SELECTION OF CONSULTANT

Request for Proposal Consulting Services

Procurement of:

Hiring of Consultancy Firm for conducting Topographic survey, Geological Investigation, Geotechnical investigation, Geo-physical Investigation & Slope stability analysis in Nainital city, Uttarakhand

RFP No: 06 /ULMMC/RFP/2023

Consulting Services for: Hiring of Consultancy Firm for conducting Topographic survey, Geological Investigation, Geotechnical investigation, Geophysical Investigation & Slope stability analysis in Nainital city, Uttarakhand

Client: Director General, Uttarakhand Landslide Mitigation & Management Center (ULMMC), Dehradun, Uttarakhand

Country: India

Issued on: 20th February,2024

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- Section 3 Technical Proposal Standard Forms
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- Section 6 Standard Forms of Contract ([Lump-Sum])

Request for Proposal Letter

Consulting Services

Name of Assignment: Hiring of Consultancy Firm for conducting Topographic survey, Geological Investigation, Geotechnical investigation, Geo-physical Investigation & Slope stability analysis in Nainital city, Uttarakhand

RFP Reference No.:04/ULMMC/RFP/2023

Country: India **Date:** 20.02.2024

- 1. Uttarakhand Landslide Mitigation and Management Center (ULMMC), Dehradun. under the administrative control of Disaster Management & Rehabilitation, Govt. of Uttarakhand invites Request for Quotation for Selection of Consultant for conducting Topographic survey, Geological Investigation, Geotechnical investigation, Geo-physical Investigation & Slope stability analysis in Nainital city, Uttarakhand
- 2. The Client now invites online proposals to provide the following consulting services (hereinafter called "Services") Hiring of Consultancy Firm for Selection of Consultant for conducting Topographic survey, Geological Investigation, Geotechnical investigation, Geophysical Investigation & Slope stability analysis in Nainital city, Uttarakhand. More details on the Services are provided in the Terms of Reference (Section 5).
- 3. It is not permissible to transfer this RFP to any other firm.
- 4. A firm will be selected under *Least-Cost Selection (LCS)* and in a Full Proposal format as described in this RFP.

The RFP includes the following documents:

- Section 1 Request for Proposals Letter
- Section 2 Instructions to Consultants and Data Sheet
- Section 3 Technical Proposal Standard Forms
- Section 4 Financial Proposal Standard Forms
- Section 5 Terms of Reference
- Section 6 Standard Forms of Contract (/Lump-Sum/)
- 5. The RFP is available online at *www.uktenders.gov.in* for downloading free of cost. Consultant would be required to register on the website, which is free of cost, and would be responsible for ensuring that any addenda available on the website is also downloaded and incorporated prior to the submission of proposals. For submission of a proposal online at the web address indicated above, the Consultant is also required to have a Digital Signature (DSC) from one of the Government of India authorized Certifying Authorities.

- 6. Any Proposal or modifications to Proposal (including discount) received outside e-procurement system will not be considered.
- 7. Details on the proposal's submission date, and time are provided in ITC 17.4. The e-procurement system would not allow any late submission of proposals.
- 8. All communications including the submission of bid should be addressed to:

Director,

Uttarakhand Landslide Mitigation & Management center

- 4th Floor, DDPM tower, Haridwar By-pass road, Ajabpur Khurd, Dehradun-248001, Uttarakhand **Email: ulmmc.ddn@gmail.com**
- 9. ULMMC, Dehradun reserves the right to accept or reject in part or as a whole, any of the proposal received without assigning any reason thereof.
- 10. Work is defined in Table 1.1.

S. No.	Name of the Work	Period of Completion
A	В	Е
1.	Request for Proposal for conducting Topographic survey, Geological Investigation, Geotechnical investigation, Geo- physical Investigation & Slope stability analysis in Nainital city, Uttarakhand	6 Months

11. Period of availability of tender date & time/ date of submission/opening of online tender are as given in Table 1.2.

S. No.	Procurement Agency	Place of opening	Availability of online tender document		Date & Time of online Bid Opening
A	В	С	D		F
1.	Uttarakhand Landslide Mitigation and Management Center (ULMMC), Dehradun	4 th floor, DDPM Tower, Haridwar By- pass road, Ajabpur khurd Dehradun- 248001, Uttarakhand	of RFP per Document from (12:00 hrs.) to 11:	ubmission eriod from 5.02.2024 12:00 hrs.)	11.03.2024 (15:00 hrs.)

- 12. The bidder shall also furnish a **performance security** (**if awarded**) **of 10%** of the contract value valid upto 45 days beyond all the performance obligations in the favor of Additional Director General, ULMMC, Dehradun, Uttarakhand in form of bank Guarantee/FDR only.
- 13. This Request for Proposal(RFP) has been addressed to the following empaneled consultants empaneled vide letter no.210/ULMMC/27/2023, Dated:30.10.2023:
 - a) M/s Convolution Engineering Consultancy LLP., A4/802, Tulip Volvet, Sector- 69 Gurugram- 1221001.
 - b) M/s AIMIL Ltd., Naimex House, A-8, Mohan Coperative Insdustrial State, Mathura Road, New Delhi-110044, India.
 - c) M/s Lion Engineering Consultants Private Limited., "Lion Tower" Plot No 97, Elegant Estate Bairagarh Chichi, Kolar Road, Bhopal, (M.P.)- 462042.
 - d) M/s Floodkon Consultants LLP, B 125, Tower -B Logix Technova, Noida Sector 132, Gautam Buddha Nagar, UP-201301.
 - e) M/s Genstru Consultants Pvt.Ltd., B 415, Ganga Osian Square Survey No-249/250,Mankar Chowk waked pune(MH)-411057.
 - f) M/s Indian GeoTechnical Services JV with M/s Lombardi Engineering india Pvt Ltd., C 91 Gound Floor Shiwalik Malviya Nagar, New Delhi 17 & A-1/20,LGF,Safdarjung Enclave New Delhi-110029,INDIA.
 - g) M/s Excelling geo and engineering consultant pvt. Ltd JV with M/s Intellitest solution Pvt Ltd., 1012A, abad, 10th Floor, B1-Business Hub, Sector-81, Faridabad-121002, Harayana.
 - h) M/s Magot Engineering Consultants Pvt. Ltd., opp 9th cross, Tapovan Enclave, Nalapani Road, Dehradun-248008

Sd/-Director General ULMMC, Dehradun

Section 2. Instructions to Consultants and Data Sheet

Instructions to Consultants

A. General Provisions

1. Definitions

- (a) "Affiliate(s)" means an individual or an entity that directly or indirectly controls, is controlled by, or is under common control with the Consultant.
- (b) "Applicable Regulations" means Procurement Regulations of date specified in the **Data Sheet**
- (c) "Applicable Law" means the laws and any other instruments having the force of law in the Client's country, or in such other country as may be specified in the **Data Sheet**, as they may be issued and in force from time to time.
- (d) Deleted
- (e) Deleted
- (f) "Client" means the implementing agency that signs the Contract for the Services with the selected Consultant.
- (g) "Consultant" means a legally-established professional consulting firm or an entity that may provide or provides the Services to the Client under the Contract.
- (h) "Contract" means a legally binding written agreement signed between the Client and the Consultant and includes all the attached documents listed in its Clause 1 (the General Conditions of Contract (GCC), the Special Conditions of Contract (SCC), and the Appendices).
- (i) "Data Sheet" means an integral part of the Instructions to Consultants (ITC) Section 2 that is used to reflect specific country and assignment conditions to supplement, but not to over-write, the provisions of the ITC.
- (j) "Day" means a calendar day, unless otherwise specified as "Business Day". A Business Day is any day that is

- an official working day of the Borrower. It excludes the Borrower's official public holidays.
- (k) "Experts" means, collectively, Key Experts, Non-Key Experts, or any other personnel of the Consultant.
- (l) "Government" means the government of the Client's country.
- (m) "in writing" means communicated in written form (e.g. by mail, e-mail, fax, distributed or received through the electronic-procurement system used by the Client) with proof of receipt;
- (n) "Key Expert(s)" means an individual professional whose skills, qualifications, knowledge and experience are critical to the performance of the Services under the Contract and whose CV is taken into account in the technical evaluation of the Consultant's proposal.
- (o) "ITC" (this Section 2 of the RFP) means the Instructions to Consultants with all information needed to prepare their Proposals.
- (p) "Non-Key Expert(s)" means an individual professional provided by the Consultant or its Sub-consultant and who is assigned to perform the Services or any part thereof under the Contract and whose CVs are not evaluated individually.
- (q) "Proposal" means the Technical Proposal and the Financial Proposal of the Consultant.
- (r) "RFP" means the Request for Proposal to be prepared by the Client for the selection of consultants through eprocurement system, based on the SPD - RFP.
- (s) "SPD RFP" means the Standard Procurement Document - Request for Quotation, which must be used by the Client in e-procurement system, as the basis for the preparation of the RFP.
- (t) "Services" means the work to be performed by the Consultant pursuant to the Contract.
- (u) "Sub-consultant" means an entity to whom the Consultant intends to subcontract any part of the Services while the Consultant remains responsible to

the Client during the whole performance of the Contract.

(v) "Terms of Reference (TORs)" (this Section 5 of the RFP) means the Terms of Reference that explains the objectives, scope of work, activities, and tasks to be performed, respective responsibilities of the Client and the Consultant, and expected results and deliverables of the assignment.

2. Introduction

- 2.1 The Client named in the **Data Sheet** intends to select a consultant from those listed in the Request for Proposal(RFP), in accordance with the method of selection specified in the **Data Sheet**.
- 2.2 The shortlisted Consultants are invited to submit a Technical Proposal and a Financial Proposal as specified in the **Data Sheet**, for consulting services required for the assignment named in the **Data Sheet**. The Proposal will be the basis for negotiating and ultimately signing the Contract with the selected Consultant.
- 2.3 The Consultants should familiarize themselves with the local conditions and take them into account in preparing their Proposals, including attending a pre-proposal conference if one is specified in the **Data Sheet**. Attending any such pre-proposal conference is optional and is at the Consultants' expense.
- 2.4 The Client will timely provide, at no cost to the Consultants, the inputs, relevant project data, and reports required for the preparation of the Consultant's Proposal as specified in the **Data Sheet**.

3. Conflict of Interest

- 3.1 The Consultant is required to provide professional, objective, and impartial advice, at all times holding the Client's interest's paramount, strictly avoiding conflicts with other assignments or its own corporate interests, and acting without any consideration for future work.
- 3.2 The Consultant has an obligation to disclose to the Client any situation of actual or potential conflict that impacts its capacity to serve the best interest of its client. Failure to disclose such situations may lead to the disqualification of the Consultant or the termination of its Contract.

3.2.1 Without limitation on the generality of the foregoing, the Consultant shall not be hired under the circumstances set forth below:

a. Conflicting Activities

(i) Conflict between consulting activities and procurement of goods, works or non-consulting services: a firm that has been engaged by the Client to provide goods, works, or non-consulting services for a project, or any of its Affiliates, shall be disqualified from providing consulting services resulting from or directly related to those goods, works, or non-consulting services. Conversely, a firm hired to provide consulting services for the preparation or implementation of a project, or any of its Affiliates, shall be disqualified from subsequently providing goods or works or non-consulting services resulting from or directly related to the consulting services for such preparation or implementation.

b. Conflicting Assignments

(ii) Conflict among consulting assignments: a Consultant (including its Experts and Sub-consultants) or any of its Affiliates shall not be hired for any assignment that, by its nature, may be in conflict with another assignment of the Consultant for the same or for another Client.

c. Conflicting Relationships

(iii) Relationship with the Client's staff: a Consultant (including its Experts and Sub-consultants) that has a close business or family relationship with a professional staff of the client who are directly or indirectly involved in any part of (i) the preparation of the Terms of Reference for the assignment, (ii) the selection process for the Contract, or (iii) the supervision of the Contract, may not be awarded a Contract, unless the conflict stemming from this relationship has been resolved in a manner acceptable throughout the selection process and the execution of the Contract.

4. Unfair Competitive Advantage

4.1 Fairness and transparency in the selection process require that the Consultants or their Affiliates competing for a specific assignment do not derive a competitive advantage from having provided consulting services related to the assignment in question. To that end, the Client shall indicate in the **Data Sheet** and make available to all shortlisted Consultants together with this RFP all information that

would in that respect give such Consultant any unfair competitive advantage over competing Consultants.

