



Dedicated Freight Corridor Corporation of India Ltd.,
(A Government Of India Undertaking)

Old GM Building, N.C.Railway (1st Floor,) Balmiki Chauraha, Nawab Yusuf Road,
Allahabad -211001

NOTICE FOR INVITING BIDS

Tender No.	ALD(W)/EN/Yamuna Br/Geo-Tech/OT-1/2012
Name of the Work	Conducting Soil exploration and Geotechnical Investigation for proposed Railway Bridge on River Yamuna on DFC Alignment at Allahabad in connection with construction of Eastern Dedicated Freight Corridor.
Estimated Cost of Work	30.50 Lacs
Completion Period	Four Months
Type of BID	Single Packet Open Tender
Earnest Money	Rs. 61000.00
Date and time of submission of filled tender document	Upto 15:00 hrs. on 16.05.2012
Date and time of opening of tender	15:30 hrs. on 16.05.2012
Authority and place for submission of completed tender document	Dedicated Freight Corridor Corporation of India Ltd., Allahabad (West) Old GM Building, N.C.Railway (1 st Floor,) Balmiki Chauraha, Nawab Yusuf Road, Allahabad-211001 Tele Fax No. 0532-2560321 E-mail: cpgupta@dfcc.co.in
Address for Communication	Chief Project Manager, DFCCIL, Allahabad (West) Old GM Building, N.C.Railway (1 st Floor,) Balmiki Chauraha, Nawab Yusuf Road, Allahabad-211001 Tele Fax No. 0532-2560321 E-mail: cpgupta@dfcc.co.in

Chief Project Manager
Dedicated Freight Corridor Corporation India Limited



Dedicated Freight Corridor Corporation of India Ltd.

Name of Work: - Conducting Soil exploration and Geotechnical Investigation for proposed Railway Bridge on River Yamuna on DFC Alignment at Allahabad in connection with construction of Eastern Dedicated Freight Corridor

Tender No. ALD(W)/EN/Yamuna Br/Geo-Tech/OT-1/2012

BID DOCUMENT

**Chief Project Manager/Allahabad(W)
Dedicated Freight Corridor Corporation of India Ltd.,
Old GM Office Building, N.C. Railway (1st Floor), Valmiki Chauraha,
Nawab Yusuf Road, Allahabad-211001**

**Dedicated Freight Corridor Corporation of India Ltd.,
Old GM Office Building, N.C. Railway (1st Floor), Valmiki Chauraha,
Nawab Yusuf Road, Allahabad-211001**

Tender No. ALD(W)/EN/ Yamuna Br /Geo-Tech/OT-1/2012

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To,

Chief Project Manager,
DFCCIL,
Allahabad (W).

Ref: Tender No. ALD(W)/EN/Yamuna Br/Geo-Tech/OT-1/2012

1. I/We..... have read the various conditions of tender attached hereto and hereby agree to abide by the said conditions. I also agree to keep this tender open for acceptance for a period of **90 days** from the date fixed for opening the same and in default thereof, I/We will be liable for forfeiture of my/our "Earnest Money". I/We offer to do the work as set out in the Bid Document. I/We also agree to abide by the General Conditions of the Contract and to carry out the work according to the special conditions as laid down by the DFCCIL Administration for the execution of present contract.

2. A sum of **Rs 61,000 (Rupees Sixty One Thousand only)** has been forwarded as Earnest Money. The value of the earnest money shall stand forfeited without prejudice to any other rights or remedies if:

i) I/We do not execute the contract agreement within **7 Days** of receipt of notice by the DFCCIL Administration that such documents are ready.

OR

ii) I/We do not commence the work within **10 days** after receipt of orders to that effect.

3. Until a formal agreement is prepared and executed acceptance of this tender shall constitute a binding contract between us subject to the modifications, as may be mutually agreed to, between us and indicated in the letter of acceptance or my/our offer for the work.

Signature of Tenderer/Consultants

Contractor's Address

Signature of Witness

Section 1 Invitation for Bids (IFB)

Dear Sir,

Chief Project Manager, DFCCIL, Allahabad (W) for and on behalf of DFCCIL invites, open tender from the tendering firms / JVs for undertaking the work of Soil exploration and Geotechnical Investigation for proposed Railway Bridge on River Yamuna on DFC Alignment at Allahabad in connection with construction of Eastern Dedicated Freight Corridor

1.0 DETAILS OF BID DOCUMENT

1.1.1 **Bidding documents:** The interested Bidders may collect the bidding document from the address given in para 1.5 below between 10:00 hrs and 17:00 hrs on all working days from **15-05-12 to 15-06-12 and up to 12.00 hr. of 16/06/12** by paying Rs. 2000 in the form of demand draft / bankers cheque issued by State Bank of India or any other nationalized bank or any scheduled bank of India, in favour of DFCCIL, payable at Allahabad.

1.1.2 Bid document can be downloaded from the **website www.dfccil.org/ www.dfcc.in**. Bidders, submitting their offers on the bid document down loaded from the internet, should enclose a demand draft / banker's cheque issued by State Bank of India or any other nationalized bank or any scheduled bank of India, in favour of DFCCIL, payable at Allahabad amounting to Rs. 2000/- towards the cost of Bid document along with their offer, failing which their tender shall be liable to be rejected.

1.1.3 **Bids** must be accompanied by a Earnest money deposit **Rs 61,000 (Rupees Sixty One Thousand Rupees)** by a crossed Demand Draft/fixed deposit receipt/ Bankers cheque issued by State Bank of India or any other nationalized bank or any scheduled bank of India, in favour of DFCCIL, Payable at Allahabad. **Bids received without earnest money shall be summarily rejected.**

1.2 Applicability of Consortium/MOUs

Offer from the firms having, Consortium / Memorandum of Understanding **shall not** be considered

- 1.3 Submission of bids:**
- 1.3.1 Date and time for submission of offer:** up to 15.00 hrs on 16/06/2012
- 1.3.2 Venue for submission of bids:** Dedicated Freight Corridor Corporation of India Ltd., Old GM Office Building, N.C. Railway (1st Floor), Valmiki Chauraha, Nawab Yusuf Road, Allahabad-211001, **Phone: - 0532-2560321, 2560322 2560331**
- 1.4 Time for opening of offer:** 15.30 hrs on 16/06/2012
- 1.4.1** If the date of opening is declared as holiday then the tender shall be accepted upto 15.00 hrs of the next working day and the same will be opened at 15.30 hrs on the same day i.e, next working day.
- 1.5 Address for Communication:** Interested Bidders may obtain further information from the address given below:
Chief Project Manager/Addl Chief Project Manager,
Dedicated Freight Corridor Corporation of India Ltd.,
Old GM Office Building, N.C. Railway (1st Floor),
Valmiki Chauraha, Nawab Yusuf Road, Allahabad-211001
Phone: - 0532-2560321, 2560322, 2560331
E-mail: cpgupta@dfcc.co.in /aksingh@dfcc.co.in
- 2.0 GENERAL**
- 2.1.1** Bid document is non-transferable. Bids received from bidders in whose name Bidding Document has been issued shall only be considered.
- 2.1.2** No extension in the Bid Due Date shall be considered on account of delay in receipt of Bid Document by post.
- 2.2 Validity of the Bid**
The bidders shall keep their offer open for a minimum period of **90 days** from the date of opening of the bid, being extended further if required by mutual agreement from time to time. Any contravention of the above condition shall make the bidder liable for forfeiture of his earnest money deposit. The bidders cannot withdraw their offer within the period of validity / extended validity.
- 3.0 TENDERING PROCEDURE**
- 3.1.1 Procedure for Submission of Bid**
Sealed Tender should be dropped in Tender Box placed in the office of CPM/Allahabad(W), Old GM Office Building, N.C. Railway (1st Floor), Valmiki Chauraha, Nawab Yusuf Road, Allahabad-211001 on or before the due date and

time mentioned at para 1.3.1. Tender can also be sent by post at the address mentioned at para 1.5 so as to reach before due date & time of submission of tender. Tenders received after due date & time mentioned at para 1.3.1 shall not be considered and shall be returned unopened to bidder.

