



## **Request for Proposal for**

---

**Remediation of Mine Dumps including Chemical Grouting,  
Micropiling self drilling anchor (SDA) and Perched Reinforced Soil  
Slope, Erosion Control Measures as Pilot Project**

---

**RFP No.: GMDC/CGM/2/23-24**

**March 2024**

**Chief General Manager**

**Gujarat Mineral Development Corporation Limited**

**Khanij Bhavan, 132-ft Ring Road, Gujarat University Ground, Vastrapur,  
Ahmedabad- 380052**

## DISCLAIMER

This RFP is issued by Gujarat Mineral Development Corporation Ltd(GMDC) (hereunder called "Authority"/ "GMDC, together with any of its agents, contractors, or Bidders who may have contributed to preparation of this RFP as the context may require or apply) to the Bidders/Bidders interested in assisting GMDC in **(Remediation of Mine Dumps including Chemical Grouting, Micropiling and Perched Reinforced Soil Slope, Erosion Control Measures as Pilot Project etc.)**

It is hereby clarified that this RFP is not an agreement. The purpose of this RFP is to provide the Bidder(s) with information for formulation of their proposals/Bids. While it has been prepared in good faith with due care and caution, GMDC does not accept any liability or responsibility for the accuracy, reasonableness, or completeness of the information, or for any errors, omissions, or misstatements, negligent or otherwise, relating to any feasibility / detailed project report or any other reference document mentioned, implied or referred herein. This RFP may not be appropriate for all persons. It is not possible for GMDC to consider the investment objectives, financial situation, and particular needs of each Proposer/Bidder who reads or uses this RFP. Each Proposer/Bidder should conduct its own investigations and analysis and should check the accuracy, reliability, and completeness of the information in this RFP and where necessary obtain independent advice from appropriate sources.

Bidder should carefully examine and analyze the RFP and bring to the notice of GMDC any error, omission, or inaccuracies therein that are apparent and carry out its own investigation concerning all matters related to the captioned subject, seek professional advice on technical, financial, legal, regulatory and taxation matters and satisfy himself of consequences of entering into any agreement and /or, arrangement relating to the captioned subject pursuant to this RFP. GMDC and its employees make no representation or warranty, express or implied, and shall incur no liability under any law, statute, rules, or regulations as to the accuracy, reliability, or completeness of the information contained in the RFP or in any material on which this RFP is based or with respect to any written or verbal information made available to any Proposer or its representative(s).

GMDC may in their absolute discretion, but without being under any obligation to do so, update, amend, or supplement the information in this RFP as per its requirements. GMDC reserves the right not to proceed with the project, to alter the timetable reflected in this document or to change the process or procedure to be applied or cancel the RFP at any stage. It also reserves the right to decline to discuss the Project further with any party submitting a Proposal. No reimbursement of cost of any type will be paid to persons, entities submitting a Proposal/Bid. The decisions of GMDC with respect to evaluation of this bid will be final.

The bidder shall bear all costs associated with or relating to the preparation and submission of its bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by GMDC or any other costs incurred in connection with or relating to its bid, regardless of the conduct or outcome of the bidding process.

## TABLE OF CONTENTS

DISCLAIMER .....	2
DEFINITIONS .....	6
SECTION I: BACKGROUND.....	8
SECTION II: SCOPE OF WORK .....	10
1. Scope for Work & Deliverables .....	10
2. SUPPORT FROM GMDC .....	13
SECTION III: INTRUCTIONS TO BIDDERS.....	15
1. INTRODUCTION .....	15
1.1. Bidding Process.....	15
1.2. Due Diligence .....	16
1.3. Acknowledgement by Bidder.....	16
1.4. Cost of Bidding.....	16
1.5. RFP Processing Fee .....	16
1.6. Schedule of Bidding .....	18
2. GENERAL .....	19
2.1. Bid Validity .....	19
2.2. Numbers of Bids by Bidder .....	19
2.3. Governing Law and Jurisdiction .....	19
2.4. Authority’s Right to Accept and Reject any Bids or all Bids .....	19
2.5. Earnest Money Deposit (EMD)/Bid Security.....	20
3. DOCUMENTS AND PRE-BID CONFERANCE .....	21
3.1. Content of RFP .....	21
3.2. Clarification to RFP Documents .....	21
3.3. Pre-Bid Meeting.....	22
3.4. Amendment of Bidding Documents .....	22
4. PREPARATION AND SUBMISSION OF BIDS.....	23
4.1. Language of Bid .....	23
4.2. Bid Currency .....	23
4.3. Format and Signing of Bid.....	23
4.4. Submission Format & Sealing and Marking of Proposals .....	23
4.5. Bid Due Date .....	25
4.6. Late Submission .....	25
4.7. Modification and Withdrawal of Bids.....	25
5. BID EVALAUTION CRITERIA .....	26
5.1. Pre-Qualification Criteria .....	26
5.2. Technical Score Criteria .....	28
5.3. Evaluation of Price Bid and Financial Score .....	30
5.4. Composite Score .....	31
6. EVALUTION PROCESS .....	31
6.1. Opening of Technical Bid .....	31
6.2. Evaluation of Technical Bid.....	31
6.3. Opening of Price Bid and Financial Score .....	32
6.4. Composite Score.....	33
6.6. Verification and Disqualification.....	33
6.7. Contacts during Bid Evaluation.....	34
6.8. Correspondence with Bidder .....	34

6.9.	Confidentiality .....	34
7.	SELECTION OF BIDDER AND SIGNING OF AGREEMENT.....	34
7.1.	Notification of Award .....	34
7.2.	Signing of Agreement .....	35
7.3.	Performance Security .....	35
7.4.	Commencement of Work/Assignment .....	36
7.5.	Proprietary Data .....	36
7.6.	Tax Liability .....	36
8.	FRAUD AND CORRUPT PRACTICES .....	36
9.	CONFLICT OF INTEREST .....	38
10.	MISCELLANEOUS.....	39
	SECTION IV: PAYMENT TERMS.....	41
1.	PAYMENT TERMS .....	41
1.1.	Payment Terms for the Scope of Work.....	41
	SECTION V: CONTRACT TERMS AND CONDITIONS .....	43
1.	GENERAL .....	44
2.	COMMENCEMENT, COMPLETION AND TERMINATION OF AGREEMENT .....	47
2.7.1.	Definition.....	48
2.7.2.	No Breach of Agreement.....	48
2.7.3.	Measures to be taken.....	49
2.7.4.	Extension of Time .....	49
2.7.5.	Payments.....	49
2.7.6.	Consultation .....	49
2.9.1.	Termination by Authority .....	49
2.9.2.	By Contractor .....	50
2.9.3.	Cessation of rights and obligations .....	50
2.9.4.	Cessation of Services .....	50
2.9.5.	Payment upon Termination .....	51
2.9.6.	Disputes about Events of Termination .....	51
3.	OBLIGATIONS OF THE CONTRACTOR .....	51
3.1.1.	Standard of Performance .....	51
3.1.2.	Terms of Reference .....	51
3.1.3.	Applicable Laws .....	51
3.2.1.	Contractors not to Benefit from Commission, Discounts etc.....	52
3.2.2.	Contractors and Affiliates not to engage in Certain Activities .....	52
3.2.3.	Confidentiality .....	52
4.	CONTRACTOR'S PERSONNEL.....	55
5.	OBLIGATIONS OF GMDC.....	56
6.	PAYMENT TO THE CONTRACTOR .....	57
7.	LIQUIDATED DAMAGES AND PENALTY .....	57
8.	FAIRNESS AND GOOD FAITH .....	59
9.	DISPUTE RESOLUTION .....	59
	SECTION IV: ANNEXURE.....	61
	ANNEXURE 1: LETTER OF BID SUBMISSION .....	61
	ANNEXURE 2: BIDDER'S ORGANIZATION AND EXPERIENCE.....	62
	ANNEXURE 3: COMMENTS AND SUGGESTIONS ON THE TERMS OF REFERENCE AND FACILITIES TO BE PROVIDED BY AUTHORITY .....	63

ANNEXURE 4: DESCRIPTION OF APPROACH, METHODOLOGY AND WORK PLAN FOR PERFORMING THE ASSIGNMENT/ SCOPE OF WORK.....	64
ANNEXURE 5:TEAM COMPOSITION AND TASK ASSIGNMENTS.....	65
ANNEXURE 6:CURRICULUM VITAE (CV) FOR PROPOSED EXPERTS AND SUPPORT STAFF.....	66
ANNEXURE 7: TURNOVER STATEMENT.....	68
ANNEXURE 8: NO BLACKLISTING CERTIFICATE.....	69
ANNEXURE 9: FORMAT OF POWER OF ATTORNEY FOR AUTHORIZING BIDDER’S SIGNATORY .....	70
ANNEXURE 10:POWER OF ATTORNEY TO LEAD MEMBER .....	71
ANNEXURE 11:JOINT BIDDING AGREEMENT.....	72
ANNEXURE 12:UNDERTAKING .....	73
ANNEXURE 13: INDICATIVE FORMAT OF PRICE BID .....	74
ANNEXURE 14: FORMAT FOR BANK GUARANTEE FOR TOWARDS BID SECURITY/EARNEST MONEY DEPOSIT....	79
ANNEXURE 15: FORMAT FOR BANK GUARANTEE FOR PERFORMANCE SECURITY .....	82
ANNEXURE 16: LIST OF APPROVED BANKS FOR EMD AND PERFORMANCE SECURITY IF BIDDER INTENDS TO SUBMIT BANK GUARANTEE .....	85
Annexure 17: DECLARATIONABOUTTHESITEVISIT.....	90
Annexure 18 TECHNICAL SPECIFICATION .....	94

## DEFINITIONS

In this RFP, the following word (s), unless repugnant to the context or meaning thereof, shall have the meaning(s) assigned to them herein below:

1. **“GMDC”/Authority** shall mean the Gujarat Mineral Development Corporation Ltd who shall appoint the Bidder for the captioned work.
2. **“Bidder”** shall mean a Single Bidder or a Consortium.(please see whether consortium is to be permitted to bid) Single Bidder or each member of Consortium should be a firm or body corporate which is a Limited Liability Partnership registered under LLP act or a company under the Indian Companies Act 1956/2013 or a proprietorship firm which submits a Bid to provide Services to GMDC along with Bid Security and RFP Fees as per the terms of this RFP within the stipulated time for submission of Bids.
3. **“Bid/Proposal”** means the Bid submitted by the Bidder(s) in response to this RFP in accordance with the provisions hereof including Technical Bid and Price Bid along with all other documents forming part and in support thereof as specified in this RFP.
4. **“Bid Due Date”** means last date of Bid submission as set out in clause 1.1 a of SECTION III
5. **“Successful Bidder”** shall mean the Bidder who is selected by Authority/GMDC as per the process outlined in this RFP Document for assisting GMDC as per the Terms of Reference specified in this RFP.
6. **“ Agreement/Agreement/Contract/ Works ”** is the agreement entered into between ‘Gujarat Mineral Development Corporation Ltd (GMDC)’ and ‘Bidder’ comprising of all terms and conditions stated in this RFP.
7. **“Consortium”** shall mean the group of legally constituted entities, who have come together to participate in captioned work. A Consortium is permitted to participate in this Project/Assignment.
8. **“Corrupt practice”** shall have the meaning ascribed thereto under clause 8 of SECTION III.
9. **“Conflict of Interest”** shall have a meaning specified in clause 9 of SECTION III.
10. **“Charges/ Fees /Fees”** shall mean the charges payable by GMDC for the Works executed by the Bidder.
11. **“Composite Score”** shall mean score obtained by Bidder as per the formula provided in clause 5.4.
12. **“Pre-Qualification Criteria”** means criteria specified in clause 5.1 of SECTION III
13. **“Evaluation Process”** means steps of evaluation specified in clause 6 of SECTION III
14. **“EMD/ Bid Security”** means the Bid security/ earnest money deposit to be submitted by the Bidder as per clause 2.5 of SECTION III.
15. **“Financial Score”** shall mean score obtained by Bidder as per the formula provided in clause 5.3 of SECTION III.
16. **“Letter of Award”** shall have the meaning ascribed thereto under clause 7.1 of RFP SECTION III.
17. **“Parties”** means the parties to the Agreement and “Party” means either of them, as the context may admit or require.

18. **“Preferred Bidder”** shall have a meaning specified in clause 6.4 (ii) of RFP SECTION III.
19. **“Successful Bidder”** means the Preferred Bidder selected in terms hereof and to whom GMDC shall issue the Letter of Award in accordance with the provisions hereof and who shall undertake the Terms of Reference as per the terms specified in RFP.
20. **“Scope /Works/ Project/ Assignment”** means all the activities as per Scope of work mentioned in the RFP which the Bidder is required to carry out as per the Good Industry Practice. Detailed is specified in SECTION II of RFP.
21. **Technical Score** shall mean score obtained by Bidder as per the Technical Score system provided in clause 5.2 of RFP SECTION III.
22. **“Third Party”** means any Person other than GMDC and the Bidder.
23. **“IITR/IIT Roorkee”** means Technical Advisor for slope stability of mines.

Any other term(s), not defined herein above but defined elsewhere in this RFP shall have the meaning(s) ascribed to such term(s) therein and shall be deemed to have been included in this Section.

## SECTION I: BACKGROUND

Gujarat Mineral Development Corporation Ltd (GMDC) is a leading Public Sector Mining and Minerals Company of Gujarat with operational experience of over 60 years. GMDC's product portfolio spans across mining, value added products and power. Its power portfolio includes clean energy sources such as solar and wind besides thermal power.

GMDC's mining activities are spread across Gujarat in Kutch, Devbhoomi Dwarka, Panchmahal, Vadodara, Bhavnagar, Bharuch, Surat and Chhotaudepur districts of the State. It is currently mining minerals like Lignite with five operational lignite mines, Bauxite (11 operating mines), Fluorspar, Manganese, Ball Clay, Silica Sand, Bentonitic Clay and Limestone. GMDC also value adds to minerals through works such as Pyrite removal from Lignite, Beneficiation of Bauxite, Beneficiation of Low-Grade Manganese and Beneficiation of Fluorspar. The Company has set up a 250 MW lignite based Thermal Power Station at Nani Chher in Kutch as a forward integration, Wind power plant of 200.9 MW at Maliya, Jodiya, Godsar, Bhanvad, Bada, Verbal, Rojmal and Solar Power plant of 5 MW at Panandhro Project. GMDC's existing Metallic mineral portfolio includes Fluorspar, Manganese, Bauxite, and Multimetals in addition to other associated minerals like silica sand, Bentonite, Ball Clay and Limestone.

GMDC has undertaken a strategic transformation exercise over the last year with a view to achieve growth milestones, diversity its product portfolio, leverage existing assets, provide inputs to the industry and contribute to the growth of the state's economy.

As part of its strategic transformation exercise, GMDC is already in the process of expanding its mining operations by setting up six new lignite- based projects in Kutch and South Gujarat. Further, GMDC through its metal division also intends to expand and develop metal mining portfolio by developing existing metal mining projects and exploring new opportunities in metal mining sector in India. A number of other projects are in the pipeline based on identified thrust areas. GMDC also have two new coal blocks in Odisha.

Tadkeshwar Lignite lease area falls in Mandvi Taluka of Surat district of Gujarat State and is covered by the Survey of India, toposheet no. 46 G/3. Tadkeshwar village is located in the western part of this area adjacent to the lease boundary. The district head quarter Surat and taluka head quarter Mandvi are located at a distance of about 40 KM & 30 KM respectively.

The National Highway (NH48) which connects Mumbai and Ahmedabad passes on the western side of the lease area at about 11 KM. distance. The area is connected to NH 8 through state highway & district road. The area is easily accessible by road at all seasons. The broad gauge railway line connects Mumbai & Ahmedabad of western railway passes near to NH 48 and the nearest railway station KIM is 15 KM away from this area. The nearest Hajira port is located in SSW side of this area. This port is nearest to Surat City. The nearest airport is Surat which connects to major cities like Mumbai, Delhi, Ahmedabad. Etc. by flight Vadodara City is located at a distance about 107 km northern side of the lease area.

## Brief Description of Work

Slope stabilization for mine dumps is crucial to mitigate the risk of slope failures, which can result in significant safety hazards, environmental damage, apart from financial implications. Brief description of the work is explained below: -

1. **Permeation Grouting:** Permeation Grouting using Epoxy/PU based low viscosity Chemical Grouts, at the toe of the slope near the coal bed seam.
2. **Micropiling:** Terracing involves constructing a series of flat platforms or steps along the slope to reduce the angle of inclination. This method helps to redistribute the gravitational forces acting on the slope and minimizes the risk of mass movements.
3. **Surface Water Management:** Proper management of surface water is essential for slope stabilization. This includes implementing measures such as drainage channels, diversion ditches, and erosion control structures to redirect water away from the slope and prevent saturation of the soil.
4. **Geotechnical Engineering Techniques:** Various geotechnical engineering techniques can be employed to improve the stability of mine dump slopes. These may include installing reinforced soil structures to strengthen the toe of dump slopes reinforce the slope and restrict the movement.
5. **Slope Protection:** Applying surface cover systems such as 3D Reinforced Geosynthetic Mat, and soil nails can provide additional protection against erosion and weathering, reducing the likelihood of slope instability.
6. **Minor Maintenance:** Regular monitoring of slope conditions and implementing timely maintenance measures are essential for identifying potential hazards and addressing them before they escalate into serious problems. This may involve slope stability assessments, instrumentation installation, and routine inspections during the course of contractual period.
7. **Backfilling and Recontouring:** In some cases, backfilling excavated areas and recontouring the slope including perched reinforced soil wall structures to more gradual profile to help improve stability and reduce the risk of slope failures.

Implementing a comprehensive slope stabilization plan tailored to the specific characteristics of the mine dump site is essential for ensuring long-term stability and minimizing risks to personnel, infrastructure, and the environment. It's also important to comply with relevant regulations and standards governing mine waste management and slope stability.

## SECTION II: SCOPE OF WORK

The detailed scope of works are as under. Deliverables and Timeline are specified in this section.

### 1. Scope for Work & Deliverables

Slope stabilization for mine overburden internal/external dumps /in-situ benches at various locations /chainages inside lease area of Tadkeshwar Lignite Mine using advance construction techniques like Chemical Grouting, Micropiling, Slope Protection using 3D Green Mats, geo textile, geo cell , Self-drilling anchor(SDA) Anchors, Perched Reinforced Soil Wall Structures at the Toe of the benches connected.

#### i. Site Assessment and Analysis:

- Site assessment for understanding the slope's characteristics, including slope angle, soil type, geological conditions, and existing vegetation.
- Analyse field geotechnical investigation to determine soil properties, groundwater levels, and potential failure mechanisms.
- Engage a geotechnical engineer to assess slope stability and identify critical failure surfaces for discussion with(IIT-Roorkee)
- Project management and IITR finds, during the course of execution that quantity of work require to be reduced then same shall be binded to the successful bidder.
- Project management and IITR finds, during the course of execution that location of execution is required to be shifted/change within the mine lease area at other location then successful bidder shall be bound to follow without any condition.

#### ii. Risk Assessment and Management:

- Evaluate potential risks associated with slope instability, such as landslides, erosion, or settlement.
- Develop a risk management plan outlining strategies for risk mitigation, including slope protection measures, dewatering systems, and emergency response protocols.

#### iii. Design Criteria and Standards:

- Establish design criteria and standards based on regulatory requirements, industry best practices, and project-specific conditions.
- Consider factors such as safety factors, design life, environmental impacts, and aesthetic considerations.
- Design Vetting with IIT-Roorkee

#### iv. Stabilization Techniques:

- Select appropriate stabilization techniques location-wise based on the site conditions and project objectives based on guidance of, IIT-Roorkee.

▪

- Mechanical stabilization of Toe using Chemical Grouting Technique.
  - SDA Anchoring with 3D Polymeric Mat with bioengineering, including drainage improvements)
  - Providing Perched Reinforced Soil Slopes Stabilization at the toe of the berms as per the site conditions.
  - Using Micropiling techniques at appropriate locations as per the directions of, IIT-Roorkee
  - Surface and Sub-surface drainage arrangements with proper outlets.
  - Implement Well Point Dewatering Methods
- v. Construction Specifications:**
- Develop detailed construction specifications outlining materials, methods, and quality control measures for implementing stabilization measures.
  - Include requirements for site preparation, excavation, installation of stabilization elements, compaction, and erosion control.
  - Specify construction tolerances, testing procedures, and acceptance criteria to ensure compliance with design standards as per IITR and regulatory requirements.
- vi. Monitoring and Maintenance Plan:**
- Establish a monitoring and maintenance plan to assess the performance of stabilization measures and detect early signs of instability as per IITR
  - Define monitoring parameters, frequency of inspections, and responsibilities for maintenance activities as per IITR
  - Incorporate provisions for periodic maintenance, repairs, and adjustments to ensure the long-term effectiveness and safety of the slope stabilization system.
- vii. Documents, Submission and Approvals:**
- Prepare Working drawings, specifications, and tender documents, for procuring construction services with detailed construction methodology and completion schedule and approval from IITR.
- viii. Environmental and Regulatory Compliance:**
- Ensure compliance with environmental regulations as per GMDC Requirements.
  - Implement erosion and sediment control measures to minimize environmental impacts during construction and stabilize disturbed areas post-construction.
  - Compliance to DGMS Rules and Regulations.
  - Coordinate with GMDC to address concerns and obtain approvals as needed.

By following these advanced tips and considerations, Successful Bidder can develop a comprehensive action plan under the guidance of IITR for slope stabilization that addresses technical challenges, minimizes risks, and ensures the long-term stability and safety of the slope.

### **1.1 Permeation Grouting (Chemical)**

The Scope of Work shall include the following: -

- a. Conduct a detailed site investigation to assess the condition of the mine dump, including its composition, stability, and potential sources of instability (e.g., voids, fractures, seepage)
- b. Assess the Consumption of Chemical Intake by performing permeation tests.
- c. Select appropriate grout materials based on site-specific conditions, such as the composition of the mine dump, groundwater chemistry, and desired treatment objectives.
- d. Develop a grout mix design considering factors such as grout viscosity, strength, permeability, and compatibility with dump materials.  
Select appropriate injection equipment, such as grout pumps, packers, and monitoring instruments, capable of delivering the desired grout volume, pressure, and accuracy.
- e. Accuracy in respect of penetration of the chemical grout be ensured in the manner that it must be in between the final projected level of bench upto the 5 meters beneath the decoaled floor level as the loose dump material above the projected final benches has to be removed during the course of mining operation for extraction of lignite.
- f. Implement a monitoring program to track grout injection parameters, including injection pressures, flow rates, volumes, and grout take.
- g. For both the chemicals to be used as per the specification mentioned in the BOQ. The test certificate (specified certified report) must be submitted with online submission of documents. the successful bidder must also submit the above said report at project before execution of work.
- h. The GMDC/IITR can ask the successful bidder for both chemical and physical tests/checks in the laboratory at the project for the material which will be used for grouting at any time during the execution of work in mines.
- i. The successful bidder must ensure the quality of the materials which includes both types of chemicals as per specification mention in the RFP and certificate submitted with online submission of documents. If any abnormality found with respect to the quality during execution of the work GMDC management will take appropriate action in this regards.
- j. Establish quality control measures to ensure the consistency and reliability of grouting operations throughout the project.
- k. Conduct pre-grouting tests, such as permeability tests, pressure grouting trials, and field permeability tests, to verify grout mix performance and injection procedures.
- l. Implement field testing and inspection protocols to evaluate grout penetration, distribution, and bonding with surrounding materials.
- m. Approval of schemes from IITR and the work to be carried out in coordination with IITR.

## **1.2 Micropiling**

The Scope of Work shall include the following: -

- a. Conduct a thorough site investigation to assess subsurface conditions, including soil type, stratigraphy, groundwater levels, and potential obstructions.
- b. Select appropriate micropile types and configurations based on site-specific conditions, structural requirements, and construction constraints.
- c. Design micropile elements considering factors such as diameter, length, reinforcement, grout type, and installation method (e.g., rotary drilling, impact driving etc.)
- d. Perform structural analysis and load testing to verify the adequacy of the micropile design and ensure compatibility with existing structures or foundations.
- e. Approval of schemes from IITR and the work to be carried out in coordination with IITR.

### **1.3 Slope Protection**

- a. Conduct a thorough site investigation to assess subsurface conditions, including soil type, stratigraphy, groundwater levels, and potential obstructions.
- b. Select appropriate 3D Reinforced geo textile, etc and configurations based on site-specific conditions.
- c. Select and appropriate the SDA Anchors required for fixing of 3D Mats in positions.
- d. Provide Construction Methodology
- e. Prepare proper surface drains with disposal pits.
- f. Approval of Schemes from IITR and the work to be carried out in coordination with IITR.

### **1.4 Perched Reinforced Soil Slopes**

- a. Conduct a detailed site investigation to assess soil properties, groundwater conditions, and slope stability.
- b. Select appropriate reinforcement materials and wall facing systems based on site-specific conditions, project objectives, and design requirements.
- c. Develop detailed designs for the reinforced soil wall, including specifications for reinforcement types, spacing, embedment depths, facing materials, and connection details.
- d. Perform structural analysis and design checks to ensure the stability, strength, and durability of the reinforced soil wall under various loading conditions and environmental factors.
- e. Provide Construction Methodology.
- f. Approval of Schemes from IITR and the work to be carried out in coordination with IITR.