5. Fraud and Corruption

- 5.1 Deleted
- 5.2 Consultants shall permit and shall cause their agents (where declared or not), sub-contractors, sub-consultants, service providers, suppliers, and their personnel, to permit the Client to inspect all accounts, records and other documents relating to any shortlisting process, Proposal submission, and contract performance (in the case of award), and to have them audited by auditors appointed by the Client.

6. Eligibility

- 6.1 The client permits firms from India to offer consulting services
- 6.2 Deleted
- 6.3 As an exception to the foregoing ITC 6.1 and ITC 6.2 above:

a. Sanctions

6.3.1 Deleted

b. Prohibitions

- 6.3.2 Deleted
 - (a) as a matter of law or official regulations, the Borrower's country prohibits commercial relations with that country; or
 - (b) Deleted.
- c. Restrictions for State-Owned Enterprises d. Restrictions for Public Employees
- 6.3.3 Deleted
- 6.3.4 Government officials and civil servants of the Borrower's country are not eligible to be included as Experts, individuals, or members of a team of Experts in the Consultant's Proposal unless:
 - (i) the services of the government official or civil servant are of a unique and exceptional nature, or their participation is critical to project implementation; and

(ii) their hiring would not create a conflict of interest, including any conflict with employment or other laws, regulations, or policies of the Borrower.

e. Borrower Debarment

6.3.5 Deleted

B. Preparation of Proposals

7. General Considerations

7.1 In preparing the Proposal, the Consultant is expected to examine the RFP in detail. Material deficiencies in providing the information requested in the RFP may result in rejection of the Proposal.

8. Cost of Preparation of Proposal

8.1 The Consultant shall bear all costs associated with the preparation and submission of its Proposal, and the Client shall not be responsible or liable for those costs, regardless of the conduct or outcome of the selection process. The Client is not bound to accept any proposal, and reserves the right to annul the selection process at any time prior to Contract award, without thereby incurring any liability to the Consultant.

9. Language

9.1 The Proposal, as well as all correspondence and documents relating to the Proposal exchanged between the Consultant and the Client, shall be written in the language(s) specified in the **Data Sheet**.

10. Documents Comprising the Proposal

10.1 The Proposal shall comprise the documents and forms listed in the **Data Sheet**.

- 10.2 If specified in the **Data Sheet**, the Consultant shall include a statement of an undertaking of the Consultant to observe, in competing for and executing a contract, the Client country's laws against fraud and corruption (including bribery).
- 10.3 The Consultant shall furnish information on commissions, gratuities, and fees, if any, paid or to be paid to agents or any other party relating to this Proposal and, if awarded, Contract execution, as requested in the Financial Proposal submission form

11. Only One Proposal

11.1 The Consultant shall submit only one Proposal This does not, however, preclude a Sub-consultant, or the Consultant's staff from participating as Key Experts and

Non-Key Experts in more than one Proposal when circumstances justify and if stated in the **Data Sheet**.

12. Proposal Validity

- 12.1 **The Data Sheet** indicates the period during which the Consultant's Proposal must remain valid after the Proposal submission deadline.
- 12.2 During this period, the Consultant shall maintain its original Proposal without any change, including the availability of the Key Experts, the proposed rates and the total price.
- 12.3 If it is established that any Key Expert nominated in the Consultant's Proposal was not available at the time of Proposal submission or was included in the Proposal without his/her confirmation, such Proposal shall be disqualified and rejected for further evaluation, and may be subject to sanctions in accordance with ITC 5.

a. Extension of Validity Period

- 12.4 The Client will make its best effort to complete the negotiations within the proposal's validity period. However, should the need arise, the Client may request, in writing, all Consultants who submitted Proposals prior to the submission deadline to extend the Proposals' validity.
- 12.5 If the Consultant agrees to extend the validity of its Proposal, it shall be done without any change in the original Proposal and with the confirmation of the availability of the Key Experts, except as provided in ITC 12.7.
- 12.6 The Consultant has the right to refuse to extend the validity of its Proposal in which case such Proposal will not be further evaluated.

b. Substitution of Key Experts at Validity Extension

- 12.7 If any of the Key Experts become unavailable for the extended validity period, the Consultant shall seek to substitute another Key Expert. The Consultant shall provide a written adequate justification and evidence satisfactory to the Client together with the substitution request. In such case, a substitute Key Expert shall have equal or better qualifications and experience than those of the originally proposed Key Expert. The technical evaluation score, however, will remain to be based on the evaluation of the CV of the original Key Expert.
- 12.8 If the Consultant fails to provide a substitute Key Expert with equal or better qualifications, or if the provided

reasons for the replacement or justification are unacceptable to the Client, such Proposal will be rejected

c. Sub-Contracting

12.9 The Consultant shall not subcontract the whole of the Services.

13. Clarification and Amendment of RFP

- 13.1 The e-procurement system specified in ITC 17.1 provides for online clarifications. The Consultant may request an online clarification of any part of the RFP during the period indicated in the **Data Sheet** before the Proposals' submission deadline. Clarifications requested through any other mode shall not be considered by the Client. The Client will respond online by uploading the response (including an explanation of the query but without identifying its source) for information of all shortlisted Consultants. Should the Client deem it necessary to amend the RFP as a result of a clarification, it shall do so following the procedure described below:
 - 13.1.1 At any time before the proposal submission deadline, the Client may amend the RFP by issuing an amendment online in accordance with procedure described in **Data Sheet**. The amendment shall be binding on all shortlisted Consultants.
 - 13.1.2 If the amendment is substantial, the Client may extend the proposal submission deadline to give the shortlisted Consultants reasonable time to take an amendment into account in their Proposals.
- 13.2 The Consultant may submit online a modified Proposal or a modification to any part of it at any time prior to the proposal submission deadline in accordance with the procedure described in the **Data Sheet**. No modifications to the Technical or Financial Proposal shall be accepted after the deadline.

14. Preparation of Proposals Specific Considerations

14.1 While preparing the Proposal, the Consultant must give particular attention to the following:

14.1.1 Deleted

14.1.2 The Client may indicate in the **Data Sheet** the estimated Key Experts' time input (expressed in person-month) or the Client's estimated total cost of the assignment, but not both. This estimate is indicative and the Proposal shall be based on the Consultant's own estimates for the same.

- 14.1.3 If stated in the **Data Sheet**, the Consultant shall include in its Proposal at least the same time input (in the same unit as indicated in the **Data Sheet**) of Key Experts, failing which the Financial Proposal will be adjusted for the purpose of comparison of proposals and decision for award in accordance with the procedure in the **Data Sheet**.
- 14.1.4 For assignments under the Fixed-Budget selection method, the estimated Key Experts' time input is not disclosed. Total available budget, with an indication whether it is inclusive or exclusive of taxes, is given in the **Data Sheet**, and the Financial Proposal shall not exceed this budget.

15. Proposal Format and Content

- 15.1 The consultant shall submit proposal (Cv's and financial) in only one envelope online.
 - 15.1.1 Consultant shall not propose alternative Key Experts. Only one CV shall be submitted for each Key Expert position. Failure to comply with this requirement will make the Proposal non-responsive.

15.2 DELETED

16. Financial Proposal

16.1 The Financial Proposal shall be submitted along with Cv's as mentioned in clause 15 as above.

a. Price Adjustment

16.2 For assignments with a duration exceeding 18 months, a price adjustment provision for foreign and/or local inflation for remuneration rates applies if so stated in the **Data Sheet**.

b. Taxes

16.3 The Consultant and its Sub-consultants and Experts are responsible for meeting all tax liabilities arising out of the Contract unless stated otherwise in the **Data Sheet**. Information on taxes in the Client's country is provided in the **Data Sheet**.

c. Currency of Proposal

16.4 The Consultant may express the price for its Services in the currency or currencies as stated in the **Data Sheet**. If indicated in the **Data Sheet**, the portion of the price representing local cost shall be stated in the national currency.

d. Currency of Payment

16.5 Payment under the Contract shall be made in the currency or currencies in which the payment is requested in the Proposal.

C. Submission, Opening and Evaluation

17. Submission, Sealing, and Marking of Proposals

17.1 The Consultant shall submit a digitally signed, encrypted, and complete Proposal comprising the required documents online.

17.2 DELETED.

17.2.1 Deleted

- 17.3 Consultants should be aware that the electronic procurement system does not allow for any modifications, revisions, interlineations, erasures, or overwriting. Any modifications or revisions to the Proposal shall be done in accordance with Clause ITC 13.2.
- 17.4 The Proposal or its modifications must be uploaded on the portal no later than the deadline indicated in the **Data Sheet**, or any extension to this deadline. The electronic system will not accept any Proposal or its modification for uploading after the deadline.
- 17.5 Once the Proposal is uploaded on the portal, the system will generate a unique identification number with the stamped submission time. The unique identification number with the time stamp represents an acknowledgement of the Proposal submission. Any other system's functionality requirements are specified in the **Data Sheet**.

18. Confidentiality

- 18.1 From the time the Proposals are opened to the time the Contract is awarded, the Consultant should not contact the Client on any matter related to its Technical and/or Financial Proposal. Information relating to the evaluation of Proposals and award recommendations shall not be disclosed to the Consultants who submitted the Proposals or to any other party not officially concerned with the process, until the Notification of Intention to Award the Contract. Exceptions to this ITC are where the Client notifies Consultants of the results of the evaluation of the Technical Proposals.
- 18.2 Any attempt by shortlisted Consultants or anyone on behalf of the Consultant to influence improperly the Client in the

- evaluation of the Proposals or Contract award decisions may result in the rejection of its Proposal
- 18.3 Notwithstanding the above provisions, from the time of the Proposals' opening to the time of Contract award publication, if a Consultant wishes to contact the Client or on any matter related to the selection process, it shall do so only in writing.

19. Online Opening of Proposals

19.1 The Client's evaluation committee shall conduct the opening of the Proposals online following the procedure described in the **Data Sheet** and this could be viewed online by the shortlisted Consultants. The short-listed consultants or their authorized representatives may attend the online opening in person if this option is offered in the **Data Sheet**. The opening date, time and the address are stated in the **Data Sheet**.

19.2 DELETED

20. Proposals Evaluation

- 20.1 Subject to provision of ITC 15.1, the evaluators shall evaluate CV's of the proposals and derive L1 on the basis of lowest price of the proposals.
- 20.2 The Consultant is not permitted to alter or modify its Proposal in any way after the proposal submission deadline except as permitted under ITC 12.7. While evaluating the Proposals, the Client will conduct the evaluation solely on the basis of the submitted Technical and Financial Proposals.
- 21. Evaluation of Technical Proposals

21.1 DELETED

22. Financial Proposals for QBS 22.1. DELETED

22.2 DELETED

23. Online Opening of Financial Proposals (for QCBS, FBS, and LCS methods)

- 23.1 DELETED
 - (i) DELETED;
 - (ii) DELETED
 - (iii) DELETED
 - (iv) DELETED

23.2 DELETEED

- 23.3 If the ITC 23.5 provides an option of attending in person, the opening date should allow the Consultants sufficient time to make arrangements for attending the opening and shall be no less than seven (7) Business Days from the date of notification of the results of the technical evaluation, described in ITC 23.1 and 23.2.
- 23.4 The Consultant's attendance at the opening of the Financial Proposals (in person, or online) is optional and is at the Consultant's choice.

23.5 DELETED.

24. Correction of Errors

24.1 Activities and items described in the Technical Proposal but not priced in the Financial Proposal, shall be assumed to be included in the prices of other activities or items, and no corrections are made to the Financial Proposal.

a. Time-Based Contracts

24.1.1 If a Time-Based contract form is included in the RFP, the e-procurement system automatically calculates the total amount from unit rates and quantities, and the system also automatically populates the amount in words from the amount in figures and there is therefore, no scope of discrepancy and need for the Client's evaluation committee to correct any computational or arithmetical errors.

The Client's evaluation committee will adjust the prices if they fail to reflect all inputs included for the respective activities or items included in the Technical Proposal. In case of discrepancy between the Technical and Financial Proposals in indicating quantities of input, the Technical Proposal prevails and the Client's evaluation committee shall correct the quantification indicated in the Financial Proposal so as to make it consistent with that indicated in the Technical Proposal, apply the relevant unit price included in the Financial Proposal to the corrected quantity, and correct the total Proposal cost.

b. Lump-Sum Contracts

24.1.2 If a Lump-Sum contract form is included in the RFP, the Consultant is deemed to have included all prices in the Financial Proposal, so neither arithmetical corrections nor price adjustments shall be made. The total price, net of taxes understood as per ITC 25,

specified in the Financial Proposal (Form FIN-1) shall be considered as the offered price.