3.1.2 Each page of Bid must be signed and sealed by the bidder or its authorized representative in whose name power of attorney is issued. Bids should be submitted in sealed envelope on which brief description of the tender should be clearly written such as:

- Tender No.
- Name of work
- Date & Time of opening of tender
- Name & Address of tenderer

3.1.3 Tender should be accompanied with following documents:

- i) Forwarding Letter given in the Bid document.
- ii) DD or bankers Cheque towards the cost of Blank tender document in case of bid document downloaded from internet.
- iii) Earnest Money Deposit in the approved form as per para 1.1.3 above.
- iv) Document in support of minimum eligibility criteria as per para 4.0.
- v) Power of Attorney of authorized person who signed the tender
- vi) A certified copy of partnership deed or article of memorandum in case of Pvt. Ltd. Company
- vii) General Information of the bidders in Annexure T-1
- viii) A list of similar works completed in last three years i.e., Current year and the last three financial years in Annexure T-2
- ix) A list of similar work in hand in the format as in Annexure T-3
- x) A List of plant and machinery in the format as in Annexure T-4
- xi) A List of Computers & Software in the format as in Annexure T-5
- xii) List of Key personnel in the format as in Annexure T-6
- xiii) The audited balance sheet & profit and loss account for the previous three years certified by C.A.

3.1.4 Tender opening

Tender will be opened on due date and time as mentioned in para 1.4 by the nominated officials in presence of bidders representatives present at the time of opening of tender.

4.0 Minimum eligibility criteria for the work is as under

4.1 Technical Criteria

- 4.1.1 The bidder should have experience in geotechnical investigation work and should have completed at least one **similar single work on any major perennial river** upto the date of opening of tender amounting to 35% of the advertised tender cost i.e. **minimum of Rs. 10.675 Lac** in the current year and three previous financial years i.e. **for 2009-2010, 2010-2011, 2011-2012.**
- Similar work for the above purpose is defined as ‘Soil exploration and Geotechnical investigation work’.**
- 4.1.2 The total contract amount received by the bidder (in case of JV the total contract amount received by the partners clubbed together) during the last three financial years and in the current financial year (upto the date of opening of tender) should be **minimum of 150%** of advertised tender value of the work i.e. **Rs. 45.75 Lac.** Bidder is required to submit certificate to this effect which may be an attested certificate from employer / client, audited balance sheet duly certified by Chartered Accountant.
- 4.1.3 The bidder should submit revenue / banker solvency certificate for a minimum value of **40 %** of the advertised tender value i.e, approximately **Rs. 12.20 Lakhs.**
- 4.1.4 The bidders must submit the list of works completed in the last three financial years giving description of work, organization for whom executed, approximate value of the contract at the time of award, date of award, date of scheduled completion of work, date of actual completion of the work and final value of the contract. This information should be given in the format placed at **Annexure-T-2.**
- 4.1.5 The bidders must submit the list of works on hand indicating description of work, contract value, approximate value of balance work to be done and the date of award. The information should be submitted in the proforma placed at **Annexure-T-3.**
- 4.1.6 Tenderer must submit the documents/certificates in support of information submitted against **para 4.1.1, 4.1.2 & 4.1.3** failing which his/ their offer may be rejected without any correspondence with the tenderers at the sole discretion of DFCCIL. All the documents/ certificates of the completed works should be from Govt. organizations / Govt PSUs.

The certificates from private individuals/private firms for whom such works are executed/being executed shall not be accepted.

In case of a JV company, the lead company must satisfy minimum of two out of three criteria mentioned at **para 4.1.1, 4.1.2 & 4.1.3.** In case, for meeting the third criteria, joint venture is entered into then, JV must be formed before the submission

of the tender.

4.2 Plants & Machinery and List of Personnel / Organization available on hand and proposed to be engaged

4.2.1 The bidder should submit list of plants and machinery available in hand and proposed to be inducted (own and hired to be given separately) for the subject work.

4.2.2 Deleted

4.2.3 Deleted

4.2.4 Deleted

4.2.5 The bidder should have at least **2 rigs** on his own including survey equipments such as auto level, total station for geotechnical investigation and associated survey works. The said information should be given in the format given at **Annexure - T - 4.**

4.2.6 The bidder should submit list of field & laboratory equipment available with them along with make and year of purchase. The said information should be given in the format given at **Annexure - T - 4.**

4.2.7 The bidder should have at least **one geotechnical engineer and one surveyor** who are having minimum **10 years experience** in field work. Bio data for proposed key personnel to be deployed for this work shall be submitted along with the bid document. The said information should be given in the format given at **Annexure - T - 6.**

4.2.8 The firm should submit the documents along with the offer in support of the information submitted against **para 4.2.1 to 4.2.7** in the form of an **Affidavit on Stamp Paper of Rs. 10/- duly attested by Notary / Magistrate.**

4.3 Financial Criteria

The applicant firm shall be a **profit (net) making firm** and shall not have made losses in any of the last 2 financial years (current year and the last two year).

The bidder should submit attested copies of auditor's report along with audited balance sheet and profit and loss statement for the current year and three previous financial years i.e. for **2009-2010, 2010-2011 & 2011-2012**

4.3.1 Disqualification

Even though the bidder may be qualifying the above criteria as per the records submitted by him, he shall be disqualified if he is found to have made misleading or

false representation in the forms, statements and attachments submitted against the proof of eligibility or qualifying requirements.

A declaration to the above effect in the form of an affidavit on stamp paper of Rs. 10/- duly attested by notary/Magistrate should be submitted along with the offer.

5.0 Time Schedule

The total time for completion of work shall be of **Four months** from date of issue of Letter of acceptance by DFCCIL. Time is the essence of the Contract.

6.0 Rate: The contractor / bidder must quote a flat single percentage above or below or at par for **schedule 'A'** as given in the tender schedule. This percentage shall be applicable on each item of schedule 'A' uniformly. **For item of the Schedule 'B'**, contractor/bidder must quote his rate separately.

6.1 Tenderers are requested to give unconditional offers. A conditional offer, having financial implication, is liable to be rejected.

7.0 Earnest Money is liable to be forfeited in case of the following:

- i)** On revocation of tender due to increase in rates by the firm after opening of tenders but before the validity of the tender.
- ii)** On refusal to accept the work order after award of contract.
- iii)** If the work is not commenced on the stipulated date of start of the work awarded to the contractor.

Yours faithfully,

(C.P. Gupta)
CPM/ALD(W)
For and on behalf of DFCCIL

Section 2

Instructions to Tenders / Bidders (ITB)

1. **Site visit:** The Bidder is advised to visit and examine the Site of Works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract. The costs of visiting the Site shall be at the Bidder's own expense
2. **Cost of Bidding:** The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Employer shall not be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.
3. **Language of Bid:** The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Employer, shall be written in English.
4. **Currencies of Bid and Payment:** - The bidder shall quote the unit rates and the prices entirely in the Indian Rupees.
5. **Period of Validity of Bids:-** Bids shall be valid for a minimum period of **90 days** from the date of opening of the tender A bid valid for a shorter period shall be rejected by the employer as non responsive.
6. **Joint venture:**
 - (a) The Tenderer may be a joint venture (JV) firm with identified partners. But such joint venture should be registered with Registrar of Companies (in case of corporate JV) or Registrar of Firms (in case of partnership JV) before submission of offers. The offers of Consortium or un-registered Joint Ventures will not be considered.
 - (b) In case of joint venture the lead partner is responsible for performing the key function in contract management shall be nominated as being in-charge during the bidding period and in the event of a successful bid, during contract execution. The lead partner shall be authorized to incur liability and receive instructions for and on behalf of any and all partners of joint venture. This authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the partners of the joint venture with further stipulation that it shall be valid for entire period of completion of the work.