## **2. SUPPORT FROM GMDC**

GMDC shall provide all necessary information/authorization/documents/data, which is available.

- Authorization to Agency for representing GMDC with various stakeholders (i.e., various Govt. offices) for execution of work.
- All statutory payments will be in the scope of GMDC.
- Access to site & space for labour camps if available

- General Lightening of Site
- Drinking water
- Space for Sanitation facilities if available

## SECTION III: INTRUCTIONS TO BIDDERS

### 1. INTRODUCTION

#### 1.1. Bidding Process

- a. GMDC has adopted a single stage two packet online bidding system separately for Technical Bid and Price Bid with evaluation as per Quality cum Cost Based System (QCBS) Method as detailed out in **RFP for stabilization of mine dumps including slope protection, Erosion Control Measures including dewatering at Tadkeshwar lignite mine**(the “**Bidding Process**”). Technical Bid shall be submitted physically whereas Price Bid shall be submitted online through <https://gmdc.nprocure.com>. The Bidders are required to place pen drive comprising of soft copy of technical proposal/Bid as part of Technical Bid submission along with Physical copy. The Bids for which the Price Bid is submitted in hard copy / physical form/ pen drive shall be rejected as non-responsive. Complete Bid shall be submitted on or before the time and date fixed for submission of Bid (“**Bid Due Date**”). Bid delivered after Bid Due Date will be rejected.
- b. The Bidders need to offer its Bid which conforms to Terms of Reference and Terms and Conditions provided as part of this RFP Document.
- c. In a first step, evaluation of Technical Bid will be carried out as specified in Clause 6.2 of SECTION III. Based on Technical evaluation, the Price Bids of only Bidder’s meeting Responsiveness Criteria, Pre-Qualification Criteria and Qualification criteria as specified in clause 6.2(a), 5.1 and 5.2 shall be opened.
- d. In the second stage, a Price Bid Evaluation of Technically Qualified Bidders will be carried out as per Clause 5.3 and 6.2. The Bids will finally be ranked from the highest to lowest according to their combined technical and price scores (the “**Composite Score**”) derived based on Quality cum Cost based method (the “QCBS”) specified in Clause 5.4 of RFP SECTION III. The Bidder obtaining Highest Composite score shall be considered as Preferred Bidder (the “**Preferred Bidder**”).
- e. **Site Visit is mandatory** All interested Bidders must visit the site and should understand and assess the sensitivity of the mine and the work aspect in detail and then after only obtain a “site visit Certificate” from GMDC. The contact GM (P) at Tadkeshwar project is Shri P A Mathur, 97277 92726. This Certificate shall be submitted along with the bid documents. Along with that potential bidder shall submit self-undertaking certificate having understood site condition in detail and thereon quote the price accordingly. The information/details given in the bid document are only to describe the magnitude of work and are for mere guidance to the bidders.

Any neglect or failure on the part of the bidder in obtaining necessary and reliable information upon the foregoing or any other matters affecting the contract shall not relieve the successful bidder from any risk or liability or the entire responsibility from completion of the work at the scheduled rates in strict accordance with the contract document. The bidders should give a declaration of site visit as per the format Annexure 18.

Interested Bidders must send the request in advance to GMDC. Site visit shall close before 01 (one) days from the date of bid. Bids without **mandatory site visit**

**certificate** of site visit shall be outrightly rejected.

Bidder must bring both the chemical during site visit and must give demonstration of tadkeshwar lignite dump soil for which chemical grouting is required in GMDC laboratory on the bidder cost (for 3 to 5kg soil sample chemical grouting). The bidder must submit the test certificate of both the chemicals to be used for chemical grouting during the online bidding.

Interested bidders shall make their own arrangements for travel and staying for site visit, however, GMDC shall take of appropriate logistics for visit to the designated locations within the mines boundary. GMDC will not be held responsible for accidents/incidence, if occurs during site and liable for any legal implications.

Interested bidders shall mandatorily carry Power of Attorney, Company Registration Certificate, Company Letter Heads, GST Certificate, Stamp, 02(two) nos Passport Size Photographs, and must be an authorized representative of the interested bidders.

### **1.2. Due Diligence**

The Bidders are encouraged to examine and familiarize themselves fully about the nature of assignment, scope of work, all instructions, forms, terms and conditions of RFP, local condition and any other matters considered relevant by them before submitting the Bid by paying a visit to the site, sending written queries to GMDC, and attending a Pre-Bid meeting.

### **1.3. Acknowledgement by Bidder**

By submitting the bid or proposal, the bidder acknowledges that:

- 1) made a complete and careful examination of the RFP
- 2) received all relevant information requested from GMDC;
- 3) accepted the risk of inadequacy, error or mistake in the information provided in the RFP or furnished by or on behalf of GMDC relating to any of the matters referred to in Clause 1.2 above; and
- 4) acknowledged that it does not have a Conflict of Interest
- 5) agreed to be bound by the undertakings provided by it under and in terms hereof.

GMDC shall not be liable for any omission, mistake or error in respect of any of the above or on account of any matter or thing arising out of or concerning or relating to the RFP or the Bidding Process, including any error or mistake therein or in any information or data given by GMDC.

### **1.4. Cost of Bidding**

The Bidders shall be responsible for all of the costs associated with the preparation of their Bids and their participation in the Bid Process. GMDC will not be responsible or in any way liable for such costs, regardless of the conduct or outcome of the Bidding Process.

### **1.5. RFP Processing Fee**

- a) Bidder will need to submit nonrefundable RFP Document/Tender Fee of **INR 17,700 (i.e. RFP fees of INR 15,000 plus 18% GST)**. The RFP Document Fees shall be submitted (i) in the form of a Demand Draft in favour of **“Gujarat Mineral**

**Development Corporation Limited”** and payable at Ahmedabad along with the Bid as per marking and sealing section **or** (ii) by depositing the stated amount directly into GMDC bank account through NEFT/RTGS. In such a case, while submitting the online bid on npcocure, when Bidders are prompted to input the DD number, the Bidder may enter the NEFT/RTGS transaction number. Details for payment in favour of GMDC Limited through electronic mode is specified below:

ICICI Bank, Ahmedabad Branch

Account Number: 002405019379

IFSC Code : ICIC0000024

- b) If payment is made through electronic mode, then Bidder shall submit the receipt of the same in the technical bid documents.
- c) In case of Demand Draft Then Demand Draft shall be from any bank among the list of scheduled commercial Bank in India published by RBI. This demand Draft for RFP document shall be non-refundable. Bids that are not accompanied by the RFP fees in acceptable amount and form shall considered non- responsive and shall be summarily rejected.
- d) Relaxation in terms of submission of RFP Fee shall be given to the bidder who is holding valid Certificate issued under the MSME Act, 2006 on the date of submission of bid to this RFP.

## 1.6. Schedule of Bidding

Sr. No.	Event Description	Date, Time and Address
1	Date from which RFP documents will be available	RFP shall be available from 13/03/2024 from website <a href="http://www.gmdcltd.com">http://www.gmdcltd.com</a> & <a href="https://gmdc.nprocure.com">https://gmdc.nprocure.com</a>
2	Last date for receiving Pre-Bid queries/clarifications	Bidders may send their queries by 06/04/2024 up to 17:00 hrs to following contacts or reach out for any assistance. <b>Chief General Manager</b> <b>Email : <a href="mailto:hkjoshi@gmdcltd.co.in">hkjoshi@gmdcltd.co.in</a> / <a href="mailto:pamathur@gmdcltd.co.in">pamathur@gmdcltd.co.in</a></b> Address: Khanij Bhavan, 132 ft Ring Road, Gujarat University Ground, Vastrapur, Ahmedabad
3	Pre-Bid Meeting	The Pre-Bid Meeting shall be held at 09/04/2024 at <b>12:00 hrs. on</b> at GMDC office situated at Khanij Bhavan, 132- ft Ring Road, Gujarat University Ground, Vastrapur, Ahmedabad- 380052
4	Online Submission of Price Bid	The Price Bid is to be submitted online <b>only</b> at designated place on <a href="https://gmdc.nprocure.com">https://gmdc.nprocure.com</a> 29/04/2024 up-to 17:00 hrs. and (i) any submission of offline price bid (i.e., physical submission) or (ii) submission of price bid along with technical bid will lead to disqualification. A copy of instruments or information pertaining to it may be required to be submitted online at the time of submission of Price bid. Technical Bid is not to be submitted online, but should be submitted in <b>physical offline mode</b> at the designated address by the deadline mentioned.
5	Last Date and Time of Submission of Technical Bid, RFP Fees & EMD in Hard Copy	The Technical Bid is to be submitted off line, on or before 29/04/2024 upto <b>to 17:00 Hrs.</b> at GMDC office situated at Khanij Bhavan, 132-ft. Ring Road, Gujarat University Ground, Vastrapur, Ahmedabad-380052, <b>by Speed Post/RPAD/Hand delivery /Courier</b> in sealed cover duly super scribed as mentioned in the RFP.
6	Opening of Technical Bid	On 29/04/2024 at <b>17:30 Hrs.</b> at GMDC office
7	Opening of Price Bid	To be indicated to later after completion of Technical Evaluation

<b>8</b>	Signing of Agreement	Within 30 days from the date of issuance of LOA.
----------	----------------------	--

GMDC shall endeavor to adhere to the bidding schedule as specified in above. However, there may be changes due to unavoidable circumstances. Any change shall be informed by placing the Corrigendum on the website and n-procurement portal.

## **2. GENERAL**

### **2.1. Bid Validity**

- a) Bids shall remain valid for a period of not less than 180 days (One Hundred and Eight days) from the Bid Due Date/Bid Submission Date (the “**Bid Validity Period**”). The Bid of the Bidder shall be considered non-responsive if such Bid is valid for a period less the Bid Validity Period.
- b) In exceptional circumstances, prior to expiry of the original Bid Validity Period, Authority may request the Bidders to extend the period of validity for a specified additional period. The request and the responses thereto shall be made in writing. A Bidder may refuse the request without forfeiting his Bid Security/EMD. A Bidder agreeing to the request will not be required or permitted to modify his Bid but will be required to extend the validity of his Bid Security/EMD for the period of the extension, and in compliance with Clause 2.5 of RFP SECTION III in all respects.

### **2.2. Numbers of Bids by Bidder**

No Bidder shall submit more than one Bid pursuant to this RFP. If a Bidder submits or participates in more than one Bid, such Bids shall be disqualified.

### **2.3. Governing Law and Jurisdiction**

The Bidding Process shall be governed by, and construed in accordance with, the laws of India and the Courts at Ahmedabad shall have exclusive jurisdiction over all disputes arising under, pursuant to and/ or in connection with the Bidding Process.

### **2.4. Authority’s Right to Accept and Reject any Bids or all Bids**

- a) Notwithstanding anything contained in this RFP, GMDC reserves the right to accept or reject any Bid and to annul the Bidding Process /Bid Evaluation Process and reject all Bids, at any time without any liability or any obligation for such acceptance, rejection or annulment, and without assigning any reasons thereof.
- b) It shall be deemed that by submitting the Bids, the Bidder agrees and releases GMDC, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/ or performance of any obligations hereunder, pursuant hereto and/ or in connection with the Bidding Process and waives, to the fullest extent permitted by applicable laws, any and all rights and/or claims it may have in this respect, whether actual or contingent, whether present or in future.
- c) Without prejudice to the generality of Clause (a) and (b) above, GMDC reserves the right to reject any Proposal/Bid if:
  - 1) Bid does not meet the Pre-qualification qualification criteria specified in this RFP

- 2) at any time, a material misrepresentation is made or discovered, or
  - 3) The Bidder found to be indulging in Fraudulent and Corrupt Practices as defined in this RFP.
  - 4) the Bidder does not provide, within the time specified by GMDC, the supplemental information sought by GMDC for evaluation of the Bid.
  - 5) Bidder submits conditional Bid.
  - 6) In absence of Site Visit Certificate.
- d) If such disqualification / rejection occurs after the Bids have been opened and the Preferred Bidder as per award criteria gets disqualified / rejected, then GMDC reserves the right to consider the next best Preferred Bidder, or take any other measure as may be deemed fit in the sole discretion of GMDC, including annulment of the Selection Process.

## 2.5. Earnest Money Deposit (EMD)/Bid Security

- a) The bidder shall furnish, a separate Bid Security (also referred to as "Earnest Money Deposit" (EMD)/ Bid Security") for Captioned work as part of his Bid as per the given format. The Bid Security/EMD shall be sealed in a separate sealed envelope along with RFP Fees and super scribing "Earnest Money Deposit and RFP Fees ". An Earnest Money Deposit of amount **INR 14 lakhs (INR fourteen lakhs)** shall be provided in favour of "**Gujarat Mineral Development Corporation Ltd**", in any one of the following forms/formats. The List of Approved Bank is provided in Annexure 16 from GOG approved banks except co-operative banks from time to time.
  - i. Account payee Demand Draft /Banker's Cheque from any bank among the list of scheduled commercial Bank in India published by RBI.
  - ii. An irrevocable Bank Guarantee (the "**Bank Guarantee**"), payable at Ahmedabad from the banks approved by the Government of Gujarat except Cooperative Banks as per the Annexure 14 and valid for a period of 210 days (Two Hundred and Ten Days) from the Bid Due Date in the format prescribed in the bid documents. The validity of Bank Guarantee may be extended as may be mutually agreed between Authority and Bidder from time to time as per clause 2.1 of RFP SECTION III. In case Bidder intends to provide Bank Guarantee then it should be provided Compulsory e-Bank Guarantee Confirmation through ICICI Bank through SFMS<sup>1</sup> under our IFS Code: ICIC0000024 and UIC GMDC530265584 for Field 7037. Bank Name: ICICI BANK LTD.
- b) Any bid not accompanied with valid Earnest Money Deposit and RFP fee in the acceptable amount, form and validity period will be summarily rejected by GMDC as being non-responsive and bids of such Bidder shall not be evaluated further.
- c) GMDC shall not be liable to pay any interest on the Bid Security/EMD deposit and the same shall be interest free. The EMD shall be furnished in Indian Rupees only.
- d) The Bid Security of unsuccessful Bidders will be returned by GMDC, as promptly as possible on acceptance of the Bid of the Preferred Bidder or if and when GMDC

---

<sup>1</sup>Structured Finance Messaging System (SFMS) is a RBI mandated Bank Guarantee Messaging System.

cancels the Bidding Process. Bidders may by specific instructions in writing to GMDC give the name and address of the person in whose favour the said demand draft shall be drawn by GMDC for refund, failing which it shall be drawn in the name of the Bidder and shall be mailed to the address given on the Bid.

- e) The Preferred Bidder's EMD will be returned, without any interest, upon the Preferred Bidder signing the Agreement and furnishing the Performance Security in accordance with the provision thereof or if and when GMDC cancels the bidding.
- f) GMDC shall be entitled to forfeit and appropriate the Bid Security as Damages inter alia in any of the events specified below. The Bidder, by submitting its Bid, shall be deemed to have acknowledged and confirmed that GMDC will suffer loss and damage on account of withdrawal of its Bid or for any other default by the Bidder during the period of Bid validity as specified in this RFP. No relaxation of any kind on Bid Security shall be given to any Bidder.
  - i. If a Bidder engages in a corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice as specified in Clause 8 of this RFP SECTION III;
  - ii. If a Bidder withdraws its Bid during the Bid Validity Period as specified in this RFP and as extended by mutual consent of the respective Bidder(s) and GMDC;
  - iii. In the case of Successful Bidder, if it fails within the specified time limit –
    - 1) to sign and return the duplicate copy of LOA
    - 2) to sign the Agreement within the time period specified by GMDC.
    - 3) to furnish the Performance Security within the period prescribed therefore in the RFP; or
    - 4) In case the Successful Bidder, having signed the Contract, commits any breach thereof prior to furnishing the Performance Security.

### **3. DOCUMENTS AND PRE-BID CONFERENCE**

#### **3.1. Content of RFP**

This RFP comprises the Disclaimer set forth hereinabove, the contents as listed below, and will additionally include any Addenda issued in accordance with Clause 3.4.

#### **Notice Inviting Tender**

- SECTION I: Background
- SECTION II: Terms of Reference/Scope of Work
- SECTION III: Instructions to Bidders (ITB)
- SECTION IV: Charges & Payment Terms
- SECTION V: Contract Terms & Conditions
- SECTION VI: Annexure

#### **3.2. Clarification to RFP Documents**

- a) Bidders requiring any clarification on the RFP may notify GMDC in writing through email at the address provided. Bidder should send their queries on or before the date mentioned in bid document in order to enable Authority to have adequate notice of

the said queries so that the same can be addressed at the Pre-Bid Meeting or shortly later. GMDC shall Endeavour to respond to the queries at short span of time prior to Bid Due Date. The responses to queries will be uploaded on website of GMDC <http://www.gmdcltd.com> and <https://gmdc.nprocure.com>. GMDC is not bound to take cognizance of any queries raised after the date mentioned in the Bid Sheet Section for sending queries.

- b) GMDC shall endeavor to respond to the questions raised or clarifications sought by the Bidders. However, GMDC reserves the right not to respond to any question or provide any clarification, in its sole discretion, and nothing in this Clause shall be taken or read as compelling or requiring GMDC to respond to any question or to provide any clarification.
- c) GMDC may also on its own motion, if deemed necessary, issue interpretations and clarifications and amendment to RFP. All clarifications and interpretations issued by GMDC shall be deemed to be part of the Bidding Documents. Verbal clarifications and information given by Authority or its employees or representatives shall not in any way or manner be binding on GMDC.

### **3.3. Pre-Bid Meeting**

- a) A pre-bid meeting would be held at time and an address specified in clause 4.4(b) of section III . Bidders shall bear their own cost of attending any pre-bid meeting. In case of Online Meeting, Link shall be shared to the approved interested bidders, who had visited the site and had taken the site visit certificate from the Project.
- b) During the course of pre-bid meeting, the Bidders will be free to seek clarifications and make suggestions for consideration of GMDC. GMDC shall endeavor to provide clarifications and such further information as it may, in its sole discretion, considered appropriate for facilitating a fair, transparent and competitive Bidding Process.
- c) Clarifications/responses would be shared by uploading such responses online only at website of Authority (i.e., <http://www.gmdcltd.com> and <https://gmdc.nprocure.com>) if required in the form of an addendum and or corrigendum.
- d) Non-attendance at the pre-bid conference shall not be a cause for disqualification of a Bidder. However, terms and conditions of the Addendum(s) shall be legally binding on all the Bidders irrespective of their attendance at the Pre-Bid Conference.

### **3.4. Amendment of Bidding Documents**

- a) At any time prior to the Bid Due Date, GMDC may, for any reason, whether at its own initiative or in response to clarifications requested by a Bidder, modify the RFP by the issuance of Addenda/corrigendum.
- b) Any Addendum/Corrigendum issued hereunder and shall be uploaded only on Authority website <http://www.gmdcltd.com> and <https://gmdc.nprocure.com>.
- c) In order to afford the Bidders a reasonable time for taking an Addendum into account, or for any other reason, GMDC may, in its sole discretion, extend the Bid Due Date.

## 4. PREPARATION AND SUBMISSION OF BIDS

### 4.1. Language of Bid

- a) The Bids and all related correspondence and documents in relation to the Bidding Process shall be in English language. All supporting documents and printed literature furnished by the Bidders with the Bid may be in any other language provided that they are accompanied by translations in the English language, duly authenticated and certified by the Bidder.
- b) The Bidders shall ensure that any number mentioned in the Bid shall be followed by words in relation to such numerical format of the number, and in the event, there is a conflict in the numerical and the word format of the number, the number provided in words shall prevail.

### 4.2. Bid Currency

All prices quoted in the Bid shall be quoted in Indian National Rupee(s) (INR).

### 4.3. Format and Signing of Bid

- a) The Bidder shall provide all the information sought under this RFP. GMDC will evaluate only those Bids that are received in the required formats and complete in all respects.
- b) The Bid must be properly signed by the authorized signatory (the “Authorized Signatory”) as detailed below:
  - (1) by a duly authorized person holding the Power of Attorney, in case Bidder is either a Limited Company or a Limited Liability Partnership firm
- c) In case of the Bidder Being Company incorporated under Indian Companies Act 1956/2013, the Power of Attorney shall be supported by a Board Resolution in favour of the person vesting power to the person signing the Bid.

### 4.4. Submission Format & Sealing and Marking of Proposals

- a) The original instruments of the Bid Security of the required value and in approved format as specified in clause 2.5 and RFP Fees as specified in clause 1.5 shall be sealed in an envelope on which the following shall be super scribed:  
“RFP for Stabilization Of Mine Dumps Including Slope Protection, Erosion Control Measures at Tadkeshwar lignite mine”
- b) **The Technical Bid** shall be submitted in **Hard copy**. The documents and format to be submitted for Technical Bid shall be as follows :-

Sr. No	Annexure No.	Particulars
1	1	Letter of Bid Submissions signed by authorized signatory of Bidder
2	2	Bidder’s Organization and Experience. <ul style="list-style-type: none"><li>• Certificate of registration in India along with RBI approval certificate, GSTIN certificate, PAN details <b>OR</b> Partnership deed, GSTIN registration, PAN details <b>OR</b> Incorporation certificate, MOA, AOA, GSTIN Registration, PAN details as may be applicable.</li></ul>

		<ul style="list-style-type: none"> <li>Documentary evidences for work experience of similar nature from the client such Relevant portion of Work Order/contract/Client completion certificate to be submitted. For confidential engagements, bidder may submit sanitized details supported by CA certificate OR Certificate from MD of the Bidder firm.</li> </ul>
3	3	Comments and Suggestions on the Terms of Reference and Facilities to be provided by Authority
4	4	Description of Approach, Methodology and Work Plan for Performing the Assignment Scope of Work
5	5	Team Composition and Task Assignments
6	6	Curriculum Vitae (CV) for Proposed Team and Support Staff
7	7	<ul style="list-style-type: none"> <li>Statutory Auditor/Registered Chartered accountants statement specifying audited Turnover for last three Years</li> <li>Audited Financial statements for last three years</li> </ul>
8	8	No Blacklisting certificate on Stamp Paper
9	9	Authorization of signatory in the form of Board Resolution/ or Power of Attorney (POA notarized and Applicable in case of bid not being signed by the person directly authorized by the firm), as applicable
10	10	Power of Attorney to Lead Member (Applicable in case of Consortium)
11	11	Joint Bidding Agreement ((Applicable in case of Consortium)
12	12	Undertaking for information and document provided are true.
13		Original RFP documents issued along with updated addendums /amendments thereto, duly signed by the Bidder through its authorized signatory on all pages.
		A pen drive comprising of soft copy of Technical Bid also to be submitted as part of Technical Bid. Bidders for whom a pen drive is not feasible, may send a password protected soft copy of Technical proposal through email strictly and only after due date of Physical Submission of Technical Proposal but not later than two working days of the Due Date of Technical Proposal.

The documents of Technical Bid shall be submitted in hard copy (physical submission) as per the list of submittals provided in table hereinabove of this RFP and should comprise of all documents required to be submitted as per the said Annexure. All documents of the technical proposal/Bid shall be placed and sealed in an envelope on which the following shall be super scribed:

**“RFP for Remediation of Mine Dumps including Chemical Grouting, Micropiling and Perched Reinforced Soil Slope, Erosion Control Measures as Pilot Project etc. ” at Tadkeshwar lignite mine”– EMD and RFP Fees –Technical Bid”**

Both envelopes specified in sub clause a) and b) shall be placed in outer envelopes, super scribed and delivered by the Due date as per the address given:

**“RFP for Remediation of Mine Dumps including Chemical Grouting, Micropiling and Perched Reinforced Soil Slope, Erosion Control Measures as Pilot Project etc. ect” at Tadkeshwar lignite mine”– Bid submission”**

Addressed to:

**Chief General Manager**

**Gujarat Mineral Development Corp.**

**Khanij Bhavan, 132-ft. Ring Road, Gujarat University Ground, Vastrapur, Ahmedabad-380052**

- c) **Price Bid (Online)** to be filled up at designated places **only on <https://gmhc.nprocure.com>** as per the format provided in the Annexure 11.
- d) The Bidders are required to submit its Bids (i.e., Technical Bid and Price Bid) on or before the Bid Due Date specified in clause 0.

**4.5. Bid Due Date**

- a) The last date and time of submission of the Bids (the “Bid Due Date/Bid Submission Date”) is specified in clause 1.6.
- b) GMDC may, in its sole discretion, extend the Bid Due Date by issuing an Addendum uniformly for all Bidders as per clause 3.4. In such event, all rights and obligations of Authority and Bidders previously subject to the earlier deadline will thereafter be subject to the Bid Due Date as extended. Any such change in the Bid Due Date shall be notified to the Bidders by dissemination of requisite information in this behalf by uploading the Addenda on Authority website of GMDC <https://gmhc.nprocure.com>.