25. Taxes

25.1 The Client's evaluation of the Consultant's Financial Proposal shall exclude taxes and duties in the Client's country in accordance with the instructions in the **Data Sheet**.

26. Conversion to Single Currency

26.1 For the evaluation purposes, prices shall be converted to a single currency using the selling rates of exchange, source and date indicated in the **Data Sheet**.

27. Combined Quality and Cost Evaluation

a. Quality and Cost-BasedSelection (QCBS)

27.1 In the case of QCBS, the total score is calculated by weighting the technical and financial scores and adding them as per the formula and instructions in the **Data Sheet**. The Consultant with the Most Advantageous Proposal, which is the Proposal that achieves the highest combined technical and financial scores, will be invited for negotiations.

b. Fixed-Budget Selection (FBS)

- 27.2 In the case of FBS, those Proposals that exceed the budget indicated in ITC 14.1.4 of the **Data Sheet** shall be rejected.
- 27.3 The Client will select the Consultant with the Most Advantageous Proposal, which is the highest-ranked Technical Proposal that does not exceed the budget indicated in the RFP, and invite such Consultant to negotiate the Contract.

c. Least-Cost Selection

27.4 In the case of Least-Cost Selection (LCS), the Client will select the Consultant with the Most Advantageous Proposal, which is the Proposal with the lowest evaluated total price among those Proposals that achieved the minimum qualifying technical score, and invite such a Consultant to negotiate the Contract.

D. Negotiations and Award

28. Negotiations

28.1 The negotiations will be held at the date and address indicated in the **Data Sheet** with the Consultant's representative(s) who must have written power of attorney

- to negotiate and sign a Contract on behalf of the Consultant.
- 28.2 The Client shall prepare minutes of negotiations that are signed by the Client and the Consultant's authorized representative.

a. Availability of Key Experts

- 28.3 The invited Consultant shall confirm the availability of all Key Experts included in the Proposal as a pre-requisite to the negotiations, or, if applicable, a replacement in accordance with ITC 12. Failure to confirm the Key Experts' availability may result in the rejection of the Consultant's Proposal and the Client proceeding to negotiate the Contract with the next-ranked Consultant.
- 28.4 Notwithstanding the above, the substitution of Key Experts at the negotiations may be considered if due solely to circumstances outside the reasonable control of and not foreseeable by the Consultant, including but not limited to death or medical incapacity. In such case, the Consultant shall offer a substitute Key Expert within the period of time specified in the letter of invitation to negotiate the Contract, who shall have equivalent or better qualifications and experience than the original candidate, and meet eligibility requirements.

b. TechnicalNegotiationsc. FinancialNegotiations

28.5 DELETED

- 28.6 The negotiations include the clarification of the Consultant's tax liability in the Client's country and how it should be reflected in the Contract.
- 28.7 If the selection method included cost as a factor in the evaluation, the total price stated in the Financial Proposal for a Lump-Sum contract shall not be negotiated.
- 28.8 In the case of a Time-Based contract, unit rates negotiations shall not take place, except when the offered Key Experts and Non-Key Experts' remuneration rates are much higher than the typically charged rates by consultants in similar contracts. In such case, the Client may ask for clarifications and, if the fees are very high, ask to change the rates. The format for (i) providing information on remuneration rates in the case of Quality Based Selection; and (ii) clarifying remuneration rates' structure under this Clause, is provided in Appendix A to the Financial Form FIN-3: Financial Negotiations Breakdown of Remuneration Rates.

29. Conclusion of Negotiations

- 29.1 The negotiations are concluded with a review of the finalized draft Contract, which then shall be initialed by the Client and the Consultant's authorized representative.
- 29.2 If the negotiations fail, the Client shall inform the Consultant in writing of all pending issues and disagreements and provide a final opportunity to the Consultant to respond. If disagreement persists, the Client shall terminate the negotiations informing the Consultant of the reasons for doing so. The Client will invite the next-ranked Consultant to negotiate a Contract. Once the Client commences negotiations with the next-ranked Consultant, the Client shall not reopen the earlier negotiations.

30. Standstill Period

30.1 DELETED

31. Notice of Intention to Award

- 31.1 When a Standstill Period applies, it shall commence when the Client has transmitted to each Consultant whose financial proposal was opened, the Notification of Intention to Award the Contract to the successful Consultant as per instructions in the **Data Sheet**. The Notification of Intention to Award shall contain, at a minimum, the following information:
 - (a) the name and address of the Consultant with whom the client successfully negotiated a contract;
 - (b) the contract price of the successful Proposal;
 - (c) the names of all Consultants included in the short list, indicating those that submitted Proposals;
 - (d) where the selection method requires, the price offered by each Consultant as read out and as evaluated;
 - (e) the overall technical scores and scores assigned for each criterion and sub-criterion to each Consultant;
 - (f) the final combined scores and the final ranking of the Consultants;
 - (g) a statement of the reason(s) why the recipient's Proposal was unsuccessful, unless the combined score in (f) above already reveals the reason;
 - (h) the expiry date of the Standstill Period; and
 - (i) instructions on how to request a debriefing and/or submit a complaint during the Standstill Period.

Award

- **32.** Notification of 32.1 Prior to the expiration of the Proposal Validity Period and upon expiry of the Standstill Period, specified in ITC 30.1 or any extension thereof, or upon satisfactorily addressing a complaint that has been filed within the Standstill Period, the Client shall publish the Contract Award Notice which shall contain, at a minimum, the following information:
 - (a) name and address of the Client:
 - (b) name and reference number of the contract being awarded, and the selection method used;
 - (c) names of the consultants that submitted proposals, and their proposal prices as read out at financial proposal opening, and as evaluated;
 - (d) names of all Consultants whose Proposals were rejected or were not evaluated, with the reasons therefor: and
 - (e) the name of the successful consultant, the final total contract price, the contract duration and a summary of its scope.
 - 32.2 The Contract Award Notice shall be published on the Client's website with free access if available, or in at least one newspaper of national circulation in the Client's Country, or in the official gazette.

33. Debriefing by the Client

33.1 DELETED

34. Award of **Contract**

- 34.1 The Contract shall be signed promptly upon Notification of Award.
- 34.2 The Consultant is expected to commence the assignment on the date and at the location specified in the **Data Sheet**.

35. Procurement Related **Complaint**

35.1 The procedures for making a Procurement-related Complaint are as specified in the **Data Sheet**.

Section 2. Instructions to Consultants

E. Data Sheet

ITC Reference	A. General
1 (b)	The date of the Applicable Regulations is: Uttarakhand Procurement regulations – 2017 and its amendments.
1 (c)	India
2.1	Name of the Client: Director General, Uttarakhand Landslide Mitigation & Management Center (ULMMC), Dehradun, Uttarakhand
	Method of selection : Least-Cost Selection (LCS) as per_Uttarakhand Procurement regulations 2017 and its amendments
2.2	Financial Proposal to be submitted together with Technical Proposal: YES The name of the assignment is: Hiring of Consultancy Firm for conducting Topographic survey, Geological Investigation, Geotechnical investigation, Geo-physical Investigation & Slope stability analysis in Nainital city, Uttarakhand.
2.3	A pre-proposal conference will be held: NO
2.4	The Client will provide the following inputs, project data, reports, etc. to facilitate the preparation of the Proposals: <u>None</u>
4.1	Deleted
6.3.1	Deleted
6.3.5	Deleted

	B. Preparation of Proposals
9.1	This RFP has been issued in the English language.
	Proposals shall be submitted in English language.
	All correspondence exchange shall be in English language.
10.1	The Proposal shall comprise the following. The Technical and Financial Proposals shall be submitted online in the e-procurement system in single folders:
	The Technical Proposal comprising:
	(1) TECH-1
	(2) Power of Attorney to sign the Proposal
	(3) CV's of key experts.
	The Financial Proposal comprising:
	(1) BOQ in Excel format
	(2) FIN-1 In PDF
	(3) FIN-2 In PDF
	(4) FIN-3 In PDF
	(5) FIN-4 In PDF
10.2	Statement of Undertaking is required
	No
11.1	Participation of Sub-consultants, Key Experts and Non-Key Experts in more than one Proposal is permissible
	No
	Note: All the CVs of proposed key experts must be originally signed by the proposed expert duly countersigned (originally) by the authorized Representative of the firm. If it is not possible to get original signature of any of the experts on CV then it must be supported with the consent of the proposed expert (Copy of e-mail). The key experts shall be present during the contract negotiation

12.1	Proposals must remain valid for 120 days after the proposal submission deadline.		
12.4	Any extension of validity period will be hosted on e-procurement portal. The Consultants may send their response if any on the e-procurement portal and through e-mail at the e-mail id given in Data Sheet 2.3.		
13.1	Clarifications may be requested no later than 10 days prior to the submission deadline.		
13.1.1	The Client will host the amendment to RFP, if any on the e-procurement portal at any time prior to the submission deadline.		
13.1.2	The Client will host extension of submission deadline on the e-procurement portal.		
13.2	A Consultant may modify its Proposal in the following manner, by using the appropriate option for proposal modification on e-procurement portal, before the deadline for submission of proposals.		
	(a) For proposal modification and consequential re-submission, the Consultant is not required to withdraw the proposal submitted earlier. The last modified proposal submitted by the consultant within the proposal submission time shall be considered as the 'Proposal'.		
	(b) For this purpose, modification/withdrawal by other means will not be accepted.		
	(c) The modification and consequential re-submission of proposals is allowed any number of times.		
	(d) A consultant may withdraw its proposal by using the appropriate option for proposal withdrawal, before the deadline for submission of proposals. However, if the proposal is withdrawn, re-submission is Not allowed		
14.1.1	Shortlisted Consultants may associate with		
	(a) non-shortlisted consultant(s): No Or (b) other shortlisted Consultants: Not applicable		
14.1.2	Estimated input of Key Experts': 24 person		

S.NO.	Position	Person
	Key expert	
1.	Geotechnical	1
	Engineer cum Team	
	Leader (k-1)	
2.	Geotechnical	4
	Engineer (k-2.1,k-	
	2.2,k-2.3 & k-2.4)	
3.	Geological Expert(k-	2
	3.1 & K-3.2)	
4.	Structural Engineer(k-	5
	4.1, K-4.2,k-4.3,k-4.4	
	& k-4.5)	
5.	Environment	2
	Engineer(k-5.1 & k-	
	5.2)	
6.	Social expert(k-6.1 &	2
	k-6.2)	
7.	Geo-physicist(k-7.1 &	2
	k-7.2)	
8.	Surveyor(K-8.1,K-8.2,K-	4
_	8.3&K-8.4)	_
9.	Hydrologist(K-9.1,K-9.2,K-9.3&K9.4)	2
	J.3QNJ.4)	

Estimated input of Non-Key Experts': 09 person

S.No.	Position	Person
	Non- Key expert	
1.	Estimator (NK-1.1,NK-1.2)	2
2.	Senior Draughts person(NK-2.1,NK-2.2)	2
3.	Technical Support Staff (5 persons each for 6 months) (NK-3.1,NK-3.2,NK-3.3)	3
4.	AUTO CAD expert(NK-4.1,NK-4.2)	2

Deleted 14.1.3

for timebased contracts only

14.1.4 and 27.2	Deleted	
use for Fixed Budget method		
15.2	Submission of the Proposal in a wrong format may lead to the Proposal being deemed non-responsive to the RFP requirements.	
16.1	Overhead and Administrative Cost as required for timely completion of the deliverables.	
16.2	A price adjustment provision applies to remuneration rates:	
16.3	Information on the Consultant's tax obligations in the Client's country can be found https://services.gst.gov.in/services/login The above only are to be shown separately in the financial proposal.	
16.4	The Financial Proposal shall be stated in the following currencies: The Financial Proposal should state all costs in the Client's country currency only (local currency i.e. INR)	
	C. Submission, Opening and Evaluation	
17.1	Electronic – Procurement System	
	The Client shall use the following electronic-procurement system to manage this Selection process:	
	www.uktenders.gov.in	
	The Consultants shall submit their Proposals electronically on the e- procurement portal.	
	The electronic submission procedures shall be as follows:	
	The Consultants shall submit their Proposals in one envelopes (i.e. Technical and Financial) electronically.	