- (c)
 - (i) All partners of the joint venture shall be legally liable, jointly and severally, during the bidding process and for the successful execution of the contract in accordance with the contract terms, and specific clause to this effect shall be included in the Joint Venture agreement.
 - (ii) No. of partners in JV should be limited to 3.
 - (iii) A copy of the Joint Venture Agreement (JVA) as well as necessary documentation regarding incorporation of registration of JV/SPV shall be submitted along with tender documents. The JVA shall include among other things, the joint venture's objectives, the contribution of each partner to the joint venture agreement, finance operation, role and responsibility of the each partner covering all aspect of the planning and execution of the work, the commitment of the partners to joint and several liability for due performance.
 - (iv) In addition, recourse/ sanctions within the joint venture in the event of default or withdrawal of any partner and arrangements for providing the required indemnities shall be spelt out and shall be binding on each partners of joint venture.
- (d) The JV shall also submit an unconditional undertaking along with tender documents to the effect that there shall be no change of constituting parties during the process of award of contract and thereafter during the currency of the contract, in case the contract is awarded,

- 7. **Format and Signing of Bid:** Bid document shall be signed by a person duly authorized to sign on behalf of the Bidder. Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the bid.
- 8. **Deadline for Submission of Bids:** Bids must be received by the Employer at the address and not later than the date and time indicated in the Bid document.
- 9. **Late Bids:** The Employer shall not consider any bid received after the deadline for submission of bids. Any bid received by the Employer after the deadline for submission of bids shall be declared late and rejected and returned unopened to the bidder.
- 10. **Signing of Contract:** The successful bidder, whose tender has been accepted by the competent authority of DFCCIL, will be informed by the employer through a letter of acceptance. In response the successful bidder should sign the contract agreement **(Annexure II)** within **one month** from the date of issue of acceptance letter.

11. **Corrupt Practices:** The Employer requires that bidders, suppliers, and contractors observe the highest standard of ethics during the execution of such contracts.
12. **Security deposit:** The security deposit will be equal to **5%** of the value of the contract. The earnest money of the successful bidder will be converted into initial security deposit. Balance Security deposit shall be deducted at the rate of **10%** from each of the running bill of the contractor till the realization of full amount of security deposit as per contract.

SECTION 3

SPECIAL CONDITIONS OF CONTRACT AND SPECIFICATIONS

1. INTRODUCTION

- 1.1 For the proposed construction of double line Broad Gauge Railway track of Dedicated Freight Corridor, proposed alignment in Allahabad District between Karchana (Railway Km 807.43) to Manauri Railway Station (Km 842.98) of North Central Railway is following a detour and passes through Yamuna Bridge at about 5 Km upstream of the existing Railway Bridge on Yamuna at Allahabad. The proposed detour starts at Indian Railway Km 808 with detour chainage 0.0 and end at Manauri Railway Station with detour chainage 32000.00. The project sheets for the proposed alignment of above detour showing plan and L-section is available in the office of Chief project Manager /DFC/ALD (W) and can be seen on any working day between 10.00 Hr to 17.30 Hr.
- 1.2 The proposed DFC Railway Bridge on Yamuna is located between village Mohabbatganj on South side and Bakshimodha on North side of the river. As per the initial hydraulic model study bridge with the following span arrangement is proposed to be constructed

Proposed Span Arrangement	Abutment Chainages	
	South/Right Abutment (A1)	North/Left Abutment (A2)
21x48.15m	13910.00	14921.15

- 1.3 It is proposed to carry out the soil exploration and Geotechnical Investigation at both the abutments location and at alternate piers of the proposed bridge. As Yamuna is Perennial River with significant depth and flow of water at proposed location of bridge, part of the bore locations of piers (about 11 Nos of piers or 50% locations) will be on shore while other will be off shore. For carrying out the boring for off shore locations, required working arrangement including provision of suitable working/floating platform will be required.
- 1.4 Scope of the Work in brief covers the following
- Locating the abutment/Pier Locations for proposed geotechnical investigation with precision survey
 - Geotechnical Investigation on Abutments and pier locations for depth **upto 60m**
 - Conducting various tests on the soil and rock samples
 - Preparation and submission of Geotechnical Investigation report.

2. DETAILED SCOPE OF WORK

Contractor shall carryout geotechnical investigation upto maximum **depth of 60m**, 150mm/NX size vertical boreholes in soil and rock, laboratory testing of samples of soil, rock & water collected from site from reputed laboratory (either of the firm or as decided by the Engineer – in charge) for submission of geotechnical investigation report. Scope of work for geo-technical investigation work includes:-

- (i) Drilling of, 150mm dia bore holes, in all kind of soil including laterite, gravel and cobble and NX size borehole in bouldery and rocky strata as specified in BOQ for proposed important bridge on Yamuna at each abutments and alternate pier locations **(up to maximum 60m depth or upto 5m in refusal strata where SPT (N) value is more than 100, whichever is earlier)**
- (ii) Conducting Standard Penetration Test at every 3.0m interval starting from first sample at 1.5m depth or at the change of stratum as per **IS: 2131**.
- (iii) Collection of disturbed, undisturbed soil samples and water samples and carrying out various laboratory testing as per relevant IS codes in consultation with Engineer-in-charge of DFCCIL.
- (iv) Collection of rock core samples and carrying out various laboratory testing as per relevant IS codes in consultation with Engineer-in-charge of DFCCIL.
- (v) Preparation of bore logs, location plan of boreholes, various test results curves and calculations on computer by using suitable Software.
- (vi) Investigation regarding removal of overburden by excavation, erosion or land slide, if any, so as to give idea of the amount of reconsolidation the soil has undergone. Similarly data/investigation should also cover any recent fill to study the consolidation characteristics of the fill as well as original strata.
- (vii) Submission of draft geotechnical report in 3 copies and final reports in 5 copies including details of recommendation of suitable type of foundations with the Safe Bearing Capacity.

For locating the Abutments and pier locations, DFCC will provide the project sheets showing plans and L-section of the alignment near the bridge. Contractor has to deploy survey team with precision survey equipment such as Total Stations/DGPS equipment to locate the Abutment and pier locations for carrying out the boring work. For this no separate payment will be made.

3 SAMPLING

3.1 General

- a) Sufficient number of soil samples shall be collected for reliable estimation of soil properties. The samples collected shall be either disturbed or undisturbed. Disturbed soil samples shall be collected for field identification and conducting tests such as sieve analysis, index properties, specific gravity, chemical analysis, etc. Undisturbed samples shall be collected to estimate the physical, strength and settlement properties of the soil.
- b) All the accessories required for sampling and the method of sampling shall conform to IS: 2132. All the disturbed and undisturbed samples collected in the field shall be classified at the site as per IS: 1498.
- c) All the samples shall be identified with date, bore hole or trial pit number, depth of sampling, etc. it is also essential to mark an arrow pointing towards the top surface of the sample as the soil was in – situ. Care shall be taken to keep the undisturbed soil samples and box samples vertically with the arrow directing upwards. The tube samples shall be properly trimmed at both ends and suitably capped and sealed with molten paraffin wax at both ends immediately after extracting the samples from the bore hole and suitably capped on both sides.
- d) When the Contractor fails to collect the undisturbed soil sample at a specified depth the reason for the same shall be indicated in the bore log and the bore hole shall be advanced by 0.5 M. In such a case, for cohesion less soil Standard Penetration Test shall be performed and for very soft cohesive soil field vane shear test shall be performed.