**4.6. Late Submission**

- a) Physical submissions for Technical Bid and EMD&RFP fees received by GMDC after the specified time and Date shall not be eligible for consideration and shall be summarily rejected.
- b) Authority shall not be responsible for any delay or non-receipt / non-delivery of any documents/ or technical issues pertaining to online Bid. The bidder is expected to take its registration for e tendering well in time and complete all procedure relating to e submission well in time so that there is time for handling any technical glitches. Bidders who are not familiar with the procedure for online bidding may advantage of training made available by e bidding platform nProcure. The contact details of (n)Procure are as follows:

- c) **n)Code Solutions (A Division of GNFC Ltd.)**  
**403, GNFC Infotower, Bodakdev,**  
**Ahmedabad - 380054. India**  
**Sales: 079- 4000 7323**  
**Support: 079- 4000 7300**  
**Email: [nprocure@ncode.in](mailto:nprocure@ncode.in)**

**4.7. Modification and Withdrawal of Bids**

- a) Bidder shall not be able to modify any part of its Bid after the Bid Due Date. In order to avoid forfeiture of Bid Security, a Bidder may withdraw his Bid after online submission thereof. The Bidder may online modify, substitute or withdraw its bid

after submission, prior to the Bid Due Date and time.

- b) Any alteration/ modification in the Bid or additional information supplied subsequent to the Bid Due Date, unless the same has been expressly sought for by GMDC, shall be disregarded.

## 5. BID EVALAUTION CRITERIA

All bids must be considered responsive as described in **clause 6.2 (a)** in order to be considered fit to be evaluated. To be considered eligible and qualified, each Bidder should meet Eligibility Criteria and obtaining minimum **60 marks** in the technical scores specified hereunder will progress to the next stage of Price Bid opening. The Eligibility and Technical Score are described below.

### 5.1. Pre-Qualification Criteria

A Bidder must meet Pre-Qualification Criteria are specified hereunder in order to qualify for next stage of evaluation.

- a) The Bidder shall be a legal entity registered in India under the relevant legislation. All Consortium Members must meet registration criterion specified in para above if the Bidder is a Consortium. The Bidder is required to provide Incorporation and Registration Certificate as evidence.
- b) The Bidder must have an average annual audited turnover of Rs 15 crore for any three out of last five financial years. In case the Bidder is a Consortium then all Consortium Member together meet this requirement and individually meet Turnover requirements as per sub clause 5.1 e(vi).
- c) The bidder shall have a net worth of Rs 1.5 crore as on 31<sup>st</sup> March, 2023. This will be judged from the audited Balance Sheet of the last financial year.

In case the Bidder is a Consortium then all Consortium Member together meet this requirement.

### d) Project Experience Criteria

The bidder must possess the experience of having successfully completed similar works during the last 7-years (ending last day of the month previous to the one in which tenders are invited) which should be anyone of the following: -

- (i) Three similar completed works each costing not less than the amount equal to Rs 4.2 cr
- (ii) Two similar completed works each costing not less than the amount equal to Rs 5.6 cr
- (iii) One similar completed work costing not less than the amount equal to Rs 11.2 cr

**In case of Consortium, all Consortium Members together meet this requirement.**

**Similar nature of work shall mean the followings.**

For any Slope Stabilization/Land slide Mitigation/Permeation Grouting Works comprising of Chemical grouting (Polyurethane or Epoxy) and Erosion Control with Reinforced Soil Slope Works engineering works in nationalized projects undertaken in listed/Govt./Semi-Govt Organizations.

The Bidder should submit the copies of Work Orders and client completion certificate/ certificate from client specifying the quantum of Work completed.

- e) The Consortium is permitted to participate in this RFP. The maximum number of Consortium member is limited to 3 (three). Consortium members together must meet all Pre-Qualification and qualification criteria specified in this RFP. Consortium Members should also meet pre-qualification criteria stated in clause 5.1 e(vi) individually. The Bidder must meet the additional consortium criteria specified hereunder: -
- (i) A Bidding Consortium is required to nominate one of the members as a Lead Member. The Lead Member shall be authorized to sign the Proposal/Bid on behalf of the Consortium and do all deeds and acts on behalf of the Consortium. The nomination should be supported by a Power of Attorney in favour of the Lead Member as per format Provided in Annexure 10.
  - (ii) An entity cannot be a member of more than one bidding Consortiums. An entity bidding as single Bidder cannot be a part of Consortium In such case Bids of the Bidders shall be considered non-responsive and rejected.
  - (iii) Each member of the Consortium, if awarded the Contract pursuant to this RFP, shall be jointly and severally liable for the Score of work and discharging of all obligations resulting from this RFP document.
  - (iv) The Bidding Consortium shall provide a Joint Bidding Agreement between the consortium members specifying the followings as per the format provided in Annexure 11.
    - a. Convey the intent to enter into Consortium Agreement and subsequently perform all the obligations of the Contractor under this RFP, in case the Project is awarded to the Bidding Consortium;
    - b. Clearly outline the proposed roles and responsibilities, if any, of each member.
    - c. Include a statement to the effect that all members of the Consortium shall be liable jointly and severally for all obligations of the Contractor under this RFP during the Contract Period.
    - d. Include a statement that if contract is awarded then Consortium members shall sign the Consortium Agreement and share the copy with GMDC.
    - e. The Tenure of the Consortium Agreement shall be coinciding with the Contract Period. The Consortium shall continue to be in existence during the period of the contract and that any change will be subject to approval of the Authority (GMDC) only.
  - (v) In the case of a Consortium, the credentials of any of the members can be showcased for meeting the Pre-qualification and technical score criteria.

However, each of the consortium members should possess an annual audited turnover of Rs 2 crore for three years out of last five years.

- f) The Bidder should not have been blacklisted for participation in this RFP as on bid submission date by any Public Sector Undertaking (PSU) / Central or any State Government in India / Central or any State Government undertaking. The Bidder shall need to submit Anti Blacklisting Affidavit as per format specified in Annexure 8. All consortium members should provide this Affidavit in case Bidder is a Consortium.
- g) The Bidder should not have Conflict of Interest as per Clause 9. All consortium members should meet these criteria in case Bidder is a Consortium.
- h) List of Equipment's: The bidder or the consortium shall submit a proof of relevant for possession of following list of equipment's: -
- i. Grouting Pumps (02 Nos)
  - ii. Drilling machine (01 nos)
  - iii. Geo synthetic stitching machines (04 nos)
- i) The Bidder's Team must meet minimum qualification criteria specified in table second table of clause 5.2.

## 5.2. Technical Score Criteria

The Bids of the Bidders meeting Pre-Qualification criteria shall be considered for assessment and assigning of Technical Score. The Technical Score of the Bidder (Single Bidder/ Consortium Bidder) shall be evaluated as per Technical Score system provided hereunder.

Sr No.	Marking Heads	Marks	Sub-Marks
<b>A</b>	<b>Experience of Bidder</b>	<b>30</b>	
<b>A.1</b>	Experience involving preparation of permeation grouting proposal and its execution in any nationalized project (completed/ ongoing  95% complete) for reputed private sector firm or any Public Sector Undertaking (PSU)/Central or State Government undertaking in last 7 (seven) years in India.	15	7.5 marks for each assignment, <b>Max 15 Marks</b>
<b>A2</b>	Experience involving Slopes Stabilization with RSS Slopes/Micropiling and Erosion Control in nationalized Projects for reputed private sector firm or any Public Sector Undertaking (PSU)/ Central or State Government undertaking in last 7	15	7.5 marks for each assignment, <b>Max 15 Marks</b>

	(seven) years in India and progressing satisfactorily.		
<b>B</b>	<b>Proposed Project Team/Manpower</b>	<b>30</b>	Each staff member will be evaluated based on criteria specified in subsequent table
<b>B.1</b>	<b>Project Manager - 01 Nos (08 Years Experience)</b>	6	
<b>B.2</b>	<b>Geotechnical Engineer – 01 Nos (07 Years of Experience)</b>	4	
<b>B.3</b>	Site Engineer (01Nos)	4	
<b>B.4</b>	Site Supervisor (02) Nos	4	
<b>B.5</b>	Mechanic: (01 Nos)	4	
<b>B.6</b>	Electrician: (01 Nos)	4	
<b>B.7</b>	Safety Supervisor	4	
<b>C</b>	<b>Approach &amp; Methodology for proposed work based on Bidder's Presentation</b>	<b>40</b>	
	Understanding and experience of preparation Design, Drawings and Construction Methodology for Similar Slope Stabilization Project.	10	
	Understanding and experience of Chemical Grouting, Erosion Control, Micropiling, Reinforced soil Slopes and Past Case References	10	
	Understanding of GMDC's context & scope of work	10	
	Given Overall adequacy and quality of proposed approach and methodology.	10	
	<b>Total</b>	<b>100</b>	
	<b>Qualifying marks</b>	<b>60</b>	

*For showcasing project references, relevant portion of Work Order/ Contract/Client completion certificate to be submitted. Different projects (with separate Work Orders and separate or additional scope) with the same client can be cited as separate projects.*

Experience of parent/ holding company and its subsidiaries or subsidiary company shall be acceptable.

Bidder must Score minimum **60 marks** out of total 100 marks in Technical Marking Section specified herein above. The bids of bidders obtaining lower **than 60 score** will be declared disqualified and not be processed further.

The relevant manpower, as tabulated above, shall have relevant experience, any manpower without experience will be summarily rejected and no marking shall be given on that account. Relevant Manpower (Project Manager, Geotechnical Engineer, and Site Engineer shall be present, during Presentation as desired by GMDC.

Any change in manpower during bidding or during execution shall be informed and replacement shall be approved by GMDC or IITR.

The Qualification and evaluation criteria for Proposed Team as specified in B of table hereinabove is specified below.

Sr. No.	Project Team	RFP Marks	Minimum Qualification	Marking Criteria
B.1	Project Manager - 01 Nos	6	BE/ B Tech Minimum 8 Years of Experience	<ul style="list-style-type: none"> <li>• 8-10 Years of exp.: 3 marks</li> <li>• &gt;10 Years of exp.: 6 Marks</li> </ul>
B.2	Geotechnical Engineer – 01 Nos	4	BE/ B Tech Minimum 7 Years of Experience	<ul style="list-style-type: none"> <li>• 7-9 Years of exp.: 2 marks</li> <li>• &gt;9 Years of exp.: 2 Marks</li> </ul>
B.3	Site Engineer (01Nos)	4	BE/ B Tech Minimum 3 Years of Experience	<ul style="list-style-type: none"> <li>• 3-5 Years of exp.: 2 marks</li> <li>• &gt;5 Years of exp.: 2 Marks</li> </ul>
B.4	Site Supervisor (02) Nos	4	Diploma Engineering Minimum 2 Years of Experience	<ul style="list-style-type: none"> <li>• 2-4 Years of exp.: 2 marks</li> <li>• &gt; 4 Years of exp.: 2 Marks</li> </ul>
B.5	Mechanic: (01 Nos)	4	ITI/ Diploma Engineering Minimum 2 Years of Experience	<ul style="list-style-type: none"> <li>• 2-4 Years of exp.: 2 marks</li> <li>&gt; 4 Years of exp.: 2 Marks</li> </ul>
B.6	Electrician: (01 Nos)	4	ITI/ Diploma Engineering Minimum 2 Years of Experience	<ul style="list-style-type: none"> <li>• 2-4 Years of exp.: 2 marks</li> <li>&gt; 4 Years of exp.: 2 Marks</li> </ul>
B.7	Safety Supervisor	4	ITI/ Diploma Engineering / BE /BTech Minimum 2 Years of Experience	<ul style="list-style-type: none"> <li>• 2-4 Years of exp.: 2 marks</li> <li>&gt; 4 Years of exp.: 2 Marks</li> </ul>
	<b>Total</b>	<b>30</b>		

Above is a minimum list. Additional experts/ support staff to support specific activities to be engaged as needed.

### 5.3. Evaluation of Price Bid and Financial Score

- The Price Bid of only Technically qualified (Bidders passing Responsiveness Tests and meeting Pre-Qualification Criteria and obtaining minimum **60 marks** in the Technical score system as specified in clauses 6.2(a), 5.1 and 5.2 respectively) Bidders shall be opened.
- The Bidder shall be required to quote Charges for the BOQ items as per the reference Price Bid format provided in Annexure 13 (the “total Bid Value” / “ Total Prices”).
- The Financial Score of each bidder based on its Consulting Fees shall be evaluated as follows:

$$\text{Financial Score (FiS)} = 100 \times \text{FiL}/\text{FiC}$$

Where;

FiL is the L1 (Lowest Bidder)'s Charges or Fees for the Work / total Bid Value” / “Total Prices”

FiC is the charges or Fees for the Work / “total Bid Value” / “Total Prices quoted by Bidder”

Bidder scoring Lowest charges shall be given 100 marks and other bidders shall be given marks proportionately.

#### **5.4. Composite Score**

- (i) The Composite Score of the Bidder shall be determined by combining Technical and Financial Scores based on following formula;  
Composite Score (CS) = Technical Score (TeS) \* 0.70 + Financial Score (Fis) \* 0.30  
The technical experience has been assigned **70%** of weightage while price quote is assigned **30%** weightage.
- (ii) The Composite Score shall first be calculated first. The Bidders shall be ranked in terms of Composite Score obtained (“**Rank List**”). Bidder obtaining Highest Composite Score and ranked first in this list shall be declared as the Preferred Bidder.
- (iii) After negotiations at the discretion of GMDC, the Letter of Award (LOA) would be granted to the preferred bidders who would then be the Successful Bidder with whom the Agreement shall be signed.
- (iv) In the event of any preferred bidders withdrawing or disqualifying for any reason, the Rank list shall be used to arrive at the next Preferred Bidder.

### **6. EVALUATION PROCESS**

#### **6.1. Opening of Technical Bid**

- (i) GMDC shall open the Technical Bids received to this RFP, at time, date and Place specified in clause 1.6 in the presence of the Bidders who choose to attend. The Bidders’ representatives who are present at such opening shall sign a register evidencing their attendance as a witness to the Bids opening process.
- (ii) The Bidder’s names, the presence or absence of requisite RFP Fees and Bid Security and such other details as Authority in its sole discretion may consider appropriate, shall be announced at the opening of Technical Bid.
- (iii) GMDC will subsequently examine and evaluate Technical Bids in accordance with the provisions set out hereunder in clause 6.2.

#### **6.2. Evaluation of Technical Bid**

The Bidders shall be required to submit documents as listed in this RFP document as per **clause 4.4** along with supporting documents. GMDC shall examine and evaluate the Technical Bids as per the evaluation steps specified below.

##### ***a) Test of Responsiveness for EMD ,RFP Fee, Timely and proper Submission***

- 1) Prior to evaluation of Technical Bids (i.e., Qualification Criteria), GMDC shall determine whether each Bid is responsive to the requirements of the RFP. A Bid shall be considered responsive only if:
  - (i) The Technical Bid is submitted in Hard copy and Price Bid online properly as per the terms of the RFP.
  - (ii) Technical Bid is accompanied by RFP fee and the EMD as specified in the clause 1.5 and 2.5 of ITB respectively.
  - (iii) Physical submission of Technical Bid, RFP fee and EMD is made within specified timeline.
  - (iv) The Bid and physical submissions are received by the Bid Due Date including any extension thereof pursuant hereto;

- (v) It contains all the information (complete in all aspects) as requested in this RFP and/or Bid Documents (in formats same as those specified in the RFP);
  - (vi) It does not contain any conditionality; and
  - (vii) It is not non-responsive in terms hereof and any other conditions specified elsewhere in RFP.
- 2) GMDC reserves the right to reject any Bid which is non-responsive and no request for alteration, modification, substitution or withdrawal shall be entertained by GMDC in respect of such Bid.
  - 3) Evaluation of Pre-Qualification Criteria and document checks of only those Bidders shall be carried out whose Bids determined to be responsive.

***b) Assessment of Pre-Qualification Criteria***

- 1) GMDC shall examine and evaluate the Pre-qualification of each Technical Bid upon determining its responsiveness as per sub clause (a) above.
- 2) The Bidder must meet Pre-Qualification Criteria specified in clause 5.1 and have submitted all documents as per clause 4.4 in order to qualify for next stage of assessment.
- 3) Assessment of technical bids to assign Technical Score of only those Bidders shall be carried out whose Bids are meeting Pre-Qualification Criteria and submitted all required documents pursuant to sub clause 2) above.

***c) Determination of Technical Score***

- 1) GMDC shall examine and assign technical score to each pre-qualified Technical Bid as per Technical Marking System provided in clause 5.2 of ITB.
- 2) Responsive and Pre-Qualified Bidders may be called to make multi-media presentation on "Approach and Methodology" by GMDC at its sole discretion.
- 3) The Bids of the Bidder determined to be responsive, meeting Pre-Qualification criteria and securing minimum **score of 60 in Technical Score** shall be declared Technically Qualified Bids (the "Qualified Bids"/ "Qualified Bidder").
- 4) The Price Bids of only Qualified Bids shall be opened. Evaluation of Price Bids of only Qualified Bids shall be carried out.

**6.3. Opening of Price Bid and Financial Score**

- (i) The Price Bid shall be filled up by the Bidder as per E-Tendering at designated places through <https://gmdc.nprocure.com> as per the indicative format specified in Annexure 13 to this RFP.
- (ii) The Price Bids of only the Bidders determined to be Responsive and meeting the Pre-Qualification Criteria and obtaining required Technical Score in accordance with Clause 6.2, 5.1 and 5.2 shall be opened in the presence of such of the Bidders and/or their authorized representatives who choose to attend.
- (iii) The time and date of opening of Price Bids shall be informed to the Bidders who are declared as Qualified Bidders pursuant to sub clause 6.2 (c) in advance. The Bidders' authorized representatives who are present shall be required to sign and record their attendance. The name of Bidder, bid rates, etc. will be announced at such opening.
- (iv) GMDC shall allot Financial Score to each eligible bid in accordance with the provision set forth in clause 5.3.

#### **6.4. Composite Score**

- (i) The Technical Score and Financial Score obtained by the Bidder shall be combined as per the formula provided in the clause 5.4.
- (ii) The Bidder achieving “Highest Composite Score” shall be generally declared as Preferred Bidder (the “Preferred Bidder”) and considered for award after following the due process including negotiation, Clarification of Bids and Request for additional/missing information.

#### **6.5. Clarification of Bids and Request for additional/missing information**

To facilitate evaluation of Bids, GMDC may, at its sole discretion, seek in writing clarifications / documents / missing information in writing from any Bidder regarding its Bid. If the response from the Bidder is not received by GMDC before the expiration of the deadline prescribed in the written request, GMDC reserves the right to proceed with evaluation process at the total risk and cost of the Bidder.

#### **6.6. Verification and Disqualification**

- (i) GMDC reserves the right to verify all statements, information and documents submitted by the Bidder in response to the RFP and the Bidder shall, when so required by GMDC, make available all such information, evidence and documents as may be necessary for such verification. Any such verification or lack of such verification, by GMDC shall not relieve the Bidder of its obligations or liabilities hereunder nor will it affect any rights of GMDC thereunder.
- (ii) GMDC reserves the right to reject any Bid and/or appropriate the EMD if:
  - at any time, a material misrepresentation in terms of misleading or false representation is made or uncovered, or
  - Bidder is blacklisted/banned by any Government Agency.
  - In case of fraudulent Bid and the Bidder found to be involved in fraudulent and corrupt practice as per RFP Clause 8.
  - In case the Bidder has Conflict of Interest as per clause 9.
  - a Bidder makes an effort to influence Authority in its decisions on Evaluation process/Selection process.
  - while evaluating the Bid, if it comes to Authority’s knowledge expressly or implied, that some Bidders may have compounded in any manner whatsoever or otherwise joined to form an alliance resulting in distorting competitive price discovery or delaying the processing of proposal.
  - Record of poor performance such as abandoning the work, rescinding of contract for which the reasons are attributable to the non-performance of the Bidder, consistent history of litigation awarded against the applicant or financial failure due to bankruptcy.
  - A bidder who submits or participates in more than one Bid under this RFP. Such misrepresentation/ improper response/blacklisting/record of poor performance shall lead to the disqualification of the Bidder. If such disqualification / rejection occur after the Bids have been opened and the Preferred Bidder gets disqualified / rejected, then GMDC reserves the right to:
    - a) invite the remaining Bidders to submit their Bids or
    - b) take any such measure as may be deemed fit in the sole discretion of GMDC,

including annulment of the Bidding Process.

- (iii) In case it is found during the evaluation of Bids or at any time before signing of the Contract or after its execution and during the period of subsistence thereof, that one or more of the prequalification criteria/ Technical Score Criteria /conditions have not been met by the Bidder, or the Bidder has made material misrepresentation or has given any materially incorrect or false information, the Bidder shall be disqualified forthwith if not yet appointed as the Bidder either by issue of the LOA or entering into of the Contract, and if the Successful Bidder has already been issued the LOA or has entered into the Contract, as the case may be, the same shall, notwithstanding anything to the contrary contained therein or in this RFP, be liable to be terminated, by a communication in writing by GMDC to the Successful Bidder or the Bidder , as the case may be, without GMDC being liable in any manner whatsoever to the Successful Bidder or the Bidder. In such an event, GMDC shall be entitled to forfeit and appropriate the EMD or Performance Security, as the case may be, without prejudice to any other right or remedy that may be available to GMDC under the RFP and/or the Contract.

#### **6.7. Contacts during Bid Evaluation**

Bids shall be deemed to be under consideration immediately after they are opened and until such time GMDC makes official intimation of award/ rejection to the Bidders. While the Bids are under consideration, Bidders and/ or their representatives or other interested parties are advised to refrain, save and except as required under the Bidding Documents, from contacting by any means, GMDC and/ or their Bidders/ employees/representatives on matters related to the Bids under consideration.

#### **6.8. Correspondence with Bidder**

Save and except as provided in this RFP, GMDC shall not entertain any correspondence with any Bidder in relation to acceptance or rejection of any Bid.

#### **6.9. Confidentiality**

Information relating to the examination, clarification, evaluation and recommendation for the Bidders shall not be disclosed to any person who is not officially concerned with the process or is not a retained professional advisor advising GMDC in relation to, or matters arising out of, or concerning the Bidding Process. GMDC will treat all information, submitted as part of the Bid, in confidence and will require all those who have access to such material to treat the same in confidence. GMDC may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/ or GMDC or as may be required by law or in connection with any legal process.

### **7. SELECTION OF BIDDER AND SIGNING OF AGREEMENT**

#### **7.1. Notification of Award**

- (i) Prior to expiry of the Bid Validity Period, Authority shall notify the Preferred Bidder(s) as the Successful Bidders through letter that his/their Bid has/have been accepted (the "Successful Bidder(s)"). This letter ("Letter of Award"/ "LOA") shall be issued, in duplicate and shall specify the sum which GMDC shall pay to the Successful Bidder and sum that the Successful Bidder shall pay to Authority in consideration of Project scope as per the terms of Contract.

- (ii) Successful Bidder shall, within 10 (ten) days of the receipt of the LOA, sign and return the duplicate copy of the LOA in acknowledgement thereof. In the event the duplicate copy of the LOA duly signed by the Successful Bidder is not received by the stipulated date, GMDC may, unless it consents to extension of time for submission thereof, appropriate the Bid Security of such Bidder as damages on account of failure of the Successful Bidder to acknowledge the LOA, and the next Eligible and Qualified Bidder may be considered.

## **7.2. Signing of Agreement**

- (i) After acknowledgement of the LOA as aforesaid by the Successful Bidder, it shall cause the Successful Bidder, subject to furnishing the performance security as per the RFP provisions, to execute/sign the Agreement within the 30 (thirty) days from the date of LOA (the "Execution Date"). The Successful Bidder shall not be entitled to seek any deviation, modification or amendment in the Draft Agreement
- (ii) The Draft copy of Agreement (the "Contract") is specified in Section V of this RFP.
- (iii) The Successful Bidder shall get correct amount of Stamp Duty adjudicated (Stamp Paper of Rs. 300 denominations can be used), at Ahmedabad in accordance with applicable law, and submit the same in two copies duly stamped and executed within thirty (30) days from the dispatch of Letter of Award. GMDC shall return one copy duly sealed and signed as a token of acceptance of the Contract. Stamp Duty, and any other charges as may be levied under applicable law, shall be paid by the Successful Bidder.
- (iv) After the signing of Agreement, the Successful Bidder shall be called the "Bidder".