19.2	In addition, the following information will be read aloud at the opening of the Technical Proposals NA
	[In the event of the specified date of proposal opening being declared a holiday for the Client, the proposals will be opened at the appointed time and location on the next working day]
	4 th floor, DDPM tower, Haridwar By-pass road, Ajabpur khurd, Dehradun, Uttarakhand
	person. The opening shall take place at:
	Consultants have an option to attend the opening of the Proposals in
	Time: 15:00 Hrs.
	Date: 11.03.2024
19.1	The procedure for online opening of proposals shall be: proposal will be opened on the e-procurement portal by the Client's Evaluation Committee at the date and time indicated below.
17.5	Deleted
	Time: 12:00 Hrs.
	Date:11.03.2024
17.4	The Proposals must be uploaded on the e-procurement portal no later than:
	(5) FIN-4 In PDF
	(4) FIN-3 In PDF
	(3) FIN-2 In PDF
	(2) FIN-1 In PDF
	(1) BOQ in Excel format
	The Financial Proposal comprising:
	(3) CV's of key experts.
	(2) Power of Attorney to sign the Proposal
	(1) TECH-1
	The Technical Proposal comprising:
	The bid must be submitted in following formats only (both technical & Financial)

21.1	Criteria, sub-criteria, and point system for the evaluation of the Full Proposals: All the Key Experts mentioned in ITC 14.1.2 should be available with the consultant during the duration of work. Consultant has to submit the CV's of experts duly signed by the person and by the consultant for their availability during the execution of the work. Consultant who has submitted all the valid documents of the Key Experts
	having minimum qualification and experience criteria will be qualified for the financial evaluation. The bidder having least bid(L1) will be awarded the work on <i>Least-Cost Selection(LCS)</i>
	Public Opening of Financial Proposals
23.1 and 23.2	Notifications to the Consultants will be sent as following: The client shall upload the information regarding successful consultant on the e-portal and shall also notify the successful bidder through e-mail.
23.5	The procedure for notifying the Consultants on the results of the financial opening shall be as following: Not applicable
25.1	For the purpose of the evaluation, the Client will exclude: (a) Goods & Service Tax (GST) levied on the contract invoices; and (b) all additional local indirect taxes on the remuneration of services rendered by non-resident experts in the Client's country. If a Contract is awarded, at Contract negotiations all such taxes will be discussed, finalized (using the itemized list as a guidance but not limiting to it) and added to the Contract amount as a separate line, also indicating which taxes shall be paid by the Consultant and which taxes are to be withheld and paid by the Client on behalf of the Consultant
26.1	The single currency for the conversion of all prices expressed in various currencies into a single one is Indian Rupee (INR). The official source of the selling (exchange) rate is: Reserve Bank of India (RBI) The date of the exchange rate is: The last date for submission of Proposal

27.1 (QCBS only)	DELETED
	D. Negotiations and Award
28.1	Expected date and address for contract negotiations: Date: Address: 4th floor, DDPM Tower, Haridwar By-pass road, Ajabpur khurd
30.1 Standstill Period	No Standstill Period applies to this selection process.
31.1	DELETED.
32.2	The publication of the contract award information will be done as follows: www.uktenders.gov.in
34.2	Expected date for the commencement of the Services: Date: 20.03.2024 at: 4 th Floor, DDPM Tower, Haridwar by-pass, Ajabpur khurd.

Section 3. Technical Proposal – Standard Forms

{Notes to Consultant shown in brackets { } throughout Section 3 provide guidance to the Consultant to prepare the Technical Proposal; they should not appear on the Proposals to be submitted.}

CHECKLIST OF REQUIRED FORMS

Required	FORM	DESCRIPTION	Page Limit
✓	TECH-1	Technical Proposal Submission Form.	
NA	NA TECH-1 If the Proposal is submitted by a joint venture, attach a letter of intent or a copy of an existing agreement.		
√	Power of Attorney	No pre-set format/form. In the case of a Joint Venture, several are required: a power of attorney for the authorized representative of each JV member, and a power of attorney for the representative of the lead member to represent all JV members	
NA	TECH-2A	A. Consultant's Organization	
NA	TECH-2B	B. Consultant's Experience	
NA	TECH-3	Comments or Suggestions on the Terms of Reference and on Counterpart Staff and Facilities to be provided by the Client.	
NA	TECH-3A	A. On the Terms of Reference	
NA	TECH-3B	B. On the Counterpart Staff and Facilities	
NA	TECH-4	Description of the Approach, Methodology, and Work Plan for Performing the Assignment	
NA	TECH-5	Work Schedule and Planning for Deliverables	
✓	TECH-6	Team Composition, Key Experts Inputs, and attached Curriculum Vitae (CV)	
NA	TECH-7	Equipment's List	

All pages of the original Technical and Financial Proposal shall be initialed by the same authorized representative of the Consultant who signs the Proposal.

Form TECH-1

PROPOSAL SUBMISSION FORM

{Location, Date}

To: [Name and address of Client]

Dear Sirs:

{If the Consultant is a joint venture, insert the following: We are submitting our Proposal a joint venture with: {Insert a list with full name and the legal address of each member, and indicate the lead member}. We have attached a copy {insert: "of our letter of intent to form a joint venture" or, if a JV is already formed, "of the JV agreement"} signed by every participating member, which details the likely legal structure of and the confirmation of joint and severable liability of the members of the said joint venture.

{OR

If the Consultant's Proposal includes Sub-consultants, insert the following: We are submitting our Proposal with the following firms as Sub-consultants: {Insert a list with full name and address of each Sub-consultant.}

We hereby declare that:

- (a) All the information and statements made in this Proposal are true and we accept that any misinterpretation or misrepresentation contained in this Proposal may lead to our disqualification by the Client.
- (b) Our Proposal shall be valid and remain binding upon us for the period of time specified in the Data Sheet, ITC 12.1.
- (c) We have no conflict of interest in accordance with ITC 3.
- (d) We meet the eligibility requirements as stated in ITC 6, and we confirm our understanding of our obligation to abide by the client's requirement.

- (e) We, along with any of our sub-consultants, sub-contractors, suppliers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by any government entity. Further, we are not ineligible under the Client's country laws or official regulations.
- (f) We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery. We undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India namely "Prevention of Corruption Act, 1988" and other relevant laws.
- (g) Except as stated in the Data Sheet, ITC 12.7, we undertake to negotiate a Contract on the basis of the proposed Key Experts. We accept that the substitution of Key Experts for reasons other than those stated in ITC 12 and ITC 28.4 may lead to the termination of Contract negotiations.
- (h) Our Proposal is binding upon us and subject to any modifications resulting from the Contract negotiations.

We undertake, if our Proposal is accepted and the Contract is signed, to initiate the Services related to the assignment no later than the date indicated in ITC 34.2 of the Data Sheet.

We understand that the Client is not bound to accept any Proposal that the Client receives.

Yours sincerely,

Signature (of Consultant's authorized representative) {In full and initials}:

Full name: {insert full name of authorized representative}

Title: {insert title/position of authorized representative}

Name of Consultant (company's name):

Capacity: {insert the person's capacity to sign for the Consultant}

Address: {insert the authorized representative's address}

Phone/fax: {insert the authorized representative's phone and fax number, if applicable}

{insert the authorized representative's email address}

Email:

FORM TECH-2 (FOR FULL TECHNICAL PROPOSAL ONLY)

CONSULTANT'S ORGANIZATION AND EXPERIENCE

Form TECH-2: a brief description of the Consultant's organization and an outline of the recent experience of the Consultant that is most relevant to the assignment, the contract amount (total and, if it was done in a form of a joint venture or a sub-consultancy, the amount paid to the Consultant), and the Consultant's role/involvement.

A - Consultant's Organization

- 1. Provide here a brief description of the background and organization of your company of each member for this assignment.
- 2. Include organizational chart, a list of Board of Directors, and beneficial ownership

B - Consultant's Experience

- 1. List only previous similar assignments successfully completed in the last [5] years.
- 2. List only those assignments for which the Consultant was legally contracted by the Client as a company. Assignments completed by the Consultant's individual experts working privately or through other consulting firms cannot be claimed as the relevant experience of the Consultant, or that of the Consultant's partners or sub-consultants, but can be claimed by the Experts themselves in their CVs. The Consultant should be prepared to substantiate the claimed experience by presenting copies of relevant documents and references if so requested by the Client.

Duration	Assignment name/& brief description of main deliverables/outputs	Name of Client & Country of Assignment	Approx. Contract value (in US\$ equivalent)/ Amount paid to your firm	Role on the Assignment
{e.g., Jan.2009– Apr.2010}	{e.g., "Improvement quality of": designed master plan for rationalization of;}	{e.g., Ministry of, country}	{e.g., INR 1	{e.g., Lead partner in A&B&C}
{e.g., Jan- May 2008}	{e.g., "Support to sub- national government": drafted secondary level regulations on}	{e.g., municipality of, country}	{e.g., INR 1	{e.g., sole Consultant}

FORM TECH-3 (FOR FULL TECHNICAL PROPOSAL)

COMMENTS AND SUGGESTIONS ON THE TERMS OF REFERENCE, COUNTERPART STAFF, AND FACILITIES TO BE PROVIDED BY THE CLIENT

Form TECH-3: comments and suggestions on the Terms of Reference that could improve the quality/effectiveness of the assignment; and on requirements for counterpart staff and facilities, which are provided by the Client, including: administrative support, office space, local transportation, equipment, data, etc.

A - On the Terms of Reference

{improvements to the Terms of Reference, if any}

B - On Counterpart Staff and Facilities

{comments on counterpart staff and facilities to be provided by the Client. For example, administrative support, office space, local transportation, equipment, data, background reports, etc., if any}

FORM TECH-4 (FOR FULL TECHNICAL PROPOSAL ONLY)

DESCRIPTION OF APPROACH, METHODOLOGY, AND WORK PLAN IN RESPONDING TO THE TERMS OF REFERENCE



FORM TECH-5 (FOR FTP AND STP)

WORK SCHEDULE AND PLANNING FOR DELIVERABLES

N°	Deliverables ¹ (D)	Months											
'		1	2	3	4	5	6	7	8	9		n	TOTAL
D-1	{e.g., Deliverable #1: Report A												
	1) data collection												
	2) drafting												
	3) inception report												
	4) incorporating comments												
	5) delivery of final report to Client}												
D-2	{e.g., Deliverable #2:}												

¹ List the deliverables with the breakdown for activities required to produce them and other benchmarks such as the Client's approvals. For phased assignments, indicate the activities, delivery of reports, and benchmarks separately for each phase.

² Duration of activities shall be indicated in a form of a bar chart.

^{3.} Include a legend, if necessary, to help read the chart.

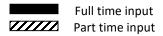
FORM TECH-6 (FOR FTP AND STP)

TEAM COMPOSITION, ASSIGNMENT, AND KEY EXPERTS' INPUTS

N°	Name	Expert's	s input	(in person	/month)	per e	ach Deliv	erable (li	ste	ed in TECH-	5)	Total ti (in Moi	me-inpu nths)	ıt
		Position		D-1	D-2		D-3			D		Home	Field	Total
KEY	EXPERTS	<u> </u>		<u>.</u>	L				-	<u> </u>		· ·		ı
K-1	{e.g., Mr. Abbbb}	[Team Leader]	[Home] [Field]	[2 month] [0.5 m]	[1.0] [2.5]		[1.0] [0]							
K-2		-		[0.5 111]	[2.5]		[0]		<u></u>					
									H					
K-3														
n														
			l	l l		<u> </u>			-	Subtotal	1 1			
NON	-KEY EXPERTS													•
N-1			[Home] [Field]											
N-2									ļ					
									<u> </u>					
n										Cubbatal				
										Subtotal Total				

¹ For Key Experts, the input should be indicated individually for the same positions as required under the Data Sheet ITC21.1.

- 2 Months are counted from the start of the assignment/mobilization. One (1) month equals twenty two (22) working (billable) days. One working (billable) day shall be not less than eight (8) working (billable) hours.
- 3 "Home" means work in the office in the expert's country of residence. "Field" work means work carried out in the Client's country or any other country outside the expert's country of residence.