3.2 Disturbed Sample

- a) Disturbed soil samples shall be collected in boreholes at regular intervals to provide complete description of soil profile and its variation. Jar samples weighing approximately 10 N shall be collected in boreholes at 0.5m intervals starting from a depth of 0.5m below ground level and at every identifiable change of strata to supplement the boring records. Samples shall be immediately stored in air tight jars or polythene bags and labeled with bore hole number and depth
- b) In elevated areas, if superficial material is available in plenty, then bulk samples from a depth of about 0.5m below ground level shall be collected to establish all the required properties to use it as a fill material. Disturbed samples weighing about 250 N shall be collected at shallow depths and immediately stored in polythene bags as per IS: 1892. The bags shall be sealed properly to avoid any change in moisture content and they shall be kept in wooden boxes.

3.3 Undisturbed Sample

In each bore hole undisturbed sample shall be collected at every change of strata and at regular intervals of 3.0 m and as directed by the engineer. The starting depth of collecting UDS shall be between 1.0m and 3.0m below ground level and as decided by the Engineer. The starting depth shall be varied in alternate boreholes. In cohesive soils collections of UDS shall be preferred in place of SPT. The depth interval between the top level of undisturbed sampling and standard penetration test shall not be less than 1.0m. Undisturbed samples shall be of 100mm dia and 450mm length. Samples shall be collected in such a manner that structure of the soil and its moisture content do not get altered. The specifications for the accessories required for sampling and the sampling procedure shall conform to IS: 1892 and IS: 2132. Undisturbed sampling in sand shall be done using compressed air technique mentioned in IS: 8763. Thin walled sampler shall be used to collect undisturbed samples by pushing the tube into the soil. The sampling tube shall have a smooth finish on both surfaces and minimum effective length of 450mm. The area ratio of sampling tubes shall be less than 12.5%. However, in case of every stiff soil, areas ratio up to 20% shall be permitted.

4. SPECIAL TECHNICAL SPECIFICATIONS TO BE FOLLOWED

Drilling of boreholes is required to be carried out in accordance with specifications of relevant codes of Bureau of Indian Standard as given below:

IS: 4078 Code of practice for indexing & storage of drill cores.

IS: 2131 Method for Standard Penetration Test

IS: 1892 Code of practice for sub surface investigation for foundations

IS: 6926 Diamond core drilling site investigation for river valley projects.

IS: 5313 Guide for core drilling observation.

IS: 4464 Code of practice for presentation of drilling information and core description in foundation investigation.

IS: 5529 (Part – I & Part - II) Code of practice for in – situ permeability tests in overburden and rock respectively.

And any other relevant codes & specifications as decided by DFCCIL Engineer in charge. However it is reiterated that the above list is only for guidance and the firm is responsible and shall furnish the list of specification that are followed in the above investigation.

4.1 LABORATORY TESTING Essential Requirements

All laboratory tests shall be conducted using approved apparatus complying with the requirements and specifications of Indian standards or other approved standards for this class of work. Tests shall be carried out in the laboratories approved by the Engineer In Charge of DFCCIL which may be labs of NITs/IITs/Reputed laboratories or laboratory of the firm. In case testing is approved in the lab of the firm, Engineer in charge of DFCCIL or his nominated representative may at its discretion check and ascertain adequacy of the testing facilities available with the firm.

4.2 Tests

4.2.1 Following test shall be carried out for the sample collected from site

- a) Conducting Standard Penetration Test at every 3.0m interval starting from first sample at 1.5m depth or at the change of stratum as per IS: 2131.
- b) Collection of disturbed, undisturbed soil samples and water samples and carrying out various laboratory testing as per relevant IS codes in consultation with Engineer-in-charge of DFCCIL Ltd as under

4.2.2 Tests on Undisturbed and disturbed Samples

- (i) Visual and Engineering Classification, Sieve Analysis and Hydrometer Analysis for Grain Size Analysis as per I.S 2720-(Pt.IV) plotting grain size distribution curves and calculating silt Factor.
- (ii) Specific Gravity of soil as per I.S 2720 (Pt-III)
- (iii) Liquid, Plastic and Shrinkage limits as per IS 2720 (Pt. V)
- (iv) Determination of natural moistures content, bulk unit weight as per IS-2720 (Pt. III)
- (v) Determination of differential free swell index as per IS-2720 (Pt. 40)
- (vi) Determination of initial void ratio of soil samples.
- (vii) Conducting Water Absorption Test on soil samples.
- (viii) Chemical Analysis

4.2.3 Test on Undisturbed Samples

- (i) Unconfined Compression Test
- (ii) Consolidation test in terms of IS-2720 (PT.XV) and finding coefficient of consolidation, coefficient of permeability, coefficient of volume compressibility and various compression ratios.

(iii) Tri axial Shear Tests for all types of soils under appropriate conditions of drainage, consolidation and with/without measurement of pore pressure for the type of soil under consideration for determination of shear strength parameters of specimen in terms of IS-2720 (Pt. X, XI, XII) such as

- Unconsolidated undrained
- Consolidated Undrained Test with the pore Pressure Measurement
- Drained Consolidation Test.

Note: The type of test to be conducted for the soil type should be got approved from Engineer in Charge in advance.

(iv) Direct shear test on cohesion less soil samples for determination of shear strength in terms of IS 2720 Pt. XIII.

4.2.4 Tests on rock Samples

(i) Visual classification

(ii) Moisture content, porosity and Density

(iii) Specific gravity

(iv) Determination of compressive strength of rock samples by point load strength method as Per IS: 8784 or unconfined compressive strength as per IS: 9143 (1 set will comprise of 10 No. of samples) as directed by Engineer-in-Charge. Unconfined compression test (both saturated and at in-situ water content)

(v) Point load strength index

(vi) Conducting Petrographic examination of Rock samples as per IS: 2386 PT VII, VIII.

4.2.5 Chemical analysis of sub – soil include determination of PH value, carbonate, sulphate (both SO₃ and SO₄) chloride and nitrate contents, organic chemicals matter, salinity and any other chemicals harmful to the foundation material. The contents in soil shall be indicated as percentage (%).

4.3 The lab test report should clearly indicate following properties of soil and rock:-

4.3.1 For soil

- i) Engineering properties of soil/rock.
- ii) The location and extent of rock layer and other weak features.
- iii) Soft pockets if any under the hard founding strata.
- iv) The geological features like type of rock, fault, fissures etc.

- v) Ground water table.
- vi) Artesian condition, if any.
- vii) The depth and existence of scour.
- viii) The bearing capacity for foundation.
- ix) Probable settlement and probable differential settlement of the foundation.

4.3.2 For Rock

- i) Depth of rock strata and its variation over a site.
- ii) Whether isolated boulder or massive rock formation.
- iii) Extent and character of weathered zone.
- ii) Joint frequency in the rock.

5.0 DEPTH AND NUMBER OF BOREHOLES.

Bore holes shall be drilled at each abutment and alternate pier locations down to maximum depth of 60m below ground level or upto 5m in refusal strata where SPT (N) value is more than 100, whichever is earlier.

6.0 TIME SCHEDULE

The entire work will be completed in Four Months time including mobilisation of Man Power and Machineries etc. at site, which shall be reckoned from the day of the issue of letter of acceptance by DFCCIL.