## **7.3. Performance Security**

- (i) The Successful Bidder shall furnish Performance Security to Authority for securing the due and faithful performance of its obligations under the Agreement, within 30 days from the LOA, in the form of Demand Draft or an unconditional and irrevocable bank guarantee (Annexure 13) for amount of equivalent to **5% (Five percent) of aggregate Service Provision Fees (without GST) quoted for the Scope of Work** payable to GMDC by the Successful Bidders (the "**Performance Security**") from banks approved by the Government of Gujarat except Cooperative Banks. Such performance Security shall be in favour of **Gujarat Mineral Development Corporation Ltd** and admissible and payable at Ahmedabad branch banks approved by the Government of Gujarat except Cooperative Banks.
- (ii) The Bidder shall maintain a valid and binding Performance Security for a Contract Period. The Bidder shall ensure that the Performance Security shall subsist in full force and effect in terms hereof, throughout the Agreement Period and thereafter until expiry of three months. In case Contract Period is extended then the Bidder shall have to renew Performance Security for a period of extended Contract Period.
- (iii) If the Bidder, fails to furnish the Performance Security, it shall be lawful for GMDC to forfeit the EMD and cancel the contract or any part thereof.
- (iv) GMDC shall be entitled to forfeit and appropriate the amount of the Performance Security in whole or in part:

- a) in the event GMDC requires to recover any sum due and payable to it by the Bidder including but not limited to Damages; and which the Bidder has failed to pay in relation thereof; and
  - b) in relation to Bidder's breach in accordance with the terms contained in the Agreement.
- (v) At any time during the Validity Period, the Performance Security has either been partially or completely been uncashed by GMDC in accordance with the provision of the Agreement. The Bidder shall within 15 (fifteen) days of such encashment either replenish, or provide a fresh performance security, as the case may be, failing which GMDC shall be entitled to terminate this Agreement.
- (vi) At the end of the Contract Period, the Performance Security shall be returned to the Bidder without any interest, subject to any deductions which may be made by GMDC in respect of any outstanding dues under the terms of the Agreement.

#### **7.4. Commencement of Work/Assignment**

The Bidder shall commence the Service Provision within one month of the Signing of Agreement, or such other date as GMDC may permit. If the Bidder fails to either sign the Agreement as specified in Clause 7.2 or commence the assignment as specified herein, GMDC may invite the second ranked Bidder for negotiations. In such an event, the LOA or the Agreement, as the case may be, may be cancelled / terminated.

#### **7.5. Proprietary Data**

Subject to the provisions of Clause 6.9, all documents and other information provided by GMDC or submitted by Bidder to GMDC shall remain or become the property of GMDC. Bidder and the successful Bidder, as the case may be, are to treat all information as strictly confidential. GMDC will not return any Bid or any information related thereto. All information collected, analyzed, processed or in whatever manner provided by the Bidder to GMDC in relation to the Service Provision Assignment pursuant to scope of work shall be the property of GMDC.

#### **7.6. Tax Liability**

- (i) The rates quoted in Price Bid Annexure 11 shall be inclusive of all taxes, duties, surcharge Levies etc. as applicable ("Price Quote") except applicable Goods and Service Tax. Applicable GST at the time of invoicing shall be reimbursed by GMDC.
- (ii) GMDC shall be entitled to deduct tax at source as may be applicable. The TDS certificate(s) shall be submitted as per the due date specified in the Income Tax Act.

### **8. FRAUD AND CORRUPT PRACTICES**

- a) The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Bidding Process and subsequent to the issue of the LOA and during the subsistence of the Contract. Notwithstanding anything to the contrary contained herein, or in the LOA or the Contract, GMDC may reject a Bid, withdraw the LOA, or terminate the Contract, without being liable in any manner whatsoever to the Bidder, if it determines that the Bidder or as the case may be, has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice in the Bidding Process. In such an event, GMDC shall be entitled to forfeit and appropriate the EMD,

as the case may be, without prejudice to any other right or remedy that may be available to GMDC under the Bidding Documents and/ or the Contract, or otherwise. In case of cancellation of Contract, if already awarded, Authority shall be entitled to recover from the Bidder the amount of any loss arising from such cancellation in accordance with provisions of RFP Document. Recoverable loss would be limited to the value of the contract.

- b) Without prejudice to the rights of GMDC under sub Clause (a) hereinabove and the rights and remedies which GMDC may have under the LOA or the Contract or otherwise if a Bidder or Bidder as the case may be, is found by GMDC to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Bidding Process, or after the issue of the LOA or the execution of the Contract and/or otherwise, such Bidder or Bidder shall not be eligible to participate in any tender or RFP issued by GMDC during a period of 2 (two) years from the date such Bidder or Bidder as the case may be, is found by GMDC to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practices, as the case may be.
- c) For the purposes of this Clause 8, the following terms shall have the meaning hereinafter respectively assigned to them:
  - (i) **“corrupt practice”** means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the actions of any person connected with the Bidding Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of GMDC who is or has been associated in any manner, directly or indirectly, with the Bidding Process or the LOA or has dealt with matters concerning the Contract or arising there from, before or
  - (ii) after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of GMDC, shall be deemed to constitute influencing the actions of a person connected with the Bidding Process); or (ii) engaging in any manner whatsoever, whether during the Bidding Process or after the issue of the LOA or after the execution of the Contract, any person in respect of any matter relating to the Project or the LOA or the Contract or otherwise, who at any time has been or is a legal, financial or technical adviser of GMDC in relation to any matter concerning the Project;
  - (iii) **“Fraudulent practice”** means a misrepresentation or omission of facts or suppression of facts or disclosure of incomplete facts, in order to influence the Bidding Process;
  - (iv) **“Coercive practice”** means impairing or harming, or threatening to impair or harm, directly or indirectly, any person or property to influence any person’s participation or action in the Bidding Process;
  - (v) **“Undesirable practice”** means (i) establishing contact with any person connected with or employed or engaged by GMDC with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Bidding Process; or (ii) having a Conflict of Interest; and
  - (vi) **“Restrictive practice”** means forming a cartel or arriving at any understanding or

arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Bidding Process.

## 9. CONFLICT OF INTEREST

- a) The Bidder shall not have a conflict of interest that may affect the Selection Process or the Service Provision (the "Conflict of Interest"). Any Bidder found to have a Conflict of Interest shall be disqualified. In the event of disqualification, GMDC shall forfeit and appropriate the Bid Security, if available, or as mutually agreed genuine pre-estimated compensation and damages payable to GMDC for, inter alia, the time, cost and effort of GMDC including consideration of such Bidder's Proposal/Bid, without prejudice to any other right or remedy that may be available to GMDC hereunder or otherwise.
- b) GMDC requires that the Bidder provides professional, objective, and impartial advice and at all times hold GMDC's interest's paramount, avoid conflicts with other assignments or its own interests, and act without any consideration for future work. The Bidder shall not accept or engage in any assignment that would be in conflict with its prior or current obligations to other clients, or that may place it in a position of not being able to carry out the assignment in the best interests of GMDC.
- c) Without limiting the generality of the above, shall be deemed to have a Conflict of Interest affecting the Selection Process, if the relationship between two Bidders is established through common holding, either directly or through Associates, of at least 26% holding of equity/profit sharing in another company/firm, or in each other and other terms as specified hereunder;
  - A. The Bidder, its member or Associate (or any constituent thereof) and any other Bidder, its Member or Associate (or any constituent thereof) have common controlling ownership interest. Common controlling ownership interest for Company, Limited Liability Partnership Firms defined as follows. Associates of the Bidding firm shall mean Parent and/or Subsidiary and/or sister concerned firm having meaning specified in **definition section**.
    - (1) **If Bidder is a Company:** In such case, the Bidder (including its Associate or any shareholder thereof of Bidder and/or its Associates) possessing over 26% of the paid up and subscribed capital in its own company or Associate as the case may be, also holds:
      - a) more than 26% of the paid up and subscribed equity capital in the other Bidder, its Member or Associate of such other Bidder or Associates is Company; and/or
      - b) more than 26% of profit sharing in other Bidder or Associates such other Bidder or Associates is a Limited Liability Partnership firm. and/or
    - (2) **If Bidder is a Limited Liability Partnership Firm:** In such case, the Bidder or its Partners or Associate having a profit sharing of more than 26% of such Bidder or its Partners or Associate as the case may be also holds;
      - a) more than 26% of the paid up and subscribed equity capital in the other Bidder or Associate of such other Bidder, its member or Associates is Company; and/or
      - b) more than 26% of profit sharing in other Bidder or its Associates such other Bidder or its Associates is a Limited Liability Partnership firm. and/or

- B. a constituent of such Bidders is also a constituent of another Bidders; or.
- C. such Bidders receives or has received any direct or indirect subsidy or grant from any other Bidder/s, or has provided any such subsidy to any other Bidders; or
- D. such Bidder has the same legal representative for purposes of this Bid as any other Bidders; or
- E. such Bidders has a relationship with another Bidders, directly or through common third parties, that puts them in a position to have access to each other's' information about, or to influence the Bid of either or each of the other Bidders; or
- F. there is a conflict among this and other Service Provision assignments of the Bidder (including its personnel and other members, if any) and any subsidiaries or entities controlled by such Bidder or having common controlling shareholders. The duties of the Bidder will depend on the circumstances of each case. While providing services to GMDC for this particular assignment, the Bidder shall not take up any assignment that by its nature will result in conflict with the present assignment; or
- G. Bidder shall furnish an affirmative statement as to the existence of, or potential for conflict of interest on the part of the Bidder or any prospective successful bidder due to prior, current contracts, engagements, or affiliations with Authority. Additionally, such disclosure shall address any and all potential elements (time frame for service delivery, resource, financial or other) that would adversely impact the ability of the Bidder to complete the requirements as given in the RFP.

## 10. MISCELLANEOUS

- a) The Bidding Process shall be governed by, and construed in accordance with, the laws of India and the Courts at Ahmedabad shall have exclusive jurisdiction over all disputes arising under, pursuant to and/ or in connection with the Bidding Process.
- b) GMDC, in its sole discretion and without incurring any obligation or liability, reserves the right, at any time, to;
  - (i) Suspend and/ or cancel the Bidding Process and/ or amend and/ or supplement the Bidding Process or modify the dates or other terms and conditions relating thereto;
  - (ii) consult with any Bidder in order to receive clarification or further information;
  - (iii) retain any information and/ or evidence submitted to GMDC by, on behalf of, and/ or in relation to any Bidder; and/ or
  - (iv) Independently verify, disqualify, reject and/ or accept any and all submissions or other information and/ or evidence submitted by or on behalf of any Bidder.
- c) It shall be deemed that by submitting the Bid, the Bidder agrees and releases GMDC, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/ or performance of any obligations hereunder, pursuant hereto and/ or in connection with the Bidding Process and waives, to the fullest extent permitted by applicable laws, any and all rights and/ or claims it may have in this respect, whether actual or contingent, whether present or in future.
- d) **No Partnership:** Nothing contained in the RFP shall be construed or interpreted as constituting a partnership between the Parties. Neither Party shall have any authority

to bind the other in any manner whatsoever other than as per provisions laid out in this Agreement.

- e) The Bidder shall be deemed to be acting as an independent successful bidder of Authority and shall not be deemed an agent, legal representative, joint venture or partner of Authority. Neither party is authorized to bind the other to any obligation, affirmation or commitment with respect to any other person or entity.

## SECTION IV: PAYMENT TERMS

### 1. PAYMENT TERMS

#### 1.1. Payment Terms for the Scope of Work

- a. **Interim Payments:** These are periodic payments made to the successful bidder during the progress of the work based on actual execution of work completed on site as per the BOQ. There shall be no additional payment for keeping the consumable inventory at site and its transport cost for bringing the material at site. The payment shall be made only on actual item wise consumption. The frequency of interim payments against Running Account (RA) Bills furnished by the successful bidder on a Monthly Basis. The Bill shall be verified & approved by GMDC in consultation IITR. Measurement sheets shall be prepared and signed jointly by both the parties in 1<sup>st</sup> week of next consecutive month and accordingly the RA Bill shall be submitted by the successful bidder.

- b. **Retention Money:**

Retention money at the rate of 5%, which shall be deducted from each bill.

Retention money shall be released after 06(Six) Months, from the date of completion of the work. Any Defect arising during this period shall be rectified by the Contractor with incurring any additional cost to GMDC.

- c. **Final Payment:** The final payment shall made to the successful bidder upon completion and acceptance of the project. It includes any outstanding amounts due to the successful bidder, minus any retention money held during the project. Final payment shall be made after all work is completed, and any defects have been rectified during the defects liability period.
- d. **Variation Orders:** If there are changes or variations to the original scope of work during the project, additional payments may be made to the successful bidder based on the agreed-upon rates for the variations. Variation orders shall be documented and approved by GMDC before any additional work is carried out.

#### a) Milestones

Milestone	Description	Timeline
Milestone 1	Mobilization	30 days from the date LOI
Milestone 2	Completion of 25% of Quantities in BOQ	60 days from the date LOI
Milestone 3	Completion of 50% of Quantities in BOQ	90 days from the date LOI
Milestone 4	Completion of 75% of Quantities in BOQ	120 days from the date LOI
Milestone 5	Completion of 100% of Quantities in BOQ	150 days from the date LOI

**NOTE: Quantum of work will be decided by the IITR during execution of work to be carried out at that moment of time looking to the mine condition. Time line may vary depending upon circumstances like mine situation, span of monsoon**

**or any other natural calamities etc.**

- (i) GMDC shall make payment within 15 days of submission of invoices upon verifying the milestone for which invoice is submitted subject to deduction of any damages pursuant to contract conditions. Payment shall be made based on actual execution of work.
- (ii) Applicable GST, over and above approved Fees/ Charges , at the time of invoicing shall be reimbursed by GMDC. The risk of applicability of any taxes, duties and levies except GST, shall rest with the Bidder.
- (iii) GMDC shall be entitled to deduct tax at source as may be applicable. The TDS certificate(s) shall be submitted as per the due date specified in the Income Tax Act.

## SECTION V: CONTRACT TERMS AND CONDITIONS

THIS AGREEMENT is entered into on this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

### BETWEEN

Gujarat Mineral Development Corporation Ltd, a company incorporated under Indian Companies act, 1953 and having its corporate office at Khanij Bhavan, 132-Ring Road, Gujarat University Ground, Vastrapur, Ahmedabad- 380052 (hereinafter referred to as the "Authority/GMDC" which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns) of ONE PART;

### AND

\_\_\_\_\_, having its registered office at \_\_\_\_\_, hereunder referred to as the "**Contractor**" which expression shall unless repugnant to the context include its successors and permitted assigns, of the OTHER PART.

GMDC and the Contractor are hereinafter individually referred to as "Party" and collectively as "Parties".

### WHEREAS

- A. GMDC vide its Request for Proposal, dated \_\_\_\_ invited Bids from competent parties through transparent and competitive bidding process **RFP for Remediation of Mine Dumps including Chemical Grouting, Micropiling and Perched Reinforced Soil Slope, Erosion Control Measures as Pilot Project etc at Tadkeshwar lignite mine** as per the terms specified in RFP and this Agreement (hereinafter called the "**Project/Assignment/ Work/ Scope of Work**")
- B. Pursuant to the evaluation of the bids received, GMDC has accepted the bid of the Contractor dated \_\_\_\_\_ as per the terms and conditions specified in RFP documents, subsequent Addendum and terms specified in this Agreement and issued a Letter of Award (LOA) No. \_\_\_\_\_ dated \_\_\_\_\_ accepting the particular Bid Proposal.
- C. The Contractor has accepted the LOA by its letter dated \_\_\_\_\_, requiring inter alia the execution of the Contract. GMDC hereby agrees to appoint and avail services of Contractor for "**Remediation of Mine Dumps including Chemical Grouting, Micropiling and Perched Reinforced Soil Slope, Erosion Control Measures as Pilot Project etc.**" on the terms, conditions and covenants hereinafter set forth in this Agreement.

NOW, THEREFORE, in consideration of the foregoing and the respective covenants and agreements set forth in this Agreement, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, the Parties (GMDC and Contractor) **hereby agree as follows:**

The following documents attached hereto shall be deemed to form an integral part of this Agreement:

This Agreement along with all Annexure/schedule hereto.

1. Request for Proposal Document issued by GMDC in its entirety including all its parts/sections, annexure, corrigendum and Addendums thereto.
2. Letter of Acceptance (LOA) no. \_\_\_\_\_ issued on \_\_\_\_\_.

3. Terms of Reference provided in RFP SECTION II.
4. Payment Terms provided in RFP SECTION IV.
5. Contractor's Key Personnel specified in Schedule \_\_\_\_
6. Any relevant correspondence between the two parties that the signatories have agreed to include as part of the Contract for validating and clarifying any points in the Contract or by way of revised or improved understanding of any terms of the Contract as appended herein.

While all above documents are deemed to be part of the Agreement, in the event of any discrepancy / conflict in the terms of the above referred documents or interpretation thereof, the provisions of the more recent document, date wise, shall prevail over the older document.

## 1. GENERAL

### 1.1. Definition and Interpretation

In this Agreement, the following words and expressions shall, unless repugnant to the context or meaning thereof, have the meaning hereinafter respectively ascribed to them hereunder:

- a. **"Applicable Law"** means all the laws, acts, ordinances, rules, regulations, notifications, guidelines or bye-laws, in force and effect, as of the date hereof and which may be promulgated or brought into force and effect hereinafter in India, including judgments, decrees, injunctions, writs or orders of any court of record, as may be in force and effect during the subsistence of this Contract, including without limitation those laws/regulations applicable to the Project;
- b. **"Applicable Clearances"** means all clearances, permits, no-objection certifications, exemptions, authorisations, consents and approvals required to be obtained or maintained under Applicable Law, in connection with the Project during the subsistence of this Agreement.
- c. **"Authority"** or **"GMDC"** means the Gujarat Mineral Development Corporation Ltd [including without limitation its authorized representatives];
- d. **"Contractor"** means any public/private entity or a consortium of such entities which is selected to provide the Services to GMDC under this Contract.
- e. **"Contract"** means the Contract signed by the Parties and all the attached documents listed in Preliminary and the Annexures/schedules.
- f. **"Contract Period"/" Agreement Period"** shall have a meaning specified in clause 2.4
- g. **"Day"** means calendar day.
- h. **"Dispute"** shall have a meaning specified in clause 9.1
- i. **"Effective Date"** shall have meaning specified in clause 2.1.
- j. **"Force Majeure"** shall have a meaning specified in clause 2.7.1.
- k. **"Insurance"** shall have a meaning specified in clause 3.1.1.
- l. **"Local Currency"** means Indian Rupees.
- m. **"Party"** means the "Authority" or the Contractor, as the case may be, and **"Parties"** means both of them.
- n. **"Team Leader"** shall have a meaning specified in clause 4.5

- o. **“Performance Security** “shall have a meaning specified in clause 7.3.
- p. **“Personnel”** means professionals and support staff provided by the Contractors and assigned to perform the Services or any part thereof;
- q. **“Scope of Services/Terms of Reference (TOR)”** means the work to be performed by the Contractor pursuant to this Contract, as described in RFP SECTIONII;
- r. **“Sub-Contractors/ Sub Successful Contractor”** means any person or entity to whom/which the Contractor subcontracts any part of the Services. Sub-contracting of entire ToR is not permitted. However, for any specific technical matter requiring advice/inputs from experts or specific agencies, the Contractor may engage sub-Contractors under intimation to Authority. The Contractor can hire external professional as technical expert who has qualification and experience as per RFP and under intimation to Authority.
- s. **“Terms of Reference” (“TOR”)** are the description of scope of Service to be performed by the Contractor. Detailed TOR is specified in RFP SECTIONII;
- t. **“Third Party”** means any person or entity other than the “Authority”, or the Contractor.
- u. **Project Management Consultants/ Technical Adviser means IIT - Roorkee**

## **1.2. Principles of Interpretation**

- a. The table of contents, numbers, headings and marginal headings in this Agreement are solely for the purpose of facilitating reference and shall not impact the construction or interpretation of this Agreement.
- b. Words importing Persons or Parties shall include firms, companies, corporations, trusts, associations and any organizations, having legal capacity to sue and be sued in their names.
- c. Words importing the singular also include the plural and vice versa where the context requires.
- d. Words importing one gender also include other gender.
- e. In case of ambiguities or discrepancies in this Agreement, the following shall apply:
  - (i) Between the Articles and the Schedules, the Articles shall prevail:
  - (ii) Between any value written in numerals and that in words, the latter shall prevail.

## **1.3. Relationship between Parties**

Nothing contained herein shall be construed as establishing a relation of master and servant or of agent and principal as between GMDC and the Contractors. The Contractor shall, subject to this Agreement, have complete charge of Personnel performing the Services and shall be fully responsible for the Services performed by them or on their behalf hereunder.

## **1.4. Rights and Obligations**

The mutual rights and obligations of GMDC and the Contractor shall be as set forth in the Agreement, in particular:

- a) the Contractor shall carry out the Contract in accordance with the provisions of the Agreement; and

- b) GMDC shall make payments to the Contractor in accordance with the provisions of the Agreement.

**1.5. Governing Law and Jurisdiction**

This Agreement shall be construed and interpreted in accordance with and governed by the laws of India, and the courts at Ahmedabad shall have exclusive jurisdiction over matters arising out of or relating to this Agreement.

**1.6. Language**

All notices required to be given by one Party to the other Party and all other communications, documentation and proceedings which are in any way relevant to this Agreement shall be in writing and in English language.

**1.7. Table of Content and Heading**

The table of contents, headings or sub-headings in this Agreement are for convenience of reference only and shall not be used in, and shall not affect, the construction or interpretation of this Agreement.

**1.8. Notices**

Any notice, request or consent required or permitted to be given or made pursuant to this Contract shall be in writing. Any such notice request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the party to whom the communication is addressed, or when sent by registered mail, telex, telegram or facsimile to such Party at the address specified hereunder.

If to Authority;

\_\_\_\_\_.

Gujarat Mineral Development Corporation Ltd, Ahmedabad

If to Contractor;

\_\_\_\_\_.

**1.9. Location**

The Services shall be performed at GMDC Tadkeshwar Lignite Mine..

**1.10. Authorised Representative**

- a) Any action required or permitted to be taken, and any document required or permitted to be executed under this Contract by the "Authority" or the Bidder may be taken or executed by the officials specified hereunder
- b) GMDC may, from time to time, designate one of its officials as GMDC Representative and IITR. Unless otherwise notified, GMDC Representative shall be: -----
- c) The Bidder may designate one of its employees as Bidder's Representative. Unless otherwise notified, the Contractor's Representative shall be: -----

**1.11. Consortium Conditions (Applicable If Selected Contractor is a Consortium)**

- a) In case, the Contractor is a Consortium then it shall submit a Consortium Agreement (the contract between the consortium members) comprising the terms specified in

clause 5.1 (e)(iv) of Instruction to Contractor Section, within 20 days from LOA to Authority for its review which shall become part of this Agreement.

- b) The signatories of Agreement must be duly authorized.
- c) The Consortium shall perform all obligations and responsibilities of the Contractor specified in this Agreement during the Contract period and additionally adhere to the conditions specified hereunder.
  - (i) Each member of the Consortium shall be jointly and severally liable for the TOR/ Scope of Work and discharge of all obligations resulting from the Agreement.
  - (ii) Any modification in roles and responsibilities between consortium members during Contract Period shall be allowed only after approval from the Authority.
  - (iii) Any Dispute arising during Contract Period between the Consortium Member shall be resolved amicably without adversely impacting Project. If in Authority's opinion, Dispute between Consortium members is adversely impacting the Project then Authority may its sole discretion and in the interest of the Project (a) Terminate the Contract after due process and/or (2) Provide a binding solution.

## **2. COMMENCEMENT, COMPLETION AND TERMINATION OF AGREEMENT**

### **2.1. Effectiveness of Agreement**

This Agreement shall come into force and effect on the date of Commencement (the "Effective Date").

### **2.2. Commencement of Services**

The Contractor shall commence the Services within a period of 14 (fourteen) days from the date of LOA, unless otherwise agreed by the Parties.

### **2.3. Termination of Agreement for failure to commence Services.**

If the Contractor does not commence the Services within the period specified in Clause 2.2 above, GMDC may, by not less than 1 (one) weeks' notice to the Contractor, declare this Agreement to be null and void, and in the event of such a declaration, this Agreement shall stand terminated and the Contractor shall be deemed to have accepted such termination.

### **2.4. Expiration of Agreement**

- a) Unless terminated earlier pursuant to Clauses 2.3 or 2.9 hereof, this Agreement shall, unless extended by the Parties by mutual consent as per the sub clause (b) hereunder, the Agreement shall remain in force for a Milestone period from the Effective Date as specified in Deliverable section of Scope of Work. Upon Termination, GMDC shall make payments of all amounts due to the Contractor hereunder for which milestone achieved/services delivered.
- b) In case, the execution of TOR/ Scope of Work is delayed on account of Force Majeure, Election, Natural calamity, Force Majeure and delays due to transfers and non-joining of relevant Government officials, on occurrence of such events, the Agreement Period shall be extended for a period during which such period subsist. In case, the execution of Scope of work delayed due to reasons not attributable to the Contractor then the Contract Period shall be extended suitably until completion of Scope. In case, the execution of Scope of work delayed due to reasons attributable to the Contractor then

the Contract Period shall be extended suitably subject to recovery of Liquidated damages as per clause 7.2.2

## **2.5. Entire Agreement**

- a) This Agreement and the Annexes/ schedules together constitute a complete and exclusive statement of the terms of the agreement between the Parties on the subject hereof, and no amendment or modification hereto shall be valid and effective unless such modification or amendment is agreed to in writing by the Parties and duly executed by persons especially empowered in this behalf by the respective Parties. All prior written or oral understandings, offers or other communications of every kind pertaining to this Agreement are abrogated and withdrawn; provided, however, that the obligations of the Contractor arising out of the provisions of the RFP shall continue to subsist and shall be deemed to form part of this Agreement.
- b) Without prejudice to the generality of the provisions of Clause 2.5(a), on matters not covered by this Agreement, the provisions of RFP shall apply.