FORM TECH-6 (CONTINUED)

CURRICULUM VITAE (CV)

Position Title and No.	{e.g., K-1, TEAM LEADER}
Name of Expert:	{Insert full name}
Date of Birth:	{day/month/year}
Country of Citizenship/Residence	

Education: {List college/university or other specialized education, giving names of educational institutions, dates attended, degree(s)/diploma(s) obtained}

Employment record relevant to the assignment: {Starting with present position, list in reverse order. Please provide dates, name of employing organization, titles of positions held, types of activities performed and location of the assignment, and contact information of previous clients and employing organization(s) who can be contacted for references. Past employment that is not relevant to the assignment does not need to be included.}

Period	Employing organization and your title/position. Contact information for references	Country	Summary of activities performed relevant to the Assignment
[e.g., May 2005- present]	[e.g., Ministry of, advisor/consultant to		
	For references: Tel/e-mail; Mr. Hbbbbb, deputy minister]		

Membership in Professional Associations and Publications:	
Language Skills (indicate only languages in which you can work):	

Adequacy for the Assignment:

Detailed Tasks Assigned on Consultant's Team of Experts:	Reference to Prior Work/Assignments that Best Illustrates Capability to Handle the Assigned Tasks
{List all deliverables/tasks as in TECH- 5 in which the Expert will be involved)	

Expert's contact information:	(e-mail	, phone
-------------------------------	---------	---------

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience, and I am available, as and when necessary, to undertake the assignment in case of an award. I understand that any misstatement or misrepresentation described herein may lead to my disqualification or dismissal by the Client.

		{day/month/year}
Name of Expert	Signature	Date
		{day/month/year}
Name of authorized Representative of the Consultant (the same who signs the Proposal)	Signature	Date

FORM TECH-7

EQUIPMENT'S LIST

Details of Resources Sheet - Equipment owned/Leased by the Agency and likely to be used in carrying out the Work

Sr. No.	Name of Equipment's/software's owned by company or to be proposed in the project	Status -Available/ Not Available with proof as required in clause 21.1 of RFP

Section 4. Financial Proposal - Standard Forms

{*Notes to Consultant* shown in brackets { } provide guidance to the Consultant to prepare the Financial Proposals; they should not appear on the Financial Proposals to be submitted.}

Financial Proposal Standard Forms shall be used for the preparation of the Financial Proposal according to the instructions provided in Section 2.

BOQ	in Excel format
FIN-1	Financial Proposal Submission Form
FIN-2	Summary of Costs
FIN-3	Breakdown of Remuneration, including Appendix A "Financial Negotiations - Breakdown of Remuneration Rates" in the case of QBS method
FIN-4	Reimbursable expenses

FORM FIN-1 FINANCIAL PROPOSAL SUBMISSION FORM

			{Location, Date}
То:	[Name and address or	f Client]	
Dear S	Sirs:		
assign Propo	ment] in accordance w	<u> </u>	ing services for [Insert title of ed [Insert Date] and our Technical
"exclusion estimates figures	nt(s) currency(ies)} {I uding"] of all indirect uted amount of local i	insert amount(s) in words and in local taxes in accordance with andirect taxes is {Insert currency rmed or adjusted, if needed, during the state of	Indicate the corresponding to the figures }, [Insert "including" or ITC 25.1 in the Data Sheet. The y} {Insert amount in words and ng negotiations. {Please note that
	-		binding upon us, subject to the riod of time specified in the Data
		bmission of this Proposal and C	s to an agent or any third party ontract execution, paid if we are
Na	me and Address of Agents	Amount and Currency	Purpose of Commission or Gratuity
gratuit		promised, add the following state be paid by us to agents or any the tion."}	
	We understand you a	re not bound to accept any Propo	sal you receive.
	We remain,		
	Yours sincerely,		

Signature (of Consultant's authorized representative) {In full and initials}:

Full name: {insert full name of authorized representative}
Title: {insert title/position of authorized representative}

Name of Consultant (company's name):

Capacity: {insert the person's capacity to sign for the Consultant}

Address: {insert the authorized representative's address}

Phone/fax: {insert the authorized representative's phone and fax number, if applicable}

Email: {insert the authorized representative's email address}

FORM FIN-2 SUMMARY OF COSTS

			C	ost	
	Mann	{Consultant must state delete columns wh		cordance with ITC 16.4 (of the Data Sheet;
	Item	{Insert Foreign Currency # 1}	{Insert Foreign Currency # 2, if used}	{Insert Foreign Currency # 3, if used}	{Insert Local Currency, if used and/or required (16.4 Data Sheet}
Cost of th	e Financial Proposal				
	Including:				
	(1) Remuneration				
	(2) Reimbursables				
	t of the Financial Proposal: natch the amount in Form FIN-1}				
Indirect L	ocal Tax Estimates – to be discussed an	d finalized at the neg	otiations if the Contra	ct is awarded	
(i)	{insert type of tax e.g., VAT or sales tax}				
(ii)	{e.g., income tax on non-resident experts}				
(iii)	{insert type of tax}				
Total Estir	mate for Indirect Local Tax:				

Footnote: Payments will be made in the currency(ies) expressed above (Reference to ITC 16.4).

FORM FIN-3 Breakdown of Remuneration

When used for Lump-Sum contract assignment, information to be provided in this Form shall only be used to demonstrate the basis for the calculation of the Contract's ceiling amount; to calculate applicable taxes at contract negotiations; and, if needed, to establish payments to the Consultant for possible additional services requested by the Client. This Form shall not be used as a basis for payments under Lump-Sum contracts

No.	Name	Position (as in TECH-6)	Person-month Remuneration Rate	Time Input in Person/Month (from TECH-6)	{Currency # 1- as in FIN-2}	{Currency # 2- as in FIN- 2}	{Currency# 3- as in FIN-2}	{Local Currency- a in FIN-2}
	Key Experts							
ζ-1			[Home]					
(-2			[Field]					
		I	l	<u> </u>		ı		
	Non-Key Experts							
l-1_			[Home]					
1-2			[Field]					

Appendix A. Financial Negotiations - Breakdown of Remuneration Rates

1. Review of Remuneration Rates

- 1.1. The remuneration rates are made up of salary or a base fee, social costs, overheads, profit, and any premium or allowance that may be paid for assignments away from headquarters or a home office. An attached Sample Form can be used to provide a breakdown of rates.
- 1.2. If the RFP requests submission of a technical proposal only, the Sample Form is used by the selected Consultant to prepare for the negotiations of the Contract. If the RFP requests submission of the financial proposal, the Sample Form shall be completed and attached to the Financial Form-3. Agreed (at the negotiations) breakdown sheets shall form part of the negotiated Contract and included in its Appendix D or C.
- 1.3. At the negotiations the firm shall be prepared to disclose its audited financial statements for the last three years, to substantiate its rates, and accept that its proposed rates and other financial matters are subject to scrutiny. The Client is charged with the custody of government funds and is expected to exercise prudence in the expenditure of these funds.

1.4. Rate details are discussed below:

- (i) <u>Salary</u> is the gross regular cash salary or fee paid to the individual in the firm's home office. It shall not contain any premium for work away from headquarters or bonus (except where these are included by law or government regulations).
- (ii) <u>Bonuses</u> are normally paid out of profits. To avoid double counting, any bonuses shall not normally be included in the "Salary" and should be shown separately. Where the Consultant's accounting system is such that the percentages of social costs and overheads are based on total revenue, including bonuses, those percentages shall be adjusted downward accordingly. Where national policy requires that 13 months' pay be given for 12 months' work, the profit element need not be adjusted downward. Any discussions on bonuses shall be supported by audited documentation, which shall be treated as confidential.
- (iii) <u>Social Charges</u> are the costs of non-monetary benefits and may include, inter alia, social security (including pension, medical, and life insurance costs) and the cost of a paid sick and/or annual leave. In this regard, a paid leave during public holidays or an annual leave taken during an assignment if no Expert's replacement has been provided is not considered social charges.
- (iv) <u>Cost of Leave</u>. The principles of calculating the cost of total days leave per annum as a percentage of basic salary is normally calculated as follows:

$$Leave\ cost\ as\ percentage\ of\ salary = \ \frac{total\, days\, leave\ x\ 100}{[365\text{-}w\text{-}ph\text{-}v\text{-}s]}$$
 Where $w = weekends,\ ph = public\ holidays,\ v = vacation,\ and\ s = sick\ leave.$

- Please note that leave can be considered as a social cost only if the Client is not charged for the leave taken.
- (v) Overheads are the Consultant's business costs that are not directly related to the execution of the assignment and shall not be reimbursed as separate items under the Contract. Typical items are home office costs (non-billable time, time of senior Consultant's staff monitoring the project, rent of headquarters' office, support staff, research, staff training, marketing, etc.), the cost of Consultant's personnel not currently employed on revenue-earning projects, taxes on business activities, and business promotion costs. During negotiations, audited financial statements, certified as correct by an independent auditor and supporting the last three years' overheads, shall be available for discussion, together with detailed lists of items making up the overheads and the percentage by which each relates to basic salary. The Client does not accept an add-on margin for social charges, overhead expenses, etc. for Experts who are not permanent employees of the Consultant. In such case, the Consultant shall be entitled only to administrative costs and a fee on the monthly payments charged for sub-contracted Experts.
- (vi) <u>Profit</u> is normally based on the sum of the Salary, Social costs, and Overheads. If any bonuses paid on a regular basis are listed, a corresponding reduction shall be made in the profit amount. Profit shall not be allowed on travel or any other reimbursable expenses.
- (vii) Away from Home Office Allowance or Premium or Subsistence Allowances. Some Consultants pay allowances to Experts working away from headquarters or outside of the home office. Such allowances are calculated as a percentage of salary (or a fee) and shall not draw overheads or profit. Sometimes, by law, such allowances may draw social costs. In this case, the amount of this social cost shall still be shown under social costs, with the net allowance shown separately.

Sample Form

Consultant: Assignment:	Country: Date:
Consultant's Represe	ntations Regarding Costs and Charges
We hereby confirm that:	
	ttached table are taken from the firm's payroll records and s listed which have not been raised other than within the oplied to all the Consultant's Experts;
(b) attached are true copies of the la	atest pay slips of the Experts listed;
(c) the away- from- home office alleagreed to pay for this assignment to the	owances indicated below are those that the Consultant has Experts listed;
	d table for social charges and overhead are based on the e latest three years as represented by the firm's financial
(e) said factors for overhead and so profit-sharing.	cial charges do not include any bonuses or other means of
[Name of Consultant]	
Signature of Authorized Representative	Date
Name:	
Title:	

Consultant's Representations Regarding Costs and Charges (Model Form I)

(Expressed in {insert name of currency*})

Perso	onnel	1	2	3	4	5	6	7	8
Name	Position	Basic Remuneration Rate per Working Month/Day/Year	Social Charges ¹	Overhead 1	Subtotal	Profit ²	Away from Home Office Allowance	Proposed Fixed Rate per Working Month/Day/Hour	Proposed Fixed Rate per Working Month/Day/Hour ¹
Home	Office								
Client's	Country								

^{*} If more than one currency is used, use additional table(s), one for each currency

^{1.} Expressed as percentage of 1

^{2.} Expressed as percentage of 4

FORM FIN-4 BREAKDOWN OF REIMBURSABLE EXPENSES

When used for Lump-Sum contract assignment, information to be provided in this Form shall only be used to demonstrate the basis for calculation of the Contract ceiling amount, to calculate applicable taxes at contract negotiations and, if needed, to establish payments to the Consultant for possible additional services requested by the Client. This form shall not be used as a basis for payments under Lump-Sum contracts

B. R	eimbursable Expenses							
N°	Type of Reimbursable Expenses	Unit Unit C		Quantity	{Currency # 1- as in FIN-2}	{Currency # 2- as in FIN-2}	{Currency# 3- as in FIN-2}	{Local Currency- as in FIN-2}
	{e.g., Per diem allowances**}	{Day}						
	{e.g., International flights}	{Ticket}						
	{e.g., In/out airport transportation}	{Trip}						
	{e.g., Communication costs between Insert place and Insert place}							
	{e.g., reproduction of reports}							
	{e.g., Office rent}							
	{Training of the Client's personnel – if required in TOR}							
			-	Total Costs				

Legend:

[&]quot;Per diem allowance" is paid for each night the expert is required by the Contract to be away from his/her usual place of residence. Client can set up a ceiling

Section 5. Terms of Reference

1. BACKGROUND:

Uttarakhand Landslide Mitigation and Management Center (ULMMC) would like to study the Nainital township for slope stability and risk assessment, probable solutions and assessing the terrain for future construction activities. Hence, it is planned to conduct Engineering geological investigation, Geophysical investigation, Geotechnical investigation and slope stability assessment of Nainital town.