7.0 PAYMENT SCHEDULE

7.1 Payments will be made as per the quantum of work done and certification thereon by the engineer nominated by the DFCCIL, as per the accepted rates terms and condition

7.2 On Account Payment

- a. The contractor shall be entitled to be paid from time to time normally once in a calendar month, by way of "On account" bills, only for such Works, as, in the opinion of the Engineer, the Contractor has executed in terms of the Contract.
- b. The Contractor shall submit the on-account bills, by the date stipulated by the Engineer, supported with measurements, jointly acknowledged and accepted in the measurement books.
- c. After preliminary scrutiny and certification and certification by the Engineer payment of 80% of the certified amount shall be made as far as possible by the Employer within 2 days but not later than 7 days. The amount certified shall account for all

deductions, including statutory deductions, recoveries for advances and any amounts due from the Contractor. The balance 20% shall be paid within 28 days from the date of the preliminary certification of the bill by the Engineer.

- d. Such payments made by the Employer, shall not constitute any acceptance of the measurements or bill of quantities by the Employer and the Employer shall have the right to alter, modify, reduce or diminish the quantities or classification entered in the Measurement Books or Bills. The Employer shall have right to recover any amount paid in the earlier bill from any subsequent bill and should the amount to be recovered be more than the amount of the subsequent bill, the Contractor shall on demand from the Engineer or Employer immediately refund the extra amount to the Employer within 7 days, failing which he shall have to pay interest @ 10% per annum with monthly rest till the said extra amount is paid back by him. In addition to above, if contractor claims more on-account payment than due, second time, the facility of making 80% on –account payment shall be withdrawn.

8.0 Provision of Facility for Site Inspection to DFCCIL Officials

The contractor/Firm should facilitate and extend all support for the inspection of work by the officials of the DFCCIL.

9.0 QUANTITY VARIATION

Rates quoted in the schedule of items shall be valid for a variation of the quantity up to maximum of (\pm) 25% for each item. In case of variation in quantities beyond + 25%, the rates for the additional quantities beyond +25% variations shall be negotiated/decided on mutually acceptable terms, provided the rate so arrived does not exceed the originally accepted rate as per agreement.

10.0. ADDITIONAL WORK

- 10.1** In case of any unforeseen development as per technical requirement, drilling has to be carried out beyond the maximum prescribed depth of 60m; payment shall be made for any additional depth up to 10m beyond the limit of 60m depth at the same rate as provided in the BOQ. For any further depth beyond 70mt, the rate shall be negotiated/mutually decided depending upon actual technological condition.
- 10.2** Engineer or representative of DFCCIL shall have the power to make any alternation, deletion, addition or substitution in the original scope and specification of work and no claim whatsoever on account of the above shall be entertained except for the payment for the actual work done on agreemental rates for original items of the contract and negotiated and approved rates for new item.

Section 4

GENERAL CONDITIONS OF CONTRACT

GENERAL CONDITIONS OF CONTRACT will form an integral part of the Bid and contract, which is enclosed along with the tender documents.

In case of any deviation between conditions of contract and any other special condition & specifications of contract of this tender document, the special condition & specifications of contract of this tender document shall prevail. The tenders must give a certificate along with their offer that they have thoroughly read, understood and accepted the conditions/special conditions & specifications of contract as well as other conditions of tender etc.

1.0 **DEFINITIONS**

Unless excluded by or repugnant to the context:

- a) The expression employer /DFCCIL as used in the tender papers shall mean the Dedicated Fright corridor Corporation of India Ltd.
- b) The expression Corporation as used in the tender paper means Dedicated Fright corridor Corporation of India Ltd.
- c) The expression “Department” as used in the tender papers shall mean Dedicated Fright corridor Corporation of India Ltd.
- d) “Drawing” shall be mean the drawings referred to in specifications and any modifications of such drawings approved in writing by engineers and such other drawings as may from time to time be furnished or approved in writing by the Engineer In Charge.
- e) Engineer/ “Engineer-in-charge” of the work shall mean the ‘Representative’ appointed by DFCCIL.
- f) The “Site” shall mean the lands and / or other places on under in or through which the work is to be executed under the contract including any other lands or place used for the purpose of contract.
- g) Part(s) thereof as the case may be and shall include all extra or additional, altered or substituted works as required for performance of the contract.
- h) The “Contract” shall mean The agreement entered into between the owner and the contractor as recorded in the contract form signed by the parties include all attachment the notice of tender, the sealed quotation and the

tender documents including the tender and acceptance thereof together with the documents referred to therein, and the accepted conditions with annexure mentioned therein including any special conditions, specifications, designs, drawings, price schedule / bill of quantities and schedule of rates. All these documents taken together shall be deemed to form one contract and shall be complementary to one another. Contract is deed of contract together with its entire accompaniment and those later incorporated in it by internal consent.

- i) The “**Contractor/ consultant**” shall mean the individual or firm or company whether incorporated or not, undertaking the work and shall include legal representative of such an individual or persons comprising such firms or company as the case may be and permitted, assigns of such individual or firm or company.
- j) The “Contract sum” / “Contract price” shall mean the sum for which the tender is accepted.
- k) The “Contract time” means period specified in the tender document for entire execution of contracted works from the date of notification of award including monsoon period.
- l) A “Day” shall mean a day of 24 hours from midnight to midnight irrespective of the number of hours worked in that day.
- m) A “month” shall mean a calendar month.
- n) A “week” shall mean seven consecutive days without regard to the number of hours worked in any day in that week.
- o) “Excepted Risks” are risks due to riots (other wise than among contractor’s employees) and civil commotion (in so far as both these are un-insurable), war (whether declared or not), invasion, act of foreign enemies, hostilities, civil war, rebellion, revolution, insurrection, military or usurped power, any acts of God such as earthquake, lightening and un-precedent floods over which the contractor has no control.
- p) “Temporary works” shall mean all temporary works of every kind required in or about the execution completion or maintenance of the works.
- q) “Urgent works” shall mean any measures, which in the opinion of the Engineer, become necessary during the progress of the works to obviate any risk or accident or failure or which become necessary for security of the work or the persons working, thereon.

- r) Where the context so requires, word importing the singular number only also include the plural number of vice-versa.

2.0 SECURITY DEPOSIT

The security deposit shall be returned to the contractor without any interest when the contractor ceases to be under any obligations under the contract i.e. after completion of defect liability period i.e after **120 days** of the satisfactory completion of the work.

3.0 SUPERVISION AND SUPERINTENDENCE

3.1 CONTRACTOR'S SUPERVISION

The Contractor shall supervise & direct the works efficiently & with his best skill & attention. He shall be solely responsible for means, methods, techniques, procedures & sequences of construction. The Contractor shall co-ordinate all parts of the work and shall be responsible to see that the finished work complies fully with the contract documents, & such instructions & variation orders as the Engineer may issue during the progress of the works.

4.0 USE OF EXPLOSIVES

Blasting is not permitted on this work unless under exceptionally unavoidable conditions but subject to Government's Policy on the subject matter and approval of engineer in charge.

5.0 PROTECTION

The works included in this contract are to be carried out close to the running tracks/High Tension Electric Lines and public utilities, therefore, safety of running trains/HT Line and the public is paramount. Therefore, all activities undertaken by the Contractor / his Sub-contractors shall ensure safety at all times. The contractor shall comply with the instructions issued by the Railway / Engineer / Employer from time to time to ensure safe running of trains while carrying out works. The rates quoted by the Contractor shall be deemed to include all expenditure incurred in compliance with the same.