## **2.6. Modification of Agreement**

Modification of the terms and conditions of this Agreement, including any modification of the scope of the Services, may only be made by written agreement between the Parties. However, each Party shall give due consideration to any proposals for modification made by the other Party.

## **2.7. Force Majeure**

### **2.7.1. Definition**

- a) For the purposes of this Agreement, "Force Majeure" means an event which is beyond the reasonable control of a Party, and which makes a Party's performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible in the circumstances, and includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, pandemic, flood or other adverse weather conditions, strikes, lockouts or other industrial action (except where such strikes, lockouts or other industrial action are within the power of the Party invoking Force Majeure to prevent), confiscation or any other action by government agencies.
- b) Force Majeure shall not include (i) any event which is caused by the negligence or intentional action of a Party or such Party's Sub-Contractor or agents or employees, nor (ii) any event which a diligent Party could reasonably have been expected to both (A) take into account at the time of the conclusion of this Agreement, and (B) avoid or overcome in the carrying out of its obligations hereunder.
- c) Force Majeure shall not include insufficiency of funds or failure to make any payment required hereunder.

### **2.7.2. No Breach of Agreement**

The failure of a Party to fulfill any of its obligations hereunder shall not be considered to be a breach of, or default under, this Agreement insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event has taken all reasonable precautions, due care, and reasonable alternative measures, all with the objective of carrying out the terms and conditions of this Agreement.

### **2.7.3. Measures to be taken**

- a) A Party affected by an event of Force Majeure shall take all reasonable measures to remove such Party's inability to fulfill its obligations hereunder with a minimum of delay.
- b) A Party affected by an event of Force Majeure shall notify the other Party of such event as soon as possible, and in any event not later than 14 (fourteen) days following the occurrence of such event, providing evidence of the nature and cause of such event, and shall similarly give notice of the restoration of normal conditions as soon as possible.
- c) The Parties shall take all reasonable measures to minimize the consequences of any event of Force Majeure.

### **2.7.4. Extension of Time**

Any period within which a Party shall, pursuant to this Agreement, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

### **2.7.5. Payments**

During the period of its inability to perform the Contract as a result of an event of Force Majeure, the Contractor shall be entitled to be reimbursed for payment due up to the Services Delivered as per the payment terms specified in RFP Part IV.

### **2.7.6. Consultation**

Not later than 30 (thirty) days after the Contractor has, as the result of an event of Force Majeure, become unable to perform a material portion of the Services, the Parties shall consult with each other with a view to agreeing on appropriate measures to be taken in the circumstances.

## **2.8. Suspension of Agreement**

GMDC may, by written notice of suspension to the Contractor, suspend all payments to the Contractor hereunder if the Contractor shall be in breach of this Agreement or shall fail to perform any of its obligations under this Agreement, due to the reasons within the control of the Contractor, including the carrying out of the Services; provided that such notice of suspension (i) shall specify the nature of the breach or failure, and (ii) shall provide an opportunity to the Contractor to remedy such breach or failure within a period not exceeding 15 (fifteen) days after receipt by the Contractor of such notice of suspension.

## **2.9. Termination of Agreement**

### **2.9.1. Termination by Authority**

GMDC may, by not less than 30 (thirty) days' written notice of termination to the Contractor, such notice to be given after the occurrence of any of the events specified in this Clause 2.9.1, terminate this Agreement if:

- a) the Contractor fails to remedy any breach hereof or any failure in the performance of its obligations hereunder, as specified in a notice of suspension pursuant to Clause 2.8 hereinabove, within 30 (thirty) days of receipt of such notice of

suspension or within such further period as GMDC may have subsequently granted in writing;

- b) In the event of repeated non-deployment/ absence of manpower for unreasonable time then it shall be considered Contractor's Event of Default. Non-remedy of such default in a reasonable time given by the Authority shall lead to Termination.
- c) the Contractor becomes insolvent or bankrupt or enters into any agreement with its creditors for relief of debt or take advantage of any law for the benefit of debtors or goes into liquidation or receivership whether compulsory or voluntary;
- d) the Contractor fails to comply with any final decision reached as a result of arbitration proceedings pursuant to Clause 9 hereof;
- e) the Contractor submits to GMDC a statement which has a material effect on the rights, obligations or interests of GMDC and which the Contractor knows to be false;
- f) any document, information, data or statement submitted by the Contractor in its Proposals, based on which the Contractor was considered eligible or successful, is found to be false, incorrect or misleading;
- g) as the result of Force Majeure, the Contractor is unable to perform a material portion of the Services for a period of not less than 60 (sixty) days; or

#### **2.9.2. By Contractor**

The Contractor may, by not less than 30 (thirty) days' written notice to GMDC, such notice to be given after the occurrence of any of the events specified in this Clause 2.9.2, terminate this Agreement if:

- a) GMDC fails to pay any money due to the Contractor pursuant to this Agreement and not subject to dispute pursuant to Clause 9 hereof within 45 (forty-five) days after receiving written notice from the Contractor that such payment is overdue;
- b) GMDC is in material breach of its obligations pursuant to this Agreement and has not remedied the same within 30 (thirty) days (or such longer period as the Contractor may have subsequently granted in writing) following the receipt by GMDC of the Contractor's notice specifying such breach;
- c) as the result of Force Majeure, the Contractor is unable to perform a material portion of the Services for a period of not less than 60 (sixty) days; or
- d) GMDC fails to comply with any final decision reached as a result of arbitration pursuant to Clause 9 hereof.

#### **2.9.3. Cessation of rights and obligations**

Upon termination of this Agreement pursuant to Clauses 2.3 or 2.9 hereof, or upon expiration of this Agreement pursuant to Clause 2.4 hereof, all rights and obligations of the Parties hereunder shall cease, except (i) such rights and obligations as may have accrued on the date of termination or expiration, or which expressly survives such Termination; (ii) the obligation of confidentiality set forth in Clause 3.3 hereof; (iii) any right or remedy which a Party may have under this Agreement or the Applicable Laws.

#### **2.9.4. Cessation of Services**

Upon termination of this Agreement by notice of either Party to the other pursuant to Clauses 2.9.1 or 2.9.2 hereof, the Contractor shall, immediately upon dispatch or receipt of such notice, take all necessary steps to bring the Services to a close in a

prompt and orderly manner and shall make every reasonable effort to keep expenditures for this purpose to a minimum. With respect to documents prepared by the Contractor and materials furnished by GMDC, the Contractor shall proceed as provided respectively by Clauses 3.8 or 3.9 hereof.

#### **2.9.5. Payment upon Termination**

Upon termination of this Agreement pursuant to Clauses 2.9.1 or 2.9.2 hereof, GMDC shall make the payments to the Contractor as per provision set forth in RFP part IV hereof for Services performed prior to the date of termination. Provided that in case of incomplete milestone during such Termination, the payment for such incomplete milestone shall be made on pro rata basis.

#### **2.9.6. Disputes about Events of Termination**

If either Party disputes whether an event specified in Clauses 2.9.1 or 2.9.2 hereof has occurred, such Party may, within 30 (thirty) days after receipt of notice of termination from the other Party, refer the matter to arbitration pursuant to Clause 9 hereof, and this Agreement shall not be terminated on account of such event except in accordance with the terms of any resulting arbitral award.

### **3. OBLIGATIONS OF THE CONTRACTOR**

#### **3.1. General**

##### **3.1.1. Standard of Performance**

The Contractors shall perform the Services and carry out their obligations hereunder with all due diligence, efficiency and economy, in accordance with generally accepted professional techniques and practices, and shall observe sound management practices, and employ appropriate advanced technology and safe and effective equipment, machinery, materials and methods. The Contractors shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to GMDC and IITR, and shall at all times support and safeguard GMDC's legitimate interests in any dealings with Sub-Contractors or Third Parties.

##### **3.1.2. Terms of Reference**

The scope of Services to be performed by the Contractor is specified in the Terms of Reference (the "TOR") at RFP SECTION II. The Contractor shall provide the Deliverables specified therein in conformity with the time schedule stated therein.

##### **3.1.3. Applicable Laws**

The Contractor shall perform the Services in accordance with the Applicable Laws and shall take all practicable steps to ensure that any Sub-Contractor, as well as the Personnel and agents of the Contractor and any Sub-Contractor, comply with the Applicable Laws.

#### **3.2. Conflict of Interest**

The Contractor shall not have a Conflict of Interest and any breach hereof shall constitute a breach of the Agreement.

### **3.2.1. Contractors not to Benefit from Commission, Discounts etc.**

The remuneration of the Contractors pursuant to Payment Terms specified in RFP SECTION IV hereof shall constitute the Contractor's sole remuneration in connection with this Contract or the Services and, the Contractors shall not accept for their own benefit any trade commission, discount or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations hereunder, and the Contractors shall use their best efforts to ensure that any Sub-Contractors, as well as Personnel and agents of either of them, similarly shall not receive any such additional remuneration.

### **3.2.2. Contractors and Affiliates not to engage in Certain Activities**

The Contractor shall hold the GMDC's interest paramount, without any consideration for future work, and strictly avoid conflict with other assignments or their corporate interests.

The clause shall not prohibit the Contractor to serve competing clients and clients with potentially conflicting interests as well as counter-parties in merger, acquisition and alliance opportunities. However, in such cases the Contractor agrees to a professional responsibility to maintain the confidentiality of Client information.

### **3.2.3. Confidentiality**

The Contractors agree that themselves, their Sub-Contractors and the Personnel of either of them shall not, either during the term or after the expiration of this Contract, disclose any proprietary or confidential information relating to the Project, the Services, this Contract or GMDC's business or operations without the prior written consent of GMDC, provided however that this clause shall not apply to any information (a) which already forms part of the public domain; or (b) which is received from a third party; or (c) which is independently developed; or (d) which is required to be submitted to any regulatory, statutory or governmental authority; (e) information related to project's scope and the Contractor's role in executing this scope which the Contractor may want to share as its credential.

### **3.3. Liability of the Contractor**

**3.3.1.** The Contractor's liability under this Agreement shall be determined by the Applicable Laws and the provisions hereof.

**3.3.2.** The Contractor shall, subject to the limitation specified in Clause 3.3.3, be liable to GMDC for any direct loss or damage accrued or likely to accrue due to deficiency in Services rendered by it.

**3.3.3.** Notwithstanding anything to the contrary, the aggregate maximum liability of the Contractor under this Contract shall not exceed the fees received by the Contractor under this Contract (including all types of liabilities).

**3.3.4.** The Services in this assignment shall not be deemed investment, legal, regulatory, tax, accounting or other regulated advice. Contractor does not supplant the GMDC's management or other decision-making bodies. While the Contractor does not guarantee results, it agrees to make the best efforts to achieve the same. GMDC remains solely responsible for its decisions, actions, use of the Deliverables and compliance with applicable laws, rules, and regulations. Neither party shall be

responsible for any lost profits. Beyond the limits of liability set in the Agreement, neither party will be liable for any indirect, consequential, incidental, punitive or special damage

### **3.4. Accounting, Inspection and Auditing**

- (i) The Contractors shall keep accurate and systematic accounts and records of the work performed by it under the Contract including details of all invoices raised and payments received and shall make the same available to GMDC as and when requested by GMDC.
- (ii) Any such inspection shall be subject to prior notice and conducted within reasonable office hours and limited to working papers and files relating to the assignment. Nothing herein shall obligate the Contractor to disclose to Authority any documents or other material relating to the profitability or internal profit and loss/balance sheets associated with Contractor's business, payroll information, or information or material that constitute, in the opinion of Contractor's legal counsel, legally privileged documents or information that Contractor is bound to maintain as confidential by written obligation to a third party
- (iii) The auditors or the representatives of the GMDC for the audit shall not be the Contractor's competitors.
- (iv) The audit shall not be conducted more than once in a calendar year and twice in entirety, and
- (v) Any findings during the audit shall be shared with GMDC and be discussed and agreed mutually with GMDC and Contractor for closure.

### **3.5. Contractors' Actions requiring Authority's prior Approval**

The Contractors shall obtain GMDC's prior approval in writing before taking any of the following actions:

- (i) appointing such members of the Personnel as specified in Scope of Services not proposed as part of its Proposal;
- (ii) entering into a subcontract for the performance of the Services as per provision of RFP.
- (iii) any other action that may be specified by GMDC during the course of this Contract.

### **3.6. Reporting Obligations**

The Contractors shall submit to GMDC the reports and documents specified in TOR specified in RFP SECTION II, within the time periods set forth in the said Clause.

### **3.7. Documents Prepared by the Contractors to be the Property of GMDC**

- (i) All plans, drawings, specifications, designs, documents, reports, frameworks, software, databases, content and documents prepared by the Contractors solely in performing the Services under this Contract shall become and remain the property of GMDC, and the Contractors shall, not later than upon termination or expiration of this Contract, deliver all such documents to GMDC, together with a detailed inventory thereof.
- (ii) Any pre-existing Intellectual Property Right (IPR) developed by the Contractor independent of the Contract, including know-how, questionnaires, assessments,

modules, courses, frameworks, software, algorithms, databases, content, models, industry perspectives, designs, etc. (“Contractor Tools”), for which the Contractor at the time of signing of this Agreement has a legal right, or otherwise, if it does not have a legal right, which would meet the commonly used tests and criteria for IPR identification will be and remain owned by the Contractor including any and all derivative works, modifications or enhancements of the same made before, during, and after the Contract. To the extent the Deliverables under this Contract include any Contractor Tools, the Contractor hereby grants GMDC a non-exclusive, non-transferable, non-sub licensable, worldwide, royalty-free license to use and copy the Contractor Tools solely as part of the deliverables. GMDC agrees that, without Contractor's prior written permission, it will not, or permit any third party to (a) access, copy or reverse engineer any Contractor Tool or Deliverable, or (b) remove or circumvent security or technological safeguards, including notices, digital protection mechanisms, metadata, watermarks, or disclaimers provided with any Contractor Tool or Deliverable,

### **3.8. Equipment and Materials Furnished by GMDC**

Equipment and materials made available to the Contractors by GMDC, or purchased by the Contractors with funds provided by GMDC, shall be the property of GMDC and shall be marked accordingly. Upon termination or expiration of this Contract, the Contractors shall make available to GMDC an inventory of such equipment and materials and shall dispose of such equipment and materials in accordance with GMDC's instructions. While in possession of such equipment and materials, the Contractors, unless otherwise instructed by GMDC in writing, shall insure them at the expense of GMDC in an amount equal to their full replacement value.

### **3.9. Accuracy of Documents**

- (i) The Contractor shall be responsible for accuracy of the documents drafted and/ or vetted and data collected by it directly or procured from other agencies/authorities, estimates and all other details prepared by it as part of these services. Subject to the provisions of Clause 3.4, it shall indemnify GMDC against any inaccuracy in its work which might surface during implementation of the Project, if such inaccuracy is the result of any negligence or inadequate due diligence on part of the Contractor or arises out of its failure to conform to good industry practice. The Contractor shall also be responsible for promptly correcting, at its own cost and risk, the documents including any re-survey / investigations.
- (ii) Notwithstanding anything, the Contractor will have no obligation to independently verify information provided by GMDC or their Contractors.
- (iii) Authority acknowledges and agrees that Contractor shall not provide professional legal, accounting, or tax advice. However, the Contractor agrees to peruse and assess the legal and regulatory provisions and framework in so far as they are required to carry out the main task as per the Scope of Work. This will include perusal, if so, required of contracts entered into by GMDC with its vendors and partners.

### **3.10. Insurance to be taken out by the Contractor**

- (i) The Contractor shall procure and maintain, at its own cost, Professional Liability

Insurance or other appropriate insurance required as per the Good Industry Practice or Contractor's own standard practices during the Contract Period (the "Insurance"). At the Authority's request, the Contractor shall provide evidences of insurance covers or a certificate of all insurances maintained on request of Authority.

- (ii) The Contractor shall indemnify the Authority for any liability pertaining to loss of any life, health, accidents, travel and any other losses to its personnel including sub-Contractor/specialist deployed by the Contractor to perform scope of work specified under this Contract.
- (iii) The Authority undertakes no responsibility in respect of any life, health, accident, travel and other insurance which may be necessary or desirable for the Personnel of the Contractor or its sub-successful Contractors / sub-Contractors / specialists associated with the Contractors for the purposes of the Services, nor for any member of any such person

#### **4. CONTRACTOR'S PERSONNEL**

##### **4.1. General**

The Contractor shall employ and provide such qualified and experienced Personnel as specified in clause 5.2(i.e., Technical Marking System) of SECTION III of this RFP and as may be required to carry out the Services.

##### **4.2. Deployment of Personnel**

- a) The designations, names and other particulars of each of the Contractor's Key Personnel required in carrying out the Services are described in Technical Marking System of this RFP which is listed in Schedule \_\_\_\_.
- b) The Key Personnel listed in Schedule \_\_\_\_ of the Agreement are hereby approved by GMDC.
- c) If the Contractor hereafter proposes to engage any person as Professional Personnel, it shall submit to GMDC its proposal along with a CV of such person in the form provided at Annexure of the RFP. GMDC may approve or reject such proposal within 14 (fourteen) days of receipt thereof. In case the proposal is rejected, the Contractor may propose an alternative person for GMDC's consideration. In the event GMDC does not reject a proposal within 14 (fourteen) days of the date of receipt thereof under this, it shall be deemed to have been approved by GMDC.

##### **4.3. Substitution of Personnel**

GMDC expects all the Key Personnel as specified in the Proposal and Technical Marking section to be available during implementation of the Agreement. GMDC will not consider any substitution of Key Personnel except under compelling circumstances beyond the control of the Contractor. Such substitution shall be subject to equally or better qualified and experienced personnel being provided to the satisfaction of GMDC.

##### **4.4. Working hours, Overtime, Leave etc.**

The working hours shall be 24 hours in three shifts and shall abide to statutory as per mines act. The Contractor shall organize the team/s accordingly.

#### **4.5. Staffing**

- a) The person designated as the Project Manager is the key personnel of the Contractor's Personnel as specified in Technical Marking System shall be responsible for the coordinated, timely and efficient functioning of the Contract. The Project Manager is responsible for day-to-day performance of the Services.
- b) The Contractor can hire external professional as technical expert who has qualification and experience as per RFP and under intimation to Authority. The Contractor shall require to deploy all personnel for this assignment. The Contractor shall deploy additional resources if it is required to perform Scope of Services specified in this RFP.
- c) All the Staff Working at site(including Labour & equipment's), shall be ensured as per the existing regulatory clauses by the Contractor. GMDC is not responsible for paying any damage against any of the roles/equipment's sited above. In case of emergencies/accident the Contractor shall be responsible for remedial measures/clearances. GMDC shall only extend support for Documental Clearances from site, if required.

#### **4.6. Sub-Contracting**

- a) Sub-contracting is not permitted. However, for any specific technical matter requiring advice/inputs from experts or specific agencies, the Contractor may engage sub-Contractors under intimation to Authority. Sub-contracting does not absolve the Contractor from its obligations provided in this Agreement.
- b) All required Testing shall be carried out in NABL accredited lab.

### **5. OBLIGATIONS OF GMDC**

#### **5.1. Assistance in clearance**

Unless otherwise specified in the Agreement, GMDC shall make best efforts to ensure that GMDC shall:

- a) provide the Contractor and its Personnel with work permits and such other documents as may be necessary to enable the Contractor or its Personnel to perform the Services;
- b) issue to officials, agents and representatives of GMDC all such instructions as may be necessary or appropriate for the prompt and effective implementation of the Services.

#### **5.2. Payment**

In consideration of the Contract performed by the Contractor under this Agreement, GMDC shall make to the Contractor such payments and in such manner as is provided in Clause 6 of this Agreement.

#### **5.3. Documents and Other Support**

GMDC will provide all necessary support as specified in clause 1.4 of Section II of the RFP.

## **6. PAYMENT TO THE CONTRACTOR**

Authority shall make payment to Contractor as per the terms specified in SECTION IV of RFP.

## **7. LIQUIDATED DAMAGES AND PENALTY**

### **7.1. Performance Security**

- (a) For securing the due and faithful performance of the obligations of the Contractor under this agreement, during the Agreement Period, the Contractor, has in terms of the RFP and letter of award furnished to GMDC the required Performance Security dated \_\_\_\_\_ of amount \_\_\_\_\_ drawn in favour of “\_\_\_\_\_” from \_\_\_\_\_ Bank in the form of Bank Guarantee/DD and valid till \_\_\_\_ and admissible and payable at Ahmedabad branch ,the receipt & veracity of which, is hereby acknowledged by GMDC(the “Performance Security”).
- (b) The Contractor shall maintain a valid and binding Performance Security for a period of three months after the expiry of the Contract Period (“Validity Period”). The Contractor shall ensure that the Performance Security shall subsist in full force and effect in terms hereof, throughout the Contract Period and thereafter until expiry of three months from end of Contract Period. In case Contract Period is extended then the Contractor shall have to renew Performance Security for a period of extended Contract Period.
- (c) GMDC shall be entitled to forfeit and appropriate the amount of the Performance Security in whole or in part:
  - (i) In the event GMDC requires to recover any sum due and payable to it by the Contractor including but not limited to Damages; and which the Contractor has failed to pay in relation thereof; and
  - (ii) In the event of the Contractor’s breach and if such breach is not cured with the remedial period as per the terms of the Agreement.
  - (iii) If the Contractor fails to purchase, renew and maintain in full force and effect, any or all of the insurances required under the Contract as per provisions of this Agreement.
- (d) Upon such encashment and appropriation from the Performance Security, the Contractor shall, within 15 (fifteen) days replenish, in case of partial appropriation, to its original level the Performance Security and in case of appropriation of entire Performance Security to provide a fresh Performance Security and the Contractor shall, within the time so granted replenish or furnish to GMDC a fresh Performance Security as aforesaid, failing which the same shall constitute a Contractor’s breach and entitle Authority to terminate this Contract in terms hereof.
- (e) On the performance and completion of the Contract by expiry of its term in all respects the Performance Security shall be returned to the Contractor without any interest, provided the Contractor is not in default of the terms hereof and there are no outstanding dues of GMDC with the Contractor.

### **7.2. Liquidated Damages**

#### **7.2.1. Liquidated Damages for error/variation**

In case any error or variation is detected in the reports submitted by the Contractor and such error or variation is the result of negligence or lack of due diligence on the part of the Contractor, the consequential damages thereof shall be quantified by GMDC in a reasonable manner and recovered from the Contractor by way of

deemed liquidated damages, subject to a maximum of the 10% of Agreement Value/Contract Price/Contractor's Fees for the Project.

#### **7.2.2. Liquidated Damages for delay**

1. If the Successful Contractor fails to start mobilizing of resources execution of work as per the scope within 30 days from the date of acceptance of Lol, a liquidated damages @ Rs.10000/- plus taxes per week shall be leviable, for a maximum period of 30 days. If the Successful Contractor fails to start mobilizing even after 60 days from the acceptance of Lol, the GMDC will be free to forfeit the EMD/SD or both the EMD and SD If there is any delay in obtaining any clearances from GMDC, then no LD shall be levied.
2. The based on the milestone LD shall be as under.  
If successful Contractor failed to complete the entire execution work within the period of 150 days from the date of commencement of work then LD shall be leviable @ 0.01% of total contract value per week delay for exceed period. Total LD shall be upto the ceiling limit of the 10% of the total contract value. More than 3 days will be counted as a week for determination of liquidated damages.

LD shall not be leviable if reason of delay is not attributed to successful Contractor. The decision thereof shall be taken by project management in due coordination with IITR and same shall be binding to the successful Contractor.

3. The project management feel on actual ground situation at the time of execution work that the reason for the delay is not attributed to the successful Contractor then liquidated damages shall not be levied. In that case project management may extend time limit reasonably in due coordination with IITR.
4. The Contractor shall not be responsible for the delay due to Election, Natural calamity, Force Majeure and reasons not attributable to the Contractor. Occurrence of such events shall be excluded from the timeline of milestones and calculations of Liquidated damages. However, the Agency shall take all precautions to adhere to the timeline.

#### **7.2.3. Encashment and appropriation of Performance Security**

GMDC shall have the right to invoke and appropriate the proceeds of the Performance Security, in whole or in part, without notice to the Contractor in the event of breach of this Agreement or for recovery of liquidated damages specified in this Clause 7.2.

- 7.2.4. In order to be able to perform the Services within the agreed timeframe and budget and to fulfill its responsibilities on a timely basis, Contractor will rely on the GMDC's timely cooperation, including the GMDC making available relevant data, information and personnel, performing any tasks or responsibilities assigned to the GMDC and the GMDC notifying Contractor of any issues or concerns the GMDC may have relating to the Services. During the course of the Services, priorities may shift, or unexpected events may occur which may necessitate changes to the Services. In this event, the parties will jointly discuss the anticipated impact on the Services and agree on any appropriate adjustments, including to the scope of work, timeframe

and budget.