2. OBJECTIVE(S) OF THE STUDY AND ASSIGNMENT:

- i. Detailed Topographic survey of Nainital area as shown in the Figure 1.
- **ii.** Geological, Geophysical, and Geotechnical investigation at selected suitable locations in a grid map of Nainital town as shown in the Figure 2.
- **iii.** Assessment of unstable slopes and subsidence zones present in the town (except Baliya Nala area and Naina peak area).
- iv. Slope stability analysis of potential unstable slopes and subsidence zones.
- v. Demarcation of areas into High Risk Zone (Red zone), Low Risk Zone (Yellow zone), and Safe Zone (Green zone) on the basis of Geological, Geotechnical, and Geophysical investigation and slope stability assessment.
- vi. Proposing required Mitigation Measures and Warning system if required at affected
- vii. Providing Guidelines for construction of houses, commercial buildings etc. in Nainital town.
- viii. Environmental, Ecological and Social impact assessment.
 - **ix.** Detailed designs, drawings, cost estimates and bidding documents for planning and implementation of mitigation measures.
 - x. Suggesting the area suitable for future developmental activities within the township.

The Feasibility Study, Preliminary Investigation and Detailed Project Report (DPR) should be prepared based on the guidelines laid down in the Manual of MoRTH, MoEFCC, PWD, NDMA, NIDM & guidelines published by Uttarakhand state.

NOTE: Consultant has to co-ordinate and obtain necessary no objection certificates from the officials of departments for carrying out investigation works.

3. SCOPE OF SERVICES, TASKS (COMPONENTS) AND EXPECTED DELIVERABLES:

3.1. Preliminary Investigation and Feasibity Study: -

Preliminary investigation shall include the study of existing geological information, previous site reports, geological maps, topographic maps etc. These will help to locate the most desirable location for detailed geological, geophysical and geotechnical investigation.

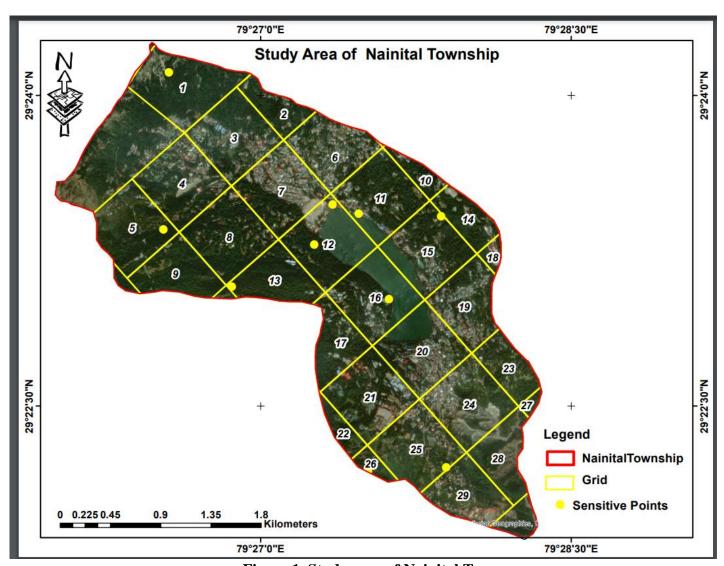


Figure 1. Study area of Nainital Town

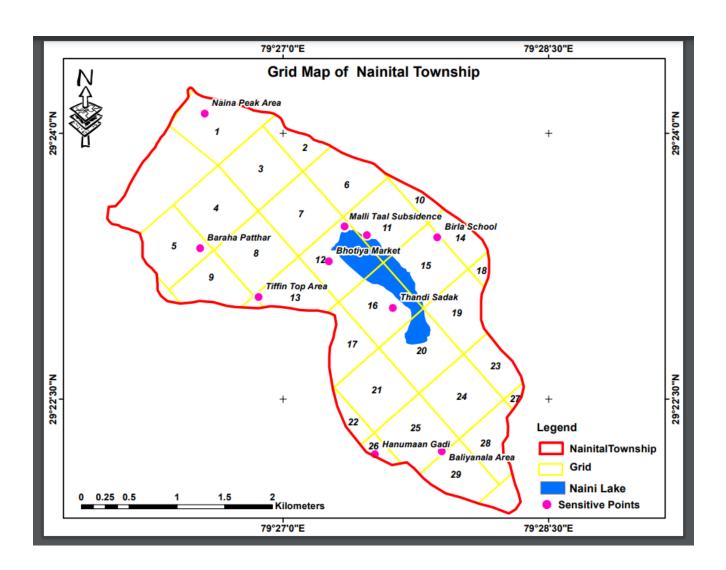


Figure 2. Grid map of the Nainital town

Preliminary investigation will include collection of available secondary data such as site plan, importance of the site, previous geological/geotechnical studies of nearby areas if done any by GSI, State governments or any other institutions, topographical data, satellite images, geological maps, and hydrological information etc. This will give overall idea specific to the site which will help in planning and successful execution of further activities. The preliminary investigation will lead to the feasibility study based on which the complete plan of investigation will be prepared. There may be case where some investigation may not be able to perform because of terrain condition and type of land use practices. In such cases some other location points have to be identified. All such things should be mentioned in the preliminary investigation and feasibility study report. After submitting the report there may be a joint inspection with ULMMC team to finalize the investigation points within the Grid.

3.2. **Detailed Investigation: -**

Geological, Geotechnical and Geophysical investigations at different locations of Nainital town have to be carried out. Based on the Preliminary investigation report, the scope of the detailed investigation, including the extent of exploration, number and location of boreholes, type of tests, number of tests, etc., shall be decided in close liaison with the consultant survey team, so that adequate data considered necessary for analysis, detailed design and execution are obtained. The detailed investigation plan shall be submitted to ULMMC for approval. This will be finalized in consultation with ULMMC. It is proposed to carry out the all the investigation in a grid pattern. The whole area of 8 sq.km has been divided into 29 grids of 500x500m dimension (as shown in the Figure 2). The investigation site selection within the grid depends on the topography, available land etc. If required, the site location may be shifted depending on the slope stability conditions and after examining the Preliminary Investigation Report.

3.3. Topographic Survey:

Total Station and DGPS shall be used as required for traversing and leveling to install/fix the BM/TBM/GPS Pillars as control points on the ground. High precision DGPS instrument shall be used in determining the geographical co-ordinate of the TBM & GPS Pillars. The Consultants would be fully responsible for any inaccuracy in surveys. Technologies which can meet the following accuracy levels shall be adopted. For land based surveys (a) horizontal accuracy of 1 cm or better (b) vertical accuracy of 1.5 cm or better (c) Topographical survey shall have to be done of the proposed site at suitable grid interval of about (3Mx3M) by total station equipment major contour interval of 1m., a check point survey using DGPS (for horizontal accuracy) and Auto

Level (for vertical accuracy) shall be carried out to establish the horizontal and vertical accuracy.

The surveyed alignment shall be transferred on to the ground as under:

- i) Reference Pillar and Bench Mark / Reference pillar of size 15 cm X 15 cm X 60cm shall be casted using CC of grade M 15 with a nail fixed in the center of the top surface. The reference pillar shall be embedded in concrete up to a depth of 30cm with CC M10 (5 cm wide all around).
- **ii**) Establishing Bench marks at site connected to GTS Bench marks on Bench mark pillar made of CC as mentioned above with RL and BM No. marked on it.
- iii) Geodetic surveys i.e., topographical survey of the study area should be carried out on 1:5000 scale with 1m contour interval. This will form the base map for geological mapping, all the investigation and generating cross sections of different places.

3.4. Geological Investigations: -

Geological investigation should be carried out by experienced field geologist having knowledge on geological mapping in hilly terrains and hill slope instability. The basic purpose of geological investigation is mapping different rock types, geological structure and other related geological information required for slope stability assessment and civil engineering construction. The following tasks needs to be performed:

- i. Geological mapping of the whole town (as shown in the Figure 1) on 1:2000 scale.
- ii. Engineering geological mapping of all the Grids (as shown in the Figure 2) on 1:1000 scale & for slided area on 1:500 scale.
- iii. The geological map should also include drainage, geomorphology and land use land cover map.
- iv. The Consultant will have to prepare Engineering Geological maps, including all the parameters related to slope stability assessment such as Rock Mass rating (RMR), Geological Strength Index (GSI), RQD etc.
- v. Assessment of correlation between topography, and slope forming material (i.e., rock type, soil boulder deposits) and geological structure should also be undertaken.

3.5. Geophysical investigation:

Geophysical investigation is carried out to delineate the detailed sub-surface profile and structure. Out of many geophysical surveys, the most commonly employed survey in landslide related studies is Electrical Resistivity Tomography (ERT), Seismic Refraction Tomography (SRT) and Ground Penetrating Radar (GPR).

The ERT is used in geotechnical and groundwater study determining the loose strata and depth of seepage zone or water bearing zones. This can be used to estimate lateral and vertical variations in ground resistivity values. ERT is generally used to map the sub-surface geologic variations in soil lithology, presence of ground water, fracture

zones, variations in soil saturation etc. ERT can also be used to map bedrock depths and is one of the best options for locating cavities.

SRT is used to map the vertical and lateral variation of subsurface layers. The survey delineates subsurface boundaries, such as soil to bedrock transition, faults, or geologic contacts. It can also determine the shape of bedrock, location of faults and paleo channels, and map slide planes of active landslides. The SRT survey can also be used to calculate geotechnical parameters. The equipment and survey procedure are the same as Multi-Channel Analysis of Surface Waves (MASW), so the two surveys can be conducted together. With both P-wave and S-wave velocity profiles Poisson's ratio can be calculated and with density estimates the Young's and Bulk moduli can also be calculated.

The GPR can have applications in a variety of media, including rock, soil, fresh water, pavements and structures and can be used to detect subsurface objects, changes in material properties, and voids and crack and depth of failure plane in deep seated as well as shallow landslides.

The Consultant should conduct all the above-mentioned survey i.e., ERT, SRT and GPR to delineate and map the subsurface strata. If possible, it is advised to conduct MASW also to provide additional geotechnical parameters for designing civil engineering structures. The survey should be conducted in each Grid. It is advised to penetrate a depth of at least 20m by using this survey to know the geological and geotechnical parameters below the ground and also slip surface in landslide/subsidence areas.

i. **ERT Survey**: Electrical Resistivity Tomography (ERT) survey is a well-established non-invasive technique for sub-surface investigation. It is a method of measurement of the resistance of sub-surface strata to the flow of electric current in it. It is used to determine the water saturated zones and different sub-surface layers.

ERT: 500 m in each grid (1 no, sounding per 5 m).

If any test varies beyond 5% on either side of the quantity mentioned in BOQ, the payment towards geophysical investigations shall be deducted or will be made extra as per quoted rate accordingly on recommendation of consultant and approval of competent authority from client.

ii. **SRT Survey:** Seismic Refraction Tomography (SRT) is generally used for subsurface investigation to know the nature of subsurface ground conditions by using seismic waves. Data acquired is processed and interpreted to attain models of the seismic velocity and layer thickness of the subsurface ground structure. The seismic waves travel downward through the ground till the time they are refracted off the subsurface layers. Refracted waves are identified by arrays of

24 or 48 geophones spaced at regular intervals of 1–10 meters, based on the required depth of penetration of the survey.

SRT: 500 m in each grid (1 no. station per 5 m).

If any test varies beyond 5% on either side of the quantity mentioned in BOQ, the payment towards geophysical investigations shall be deducted or will be made extra as per quoted rate accordingly on recommendation of consultant and approval of competent authority from client.

All the above geophysical investigations have to be carried out by the Consultant as per the site condition. The rates of ERT and SRT are to be filled in BOQ. If during work total quantity vary than payment will be done as per the rates quoted by consultant in BOQ.

3.6. Geo-technical Investigations and Sub-Soil Exploration:

Detailed geotechnical investigations and collection of data shall be performed by the Consultant's team of engineers. The lab tests for geotechnical investigation will be conducted at NABL accredited lab/Government recognized lab. The Consultant must take prior approval from the employer for any third-party field investigations and availing laboratory facilities, where testing of samples is proposed to be carried out by any entity. All the soil samples for laboratory testing are to be taken in the presence of field staff designated by ULMMC.

The sub-soil i.e., geotechnical investigations shall be performed to know the nature of the soil and rock strata and obtain the necessary engineering properties of the soil/rock of the proposed location area. The geotechnical investigation includes surface and subsurface investigations. Subsurface geotechnical investigations usually include field tests (SPT, Vane Shear Tests etc.) and soil sampling for laboratory tests.