6.0 WORKMEN

The contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the works any unfit person or anyone not skilled and experienced in the assigned task. The Contractor shall in respect of labour employed by him comply with or cause to be complied with the provisions

of various labour law and rules and regulations as applicable to them in regard to all matters provided therein and shall indemnify the owner in respect of all claims that may be made against the owner for non-compliance thereof by the Contractor. In the event of the contractor committing a default or breach of any provisions of labour laws and rules and regulations, the Contractor shall without prejudice is liable to prosecuted as per Indian Laws.

7.0 LAWS AND REGULATIONS

Governing Law:

The contract documents shall be governed by the laws and by-laws of India.

8.0 SAFETY PRECAUTIONS, EMERGENCIES & PROTECTION OF ENVIRONMENT

The contractor shall be solely responsible notwithstanding any stipulations by owner or Engineer for initiating, maintaining and supervising all safety precautions and programmes, in connection with the work and shall comply with all laws, ordinance, code rules, regulations and lawful orders of any public authority having jurisdiction for the safety of persons or property or to protect them from damages, injury or loss during the entire contract period including non-working hours.

9.0 INCOME TAX

Income Tax as per rates applicable/amended under the Income Tax Act of work shall be deducted at source unless the contractor is exempted by Income Tax Authorities.

10.0 SERVICE TAX

Service Tax as applicable on gross value of each running account bill shall be paid by DFCCIL as per prevailing law. (On submission of the proof of the payment thereof)

11.0 PERMITS, FEES, TAXES & ROYALTIES

Unless otherwise provided in the contract documents, the contractor shall secure and pay for all permits, Government fees and licenses necessary for the execution and completion of the works. The contractor shall pay all duties including excise duty, sales tax, works contract tax, local taxes, income tax, octroi and other Govt taxes **except service tax**. The service tax will be paid extra if payable under law on submission of the documentary evidence. The DFCCIL authorities will not take any responsibility of refund of such taxes/fees. Any violation, in the legal provisions of taxes, duties, permits and fees, carried out by the Contractor and

detected subsequently shall be the sole responsibility of the Contractor and his legal heirs.

12.0 STATUTORY INCREASE IN DUTIES, TAXES ETC

All the taxes and duties levied by the State and Central Govt. and by Local Bodies at the prevailing rates applicable on the date of receipt of tender shall be fully borne by the Contractor and shall not be reimbursed to him on any account. The tender shall be inclusive of all taxes levies, octroi etc.

Further **DFCCIL** shall not honour any claim arising out of any increase in any of the prevailing statutory duties, taxes, levies, octroi, etc. At the time of quoting/bidding contractor should bear the above fact in mind.

13.0 DELAY AND EXTENSION OF CONTRACT PERIOD / LIQUIDATED DAMAGES

13.1 The time allowed for execution and completion of the works or part of the works as specified in the contract, shall be essence of the contract on the part of the Firm/Contractor.

13.2 As soon as it becomes apparent to the Firm/Contractor, that the work and / or portions thereof (required to be completed earlier), cannot be completed within the period(s) stipulated in the contract, or the extended periods granted, he shall forthwith inform the Engineer and advise him of the reasons for the delay, as also the extra time required to complete the work and / or portions of work, together with justification thereof. In all such cases, whether the delay is attributable to the Firm/Contractor or not, the Firm/Contractor shall be bound to apply for extension well within the period of completion / extended period of completion of the whole works and / or portions thereof.

13.3 Extension due to modifications

If any modifications are ordered by the Engineer or site conditions actually encountered are such, that in the opinion of the Engineer the magnitude of the work has increased materially, then such extension of the stipulated date of completion may be granted, as shall appear to the Engineer to be reasonable.

13.4 Delays not due to Employer

If the completion of the whole works (or part thereof which as per the contract is required to be completed earlier), is likely to be delayed on account of:

- a. Any force majeure event referred to in Clause **20.0** or
- b. Any relevant order of court or

- c. Any other event or occurrence which, according to the Engineer is not due to the Firm/Contractor's failure or fault, and is beyond his control.

The Engineer may grant such extensions of the completion period as in his opinion reasonable.

13.5. Delays due to Employer / Engineer

In the event of any failure or delay by the Employer / Engineer in fulfilling his obligations under the contract, then such failure or delay, shall in no way affect or vitiate the contract or alter the character thereof; or entitle the Firm/Contractor to damages or compensation thereof but in any such case, the Engineer shall grant such extension or extensions of time to complete the work, as in his opinion is / are reasonable.

13.6 Delays due to Firm/Contractor and Liquidated Damages

If the delay in the completion of the whole works or a part of the works, beyond stipulated completion period, is due to the Firm/Contractor's failure or fault, and the Engineer feels that the remaining works or the portion of works can be completed by the Firm/Contractor in a reasonable and acceptable short time, then, the Engineer may allow the Firm/Contractor extension or further extension of time, for completion, as he may decide, subject to the following: -

- a. Without prejudice to any other right or remedy available to the Engineer, recover by way of liquidated damages and not as penalty, a sum equivalent to quarter of one percent (0.25%) of the contract value of the works, for each week or part thereof the Firm/Contractor is in default.
- b. The recovery on account of compensation for delay shall be limited to **5%** of his contract value of the works, or the portion of the works, as the case may be.

The recovery of such damages shall not relieve the Firm/Contractor from his obligation to complete the work or from any other obligation and liability under the contract.

13.7 Engineer's decision on compensation payable being final

The decision of the Engineer as to the compensation, if any, payable by the Firm/Contractor under this clause shall be final and binding.

- 13.8 Time to continue to be treated as the essence of contract in spite of extension of time. It is an agreed term of the contract that notwithstanding grant of extension of time under any of the sub-clauses mentioned herein, time shall continue to be treated as the essence of contract on the part of the Firm/Contractor.

14.0 DETERMINATION OF CONTRACT DUE TO FIRM/ CONTRACTOR'S DEFAULT

14.1 Conditions leading to determination of' contract

i. If the Firm/Contractor

- a.** becomes bankrupt or insolvent, or,
- b.** makes arrangements with or assignment in favour of his creditor, or agrees to carry out the contract under a committee of inspection of his creditors or
- c.** being a company or corporation goes into liquidation by a resolution passed by the Board of Directors / General Body of the share-holders or as a result of court order (other than voluntary liquidation for the purpose of amalgamation or reconstruction) ; or
- d.** has execution levied on his goods or property or the works, or
- e.** assigns or sublets the contract or any part thereof otherwise than as provided for under conditions of' this contract, or
- f.** abandons the contract, or
- g.** persistently disregards instructions of the Engineer or contravenes any provisions of the contract, or
- h.** fails to adhere to the agreed programme of work or fails to complete the works or parts of the works within the stipulated or extended period of completion, or is unlikely to complete the whole work or part thereof within time because of poor record of progress; or
- i.** fails to take steps to employ competent and / or additional staff and labour, or
- j.** promises, offers or gives any bribe, commission, gift or advantage, either himself or through his partners, agents or servants to any officer or employee of the Engineer or the Employer, or to any person on their behalf, in relation to obtaining or execution of this or any other contract with the Employer, or
- k.** Suppresses or gives wrong information while submitting the tender.

In any such case the Engineer on behalf of the Employer may serve the

Firm/Contractor with a notice in writing to that effect and if the Firm/Contractor does not, within 7 days after delivery to him of such notice, proceed to make good his default in so far as the same is capable of being made good, and carry on the work or comply with such instructions as aforesaid to the entire satisfaction of the Engineer, the Employer shall be entitled after giving 48 hours notice in writing to terminate the contract, as a whole or in part or parts (as may be specified in such notice).

ii. In such a case of termination, the Employer / Engineer may adopt the following course

Carry out the whole or part of the work from which the Firm/Contractor has been removed by engaging another Firm/Contractor or deployment of technical staff at site.