#### **7.2.5. Penalty for Deficiency in Services**

In addition to the liquidated damages not amounting to penalty, as specified in Clause 7.2, warning may be issued to the Contractor for minor deficiencies on its part. In the case of significant deficiencies in Services causing adverse effect on the Project or on the reputation of GMDC and such deficiencies not cured within the reasonable cure period granted by the Authority then Authority may initiate penal actions as permitted under law

### **8. FAIRNESS AND GOOD FAITH**

#### **8.1. Good Faith**

The Parties undertake to act in good faith with respect to each other's rights under this Agreement and to adopt all reasonable measures to ensure the realization of the objectives of this Agreement.

#### **8.2. Operation of Agreement**

The Parties recognize that it is impractical in this Agreement to provide for every contingency which may arise during the life of the Agreement, and the Parties hereby agree that it is their intention that this Agreement shall operate fairly as between them, and without detriment to the interest of either of them, and that, if during the term of this Agreement either Party believes that this Agreement is operating unfairly, the Parties will use their best efforts to agree on such action as may be necessary to remove the cause or causes of such unfairness, but failure to agree on any action pursuant to this Clause 8.2 shall not give rise to a dispute subject to arbitration in accordance with Clause 9 hereof.

### **9. DISPUTE RESOLUTION**

#### **9.1. Amicable Solution**

- (a) Save where expressly stated otherwise in this Agreement, any dispute, difference or controversy of whatever nature howsoever arising under, out of or in relation to the Agreement including incompleteness of the Services/ TOR /Payment between the Parties and so notified in writing by either Party to the other (the "**Dispute**") in the first instance shall be attempted to be resolved amicably by GMDC and Contractor in accordance with the procedure set forth in sub-article (b) below.
- (b) Either Party may require the Dispute to be referred to committee of two senior executives of each Authority, IITR and the Contractor, for the time being for amicable settlement. Upon such reference, the committee shall meet at the earliest mutual convenience and in any event within 15 days of such reference to discuss and attempt to amicably resolve the Dispute. If the Dispute is not amicably settled within 15 (fifteen) days of such meeting between the two, either Party may refer the Dispute to an independent Dispute Review Expert (also referred to as adjudicator) who may be an impartial person of experience in legal / dispute matters and both parties mutually select Dispute Review Expert
- (c) Dispute Review Expert shall give a decision in writing within 28 days of receipt of Notification of the Dispute. Reimbursable expense pertaining to Dispute Review Expert

shall be divided equally between GMDC and the Contractor. Either Party may refer a decision of the Dispute Review Expert to the Arbitrators within 28 days of Dispute Review Experts written Decision as per the agreement. If neither party refers the dispute to the Arbitration within the next 28 days, the decision of Dispute Review Expert will be final and binding.

## **9.2. Arbitration**

### **(a) Arbitrators**

Any Dispute/questions/differences whatsoever, which may at any time arises between the parties to this RFP and subsequent contract in connection with the RFP and subsequent contract or any matter arising out of or in relation thereto and which is not resolved amicably as provided in Clause 9.1 shall be finally settled by binding Arbitration under the Arbitration and Conciliation Act, 1996. The Dispute shall be referred for the fast-track Arbitration to sole Arbitrator as per the provisions of Arbitration and Conciliation Act, 1996 and subsequent amendment thereto (clause 29B of said act).

### **(b) Place of Arbitration**

The place of arbitration shall be Ahmedabad. The Language of the Arbitration shall be in English only.

### **(c) Procedure**

The procedure to be followed within the arbitration, including appointment of arbitrator / arbitral tribunal, the rules of evidence which are to apply shall be in accordance with the Arbitration and Conciliation Act, 1996.

### **(d) Enforcement of Award**

Any decision or award resulting from arbitration shall be final and binding upon the Parties. The Parties hereto hereby waive, to the extent permitted by law, any rights to appeal or to review of such award by any court or tribunal. The Parties hereto agree that the arbitral award may be enforced against the Parties to the arbitration proceeding or their assets wherever they may be found and that a judgment upon the arbitral award may be entered in any court having jurisdiction in Ahmedabad only.

### **(e) Fees and Expenses**

The fees and expenses of the arbitrators and all other expenses of the arbitration shall be initially borne and paid by respective Parties subject to determination by the arbitrators. The arbitrators may provide in the arbitral award for the reimbursement to the prevailing party of its costs and expenses in bringing or defending the arbitration claim, including legal fees and expenses incurred by Party.

## **9.3. Performance during Dispute Resolution**

Pending the submission of and/or decision on a Dispute, difference or claim or until the amicable solution or arbitral award is published; the Parties shall continue to perform all of their obligations under this Agreement without prejudice to a final adjustment in accordance with such solution or award.

## SECTION IV: ANNEXURE

### Annexure 1: Letter of Bid Submission

{On letterhead of Single Bidder / Lead Member of the Consortium}

Dated:

To,

Chief General Manager

Gujarat Mineral Development Corporation Ltd

Khanij Bhavan,

132-Ring Road, Gujarat University Ground, Vastrapur,

Ahmedabad- 380052.

**Subject: Submission of Bid in response to RFP for Remediation of Mine Dumps including Chemical Grouting, Micropiling and Perched Reinforced Soil Slope, Erosion Control Measures as Pilot Project etc. at Tadkeshwar lignite mine**

Dear Sir/Madam:

We, the undersigned, offer to provide the consulting services for [Insert title of assignment] in accordance with your Request for Proposal dated [Insert Date] and our Bid. We are hereby submitting our Bid, which includes this Technical Bid, and a Price Bid as follows.

**A. Physical submission of**

- (i) **Technical Bid- Pre-Qualification and Qualification documents and**
- (ii) **RFP Fee and EMD as per the requirement of the RFP**

**B. Online submission of Price Bid: Price Quote per the provisions of RFP.**

We are submitting our Bid in individual capacity. We hereby declare that all the information and statements made in this Proposal are true and accept that any misinterpretation contained in it may lead to our disqualification.

If negotiations are held during the period of validity of the Bid, i.e., before the date indicated in RFP, we undertake to negotiate on the basis of the proposed personnel. Our Bid/Proposal is binding upon us and subject to the modifications resulting from Contract negotiations.

We undertake, if our Bid is accepted, to initiate the consulting services related to the assignment not later than the period specified in the RFP.

We understand you are not bound to accept any Proposal you receive.

We remain,

Yours sincerely,

Authorized Signature [In full and initials]:

Name and Title of Signatory:

Name of Firm:

Address:

## Annexure 2: Bidder's Organization and Experience

**[ To be provided by Single Bidder/ All members of Consortium if the Bidder is a Consortium]**

### **A – Bidder's Organization**

[Provide here a brief description of the background and organization of your firm/entity. The brief description should include ownership details, date and place of incorporation of the firm, objectives of the firm etc. The Bidder shall be a legal entity registered in India under the relevant legislation. In order to meet above requirements, the Bidder may submit any of the following documentary evidences as applicable. Certificate of registration in India along with RBI approval certificate, GSTIN certificate, PAN details **OR** Partnership deed, GSTIN registration, PAN details **OR** Incorporation certificate, MOA, AOA, GSTIN Registration, PAN details]

### **B – Bidder's Experience**

[Using the format below, provide information on each Assignment/job for which your firm, was legally contracted either individually as a corporate entity or as one of the major partners within an association, for carrying out consulting Assignment/job similar to the ones specified in Technical Marking system set forth in the RFP (If possible, the Bidder shall specify exact assignment / job for which experience details may be submitted)]

Name of Employer:	
Details of Public Sector/Pvt sector Employer	
Address:	
Country:	
Location within country:	
Assignment/job name	
Description of Project/Assignment	
Approx. value of the contract (in Rupees):	
Duration of Assignment/job (months):	
Total No of staff-months of the Assignment/job:	
Start date (month/year):	
Completion date (month/year):	
Name of associated Bidders, if any:	
Name of senior professional staff of your firm involved and functions performed	
Description of actual Assignment/job provided by your staff within the Assignment/job:	

**Note:** Relevant portion of Work Order/contract/Client completion certificate/ CA certificate evidencing the Project Experience to be submitted.

### **Annexure 3:Comments and Suggestions on the Terms of Reference and Facilities to be provided by Authority**

#### **A - On the Terms of Reference**

[Suggest and justify here any modifications or improvement to the Terms of Reference you are proposing to improve performance in carrying out the Assignment/job (such as deleting some activity you consider unnecessary, or adding another, or proposing a different phasing of the activities). Such suggestions should be concise and to the point, and incorporated in your Bid/Proposal.]

#### **B - On Inputs and Facilities to be provided by the employer**

[Comment here on Inputs and facilities to be provided by GMDC]

#### Annexure 4: Description of Approach, Methodology and Work Plan for Performing the Assignment/TOR

Technical approach, methodology and work plan are key components of the Technical Bid/Proposal. Bidders are suggested to present their Technical Proposal divided into the following three chapters:

- a) Approach and Methodology,
- b) Work Plan, and
- c) Organization and Staffing,

a) **Approach and Methodology**

As per the Technical Marking system.

- b) **Work Plan:** In this chapter, Bidder should propose the main activities of the assignment, their content and duration, phasing and interrelations, milestones (including interim approvals by Authority).

- c) **Organization and Personnel:** In this chapter, the Bidder should **propose and justify** the structure and composition of proposed team. Bidder should list the main disciplines of the assignment, the key expert responsible, and proposed technical and support personnel. The manpower requirement given in the RFP is an indicative minimum requirement. The Bidder should assess the specific and realistic manpower with reference to TOR.

### Annexure 5: Team Composition and Task Assignments

[To be provided by Single Bidder/ All members of Consortium if the Bidder is a Consortium]

#### Staff Position as specified in Technical Marking criteria

Sr. No.	Position	Name of Staff	Position held in Bidder's Firm	Education Credentials	Area of Expertise	Years of Experience (i) Total Exp. & (ii) sector experience	Number of relevant projects completed
1.							
2.							
3.							
4.							
5.							

#### Support Staff, Site Supervisors (if any)

Sr. No.	Position	Name of Staff	Position held in Bidder's Firm	Education Credentials	Area of Expertise	Years of Experience	Any other information
1.							

## Annexure 6:Curriculum Vitae (CV) for Proposed Experts and Support Staff

**[To be provided by Single Bidder/ All members of Consortium if the Bidder is a Consortium]**

*(Summary of CV: Furnish a summary of the above CV. The information in the summary shall be precise and accurate. The information in the summary will have bearing on the evaluation of the CV)*

1. Proposed Position in the assignment:
2. Name of Firm [Insert name of firm proposing the expert]:
3. Name of Expert [Insert full name]:
4. Date of Birth: Citizenship:
5. Education [Indicate college/university and other specialized education of expert, giving names of institutions, degrees obtained, and dates of obtainment]:
6. Membership of Professional Associations:
7. Other Training [Indicate significant training since degrees under -Education were obtained]:
8. Languages [For each language indicate proficiency: good, fair, or poor in speaking, reading, and writing]:
9. Employment Record [Starting with present position, list in reversed order, every employment held. List all positions held by staff member since graduation, giving dates, names of employing organization, title of positions held and location of assignments. For experience period of specific assignment must be clearly mentioned, also give Employer references, where appropriate.]:

From [Year]: To [Year]:

Employer:

Positions held:

Sector:

10. Total Experience (Years): \_\_\_\_\_ (details to be given in point no 13)
11. Mineral/Mine Sector Experience (Years): \_\_\_\_\_ (details to be given in point no 13)
12. Detailed Tasks Assigned: [List all tasks to be performed under this Assignment/job]
13. Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned. Please provide project / assignment wise details/

[Among the Assignment/jobs in which the staff has been involved, indicate the following information for those Assignment/jobs that best illustrate staff capability to handle the tasks Listed under point 12. List of the assignment below should also match sr. no. 10 and 11]

- (i) Name of Assignment/job or project:
- (ii) Year:

- (iii) Location:
- (iv) Employer:
- (v) Main project features:
- (vi) Positions held:
- (vii) Activities performed:
- (viii) Sector:

14. Any other Information (relevance of experience, relevance of qualification etc.)

15. Certification:

I, the undersigned, certify to the best of my knowledge and belief that:

- I. This CV correctly describes my qualifications and my experience.
- II. I am not employed by the Executing /Implementing Agency.
- III. I am/I am not in regular full-time employment with the Bidder
- IV. I am willing to work on the project and I will be available for entire duration of the project assignment as per task assigned to me.
- V. I, the undersigned, certify that to the best of my knowledge and belief, this bio-data correctly describes me my qualification and my experience I am committed to undertake the assignment within the validity of Proposal.
- VI. I understand that any willful misstatement described herein may lead to my disqualification or dismissal, if engaged.

Date: [Days/Month/Year]

[Signature of expert or authorized representative of the firm]

Full name of authorized representative:

### Annexure 7: Turnover statement

[To be provided by Single Bidder/ All members of Consortium if the Bidder is a Consortium]

{On Statutory Auditor's/ Registered Chartered Accountant's letterhead}

I hereby declare that I have scrutinized and audited the financial statement of M/s\_\_\_\_\_. Following is the audited turnover from consulting assignments (excluding revenue from audited and taxation practice), for the last three years.

Years	Turnover (Rs. Crore)
2018-19	
2019-20	
2020-21	
2021-22	
2022-23	

\_\_\_\_\_  
(Signed and Sealed by the statutory auditor/Registered Chartered Accountant)

**Annexure 8: No Blacklisting certificate**

**[ To be provided by Single Bidder/ All members of Consortium if the Bidder is a Consortium]**

**(On a Stamp Paper of Value Rs 300)**

**Format for Affidavit certifying that the Entity/Promoter/s / Director/s  
of Bidder are not blacklisted**

**No-Blacklisting Affidavit**

I M/s. .... (Name of the Bidder), (the names and addresses of the registered office) hereby certify and confirm that we or any of our promoter/s / director/s are not barred by Government of Gujarat (GoG) / any other entity of GoG or blacklisted by any state government or central government / department / Local Government / agency in India or from abroad from participating in Project/s, either individually or as member of a Consortium as on the \_\_\_\_\_-(Bid submission Date).

We further confirm that we are aware that our Bid for the captioned Project would be liable for rejection in case any material misrepresentation is made or discovered with regard to the requirements of this RFP at any stage of the Bidding Process or thereafter during the agreement period. Dated this ..... Day of ....., 202\_.

Name of the Bidder  
Signature of the Authorized person  
Name of the Authorized Person

**Annexure 9: Format of power of attorney for authorizing Bidder's Signatory**

**(On a Stamp Paper of Value Rs 300)**

**[ To be provided by Single Bidder/ All members of Consortium if the Bidder is a Consortium]**

KNOW ALL MEN by these presents that we, .... [name of the firm], a FIRM incorporated under the \_\_\_\_\_ and having its Registered Office/ office at .... [Address of the Company firm] (hereinafter referred to as "Company/firm"):

WHEREAS in response to the RFP for \_\_\_\_\_ [Name of the Assignment] ("Project"), the Company/ firm is submitting Bid for the project and GMDC and is desirous of appointing an attorney for the purpose thereof.

WHEREAS the Company deems it expedient to appoint or authorize Mr. \_\_\_ son of \_\_\_ resident of \_\_\_\_\_, holding the post of \_\_\_\_\_ as the authorized signatory of the company/ firm in connection with the request for proposal titled (Name of the RFP) RFP Number: \_\_\_\_\_ dated \_\_\_\_\_, issued by the (Name of the other party) (the "RFP") and to execute and deliver for and on behalf of the Company the RFP documents and to comply with any other requirements connected to or arising from the RFP documents and/or from the RFP process for the firm/company in its name and on its behalf, that is to say:

To act as the Company's/firm's official representative for submitting the Bid Comprising Technical Bid and Price Bid for the said project and other relevant documents in connection therewith;

To sign all the necessary documents, papers, testimonials, applications, representations and correspondence necessary and proper for the purpose aforesaid RFP;

To RFP documents, receive and make inquiries, make the necessary corrections and clarifications to the Proposal and other documents, as may be necessary;

To do all such acts, deeds and things in the name and on behalf of the Company as necessary for the compliance of the requirements with any other requirements connected to or arising from the RFP documents and/or from the RFP process.

<p>The common seal of [name of the company/firm] was here unto affixed pursuant to a resolution passed at the meeting of Committee of Directors held on --- Day of -----, 20__ in the presence of [name &amp; designation of the person] and countersigned by [name &amp; designation of the person] of the Company/firm of [name of the company]</p>	<p>----- [name &amp; designation of the person]</p> <p>----- [name &amp; designation of the person]</p>
---	---

**Annexure 10:Power of Attorney to Lead Member**

**[ Applicable in case the Bidder is a Consortium]**

Whereas the GMDC (the "Authority") has invited bids from interest parties for the Appointment of \_\_\_\_\_(Project Name) (the "Project/ Assignment"). Whereas, \_\_\_\_\_, \_\_\_\_\_and \_\_\_\_\_,(collectively the "Consortium") being Members of the Consortium are interested in bidding for the Project in accordance with the terms and conditions of the Request for Proposal and other connected documents in respect of the Project, and Whereas, it is necessary for the Members of the Consortium to designate one of them as the Lead Member with all necessary power and authority to do for and on behalf of the Consortium, all acts, deeds and things as may be necessary in connection with the Consortium's bid for the Project and its execution.

NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS We, M/s \_\_\_\_\_ having our registered office at \_\_\_\_\_, and M/s \_\_\_\_\_, having our registered office at \_\_\_\_\_, (hereinafter collectively referred to as the "Principals") do hereby irrevocably designate, nominate, constitute, appoint and authorize M/s \_\_\_\_\_, having its registered office at \_\_\_\_\_, being one of the Members of the Consortium, as the Lead Member and true and lawful attorney of the Consortium (hereinafter referred to as the "Attorney") and hereby irrevocably authorise the Attorney (with power to sub-delegate) to conduct all business for and on behalf of the Consortium and any one of us during the bidding process and, in the event the Consortium is awarded the Contract, during the execution of the Project, and in this regard, to do on our behalf and on behalf of the Consortium, all or any of such acts, deeds or things as are necessary or required or incidental to the submission of its bid for the Project, including but not limited to signing and submission of all applications, bids and other documents and writings, accept the Letter of Award, participate in bidders' and other conferences, respond to queries, submit information/ documents, sign and execute contracts and undertakings consequent to acceptance of the bid of the Consortium and generally to represent the Consortium in all its dealings with the Authority, and/ or any other Government Agency or any person, in all matters in connection with or relating to or arising out of the Consortium's bid for the Project and/ or upon award thereof till the Agreement is entered into with the Authority. AND hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us/ Consortium.

IN WITNESS WHEREOF WE THE PRINCIPALS ABOVE NAMED HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20..

For \_\_\_\_\_ (Signature, Name & Title)

For \_\_\_\_\_ (Signature, Name & Title)

(Executants) (To be executed by all the Members of the Consortium)

## **Annexure 11: Joint Bidding Agreement**

**[To be provided if Bidder is a Consortium]**

**The bidder is required to submit a Joint Bidding Agreement for Consortium as per the provisions stated in clause no 5.1 (e) (iv) of Instruction to Bidder section**

The Bidding Consortium shall provide a Joint Bidding Agreement between the consortium members specifying the followings

- 1) Convey the intent to enter into Consortium Agreement and subsequently perform all the obligations of the Contractor under this RFP, in case the Project is awarded to the Bidding Consortium;
- 2) Clearly outline the proposed roles and responsibilities, if any, of each member.
- 3) Include a statement to the effect that all members of the Consortium shall be liable jointly and severally for all obligations of the Contractor under this RFP during the Contract Period.
- 4) Include a statement that if contract is awarded then Consortium members shall sign the Consortium Agreement and share the copy with GMDC.
- 5) The Tenure of the Consortium Agreement shall be coinciding with the Contract Period. The Consortium shall continue to be in existence during the period of the contract and that any change will be subject to approval of the Authority (GMDC) only.

**Annexure 12:Undertaking**

**[ To be provided by Single Bidder/ All members of Consortium if the Bidder is a Consortium]**

It is certified that the information furnished here in and as per the document submitted is true and correct and nothing has been concealed or tampered with. We have gone through all the conditions of RFP and we are liable to any punitive action for furnishing false information / documents.

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 202\_.

Signature  
(Company Seal)

\_\_\_\_\_  
In the capacity of duly authorized to sign bids for and on behalf of:

**Signed by**

**Authorized Signatory with designation**

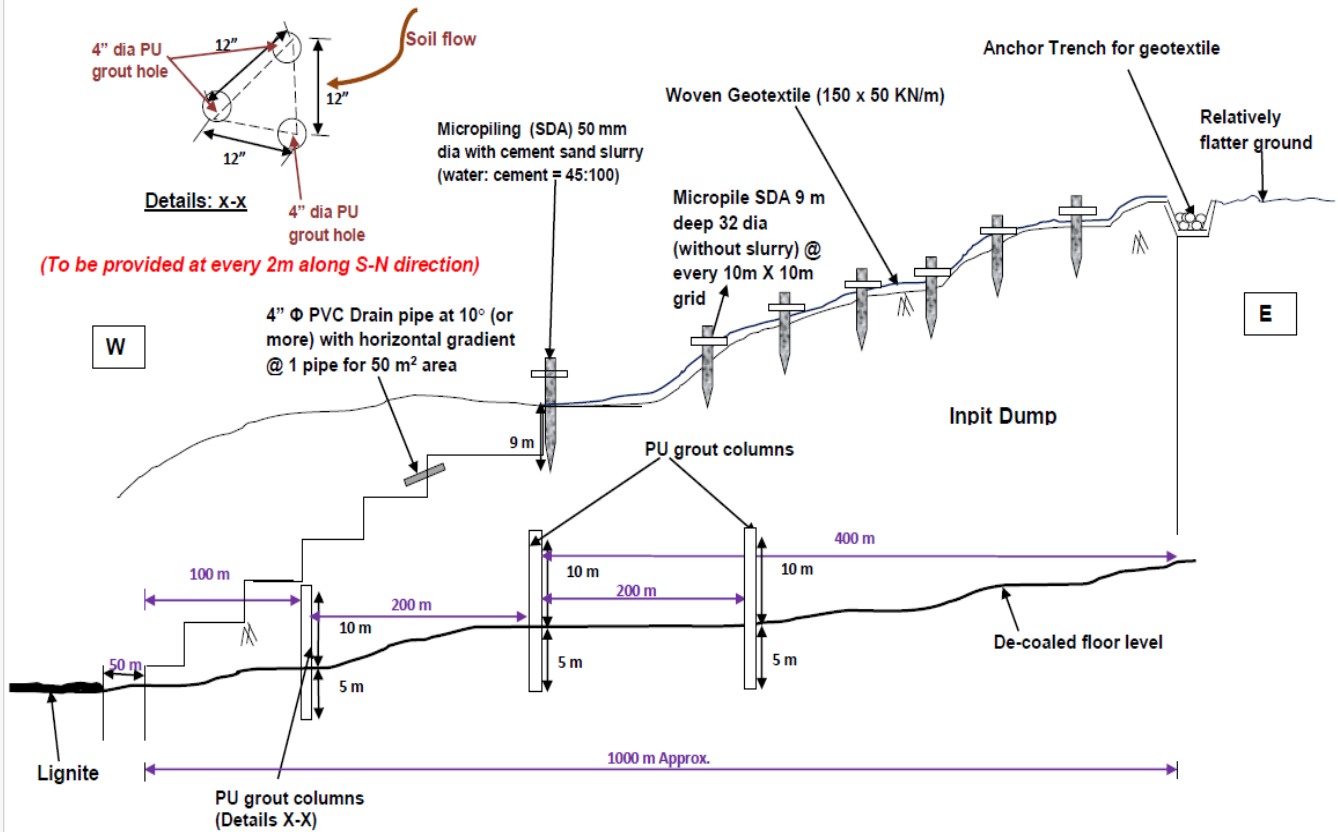
### Annexure 13: Indicative Format of Price Bid

**(This is indicative format for Bidder's reference only. The PRICE PROPOSAL SHOULD BE SUBMITTED ONLINE ONLY at designated places through <http://gmdc.nprocure.com> Price Bid should not be submitted in hard copy AND/OR placed with Technical Bid. Prices submitted in hard copy and or placed with Technical Bid shall result in outright rejection of bid)**

After thoroughly reading and accepting the RFP terms, understanding the requirements and scope of work of the GMDC under this RFP, and its terms and conditions, we hereby agree to provide our services at the following rates:

# Remediation of Mine Dumps including Chemical Grouting, Micropiling self drilling anchor(SDA) and Perched Reinforced Soil Slope, Erosion Control Measures as Pilot Project

## Drawing



**Notes**

- (1) The above plan shall be done as per mining situation at the time of execution
- (2) Above plan is in East-West direction
- (3) The plan width of above treatment (as pilot) scheme is 200 m (S-N) in eastern side backfill dump
- (4) Above drg. is not to scale.
- (5) The above work is of specialized nature, hence shall be carried out as per the regular guidelines of GMDC & IITR.