The scope of subsurface investigations, in brief, is as below: -

- i. Two Bore hole of 100 mm in soil is to be made in each Grid. The drilling location will be selected depending on the site topography and available land within the Grid. Bore hole should be extended up to a depth of maximum 20 m or refusal whichever is earlier. Covering the bore hole for protection. If any test varies beyond 5% on either side of the quantity mentioned in BOQ, the payment towards geotechnical investigations shall be deducted or will be made extra as per quoted rate accordingly on recommendation of consultant and approval of competent authority from client.
- ii. Conduct standard penetration tests (SPT) & Permeability test as per relevant IS: code in the boreholes and to collect undisturbed soil samples from boreholes at 1.5 m interval in depth or wherever there is a change in strata. Drilling is to be

- carried out as per IS: 1892 -1979 RA 2002 through 100 mm nominal diameter bore holes.
- iii. Record the depth of ground water table, if observed up to the depth of exploration during boring work. Groundwater accumulation in boreholes is to be monitored during and after completion of drilling activities.
- iv. If rock is encountered at shallower depth, further drilling is to be carried out for another 5 m by NX core drilling with TC/Diamond bits as per IS 6926-1996 RA 2001. Each run of the core drilling is to be properly recorded. The cores are to be carefully transferred to the core boxes, preserved, numbered and labelled properly. The rock core recovery (C.R.) percentage and Rock Quality Designation (RQD) are to be recorded. If any test varies beyond 5% on either side of the quantity mentioned in BOQ, the payment towards geotechnical investigations shall be deducted or will be made extra as per quoted rate accordingly on recommendation of consultant and approval of competent authority from client.
 - v. Some of the drilled cores (within consultation of client) are to be sent to the laboratory for determining density and specific gravity of rock, Uniaxial compressive strength (UCS) & tri-axial test (as per IS code) of rock samples of NX size.
- vi. Conducting the following laboratory tests on selected disturbed / undisturbed soil samples collected from various bore holes' / test locations: Bulk and dry density, Specific gravity (IS: 2720 PART III), Natural moisture content, Grain size analysis (IS: 2720 PART IV) and hydrometer analysis, Liquid limit and Plastic limit (IS: 2720 PART V), Permeability test, classification of soils for engineering purpose (IS: 1498) & tri-axial test (as per IS code). All these tests to be conducted as per the relevant IS code guidelines.
- vii. To demarcate clearly (with co-ordinates) the locations of boreholes at site within the Grid on a map.
- viii. Detailed field investigations from the crown to toe of the landslide site and as well in the adjacent area to better understand the site
- ix. Some other important points are: Note down the specific visual observations of the site which are helpful to quantify the actual condition of the site; Type of landslide and triggering factors of landslide occurrence; Capture sufficient number of field photographs specific to the site as these photographs are useful in illustrating site conditions or specific features; Collect as many as elevation points (i.e., GPS points) from the site so that cross section/profile can be generated for different sites.
- x. Applying engineering analysis and evaluation of field findings and laboratory results to develop conclusions by computing safe & allowable bearing capacity

- and recommendations concerning design and construction of the safe and economical foundations.
- xi. Preparation and submission of a detailed soil investigation report of the site in three copies and soft format including all the above information, along with tables and graphs of field and lab test results and site and laboratory photographs while performing the tests.
- xii. If the field condition requires, the Consultant shall conduct other types of tests. Similarly, the frequency of the above tests can be increased if required. The costs of all the field and laboratory tests shall be incorporated in the cost of soil investigation works as given in Bill of quantities(BOQ). No separate payment shall be made for other tests.

In general, the investigation procedures and collection of data shall follow the guidelines provided in Indian standard codes.

As a general guide, it shall be comprehensive enough to enable the designer to estimate or determine the following: -

- a) Assessing engineering properties of the soil/rock by conducting all relevant laboratory and field tests on soil and rock samples.
- b) Location and extent of weak layers and cavities, if any, below hard founding strata
- c) The sub-surface geological condition, such as type of rock, the structure of rock, i.e., folds faults, fissures, shears, fractures, joints, dykes, and subsidence
- d) Groundwater level
- e) Artesian conditions, if any;
- f) Depth and extent of water seepage.
- g) Suitable foundation/Mitigation level.
- h) Safe bearing capacity of foundation/Mitigation stratum
- i) Probable settlement.
- j) Likely sinking and
- k) Likely construction difficulties.

Code Standard of Practice for Core Drilling

IS Code Reference	Title
IS 9143: 1991	Guide for drilling observations
IS 4464: 1985	Code of practice for presentation of drilling information and core description information investigation
IS 9143: 1980	Code of practice for indexing and storage of cores

IS 4078:1980	Code of practice for indexing and storage of drill cores (first revision).
IS 5313:1980	Guide for core drilling observations (first revision).
IS 6926:1972	Code of practice for diamond core drilling for site investigation for river valley projects.
IS 10208:1982	Specification for Diamond Core Drilling Equipment

Record format

(Drill Holes Format)

Location	BH No.	Co-	ordinate (Terminati ng Depth (M)	Top of Rock below EGL (M)
		East ing	Nor thin g	G. L.		

(Sample for Record: Drill Core Log Format)

	Project	t:									•			•		•													•		•			
	Location:					1			Drill	Hole N	0.																							
	ANGLE WITH	HORIZONTAL:							Drilling Machine:																									
	Started:								TYF	TYPE OF CORE BARREL:																								
	COMPLETED:								DRI	LLING E	BIT:																							
	TOTAL DEPTI	t				Ī			DRILLING AGENCY:																									
	Ground Elevatio	n:						COLLAR ELEVATION:																										
	Logged by:				Co-	Ordinat	es:																											
					9	Siz	e of c	ore pi	ces	suc		С	ore R	lecov	ery		R	QD	u/			e (m)	Water		II Wat Loss	er	Permeab	ility				ampl Tes	es & ts	
Elevation (m)	Depth (m)	Lithology Description	Lithology Classification	Graphic Log	Weathering Grade	~10mm	10mm to25mm		501	Structural Conditions	TCR Length (m)	0-20	20-40	60-80	80-100	SCR (%)	RQD (No. of core	1 %	Fracture Frequency	Type of Bit	Size of the hole	Depth of Water Table	Colour of Return W	ž	Partial	Full/complete	Permeability test (x10-3 cm/sec)	Lugeon Value	Penetration Rate (cm/min)	SPT N Value	Legend	Type & No.	Test Section	Special observations and interpretations
	From To																																	
	1 2	3	4	5	6	7	8	9 .	0 11	13	14				1	5 16	17	18	19	20	21	22	23	24	25	26 2	7 28	29	30	31	32	33	34	35

Summary Sheet: Borehole Summary Sheet Format

SI No.	Drill	Status	Start	Complet	Co-ord	inates	Location	Ground	Inclinati	Propose	Total	Bedrock	Bedrock	Sample	Ground	
31 140.	Hole ID	Status	Date	ion Date	Northing	Easting	Location	Elevation	on	d Depth	Depth	Depth	El.	Collectio	water	

3.7. <u>Hydrological Investigations: -</u>

- i. Hydrological studies shall be carried out in accordance with IRC guidelines and other published by National agencies.
- ii. The consultant shall collect information on maximum depth of water seepage in affected zones.
- iii. The Consultants shall make a desk study of available data on, storm duration, rainfall statistics, top soil characteristics, vegetation cover etc. so as to assess the catchment areas and hydrologic parameters for all existing and proposed drainage provisions. The findings of the desk study would be further supplemented and augmented by a reconnaissance survey in the area. All hydrological features shall be noted during this field reconnaissance.
- iv. The Consultants shall collect any other necessary information related to site.

3.8. Slope Stability Analysis and Design Measures:

Stability analysis of soil and rock slopes should be carried out as follows: -

- i. Analyzing slope with configuration of soil/rock strata including basic geology (e.g., strike, dips and discontinuities)
- ii. Analyzing slope under different loading conditions (i.e., dry and saturated with and without seismic loading).
- iii. Analyze the stability of rock/soil slopes to assess the type of failure (i.e., circular, planar, wedge and toppling) that is likely to occur in the slope.
- iv. Studying slope failures are self-generated or imposed.
- v. Determining FOS (Factor of Safety), shear stress distribution along different under different condition along various slope sections.
- vi. Demarcating the high-risk locations/zones in the study area based on the stability analysis to define potential engineering solutions.
- vii. Determining the requirements for engineering structures and then proposing best possible control measures along with design methodology. The design methodology

should include design criteria/detailed design calculations in support of each engineering structure. The proposed design of Slope Stabilization Works should be in accordance to the standard codes of practices and specifications.

- viii. Preparation of DPR for the proposed Slope Stabilization Works by compiling systematically the outcome of all the studies/investigation performed at the site.
 - ix. Preparing, Designing the mitigation measures required at affected zone & proposing instrumentation for monitoring the affected sites.
 - x. Detailed designs, GFC drawings, cost estimates and bidding documents for planning and implementation. The drawings prepared by the consultant should be vetted from any IIT (Indian Institute of Technology) at its own expense.
 - xi. Consultant will take clearances from various government agencies for implementing mitigation measures.

3.9. **Drainage System: -**

- i. The requirement of drainage system and the integration of the same with proposed cross-drainage system should be worked out for the town.
- ii. Consultant will propose the required drainage system, if required for the town.

3.10. <u>Details of Utility Services and Other Physical Features:</u>

The Consultants shall collect details of all important physical features in the area. These features affecting the project proposals and should normally include buildings and structures, monuments, burial grounds, cremation grounds, places of worship, railway lines, stream / river / canal, water mains, severs, gas/oil pipes, crossings, trees, plantations, utility services such as electric, and telephone lines (O/H & U/G) and poles, optical fiber cables (OFC) etc. The survey would cover the entire right-of-way of the road on the adequate allowance for possible shifting of the central lines at some of the intersections locations.

The information collected during reconnaissance and field surveys shall be shown on a strip plan so that the proposed improvements and suitable actions can be initiated. Separate strip plan for each of the services involved shall be prepared for submission to the concerned agency.

3.11. Conduct Simplified Vulnerability Assessment (SVA)

- i. Based on the above investigation and slope stability assessment, the whole area will be classified into High Risk (Red Zone), Low Risk (Yellow Zone) and Safe Zone (Green Zone) to prepare a Risk Map.
- ii. Based on the above risk map and type of buildings and infrastructure, vulnerability assessment will be caried out.

iii. Identify the buildings that are vulnerable and require reconstruction or seismic retrofitting as per IS 13935: 2009 and other relevant Indian Standard Codes in practice.

3.12. Quality Assurance Manual (QAM):-

The Consultants should have Quality Assurance Manual (QAM) for all field studies including topographic surveys, engineering surveys and investigations, design and documentation activities. The quality assurance manual for different field studies, engineering surveys and investigation, design and documentation activities should be presented as separate sections like engineering surveys and investigations, material, geo-technical and sub-soil investigations, investigation and design of Slope Stabilization Works, Retrofitting, environment and economic & financial analysis, drawings and documentation, preparation, checking, approval and filing of calculations, identification and tractability of project documents etc. Further, additional information as per format shall be furnished regarding the details of personal that shall be responsible for carrying out/preparing and checking/verifying various activities forming part of feasibility study and project preparation, since inception to the completion of work. As a part of quality assurance relates to landslide material characterization activity both onsite and off-site laboratory activities should be incorporated as per the IS such as IS code for soil testing and IS code for Rock testing or any other relevant standard specified. The Draft QAM Document must be discussed and finalized with the concerned ULMMC officers immediately upon the award of the Contract and submitted as part of the inception report.

It is imperative that the QAM is approved by Client before the Consultant starts the field work. Hence the works carried out by the Consultant before the date of approval of QAM shall not be considered by the Client.

3.13. Material Investigations: -

- i. The consultant will have to prepare DPR on the basis of material availability transportability at affected areas, and machinery equipment before the design.
- ii. The Consultants shall identify sources (including use of fly-ash/ slag), quarry sites and borrow areas, undertake field and laboratory testing of the materials to determine their suitability for various components of the work and establish quality and quantity of various construction materials and recommend their use on the basis of technoeconomic principles. The Consultants shall prepare mass haul diagram for haulage purposes giving quarry charts indicating the location of selected borrow areas, quarries and the respective estimated quantities.