15.0 DETERMINATION OF CONTRACT ON EMPLOYER / ENGINEER'S ACCOUNT

The Employer / Engineer shall be entitled to determinate the contract, at any time, should, in the Employer / Engineer's opinion, the cessation of works becomes necessary, owing to paucity of funds or due to court orders or from any other cause whatsoever. Notice in writing from the Employer/Engineer of such termination and reasons therefore, shall be conclusive evidence thereof.

In case of determination of contract on Employer/ Engineer's account as described above, the claims of the Firm/Contractor towards expenditure incurred by him in the expectation of completing the whole works, shall be admitted and considered for payment as deemed reasonable and are supported by the documents/ vouchers etc., to the satisfaction of Employer/Engineer. The decision of the Employer/Engineer on the necessity and propriety of such expenditure shall be final and conclusive. However, the Firm/Contractor shall have no claim to any payment of compensation or otherwise, on account of any profit or advantage which he might have derived from the execution of the work in full but which he could not in consequence of determination of contract under this clause.

16.0 FOSSILS ETC

All fossils, coins, articles of value of antiquity and structures or other remains or things of geological or archaeological interest discovered on the site shall be deemed to be the property of the owner and the Contractor shall take reasonable precautions to prevent his workmen or any other person from removing or damaging any such article or thing and shall immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out at the

expenses of the Engineer's order as to the disposal of the same.

17.0 LABOUR RULES

The contractor will have to produce to the satisfaction of the accepting authority a valid and current license issued in his favour under the provision of Contract Labour (Regulation and Abolition) Act 1970, before starting the work, otherwise the Contractor shall have to face the further consequences.

The contractor shall have to follow all rules and regulations pertaining to payment of Minimum Wages Act as notified by C.G. Government applicable for Project Sites. The contractor shall also be responsible for observance of labour regulations in respect of labour welfare PF & EI.

18.0 PERFORMANCE GUARANTEE

18.1 Within **Thirty days** of issue of letter of acceptance from the employer/ engineer the successful tenderer shall furnish to employer/ engineer a **performance guarantee in the form of irrevocable bank guarantee amounting to 5% of original contract value** from any scheduled or nationalized bank of India in the Performa attached at **Annexure-I**.

18.2 Alternatively the firm can furnish the performance guarantee in the form of FDR from a scheduled or nationalized bank of India in favour of the employer i.e. in DFCCIL.

18.3 No payment under the contract will be made to the firm without receipt of performance guarantee from the firm.

18.4 Failure of the successful tenderer to furnish the require performance guarantee shall be a ground for annulment of the contract and for forfeiture of earnest money.

18.5 In case of termination of contract on account of failure of the contractor performance guarantee shall be encashed.

18.6 In case the firm/ contractor fails to extend the validity of performance guarantee as desired by the employer then the employer may encash the performance guarantee of the firm/ contractor.

19.0 Release of performance guarantee

The performance guarantee shall be released to the firm only after the physical completion of the work based on the completion certificate issued by competent authority stating that contractor has completed the work in all respect satisfactorily.

20.0 FORCE MAJEURE

War, invasion, revolution, riots, sabotage, lockouts, strikes, work shut downs imposed by Government, acts of Legislative or other Authorities, stoppage in supply of raw materials, fuel or electricity, breakdown of machinery, act of God, epidemics, fires, earthquakes, floods, explosives, accidents and navigation blockages, or any other acts or events whatsoever, which are beyond reasonable control of Contractor and which shall directly or indirectly prevent completion of the project within the time specified in the agreement, will be considered Force Majeure. Contractor shall be granted necessary extension of completion date to cover the delay caused by Force Majeure without any financial repercussions.

21.0 SETTLEMENT OF DISPUTES

All disputes or differences of any kind whatsoever that may arise between the Employer / Engineer and the Consultant in connection with or arising out of the contract or subject matter thereof or the execution of works, whether during the progress of works or after their completion, whether before or after determination of contract shall be settled as under:

21.1 Mutual Settlement

All such disputes or differences shall in the first place be referred by the Consultant to the Employer in writing for resolving the same through mutual discussions, negotiations, deliberation etc. associating representatives from both the sides and concerted efforts shall be made for reaching amicable settlement of disputes or differences.

21.2 Conciliation/Arbitration

21.2.1 It is a term of this contract that Conciliation / Arbitration of disputes to settle shall not be commenced unless an attempt has first been made by the parties such disputes through mutual settlement.

21.2.2 If the Consultant is not satisfied with the settlement by the Employer on any matter in question, disputes or differences, the Consultant may refer to the Managing Director of the Employer in writing to settle such disputes or differences through Conciliation or Arbitration provided that the demand for Conciliation or Arbitration shall specify the matters, which are in question or subject of the disputes or differences as also the amount of claim, item wise. Only such dispute(s), or difference(s) in respect of which the demand has been made, together with counter claims of the Employer shall be referred to Conciliator or Arbitrator as the case may be and other matters shall not be included in the reference.

21.2.3 Managing Director of the Employer may himself act as Sole Conciliator/Sole Arbitrator or may at his option appoint another person as Sole Conciliator or Sole

Arbitrator, as the case may be. In case, Managing Director of the Employer decides to appoint a Sole Conciliator / Sole Arbitrator, then a panel of atleast three names will be sent to the Consultant. Such persons may be working / retired employees of the Employer who had not been connected with the work. The Consultant shall suggest minimum two names out of this panel for appointment of Sole Conciliator / Sole Arbitrator. Managing Director of the Employer will appoint Sole Conciliator / Sole Arbitrator out of the names agreed by the Consultant.

- 21.2.4** In case, the Consultant opts for settlement of disputes through Conciliation at first stage and if the efforts to resolve all or any of the disputes thorough Conciliation fails, the Consultant may refer to the Managing Director of the Employer for settlement of such disputes or differences through Arbitration. The appointment of Sole Arbitrator shall be done by the Managing Director of the Employer as per the procedure described above. No disputes or differences shall be referred to Arbitration after expiry of 60 days from the date of notification of failure of Conciliation.
- 21.2.5** The Conciliation and/or Arbitration proceedings shall be governed by the provisions of the Indian Arbitration and Conciliation Act 1996 or any statutory modification or re-enactment thereof and the rules made there under and for the time being in force shall apply to the conciliation and arbitration proceedings under this clause.
- 21.2.6** The language of proceedings, documents or communications shall be in English and the award shall be made in English in writing.
- 21.2.7** The conciliation / arbitration proceedings shall be held at a place decided by Conciliator / Arbitrator.
- 21.2.8** The fees and other charges of the Conciliator / Arbitrator shall be as per the scales fixed by the Employer and shall be shared equally between the Employer and the Consultant.

21.3 Settlement through Court

It is a term of this contract that the Consultant shall not approach any Court of Law for settlement of such disputes or differences unless an attempt has first been made by the parties to settle such disputes or differences through clauses **21.1 and 21.2**

21.4 Suspension of work

The Obligations of the Employer, the Engineer and the Consultant shall not be

altered by reasons of conciliation / arbitration being conducted during the progress of works. Neither party shall be entitled to suspend the work on account of conciliation / arbitration and payments to the Consultant shall continue to be made in terms of the contract.

21.5 Award to be binding on all parties

The award of the Sole Arbitrator, unless challenged in court of law, shall be binding on all parties.

21.6 Exception

For settlement of disputes with central PSUs, the procedure as per existing orders of Permanent Machinery for Arbitration (PMA), Bureau of Public Enterprises, Govt. of India shall be followed.

21.7 Jurisdiction of Courts

Jurisdiction of courts for dispute resolution shall be Allahabad only.

