27	85996.20
4	021014	30m to 40m	Metre	60.00	1539.07	92344.20
5	021030	Extra for 150mm dia. bore in hard Rock/large Boulder at all levels	Metre	5.00	2155.19	10775.95
6	021040	Erection of temporary working platform to drill bore hole through flowing/standing water through river bed up to water depth of 1.5m, and dismantling after completing work and removing from the site to clear the water way.	cum	10.00	2529.45	25294.50
		Drilling of NX size borehole (75mm dia.) in all types of hard rock and collection of rock core samples from boreholes and preserving in boxes.				
7	021051	0m to 10m	Metre	300.00	3267.54	980262.00
8	021110	Taking out 100mm dia. & 450mm 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.	Each	120.00	172.01	20641.20
9	021120	Taking out 100mm dia. & 450mm long disturbed samples of soil from bore holes, including provision of air tight containers for packing, labeling and transporting the samples to laboratory. Samples shall be collected as per IS:2720.	Each	60.00	177.05	10623.00
		Conducting laboratory Tests on collected soil samples as per relevant IS code				
10	021151	Moisture Content/Dry Density	Each	120.00	264.24	31708.80
11	021152	Atterberg Limits	Each	120.00	532.94	63952.80
12	021153	Specific Gravity	Each	120.00	883.04	105964.80
13	021154	Grain size analysis including Hydrometer analysis	Each	120.00	1237.59	148510.80
14	021155	Direct Shear Test	Each	40.00	3121.85	124874.00
15	021156	Natural Density	Each	40.00	1443.49	57739.60
16	021157	Consolidation Test	Each	5.00	10101.43	50507.15
17	021158	Unconfined Compression Test	Each	40.00	3328.12	133124.80
18	021159	Tri-axial Test	Each	40.00	3050.50	122020.00
		Conducting Laboratory tests on collected ROCK SAMPLES as per relevant IS code				
19	021161	Density Test	Each	20.00	1058.64	21172.80
20	021162	Water Absorption & Porosity	Each	20.00	455.49	9109.80
21	021163	Hardness	Each	20.00	295.10	5902.00
22	021164	Unconfined Compression Test	Each	20.00	2220.98	44419.60
23	021165	Point Load Test	Each	20.00	2311.66	46233.20
24	021166	Modulus of Elasticity	Each	20.00	4667.17	93343.40
25	021167	Abrasion Testing	Each	20.00	749.25	14985.00
					Total	3012705.20

4. ELIGIBILITY CONDITIONS

Standard Technical Criteria

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
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1	The tenderer / JV firm (as per clause no. 65.15.1 of GCC) must have satisfactorily completed any of the following during last 7 years, ending last day of month previous to the one in which tender is invited: (a)Three similar works each costing not less than the amount equal to 30% of advertised value of subject work, or (b)Two similar works each costing not less than the amount equal to 40% of advertised value of subject work, or (c)One similar works each costing not less than the amount equal to 60% of advertised value of subject work; Submission Requirement: Thetenderer shall submit the completion certificates/ certified completion certificates from the client(s) and or Photocopies of original certificates of client.	No	No	Allowed (Mandatory)
1.1	Defination of Similar Work :- Design and drawing of Railway Bridge/ROB/ FOB	No	No	Not Allowed

Standard Financial Criteria

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	The tenderer must have minimum average annual contractual turnover of V/N or V whichever is less; where, V= Advertised value of the tender in crores of Rupees N= Number of years prescribed for completion of work for which bids have been invited. The average annual contractual turnover shall be calculated as an average of "total contractual payments" in the previous three financial years, as per the audited balance sheet. However, in case balance sheet of the previous year is yet to be prepared/ audited, the audited balance sheet of the fourth previous year shall be considered for calculating average annual contractual turnover. The tenderers shall submit requisite information as per Form 2B, along with copies of Audited Balance Sheets duly certified by the Chartered Accountant/ Certificate from Chartered Accountant duly supported by Audited Balance Sheet.	No	No	Allowed (Mandatory)

5. COMPLIANCE

Commercial-Compliance

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	Please enter the percentage of local content in the material being offered. Please enter 0 for fully imported items, and 100 for fully indigenous items. The definition and calculation of local content shall be in accordance with the Make in India policy as incorporated in the tender conditions.	No	Yes	Allowed (Optional)

Custom

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	Documents to be enclosed with the TECHNICAL BID as per Clause1.3.2(b) of Part-I of Chapter-III of Tender Document	No	No	Not Allowed
1.1	Offer letter complete as per Form-1 of Tender Document	No	No	Allowed (Mandatory)
1.2	Tenderer's Technical credentials in accordance with Para 1.3.13 (i)(A)of Part-I, Chapter-III (Preamble & General Instructions to Tenderers): As per Form No. 2A of Tender Document	Yes	Yes	Allowed (Mandatory)
1.3	Tenderer's Financial credentials in accordance with Para 1.3.13 (i)(B) of Part-I, Chapter-III (Preamble & General Instructions to Tenderers): As per Form No. 2B of Tender Document	Yes	Yes	Allowed (Mandatory)
1.4	Applicant's Party Information Form: As per Form 2D of tender Document	No	No	Allowed (Mandatory)
1.5	Certificates for authenticity of documents/ Format for Affidavit: As per Form 22 of Tender Document	Yes	Yes	Allowed (Mandatory)
1.6	Format of Integrity pact: As per Form 20 of Tender Document	Yes	Yes	Allowed (Mandatory)
1.7	Details of Earnest money in accordance with Para 1.3.8 of Part-I, Chapter-III (Preamble & General Instructions to Tenderers)	Yes	Yes	Allowed (Mandatory)

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1.8	An undertaking that he is not blacklisted or debarred by Railways or any other Ministry or Department of Govt. of India from participation in tender on the date of opening of bids, either in individual capacity or as a member of the partnership firm or JV in which he was or is a partner/member. Concealment or wrong information in regard to above shall make the contract liable for determination under Clause 62 of the General Conditions of Contract.: As per Clause 1.3.6 of Part-I, Chapter-III (Preamble & General Instructions to Tenderers)	Yes	Yes	Allowed (Mandatory)
1.9	Documents to be Submitted Along with Tender as per Clause 1.3.6.2 of Part-I, Chapter-III (Preamble & General Instructions to Tenderers)	No	No	Allowed (Optional)
1.10	A copy of the tender papers including amendments duly signed and scanned or digitally signed by the tenderer on each and every page in token of his having studied the tender papers carefully shall be attached with the tender	No	Yes	Allowed (Mandatory)

6. Documents attached with tender

S.No.	Document Name	Document Description
1	TenderDocumentGADBridgeKoderma.pdf	Tender Document

This tender complies with Public Procurement Policy (Make in India) Order 2017, dated 15/06/2017, issued by Department of Industrial Promotion and Policy, Ministry of Commerce, circulated vide Railway Board letter no. 2015/RS(G)/779/5 dated 03/08/2017 and 27/12/2017 and amendments/ revisions thereof.

As a Tender Inviting Authority, the undersigned has ensured that the issue of this tender does not violate provisions of GFR regarding procurement through GeM.

Signed By: JOY KARMAKAR

Designation : DYPM/Civil/Kolkata