Dated: 5 March 2024

(SATYENDRA MITTAL)

# BILL OF QUANTITIES (BOQ)

**Name of Work : Remediation of Mine Dumps including Chemical Grouting, Micropiling self drilling anchor(SDA) and Perched Reinforced Soil Slope, Erosion Control Measures as Pilot Project**

Sl No	Description of Items	Unit	Qty	Rate(Rs)	Amount (Rs)
1	<p>Injecting Two-component Poly Urethane Chemical Grout having chemical component as listed below;            Modified Polyol, 4,4'-Diphenylmethane Diisocyanate (MDI), Poly-methylene Poly-phenyl Polyisocyanate.</p> <p>The Chemical grout should comply the technical specifications of DrucPietra as follow;            Density of component A: 1.005 ± 0.020 gm per cc,            Density of component B : 1.220 - 1.240 gm per cc,            Viscosity of component A : 130 - 170 (mPa . s),            Viscosity of component B: 150 - 280 (mPa . s),            pH Component A: 11 .5 ± 0.5, pH Component B: Neutral.</p> <p>The depth of the grout hole should be varied between average 35-50 m in which chemical should be injected into the hole by utilizing the TAM assembly and suitable size of inflatable packer only in it 15 m (5m beneath the de-coal area + 10 m above the de-coal level), above of the termination depth of grout hole. The temporary steel casing is required to install during the drilling of grout hole to maintain the borehole stability and installation of the TAM assembly into the grout hole to avoid damage. After the installation of TAM Assembly, temporary steel casing should be removed for reuse in further drilling process. The chemical grout should be injected using a two-component injection pump equipped with a static in-line mixer nozzle capable of mixing ratio (A+B) of 1: 1 Parts by volume, including appropriate size of compressor able to produce minimum pressure of 5-6 bar that may increase as per the site condition.</p> <p>During the grouting process, grouting pressure needs to be maintained and monitored till the completion of the grouting process. The chemical grout material injected through injectable packer should mixed at the end of the packer nozzles. The Packer grouting should be done in the multiple stages of 1-2 m of increment in each stage by bottom-top approach in the grout hole of mine</p>	Kg	1,35,000.00		

	<p>dumps using suitable attachments, including all manpower, drilling of 4-inch size hole, installing temporary casing in grout hole, installing suitable size of Tube a Manchette in grout hole, all the safety measures like helmet, safety belt and adequate labour insurance, supervision etc. complete, as per the requirement of site and directions of Engineer-in-Charge. (The Rate should be quoted in kg for the consumption of the chemical used for grouting which will cover all above said requirement and material for the grouting process including installation.)</p>				
2	<p>Supply and installation of biaxial geotextile(woven) strength mass per unit area 400 grams/sqm , Longitudinal Tensile strength , including fixing of U pins of 8mm diameter of typical depth 1000 mm at 6m c/c spacing, with elongation at nominal strength (ASTM D4595/EN ISO 10319 +- 2% ) 10%, with creep limited strength as 105.6 kN/m, Roll weight 240kg ), all the stips/ rolls of biaxial geotextile(woven) shall be overlapped at edge for stiching the joints for making a single piece as and where required all other ancillary works, material, machinery, labour, etc. complete with all leads and lifts and as directed by Engineer - In - Charge.</p>	Sqm	180000.0		
3	<p>Supply and Installation of Self Drilling Anchors / Continuous threaded anchor rod dia of 50 mm diameter and appropriate matching bit, yield load &gt; 230 kN / 400kN, and full length grouting with cement slurry including all ancillary items for anchoring and as per technical specifications etc. complete as per detailed technical specifications and as directed by Engineer - In – Charge</p>	RMT	360.0		
4	<p>Supply and Installation of Self Drilling Anchors / Continuous threaded anchor rod dia of 32mm diameter and appropriate matching bit, yield load &gt; 230 kN / 400kN, hexagonal nut, including all ancillary items for anchoring and as per technical specifications etc. complete as per detailed technical specifications and as directed by Engineer - In – Charge</p>	RMT	7200.0		
5	<p>Anchor plate of 150mm*150mm dia with central hole of 34 mm dia and hexagonal nut 32mm</p>	Each	800.0		
6	<p>Anchor plate of 200mm*200mm dia with central hole of 52 mm dia and hexagonal nut 50 mm</p>	Each	40.0		
7	<p>Drill bit (in case of self drilling anchors) dia of bit should be matching with 32 mm threaded rod</p>		800.0		

8	Drill bit (in case of self drilling anchors) dia of bit should be matching with 52 mm threaded rod		40.0		
9	Coupler to join drill rods of anchor rod dia of 50 mm		40.0		
10	Coupler to join drill rods of anchor rod dia of 32 mm		800.0		
11	PVC 4 inch dia drain pipe ISI mark, duly perforated on half periphery with each hole of 0.5 inch dia, at spacing of 2 inch c/c between 2 holes, supplied with couplers, To be fixed duly wrapped with geotextile filter cloth, pipe, complete with all leads and lifts as directed by engineer in charge. (Specification of geotextile filter: permittivity = 0.5 sec-1 AOS <= 1.8 D85 (or >=3 D15 or less than 0.3mm), weight 130GSM (minimum), grab tensile strength in each direction 0.4kN (minimum) elongation at break 40% toughness (% elongation x grab tensile strength): 20 (minimum).overlapping length: 450mm(minimum))	RM	8000		
<b>Total Amount (Rs)</b>					

# Rate are excluding GST

Notes:

- (1) The Bidders shall be required to quote Service Fees for execution of scope of work specified in section II.
- (2) The above quoted rates represent remuneration of Bidder's staff, Travel expense, expense towards dine, hotel stay, office rents, conveyance, stationary expense and any other expense to be incurred for executing Terms of Reference.
- (3) The Bidder to quote Service Fees in table above inclusive of all other taxes except applicable GST. Applicable GST, over and above approved Service Fees, at the time of invoicing shall be reimbursed by GMDC. The risk of applicability of any taxes, duties and levies except GST, shall rest with the Agency.
- (4) GMDC shall be entitled to deduct tax at source as may be applicable. The TDS certificate(s) shall be submitted as per the due date specified in the Income Tax Act.
- (5) Fees/ Rates shall be paid as per the payment terms specified in Part IV.

Each Bidder must quote his rates after through reading of this RFP document and Estimates of his cost thorough detailed due diligence of the site, statutory laws/regulations. **Authority reserves right to seek any clarifications regarding price quoted from bidders before any decisions.**

**Annexure 14:**  
**Format for Bank Guarantee for towards Bid security/Earnest Money Deposit**

**(On Non-judicial Stamp paper to be submitted along with submission of bids)**

..... (Name of the Bank)  
Address.....  
Guarantee No.....  
A/C Messrs..... (Name of Bidder)  
Date of Expiry.....  
Limit to liability (currency & amount).....  
Invitation For Tender No..... Dated.....(bidding document)  
For..... (Name of work)

**Subject: Earnest Money Deposit Bank Guarantee.**

Date.....202\_\_

To,  
Gujarat Mineral Development Corporation Ltd.  
132 Ft Ring Road,  
Near University Ground  
Vastrapur,  
Ahmedabad.

Dear Sir,

In consideration of Gujarat Mineral Development Corporation (hereinafter called "GMDC") which expression shall unless repugnant to the subject of context include his successors and assigns having agreed to exempt M/s..... (herein after called "Bidder") from demand under the terms and conditions of "Technical Bid Document" (hereinafter called the said "Bidding Document") issued by the GMDC vide Tender No. \_\_\_\_\_ for the work \_\_\_\_\_

(Name of the facilities) from Earnest Money Deposit (EMD) of Bid for the due fulfillment by the Bidder of the terms and conditions contained in the said Bidding Document on production of Bank Guarantee for INR \_\_\_\_\_ -  
( \_\_\_\_\_ only) (figure in words).

1. We the \_\_\_\_\_ (Name of Bank) hereinafter referred to as "Bank" having our registered office at \_\_\_\_\_ (address of

Bank) do hereby undertake and agree to indemnify and keep indemnified GMDC to extent of INR \_\_\_\_\_ ( \_\_\_\_\_ only) (figures in words) against any losses, damage cost, charges and expenses caused to or suffered by or that may be caused or suffered by GMDC by reason of any breach or breaches by the Bidder of any of the terms and conditions contained in the said Bidding Document and unconditionally pay the amount claimed by GMDC on demand and without demur to the extent aforesaid.

2. We \_\_\_\_\_ (Name of Bank) do hereby undertake to pay the amounts due and payable under the guarantee without any demur merely on a demand by you stating that the amount claimed is due by way of loss or damage caused to or would be caused or suffered by you by reason of any breach by the said Bidder of any of the terms or conditions contained in the said Bidding Document by reason of the Bidder's failure to fulfill the conditions of said Bidding Document. Any such demand on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding INR \_\_\_\_\_.
3. We \_\_\_\_\_ (Name of Bank) further agree that GMDC shall be the sole judge of and as to whether the Bidder has committed any breach or breaches of terms and conditions of the said Bidding Document and the extent of loss, damages, costs, charges and expenses caused to or suffered by or that may cause to or suffered by GMDC on account hereof to the extent of the Bid Security required to be deposited by the Bidder in respect of the said document and the decision of GMDC that the Bidder has committed such breach or breaches and as to the amount or amounts of loss, damages, costs, charges, and expenses caused to or suffered by or that may be caused to or suffered by GMDC shall be final and binding on us.
4. We \_\_\_\_\_ (Name of Bank) further agree that guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance on the said Bidding Document and that it shall continue to be enforceable till you certify that terms and conditions of the said Bidding Document have been fully and properly carried out by the said Bidder and accordingly discharge the guarantee. Unless a demand or claim under this guaranteed is made on us in writing on or before the (date) \_\_\_\_\_ we shall be discharged from all liability under this guarantee.
5. We \_\_\_\_\_ (Name of Bank) further agree with you that you have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Bidding Document or to extend time of performance by the said Bidder from time to time or to postpone for any time or from time to time any of the powers exercisable by you against the said Bidder and to forbear or enforce any of the terms and conditions relating to the said Bidding Document and we shall not be relieved from our liability by reason of any such variation or extension being granted to the said Bidder or for any forbearance act or omission on your part or any

6. indulgence by you to the said Bidder or any such matter or thing whatsoever under the law relating to sureties would but for this provision have effect of so relieving us.
7. It shall not be necessary for GMDC to proceed against the Bidder before proceeding against the Bank and the Guarantee herein contained shall be enforceable against the Bank, notwithstanding any security which GMDC may have obtained from the Bidder at this time when proceeding is taken against Bank hereunder be outstanding or unrealized.
8. We \_\_\_\_\_ (Name of Bank) further undertake to unconditionally pay the amount claimed by GMDC merely on demand and without demur to the extent aforesaid.
9. We, the said Bank lastly undertake not to revoke this guarantee during its currency except with the previous consent of GMDC in writing.
10. This Guarantee will not be discharged due to the change in the constitution of the Bank or the said bidder.
11. The Bank has under its constitution power to give this guarantee and Mr. \_\_\_\_\_ who has signed it on behalf of the Bank have authority to do so.

Yours faithfully

For.....

(Name of the Bank)

Notwithstanding anything contained hereinabove

- (I) Our liability under this Bank Guarantee shall not exceed Rs \_\_\_\_\_/-  
**(Rupees \_\_\_\_\_ only)**
- (II) This Bank Guarantee is valid up to \_\_\_\_\_ (Date).
- (III) We are liable to pay the guarantee amount or any part thereof under this bank Guarantee only and only if you serve upon us a written claim or a demand on or before \_\_\_\_\_(Date).
- (IV) This bank guarantee is operative only when accompanied with SFMS advice from us.

Yours faithfully

For \_\_\_\_\_(Name of the Bank)

**Annexure 15:**  
**Format for Bank Guarantee for Performance Security**

Name of the Bank :  
Address :  
Guarantee No :  
Name of the Successful bidder : M/s \_\_\_\_\_  
Date of Expiry :  
Limit to liability : Rs \_\_\_\_\_/- (Rupees \_\_\_\_\_ only)

Ref: Tender bearing No.

Subject:  
**Bank Guarantee towards Security Deposit.**

Date.....20\_\_

To  
**Gujarat Mineral Development GMDC.**  
**132 Ft Ring Road, Near University Ground**  
**Vastrapur, Ahmedabad.**

Dear Sir,

In consideration of Gujarat Mineral Development GMDC (hereinafter called "GMDC") which expression shall unless repugnant to the subject of context include his successors and assigns having agreed to exempt M/s \_\_\_\_\_(hereinafter called "Successful bidder/Bidder") from demand under the terms and conditions of "Technical Bid Document" ( hereinafter called the said "Bidding Document") issued by the GMDC vide Tender \_\_\_\_\_. **The present Bank Guarantee is towards Security Deposit (SD)/Performance Security of Bid in terms of Clause No. \_\_\_\_ of Part – \_\_\_\_ of the afore-said bidding document for the due fulfillment by the Successful bidder/Bidder of the terms and conditions contained in the said Bidding Document on production of Bank Guarantee for Rs \_\_\_\_\_/- (Rupees \_\_\_\_\_ only)**

- 1) We the \_\_\_\_\_ (Name of the Bank) hereinafter referred to as "Bank" having our \_\_\_\_\_ registered office at \_\_\_\_\_ do hereby undertake and agree to indemnify and keep indemnified GMDC to extent of **Rs \_\_\_\_\_/- (Rupees \_\_\_\_\_ only)** against any losses, damage cost, charges and expenses caused to or suffered by or that may be caused or suffered by GMDC by reason of any breach or breaches by the Successful bidder of any of the terms and conditions contained in the said Bidding Document and unconditionally pay the amount claimed by GMDC on demand and without demur to the extent aforesaid

- 2) We \_\_\_\_\_ (Name of the Bank) do hereby undertake to pay the amounts due and payable under the guarantee without any demur merely on a demand by you stating that the amount claimed is due by way of loss or damage caused to or would be caused or suffered by you by reason of any breach by the said Successful bidder of any of the terms or conditions contained in the said Bidding Document by reason of the Successful bidder's failure to perform according to the terms and conditions of said Bidding Document. Any such demand on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs \_\_\_\_\_/- (Rupees \_\_\_\_\_ only).
- 3) We \_\_\_\_\_ (Name of the Bank) further agree that GMDC shall be the sole judge of and as to whether the Successful bidder has committed any breach or breaches of terms and conditions of the said Bidding Document and the extent of loss, damages, costs, charges and expenses caused to or suffered by or that may cause to or suffered by GMDC on account hereof to the extent of the Bid Security required to be deposited by the Successful bidder in respect of the said document and the decision of GMDC that the Successful bidder has committed such breach or breaches and as to the amount or amounts of loss, damages, costs, charges, and expenses caused to or suffered by or that may be caused to or suffered by GMDC shall be final and binding on us.
- 4) We \_\_\_\_\_ (Name of the Bank) undertake to pay to the GMDC any money so demanded notwithstanding any dispute or disputes raised by the said successful bidder (s) in any suit or proceeding pending before any forum of law relating thereto our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the said successful bidder (s) shall have no claim against us for making such payment.
- 5) We \_\_\_\_\_ (Name of the Bank) further agree that guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance on the said Bidding Document and that it shall continue to be enforceable till you certify that terms and conditions of the said Bidding Document have been fully and properly carried out by the said Successful bidder and accordingly discharge the guarantee. Unless a demand or claim under this guaranteed is made on us in writing on or before the (date) we shall be discharged from all liability under this guarantee thereafter.
- 6) We \_\_\_\_\_ (Name of the Bank) further agree with you that you have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Bidding Document or to extend time of performance by the said Successful bidder from time to time or to postpone for any time or from time to time any of the powers exercisable by you against the said Successful bidder and to forbear or enforce any of the terms and conditions relating to the said Bidding Document and we shall not be relieved from our liability by reason of any such variation or extension being granted to the said Successful bidder or for any forbearance act or omission on your part or any indulgence by you to the said Successful bidder or any such matter or thing whatsoever under the law relating to sureties would but for this provision have

effect of so relieving us. The Bank further agrees that in case this guarantee is required for a longer period, the bank may extend the same.

- 7) We \_\_\_\_\_ (Name of the Bank) further undertake to unconditionally pay the amount claimed by GMDC merely on demand and without demur to the extent aforesaid.
- 8) We, the said Bank lastly undertake not to revoke this guarantee during its currency except with the previous consent of GMDC in writing.
- 9) This Guarantee will not be discharged due to the change in the constitution of the Bank or the said successful bidder.
- 10) The Bank has under its constitution power to give this guarantee and Mr. \_\_\_\_\_ who has signed it on behalf of the Bank have authority to do so.

Yours faithfully

For.....

(Name of the Bank)

Notwithstanding anything contained hereinabove

- (I) Our liability under this Bank Guarantee shall not exceed **Rs \_\_\_\_\_/-**  
**(Rupees \_\_\_\_\_ only)**
- (II) This Bank Guarantee is valid up to \_\_\_\_\_ (Date).
- (III) We are liable to pay the guarantee amount or any part thereof under this bank Guarantee only and only if you serve upon us a written claim or a demand on or before \_\_\_\_\_(Date).
- (IV) This bank guarantee is operative only when accompanied with SFMS advice from us.

Yours faithfully

For \_\_\_\_\_(Name of the Bank)

**Annexure 16:**  
**List of Approved Banks for EMD and Performance Security if Bidder intends to submit Bank Guarantee**

**Finance Department, Government of Gujarat's GR for the list of Approved Banks as follows.**

Acceptance of Bank Guarantee as  
Security Deposit and Earnest  
Money Deposit.

**Government of Gujarat**

**Finance Department**

GR. No.: FD/MSM/e-file/4/2023/0057/D.M.O.

Date: 21/04/2023

Read: FD GR. No.: EMD/4/2022/0002/DMO Dt. 20/05/2022

**Preamble:**

Tendering authorities of the State Government and its Boards/Corporations/PSUs frequently take Bank Guarantee from the bidders towards Security Deposit and Earnest Money Deposit. The State Government had issued the list of eligible banks vide above read resolutions of this department dated 20/05/2022.

After careful consideration, the Government has decided to approve the list of Banks whose Bank Guarantees would be accepted for the purpose mentioned above. It has now been decided to resolve as follows:

**Resolution:**

Government Departments and State Government Boards / Corporations / PSUs would accept Bank Guarantee (towards Security Deposit and Earnest Money Deposit) issued by any of the banks included in the **Annexure I**, attached to this Resolution.

The tendering authority will be required to ascertain the authenticity of the Bank Guarantee and set up necessary internal control procedures.

By order and in the name of the Governor of Gujarat.

  
(S. Chhakhuak)

Additional Secretary (Budget)

Finance Department

**Annexure I.**

**Finance Department, GR. No.: FD/MSM/e-file/4/2023/0057/D.M.O.**

Date: 21/04/2023

(A) Guarantees issued by the following banks will be accepted as SD/EMD on permanent basis:

❖ **All Nationalized Banks**

(B) Guarantees issued by the following Banks will be accepted as SD/EMD for the period up to March 31, 2024. The validity cut-off date in the GR is with respect to the date of issue of Bank Guarantee irrespective of the date of termination of Bank Guarantee.

Sr No	Name of Banks	Sr No	Name of Banks
1	AXIS Bank	17	Kotak Mahindra Bank
2	AU Small Finance Bank	18	South Indian Bank
3	Bandhan Bank	19	Standard Chartered Bank
4	BNP Paribas	20	Tamilnadu Mercantile Bank
5	City Union Bank	21	Utkarsh Small Finance Bank
6	CSB Bank	22	The Kalupur Commercial Co-op. Bank
7	DBS Bank India Limited	23	Ahmedabad Mercantile Co-op. Bank
8	DCB Bank	24	Nutan Nagarik Sahakari Bank Ltd.
9	Equitas Small Finance Bank	25	Rajkot Nagarik Sahakari Bank Ltd.
10	FEDERAL Bank	26	Saraswat Co-Operative Bank Ltd
11	HDFC Bank	27	SVC Co-Operative Bank LTD.
12	HSBC Bank	28	The Gujarat State Co-operative Bank
13	ICICI Bank	29	The Mehsana Urban Co-Op. Bank Ltd
14	IndusInd Bank	30	The Surat District Co-Operative Bank Ltd
15	Karnataka Bank	31	The Surat People's Co-Op. Bank Ltd
16	Karur Vysya Bank	32	Saurashtra Gramin Bank

**All the eligible banks are instructed to collect the original documents/papers of guarantee from the concerned tendering authority.**

  
(S. Chhakchhuak)

Additional Secretary (Budget)

Finance Department

-----XXXXX-----

**Annexure 17:  
Declaration about the Site Visit**

(On letter head of the Successful bidder)

**Name of Works:** \_\_\_\_\_

We hereby certify that we have visited the site in respect of RFP No. \_\_\_\_\_ for all the works mentioned above at Tadkeshwar Lignite Mine. We have obtained all relevant details, information, data, existing working conditions, existing industrial environment, water ingress etc. We have also studied the mining scheme proposed in the tender and availability of power supply, water supply, manpower, machineries, transportation facility, etc.

We hereby agree and undertake not to raise any dispute and/or objection at any stage on any ground what soever, during the currency of the contract if awarded to us.

Signature of the bidder with SEAL

Dated:

Confirmation from Project Authority:

It is to certify that the officials from M/s have visited the Tadkeshwar Lignite Mine on dated

Signature

**Name of the project authority**

---

## Annexure 18: Technical Specifications

### Technical Specifications

---

#### Permeation Grouting of Mine Dumps

##### Description

The soil injection, using an expandable polyurethane resin as per BOQ, holds a unique potential for settlement compensation, lifting, and strengthening the soil mass and providing hard toe at the edge.

Polyurethane grout as per BOQ shall be used to densify the soil at depth where consolidation may be occurring leading to surface settlement to create a strong toe at the base.

This technique shall be used to treat both the cause (by the densification of loose soils) and the symptom (by the filling of voids) required for withstanding the thrust. The use of polyurethane grouting technique as per BOQ shall be used to fill voids and strengthening the toe structures near the surface that would create a consolidated mass to restrict the movement of the mine dumps while extracting lignite from the coal bed.

##### Requirements

The successful bidder shall provide all labour, materials, tools, equipment, and incidentals specified, and required for the purpose. Chemical grouts shall be designed to be injected into the soil surrounding the pipe, which stabilizes the soil and consolidates into a heavy solid mass. Adequate volumes of grout must be injected to form an effective mass. The successful bidder shall provide all labor, materials, tools, equipment, and incidentals as shown, specified, and required for application of grout to the soil and void areas on the exterior of buried sanitary sewer manholes by means of curtain grouting technique.

Above requirement is illustrative only and not exhaustive if any requirement other than above shall be in the scope of successful bidder.

##### Performance of Grout

General physical properties of liquid chemical grout:

1. While being injected, the grout must be able to react/perform in the presence of water (groundwater)
2. The ability to increase grout mix viscosity, density, and gel strength by increased concentration of constituents or the use of approved additives.
3. The cured grout must withstand submergence in water without degradation.
4. The resultant grout formation must be homogeneous and prevent the passage of water further consolidating the whole mass.
5. The grout must not be biodegradable.
6. The cured grout should be chemically stable and resistant to organics found in sewage.
7. Residual grout shall be easily removable by mechanized means.

##### Technical Properties

Physical properties of uncured liquid chemical grout:

- a. Appearance

- b. Viscosity
- c. Specific Gravity
- d. Weight

Physical properties of cured liquid chemical grout:

- e. Appearance
- f. Hydraulic Conductivity
- g. Foam Expansion
- h. Shelf life

### **Consolidation Grouting**

All drilling and grouting equipment shall be of a type and capacity and in condition to perform the work described

#### **Drilling equipment's**

Drilling equipment shall be capable of drilling angle holes up to 45 degrees from vertical unless otherwise specified in section 18 of this specification. For exploratory holes, all drilling equipment used in rock shall be the rotary type and shall be equipped with hydraulic feed.

Cores shall be drilled with standard ballbearing, swivel type, N-size, double or triple tube split inner core barrels or equivalent size wire-line coring equipment.

Equipment for drilling grout and check holes shall be rotary, percussion, or rotary-percussion type as per manufacturer's recommendations. When percussion drilling equipment using water for flushing cuttings is used, the lifting rate of the flushing water shall be not less than 18 inches per second.

#### **Grouting equipment**

The equipment shall be capable of mixing and pumping grout having a mix ratio, by volume, of one part water, one part cement, and two parts bulk filler, such as sand or fly ash.

##### **Mixers**

Unless otherwise specified, mixers shall be high speed colloidal type and capable of thoroughly mixing water, cement, and bulk fillers to produce a grout of uniform texture and consistency. Mixers shall match the capacity of the pumping plant.

##### **Holdover Tank**

A holdover tank shall be furnished if a single compartment mixer is used. It shall be equipped with mechanical agitators to prevent segregation of the grout and shall have sufficient capacity to temporarily store the grout and thus provide a continuous supply. The outflow shall pass through a No. 16 wire mesh screen if the grout contains particles or foreign matter that would interfere with its proper flow into the voids it is intended to fill.

##### **Pumps**

Grout pumps shall be long stroke, multiple piston or the helical screw type. The capacity shall be not less than 3 cubic feet per minute at 200 pounds per square inch for the maximum grout mix of 1:1:2 (w:c:bf), by volume.