SECTION-5
Schedule of Quantities
SCHEDULE: A

Note: The payment shall be done as per the above schedule based on actual quantum of work

SN	Item	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
1	Exploratory drilling of 150mm diameter boreholes down to maximum 60m depth in all types of soil & drilling of Nx size boreholes (65mm diameter) in all type of rock (boulders, weathered and fresh rock) including conducting standard penetration tests at specified depth, collection of disturbed, undisturbed samples from boreholes (Boring shall be done in soft, weathered rock and hard strata and shall be carried out to a depth of minimum 3m in the sound rock. The depth of boring mentioned in the item is only indicative and may vary during execution as per site conditions. Test under this item will be conducted as per special conditions of contract and specifications.)	RMT	720	1183	851760.00
2	Conducting laboratory tests on samples as specified in scope of work and submission of report.	RMT	720	834	600480.00
TOTAL Rs.					1452240.00

done as certified by engineer in charge.

Rate for Schedule A:

In figure: ----- % above/at par / or below

In words:----- % above/at par / or below

SCHEDULE: B

SN	Item	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
1	Provision of the floating platform for carrying out drilling in water	LS	LS		
	TOTAL Rs.				

Rate for Schedule B:

In figure:

In words:

NOTES:

1. Bidders should quote single %age above/below/at par both in words and figures for items of **Schedule A**.
2. For item of **Schedule 'B'** contractor must quote his LS rate in space provide above both in word and figure.
3. In case of cutting/overwriting, the rates in words shall be taken as final.
4. All cuttings and over-writings should be signed by the bidders
5. The payment shall be done as per the above schedule based on actual quantum of work done as certified by engineer in charge.
6. The bidder quoting the rates for individual items for **Schedule 'A'** will be disqualified.
7. Payment for Schedule 'B' will be made only after provision of the floating platform at site and completion of one boring using the same at river channel location. The floating platform after completion of the work shall be property of the Tenderer and rates shall be quoted keeping this in view.
8. Bidder must provide the details of the floating platform they propose to deploy for the work.

(Seal & Signature of bidder)

BIDDER'S GENERAL INFORMATION

1-1 Bidder Name: _____

1-2 Numbers of Years in Operation: _____

1-3 Registered Address: _____

1-4 Operation Address if different from above: _____

1-5 Telephone Number _____
(Country Code) (Area Code) (Telephone Number)

1-6 E-mail address & Web Site _____

1-7 Telefax Number _____
(Country Code) (Area Code) (Telephone Number)

1-8 ISO Certification, if any {If yes, please furnish details}

1-9 PF / EPF Registration No.:

1-10 Service Tax No.:

1-11 Pan No.:

1-12 Bank A/C No with Bank code for electronic clearance of the payment.

(Seal & Signature of bidder)

ANNEXURE: T - 2

LIST OF SIMILAR WORKS COMPLETED IN THE LAST 3 YEARS

Sl. No.	Description of work	Organisation for whom the work has been done	Approximate value of the work at the time of award	Scheduled completion date	Date of actual completion & reason for delay	Final Value of the contract	Remarks

Note: Experience certificate from Govt. Organisations/PSUs must be attached

(Seal & Signature of bidder)

ANNEXURE: T - 3

LIST OF SIMILAR WORKS ON HAND

Sl. No.	Description of work	Organisation for whom the work is executed	Approximate value of the contract at the time of award	Scheduled date of completion	Balance work to be done	Remarks

Note: Work orders/agreement copies of works in progress in Govt. Organizations/ PSUs must be enclosed.

(Seal & Signature of bidder)

LIST OF EQUIPMENT

Sl. No.	Name and type of instrument/equipment	Qty	Model/S I. No.	Year of purchase	Remarks (Proof of purchase)
	Total stations				
	Auto level				
	Drilling Rigs				
	Laboratory equipment				
	Others				

1. Photocopies of the invoices for GPS/ Total Station must be enclosed
2. Photocopies of the invoices for software's along with serial no., computers and peripherals required for preparation of maps must be enclosed.

(Seal & Signature of bidder)

PERFORMA FOR CURRICULUM VITAE

1. Name of Staff :
2. Proposed Position :
3. Profession :
4. Date of birth :
5. Years with Firm :
6. Nationality :
7. Tasks that would be assigned
In the survey project :
8. Education :

Year	Degree/Diploma	School/College	Main field

9. Technical training other than
Academic qualification :
10. Membership of Professional
bodies :
11. Knowledge of Computer Application
- Word processing :
- Spread sheet :
- Data base :
- CAD :
- Programming :
12. Technical papers Published :

13. Foreign visit/work experience :

14. Award received :

15. Languages (indicate the degree of proficiency – good, fair, poor, nil):

Language	Speaking	Reading	Writing

16. Employment Record :

(Starting with the latest, furnish details in the following format)

From-To Employer:

 Position:

 Duties:

CERTIFICATION

I, the undersigned, certify that to the best of my knowledge and belief, this bio-data correctly

Describes my qualifications my experience and myself.

Place:

Signature.....

Date:

Name.....

Note :

1. Nothing to be entered in this form. The Consultant shall use this format to furnish the details separately for each member of the staff- Team Leader(s) and all the **surveyors**/Geotechnical engineers who will be deployed on the work and not for other disciplines.
2. Information for each item shall be furnished. Where there is no any information (reply), 'Nil' shall be entered.

PERFORMANCE BANK GUARANTEE (UNCONDITIONAL)

To

DFCCIL

Name & Address of Project.

[Acting through _____ (Project Incharge) & Address of the Project]

WHEREAS _____ [name and address of Consultant] (hereinafter called “the Consultant”) has undertaken, in pursuance of Contract No. _____

dated _____ to execute _____

[name of contract and brief description of works] (hereinafter called “the contract”).

AND WHEREAS it has been stipulated by you in the said Contract that the Consultant shall furnish you with a Bank Guarantee by a scheduled bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Consultant such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Consultant, upto a total of _____ [amount of Guarantee], _____ [amount in words], such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ [amount of Guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Consultant before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Consultant shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid upto _____ (a date 60 days from the date of completion of the work).

SIGNATURE AND SEAL OF THE GUARANTOR

Name of Bank: _____

Address: _____

Date: _____

FORM OF AGREEMENT

(To be executed on requisite value of stamp papers)

THIS AGREEMENT made on _____ day of _____ (Month/year) between DFCCIL, Old GM Office Building, N. C. Railway (1st Floor), Valmiki Chauraha, Nawab Yusuf Road, Allahabad – 211001, acting through [Project Head and name / address of the Project] (hereinafter called “the Employer / Engineer”) of the one part and _____ [name and address of the Consultant] (hereinafter called “the Consultant”) of the other part.

WHEREAS the Employer is desirous that certain works should be executed by the Consultant viz. Contract No. _____ (hereinafter called “the works”, and has accepted a Bid by the Consultant for the execution and completion of such works and the remedying of any defects therein.

NOW THIS AGREEMENT WITNESSETH as follows:

1. In this Agreement, words and expressions shall have the same meaning as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement:
 - a) Letter of Acceptance of Tender
 - b) Notice Inviting Tender
 - c) Instructions to the Tenderers
 - d) Conditions of the Contract
 - e) Bill of Quantities
3. In consideration of the payments to be made by the Employer to the Consultant as hereinafter mentioned, the Consultant hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.

4. The Employer hereby covenant to pay the Consultant in consideration of the execution and completion of the Works and the remedying of defects therein the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement executed the day and year first before written.

(Name, Designation & address of the authorized signatory)

Signed for and on behalf of the Consultant in the presence of:

Witness:

1.

2.

(Name, Designation & address of the authorized signatory)

Signed for and on behalf of the Employer in the presence of:

Witness:

1.

2.

Name and address of the witnesses to be indicated.