### **Air supply**

The air supply shall meet the requirement of the pumps and shall not be less than 200 cubic feet per minute per plant.

### **Water meter**

One water meter that has a reset and is graduated in tenths of gallons or hundredths of cubic feet shall be used with each mixer.

### **Pressure gauges**

One pressure gauge shall be installed at the pump and one at the collar of the hole. Gauges shall be non-clogging or use gauge savers or grease to prevent clogging. Spare gauges shall be available at the plant at all times.

### **Hoses, valves, and fittings**

Hoses, valves, and fittings shall be compatible with the maximum pressures specified. Hose from pump to grout header and return shall not be smaller than 1.5-inch (ID), and the pipe between header and packer shall not be smaller than 0.75-inch (ID). Double or single packers may be required for grouting and pressure testing. Packers shall fit tightly in the holes at all testing and grouting pressures.

### **Arrangement of grouting equipment**

The arrangement of grouting equipment shall provide a return line from the header back to the mixer or holdover tank. This permits continuous circulation of the grout. The grout pressure shall be controlled at the header or at the end of the return line.

The hose between the takeoff at the grout supply line to the header at the hole shall not be longer than 15 feet. Grouting several holes simultaneously from the same grout pump (multiple header arrangement) is not permitted.

Each hole shall be equipped with a shutoff valve below the hand coupling union. This permits shutoff at refusal pressure and removal of the header to another hole while still maintaining pressure in the completed hole.

The header arrangement shall include a blowoff valve and a control valve used to check hole back pressure before header removal. It must also have a return line valve. The header shall be connected to the supply line by a U-shaped pipe arrangement or other fashion that prevents fallout of solids into the hole from the bypassing grout during low rates of grout acceptance.

### **Communications**

A suitable voice communications system between individuals at the pump units and the holes shall be maintained by the successful bidder.

### **Grout mixtures(Composition)**

- i. Grout shall consist of a mixture of polyurethane additives, as specified in BOQ.
- ii. Mix Ratios Grout mix ratios are expressed in Lts and measurement will be done in litres, only.

### **Pressure testing**

In holes to be pressure tested, the packer or packers shall be set at intervals as directed by the engineer and IITR. Each interval shall be tested at water pressures up to the specified design grouting pressure for that interval, unless otherwise directed by the engineer. Pressures exceeding the specified design pressures shall not be applied unless specifically authorized by IIT-Roorkee

### **Packer and Stage grouting**

For packer grouting, the holes shall be drilled to the total depths and shall be grouted in lifts starting at the bottom. The hole shall be grouted at that depth and drilling continued not less than 24 hours after grouting. The packer lifts and related pressures shall be as specified except as otherwise directed by the engineer.

If stage grouting becomes necessary, it shall be performed in successive depth intervals (stages) in each hole beginning at the surface and progressing to the deeper stages. All of the holes in a specified area shall be drilled and grouted in each stage before grouting of the succeeding stage is begun. The stages and the grouting pressures for each stage shall be as specified unless otherwise directed by IIT-Roorkee.

### **Grouting Injection**

If grout injected into one hole appears in adjacent holes, the interconnected holes shall be plugged temporarily with packers set just above the level at which the grout is entering. Holes grouted by interconnection shall be split spaced.

The quantity of grout prepared in advance shall be kept to a minimum. Grout that has remained in the mixer or holdover tank with or without agitation for more than 30 mins shall be discarded.

Grout temperatures shall be no lower than 10 Degree Celsius. When the hole shows signs of refusal, grouting shall be stopped immediately.

### **Grouting Procedure**

The procedures and grout mixes described below are general guidelines and may be altered in the field by the engineer to suit the conditions encountered and to meet the design objectives. This shall be done strictly as per Manufacturer's recommendations.

### **Construction Methodology**

The successful bidder shall provide detailed methodology and grouting array's along with the bid documents.

### **Testing and Acceptance criteria:**

The manufacturer of the Chemicals for PU Grout as per BOQ shall provide Manufacturers Test Certificate / Certificate of Conformity for the material with every lot/shipment. The Manufacturers Test Certificate / Certificate of Conformity for Chemicals for PU Grout shall be provided for certifying that system confirms to all the technical requirements as per BOQ.

## MICROPILES

### Description

This work shall consist of designing, furnishing, installing and testing the proposed micropiles according to the plans, approved shop drawings, and this Special Provision.

The successful bidder shall be responsible for selecting the micropile type, installation method, bond lengths, grout pressures, and any necessary changes to the structural elements, such that the micropiles will carry both the compressive and tension design loads indicated on the plans at the maximum tolerable deflections specified. The successful bidder shall demonstrate the micropile adequacy by performing pileload test(s) and micropile proof tests that satisfy the acceptance criteria of this Special Provision as per IIT-Roorkee.

### Submittals

1. **Shop Drawing & Layout:** At least five weeks before work is to begin, the Successful bidder shall submit to the Engineer for review and approval, design calculation and complete shop drawings describing the system, or systems, intended for use and get it approved from IIT – Roorkee. The micropile shall be designed and detailed to carry the tension and compression loadings indicated on the plans.
  - i. Design calculations including the following:
    - a. Geotechnical design computations that describe how the micropile bonded lengths were designed applicable code requirements and design reference literature used in the geotechnical and structural computations.
    - b. Micropile design profile cross-section(s) geometry including casing plunge length(s), bonded lengths and minimum diameter, the soil/rock strata anticipated, and the piezometric levels.
    - c. Design criteria including soil/rock shear strengths(friction angle and cohesion), unit weights, minimum grout compressive strength, ground/grout bond values, and assumptions for each soil/rock strata.
    - d. Resistance factors used and the resulting factored geotechnical resistance of each portion of the micropile.
    - e. Structural design calculations sizing the load and proof testing frame, reaction piles and connections to both the reaction piles and micropiles. Geotechnical calculations shall be submitted to indicate that a minimum factored resistance exists for the reaction piling equal to twice the maximum test loading.
    - f. If proposing to modify the anchorage head assembly, connection to

footing, casing, reinforcement, bearing plate or weld details shown in the plans, structural calculations supporting these changes shall also be submitted.

2. Shop drawings including the following:

**I. Plan view of the project showing the following:-**

All proposed micropiles with each labeled with a unique identification number. Locations of subsurface exploration borings plotted and labeled. Proposed overall sequence of construction. Locations of micropiles to be proof tested and load tested.

**II. Elevation view of project showing the following:-**

The location of the existing substructures and all soil boring data plotted with all major changes in soil type or stratification identified. The proposed micropile lengths plotted at each substructure as well as the bottom of casing, top of bonded length, plunge length and minimum tip elevations indicated. All general notes for constructing the micropiles.

**III. Micropile typical section showing the following:-**

The proposed typical micropile configuration(s) including steel casing, reinforcement sizes, grout tubes and minimum grouted diameters (in both the cased and bonded lengths). Step by step installation procedure(s) including casing advancement, grouting elevations, re-grouting, etc. Reinforcement centralizers and spacer locations and details. Casing splice details.

Anchorage head assembly details including reinforcement, casing, bearing plate, embedment/connection to footing and required weld sizes if proposing to deviate from those provided in the plans.

3. Any revisions to details shown on the plans necessary to accommodate the micropile system intended for use.

4. Micropile load and proof testing sheet show in the following

Load frame and anchor pile details for load tests. Load frame and reaction pile connection for proof testing production piles. Any additional reinforcement and grout strength required in the load test micropiles to permit testing to 1.5 times the design loadings. Jack, pressure gauge and loadcell calibration curves.

5. The grout mix design and procedures for monitoring and recording the grout depth ,

volume and pressure during the grouting process.

Work shall not start on any micropile, nor shall materials be ordered, until the shop drawings and qualifications have been approved in writing by the Engineer.  
And IITR

## **MATERIALS**

---

The materials used for the construction of the micropiles shall satisfy the following requirements:

- (a) Reinforcement Steel: As per IS 800, IS 1786 or their latest revisions.
- (b) Steel Couplers: Pre stressing steel couplers shall be capable of developing 95 percent of the minimum specified ultimate tensile strength of their reinforcement steel.
- (c) Grout: Cement for grouting should conform to IS 269 : 1989 or 1489 (Part 1) : 1991, 1489 (Part 2) : 1991. Expansive admixtures may not be used except to seal the encapsulations and anchorage covers. Admixtures to control bleed, improve flowability, reduce water content, and retard set may be used if approved by the Engineer and IITR. Accelerators and admixtures containing chlorides are not permitted.
- (d) Fine Aggregate: If sand-cement grout is used, sand shall conform to the requirements for fine aggregates according to IS 383 of the Standard Specifications.
- (e) Spacers: Spacers for separation of elements of a multi-element reinforcement shall permit the free flow of grout. They shall be fabricated from plastic, steel or material which is not detrimental to the reinforcement. Wood shall not be used. Spacers shall be placed along  
The total length of the micropile so that the steel will bond to the grout.
- (f) Centralizers: Centralizers shall be fabricated from plastic, steel or material which is not detrimental to the reinforcing steel. Wood shall not be used. Centralizers shall be able to maintain the reinforcement position and alignment so that a minimum of 38mm of grout cover is obtained at all locations below the cased micropile length. They shall be located at 3m maximum c/c with the lower one located one foot from the bottom of the bonded length.
- (g) Anchorage head assembly: The materials properties, dimensions, and design details for the micropile anchorage head assembly components shall be as specified on the contact plans unless otherwise proposed by the Successful bidder/Successful bidder and approved as part of the shop drawings submittal. Anchorage components may include bearing plates, shear studs, reinforcement steel, nuts, casing and other approved components.
- (h) Steel casing: Steel casing shall be flush joint API N-80 Pipe of the wall thickness and diameter shown on the plans. The material/ pipes used shall be pre-approved by IIT-Roorkee.

## **CONSTRUCTION REQUIREMENTS**

---

The drilling method used may be rotary drilling, percussion drilling or an approved

alternate. The method of installation used shall be that which prevents loss of ground around the drilled hole that may be detrimental to the structure. The drill hole shall be maintained open along its full length at the minimum drill hole diameter specified on the approved shop drawings prior to placing reinforcement and grout. Temporary casing or other approved method of micropile drill hole support shall be required in caving or unstable conditions.

The Successful bidder shall notify the Engineer if an obstruction is encountered. An obstruction is an unknown isolated object that causes the excavation to experience a significant decrease in the actual production rate and requires the Successful bidder to core, breakup, push aside, or use other means to mitigate the obstruction. Subsurface conditions such as boulders, cobbles, or logs and buried infrastructure such as footings, piling, or abandoned utilities, when shown on the plans, shall not constitute an obstruction. When an obstruction is encountered, the Successful bidder shall notify the Engineer immediately and upon concurrence of the Engineer, the Successful bidder shall mitigate the obstruction with an approved method unless relocating the micropile would be less expensive.

Casing shall be installed in sections of appropriate lengths with threaded connections. The casing shall be capable of advancing the hole through the soil strata as indicated in the boring data. Welded Joints may be used if the welding detail is submitted and approved as part of the shop drawings.

The reinforcement, if recommended, shall be placed prior to grouting. The reinforcement shall be inserted to the desired depth without undue stressor difficulty (not drive nor forced). When the reinforcement can not be completely inserted it shall be removed and the drill hole cleaned or re-drilled to permit insertion. The reinforcement shall be free of soil, grease, or oil that might reduce the grout to bar bond.

The micropiles shall be grouted within 24 hours after the load transfer bond length is drilled. Grout shall be free of any lumps and undispersed cement. The grout volumes and pressures shall be measured and recorded during the placement operation. The pump shall be equipped with a grout pressure gauge at the pump and a second gauge placed at the point of injection at the top of the casing to monitor grout pressures. The gauges shall be capable of measuring pressures of at least 150psi (1.0MPa) or twice the actual grout pressures used, whichever is greater. The grout shall be continuously agitated after mixing.

All grout shall be placed within one hour of mixing. The grouting equipment shall be sized to enable each pile to be grouted in one continuous operation. The grout shall be injected from the lowest point of the drill hole (through grout tubes, casing, drill rods, etc.) and continued until uncontaminated grout flows from the top of the micropile.

Temporary casing, if used, shall be extracted in stages ensuring that, after each length of casing is removed, the grout level is brought up to ground level before the next length is removed. The casing or grout tube shall always extend below the level of the grout in the drill hole. Upon completion of grouting, the grout tube or access valve may remain in the drill hole and anchorage head assembly provided it is filled with grout. The grout take and

pressure shall be controlled to prevent any heave of the ground surface or foundations.

The Contractor shall monitor the existing foundation for movement. If movement is detected, the Successful bidder shall immediately stop production and notify the Engineer. Work shall not resume until the Successful bidder's recommendations to remedy the situation are approved by the Engineer.

The following construction tolerances shall apply to all production micropiles:

- a. The centre of the micropile casing shall be within 50 mm of plan location in any direction at the top of the pile
- b. The deviation of the shaft batter from that specified shall not exceed 1/8 in./ft. (10 mm/m).
- c. The top of the casing shall be within  $\pm 2$  inches (50 mm) of the plan elevation.

Any Tie- Beams, if proposed shall be on recommendation of IIT-R after scrutiny.

Successful bidder shall submit complete construction methodology, QAP Plan along with the Bid Documents.

#### **Micropile Load Test & Micropile Proof Test**

The Successful bidder shall install and load test non- production micropile(s) as well as proof test selected production micropiles. The load testing shall be performed by incrementally loading the micropiles as per the directions of IIT – Roorkee.

### **Perched Reinforced Soil Slopes**

---

#### **2.1 Scope of Work:**

This specification covers the use of high strength geogrids/ biaxial geotextile(woven) strength mass per unit area 400 grams/sqm (as specified in BOQ ) for soil reinforcement including the scope of furnishing and installation as per the special provisions mentioned in the specifications, instructions from the manufacturer/supplier and as directed by the Engineer-In-Charge and IITR.

#### **2.2 Submittals**

Submit the following to the Engineer and IITR for review prior to use:

- a. Manufacturer name, product name and type of reinforcement (geogrid) proposed for the project.
- b. Information related to the tensile strength and reduction factors for the proposed reinforcement product in accordance with this section.
- c. Information related to the molecular weight and carboxyl end group (CEG) count of the polyester if used and to the type of polymeric coating used to protect the resisting core of PET; PET or PVA based reinforced geogrids without any polymeric protection coating will not be allowed as per BOQ.

- d. Manufacturer recommended installation procedures for the proposed reinforcement product.

**Material**

The high strength reinforcement material will be a geogrid manufactured by bonding strips. The primary soil reinforcement shall be high strength flexible geo grid with a high-quality coating like LDPE or equivalent. Latex or PVC or other modified coating for grid or biaxial geotextile(woven) strength mass per unit area 400 grams/sqm (as specified in BOQ )as reinforcement shall not be permitted. It may be a homogeneous material which satisfies the strength and durability requirements in the specifications outlined below.

The primary soil reinforcement shall conform to the details given in table 1. The Ultimate tensile strength values indicated in Table 1 are short term, which needs to be reduced to long term strength for design purpose by applying suitable partial material factors or reduction factors (RF) as explained in clause 2.3.1.

The selection of the geogrid/ biaxial geotextile(woven) strength mass per unit area 400 grams/sqm (as specified in BOQ in sr. no. 2) needs to be strictly based on the long-term design strength values for a design life of minimum 10 years at design temperature as per the site-specific values. The high strength reinforcement shall have the following minimum stress-strain short term and long-term characteristics given in table 1:

**Table 1 Minimum stress-strain short term and long-term characteristics as per BOQ**

Ultimate Tensile Strength (MARV)	(kN/m)	100	200	300	ASTM D6637 or ISO 10319 or BBA Certified values
Minimum Secant modulus at 5% strain not inferior to	(kN)	1060	2120	3300	ASTM D6637 or ISO 10319 or BBA Certified values
RF at 30°C Temperature and 4<ph<9 for 120 years design life for fill material with D <sub>50</sub> up to 1 mm and D <sub>90</sub> up to 4 mm (Concrete-Sand)	(kN/m)			1.623	BBA Certified values
RF at 30°C Temperature and 4<ph<9 for 120 years design life for fill material with D <sub>50</sub> up to 0.7 mm and D <sub>90</sub> up to 4 mm (Concrete-Sand)	(kN/m)	1.744	1.744		BBA Certified values
Long Term Design Strength at 30°C Temperature and 4<ph<9 for 120 years design life for fill material with D <sub>50</sub> up to 1 mm and D <sub>90</sub> up to 4 mm (Concrete-Sand)	(kN/m)			184.83	BBA Certified values
Long Term Design Strength at 30°C Temperature and 4<ph<9 for 120 years design life for fill material with D <sub>50</sub> up	(kN/m)	57.33	114.67		BBA Certified values

to 0.7 mm and D <sub>90</sub> up to 4 mm (Concrete-Sand)					
The creep deformation measured on the isochronous curves with reference to the gap of elongation between the 24 hrs and 1,000,000 hrs isochronous curves will not be higher than 1% for loads below 70% of the UTS.					

### Long term design strength properties

The long-term design strength shall be derived as per guidelines given in ISO TR 20432 for design life of minimum 10 years and design temperature as per site specific values considering following factors

$$T_{allow} = T_{UTS} / R_F$$

$$R_F = R_{FCR} \times R_{FID} \times R_{FW} \times R_{FCH} \times F_S$$

T<sub>allow</sub> = Allowable tensile strength

T<sub>UTS</sub> = Ultimate tensile strength

R<sub>F</sub> = Reduction factor

R<sub>FCR</sub> = Reduction factor for creep

R<sub>FID</sub> = Reduction factor for the effect of installation damage

R<sub>FW</sub> = Reduction factor for weathering

R<sub>FCH</sub> = Reduction factor environmental degradation (chemical and biological) at the service temperature

F<sub>S</sub> = Reduction factor related to the mass of information available and to the production quality.

The adoption of reduction factors should be strictly based on reliable test data and performance data available with the manufacturer from accredited independent agency or the manufacturer should provide a valid third-party accredited certification like BBA (British Board of Agreement) certifying the Reduction Factor (RF) value for their geogrid/biaxial geotextile(woven) strength mass per unit area 400 grams/sqm (as specified in BOQ) for design temperature and design life of minimum 10 years. Manufacturer should have creep test data from independent accredited laboratory for period over 5 years. Use of default reduction factors mentioned in codes like MORT&H or IRC or FHWA will not be permitted.

### Packaging and Labelling

A. Supply reinforcement rolls adequately wrapped in protective cover.

B. Mark or tag reinforcement rolls with the following information:

1. Manufacturer's name.
2. Product identification.
3. Lot or batch number.
4. Roll number; and
5. Roll dimensions.
6. Material handling instruction

### Handling and Storage

A. Protect reinforcement rolls from sunlight, moisture, excessive heat or cold, puncture, mud, dirt, and dust or other damaging or deleterious conditions. Follow all manufacturer recommendations for handling and storage. If required, the reinforcement rolls shall be

covered with additional tarp cover (in addition to the protective roll cover) to prevent damage to the rolls.

- B. Store reinforcement rolls on pallets or other elevated structures. Do not store reinforcement rolls directly on the ground.
- C. Outdoor storage of reinforcement rolls shall not exceed the time limit recommended by the manufacturer.

#### **Installation of Primary soil reinforcement**

- Care should be taken in the handling, lifting and positioning of geogrid/ biaxial geotextile(woven) strength mass per unit area 400 grams/sqm (as specified in BOQ) rolls. Since the weight of the rolls is high, mechanical lifting arrangements are necessary. This should be done using a lifting beam.
- To ease the laying, and proper performance of the geogrid/ biaxial geotextile(woven) strength mass per unit area 400 grams/sqm (as specified in BOQ), the formation on which it is to be laid should be flat without ruts and sharp undulations.
- The structural backfill immediately 100mm above and below the primary reinforcement shall be of good quality, free draining well graded frictional soil with percentage fine content (0.075) less than 15%. Plasticity index should be less than 6. The percentage of fines passing 75-micron sieve should not be greater than 15%. The maximum particle size in the structural fill in this portion shall not be more than 75mm and should be devoid of any dirt and deleterious material. In case higher particle size than 75mm to be used, manufacturer of geogrid/ biaxial geotextile(woven) strength mass per unit area 400 grams/sqm (as specified in BOQ) shall provide installation damage test results of scalp or sharp material with higher particle size. Compaction tests for such fill shall be carried out before final construction. For the layer of structural fill to be placed just above and below the reinforcement (primary/ secondary) the maximum particle size shall not exceed 40 mm for a minimum compacted thickness of 200mm. The angle of friction should be less than 32 degrees. Alternatively, a draining geogrid/ biaxial geotextile(woven) strength mass per unit area 400 grams/sqm (as specified in BOQ) or geo composite which consists of a reinforcement component and drainage component shall be used. The properties of reinforcement component should be same as specified for primary reinforcement.
- The structural backfill shall be of good quality, free draining granular soil and plasticity index should be less than 6. The percentage of fines passing 75-micron sieve should not be greater than 15%. The maximum particle size in the structural fill shall not be more than 75 mm. The structural fill material should be basically free draining and it should be devoid of dirt and deleterious material. Tunnel muck is utilized as reinforced fill for Reinforced soil wall solution. The angle of friction shall be greater than or equal to 30 degrees.
- The rolls should be placed near the facia and started to roll back perpendicular to the wall direction as shown in the construction drawings.
- The roll should be unwound a small amount by pushing the roll in the direction of the tensile strength requirement. The base end of the geogrid/ biaxial geotextile(woven) strength mass per unit area 400 grams/sqm (as specified in BOQ) now exposed should be secured by weighting or pinning it to the formation. The roll should then be unwound carefully ensuring that no slack or undulations occur in the geogrid/ biaxial geotextile(woven) strength mass per unit area 400 grams/sqm (as specified in BOQ) as it is laid. If these do occur, they should be corrected immediately before proceeding. When the roll is completely unwound the free end of the geogrid/ biaxial geotextile(woven)

strength mass per unit area 400 grams/sqm (as specified in BOQ) should be hand tightened and secured by weighting or pinning.

- The run of primary soil reinforcement should be reasonably straight, and all elements should be flat and not twisted. No undulations in the geogrid/ biaxial geotextile(woven) strength mass per unit area 400 grams/sqm (as specified in BOQ) should be evident.
- There shall not be any active or positive connection between primary soil reinforcement and secondary soil reinforcement by means of joining. The stress transfer shall happen by the frictional interaction between the primary and secondary soil reinforcement. For this, a minimum overlap length of 3m shall be provided between the primary and secondary soil reinforcement.

### **Repairs**

Repair any damage to the reinforcement in accordance with manufacturer's recommendations or as directed by the GMDC or IITR.

### **Testing and acceptance criteria**

The material should get approval from the GMDC and IITR before the actual supply start. successful bidder within 30 days of issue of work order shall intimate Engineer in charge about the brand of material he intends to procure along with technical literature, past experience, submittals as per clause 2.2 and other details about the manufacturer and if client and IITR intended for testing of supplied material, successful bidder shall arrange a visit of client and IITR to factory for inspection and testing of the material. The visit expenses (traveling, lodging and boarding) and testing expenses will be borne by the successful bidder.

Tensile strength test shall be done on one sample per every 40,000 sqm of geogrid/ biaxial geotextile(woven) strength mass per unit area 400 grams/sqm (as specified in BOQ) supplied at manufacturer laboratory. Manufacturer of the geogrid/ biaxial geotextile(woven) strength mass per unit area 400 grams/sqm (as specified in BOQ) should provide "Manufacturers Test Certificate' for the tensile strength of geogrid/ biaxial geotextile(woven) strength mass per unit area 400 grams/sqm (as specified in BOQ). Cross verification of any test to be conducted at the lab recommended by IITR and GMDC. If any deviation in respect of the result of the testing arises then the decision of the IITR shall be final and shall be binding to successful bidder and client.

### **Testing and Acceptance criteria:**

The manufacturer of the synthetic mat shall provide Manufacturers Test Certificate / Certificate of Conformity for the material with every lot/shipment. The Manufacturers Test Certificate / Certificate of Conformity for synthetic mat shall be provided for certifying that system confirms to all the technical requirements. Test of items to be carried out as per test materials specified in as per Table 700-14 and clause 706 of MORTH Specifications for Road & Bridge works (fifth revision)

### **Method of Measurement**

Quantities of geogrid/ biaxial geotextile(woven) strength mass per unit area 400 grams/sqm (as specified in BOQ) reinforcement shall be determined from cross sections and the linear distance of the structure. The measurement shall be in square meters of geogrid/ biaxial geotextile(woven) strength mass per unit area 400 grams/sqm (as specified in BOQ), measured in their final position in plan area. Site specific design and material availability will

determine the actual grade of geogrid/ biaxial geotextile(woven) strength mass per unit area 400 grams/sqm (as specified in BOQ) to be used.

**Basis of Payment**

Accepted geogrid/ biaxial geotextile(woven) strength mass per unit area 400 grams/sqm (as specified in BOQ) reinforcements will be paid per square meter quantity of various grades for each pay item included in the contract.