Technical and economic feasibility of using industrial byproducts, recyclable and

- waste materials shall be assessed depending on their availability in the concerned region.
- iii. It is to be ensured that no material shall be used from the right-of-way except by way of leveling the ground as required from the construction point of view or for landscaping and planting of trees etc. or from the cutting of existing ground for obtaining the required formation levels.
- iv. Environmental restrictions, if any, and feasibility of availability of these sites to prospective civil works contractors, should be duly taken into account while selecting new quarry locations.
- v. The Consultants shall make suitable recommendations regarding making good the borrow and quarry areas after the exploitation of materials for construction of works.
- vi. The Material Investigation aspect shall include preparation and testing of concrete mixes of different design mix grades using suitable materials (binders, aggregates, sand filler etc.) as identified during Material Investigation to conform to latest MORTH/Indian standards specification.

3.14. Estimation of Quantities and Project Costs:

- i. The Consultants shall prepare detailed estimates for quantities (considering designs and mass haul diagram) and project cost for the entire project (civil packages wise) for Nainital affected zone, including the cost of environmental and social safeguards proposed based on latest available SOR of Uttarakhand PWD and the unit rate analysis process of MoRTH's Standard Data Book. The items for which rates are not given in or item is not covered in SOR of UK PWD, market rate shall be considered for the inputs (At least 3 Quotation). The estimation of quantities shall be based on detailed design of various components of the projects. The estimation of quantities and costs would have to be worked out separately for civil work Package as defined in this TOR.
- ii. The Consultants shall make detailed analysis for computing the unit rates for the different items of works. The unit rate analysis shall duly take into account the various inputs and their basic rates, suggested location of plants and respective lead distances for mechanized construction. The unit rate for each item of works shall be worked out in terms of manpower, machinery and materials.
- iii. The project cost estimates so prepared are to be checked against rates for similar ongoing works in India.
- iv. The cost estimates should recognize the needs of construction in mountainous' and frost susceptible areas with unstable embankments and side slopes.
- v. The Consultants shall compute price contingences and interest and other charges during construction, taxes; and duties, and clearly indicate them as separate line items in the estimate. All the activities of cost estimate stipulated above should be properly linked with Analysis of Rates.
- vi. Prepare indicative procurement packages, as per directions of the Client.

3.15. Technical Feasibility and Preliminary report should contain:-

Preliminary report should include review of the available data, collecting, reviewing and analysis of field data to be used in the study and conducting a preliminary assessment of slope instability in the area. In this study the following points related to the study area should be studied:

- i. Topography
- ii. Nature and structure of the surface soil
- iii. Geological surveys
- iv. Intense rainfall periods
- v. Increased daily temperatures
- vi. Landslides present in the area
- vii. Increased severe climate events (storms)
- viii. Determining the exact locations of boreholes to be done in each grid.
- ix. Determining the geophysical investigation length to be done in each grid.
- To find out financial viability & project cost of project for implementation and suggest the preferred mode on which the project is to be taken up.
- While carrying out the field studies, SVA and design of mitigation measures, the
 development plans being implemented or proposed in the near future by the local
 bodies, should be taken into account. Such aspect should be clearly brought out in
 the reports.

3.16. <u>Detailed Design Report and Bidding Documents:</u> (5 Sets in physical form)

Initially the **Draft DPR** submission shall be done which consists of construction package-wise Main Report, Design Report, Materials Report, Engineering Report, Drainage Design Report, Economic and Financial Analysis Report, Environmental Assessment Report, Environmental Management Plan, Social Assessment Report, Package-wise bid Documents and Drawings.

The Documents and Drawings shall be submitted for the Package and shall be in the following format:

Volume-I(Part-1), Main Report: This report will present the project background, social analysis of the project, details of surveys and Simplified vulnerability assessment carried out, cost estimation, environmental aspects and conclusions. The report shall include Executive Summary giving brief accounts of the findings of the study and recommendations. The Report shall also include maps, charts and diagrams showing

locations and details of existing features. The basic data obtained from the field studies, SVA and input data used for the preliminary design shall be submitted in a separate volume as an Appendix to Main Report.

Volume-I(Part-2), Main Report: This report will present the project background, social analysis of the project, details of surveys and investigations carried out, analysis and interpretation of survey and investigation data, unstable areas and its treatment to prevent the slips and also to stabilize the slope, cost estimation, environmental aspects and conclusions. The report shall include Executive Summary giving brief accounts of the findings of the study and recommendations. For each unstable zone a report has to be submitted by the consultant.

The Report shall also include maps, charts and diagrams showing locations and details of existing features and the essential features of the Proposed Slope Stabilization Work.

The basic data obtained from the field studies and investigations and input data used for the preliminary design shall be submitted in a separate volume as an Appendix to Main Report.

Volume-II(Part-1), Design Report: This volume shall contain design calculations, supported by computer printout of calculations wherever applicable. The Report shall clearly bring out the various features of design standards adopted for the study. The detailed design report will be in two parts. Part-I shall deal with the demarcation of area into red zone, orange zone work & resettlement area details while Part-II shall primarily deal with interpretation of data. The selection of design parameters shall be included as an Appendix to the Design Report. The detailed design for all features should be carried out as per the requirements of the Design Standards for the project. However, there may be situations wherein it has not been possible to strictly adhere to the design standards due to the existing site conditions, restrictions and other considerations. The report should clearly bring out the details of these aspect and the standards adopted.

Volume-II(part-2), Design Report: This volume shall contain design calculations, supported by computer printout of calculations wherever applicable. The Report shall clearly bring out the various features of design standards adopted for the study. The detailed design report will be in two parts. Part-I shall deal with the design of Slope Stabilization and protection Work while Part-II shall primarily deal with the composition of water drainage design and the sub-soil exploration report including the complete details of boring, analyses and interpretation of data. The selection of design parameters shall be included as an Appendix to the Design Report.

The detailed design for all features should be carried out as per the requirements of the Design Standards for the project. However, there may be situations wherein it has not been possible to strictly adhere to the design standards due to the existing site conditions, restrictions and other considerations. The report should clearly bring out the details of these aspect and the standards adopted.

Volume-III, Materials Report: The Materials Report shall contain details concerning the proposed for construction materials and their possible sources, water for construction purposes. The report shall include details on locations of borrow areas and quarries shown on maps and charts and also the estimated quantities with mass haul diagram including possible end use with leads involved, the details of sampling and testing carried out and results in the form of important index values with possible end use thereof. The materials Report shall also include details of sampling, testing and test results obtained in respect physical properties of subgrade soils. The information shall be presented in tabular as well as in graphical representations and schematic diagrams. The Report shall present soil profiles along the alignment.

Volume - IV, Environmental and Social Assessment Report:- Environmental and Social Management Plan (ESMP), labor influx management plan. The Report shall be prepared conforming to the Guidelines of the Government of India & State Government as appropriate for each project/construction package.

Volume - V Social Assessment Report (SA): The Report shall be prepared conforming to the Guidelines of the Government of India & State Government as appropriate for each project/ construction package.

Volume - VI, Technical Specifications: The MORTH's/PWD any Indian technical standard guidelines Specifications for works, the items for which rates are not given in or item is not covered in SOR of UK PWD, market rate shall be considered for the inputs (At least 3 quotation).

Volume - VII, Rate Analysis: This volume will present the analysis of rates for all items of works. The details of unit rate of materials at source, carriage charges, any other applicable charges, labour rates, and machine charges as considered in arriving at unit rates will be included in this volume.

Volume - VIII, Cost Estimates: This volume will present the contract package wise cost of each item of work as well as a summary of total cost. Cost estimate for Retrofitting, Re-settlement & slope stabilization work should be calculated separately.

Volume - IX, Bill of Quantities: This volume shall contain the package-wise detailed Bill of Quantities for all items of works.

Volume - X, Drawing Volume: All drawings forming part of this volume shall be 'good for construction' drawings. All plan and profile drawings will be prepared on scale 1:250V and 1:2500H for plain and hilly terrains and on scale 1: 100V and 1: 1000H for

hilly terrain and scale to cover one grid in one sheet. In addition to this volume will contain 'good for construction' drawings for the following:

- a. Detailed Working Drawings for individual Slope Stabilization Work, resettlement etc.
- b. Horizontal Alignment and Longitudinal Profile.
- c. Cross-sections of all important locations and unstable zones in each grid
- d. Schematic Diagrams (linear chart) indicating but may not be limited to be following:
 - Locations by passes if required;
 - Safety features; and,
 - Locations of any features as required as per ToR.
- e. All drawings will be prepared in A2 size sheets. The format for plan, cross-section and profile drawings shall be finalized in consultation with the concerned ULMMC/ UK PWD officers. The drawings shall also include details of all BM and reference pillars, the co-ordinates of all points should be referenced to a common datum, preferably a compatible referencing system.
- f. The drawings shall also include the locations of all safety features including traffic signals, signs, markings, crash barriers delineators etc.
- g. The drawings shall also include all the utilities that might be affected during construction

The Design consultant will prepare a comprehensive final completion report of the consultancy contract package after completion of the work.

2.19. <u>Final Detailed Project Report, Documents and Drawings: -</u> (5 sets in physical copies)

The Final package-wise DPR consisting of Main Report, Design Report, Drainage Design Report and Materials Report, incorporating all revisions deemed relevant following receipt of the comments from ULMMCs on the Draft DPR shall be submitted.

2.20. Co-ordination with UK PWD & other Departments: -

The DPR Consultant shall extend all possible support like providing data, documents; site visits, participate in discussions & meetings in Dehradun and co-ordinate the process of successful due diligence studies by the other departments if required.

i. The ULMMC officials and other Government officers may visit the site at any time, individually or collectively to acquaint/ supervise the field investigation and survey works. The Client may also appoint a Proof Consultant (i.e. Project Coordination/ Management Consultant) to supervise the work of the DPR consultant, reviewing design drawings, various IRC compliances in the detail design, drawings, including interalia field investigations, survey work, Design work and preconstruction

activities.

- ii. Frequent meetings with the consultant at site office or in Dehradun are foreseen during the currency of project preparation.
- iii. All equipment, software and books etc. required for satisfactory services for this project shall be obtained by the Consultant at their own cost and shall be their property.

Get the DPR approved (Technically Sanctioned) by competent Government authority at state or center level as required.

2.21. Data and Software: - (2 CDs/DVDs)

The Pen Drive/CDs/DVDs containing all basic as well as the processed data from all field studies and investigations, report, appendices, annexure, documents and drawings shall be submitted to the client at the time of the submission of the Final Report. The data can be classified as follows:

- i. Engineering Investigations: Material Investigation including test results soils, Geotech Investigations, Sub-soil Exploration, Drainage Inventory, Inventory data for landslide indicating construction requirement etc. in MS EXCEL or any other format which could be imported to widely used utility packages.
- ii. **Topographic Surveys and Drawings**: All topographic data/deliverables as stipulated in the ToR/ Contract would be supplied in (x, y, z) format along with complete reference so that the data could be imported into any standard highway design software. The drawing files would be submitted in dx f or dwg format.
- iii. Rate Analysis: The Consultant shall submit the rate analysis for various works items including the data developed on computer in this relation so that it could be used by the Authority later for the purpose of updating the cost of the project.
- iv. Economic and Financial Analysis.

2.22. Software: (2 CDs/DVDs)

- i. The Consultant shall also hand-over to the Client, Pen Drive/CDs/DVDs containing any general software including the financial model which has been specifically developed for the project.
- ii. The Pen Drive/CDs/DVDs should be properly indexed and a catalogue giving contents of all Pen Drive/CDs/DVDs and print-outs of the contents (data from

field studies topographic data and drawings) should be handed over to the client at the time of submission of the final Report.

2.23. Detailed Design Report:-

Design Calculations: The Consultant shall furnish the following information along with his submittals for review. The information shall be furnished at the appropriate place in each calculation, as applicable:

- Content list, Input data and, source of information.
- Scope (Description of the contents and purpose of the submission)
- Design criteria to satisfy statutory requirements.
- Formulae used and references for the same
- Design assumptions made. Assumptions based on experience shall be clearly mentioned.
- All Designs prepared by the consultant would be required to satisfy Indian Codes & standards and guidelines/rules issued by the Government of India & State government of Uttarakhand etc. The Codes and Standards shall be referred with year of publication, revision number and amendment/addenda.
- Reference Drawings and Documents along with their revision numbers.
- Qualitative description and comments on final results.
- Any other relevant information.
- Conclusions / recommendation.

2.24. Computerized Analysis and Design: (2 CDs/DVDs)

The Following shall be compiled by the consultant in his submittals for review:

- Consultant shall use accredited / validated software and the same shall be indicated.
- Details of figures of modeling and analysis, wherever applicable.
- All information as called for in clause of design calculations.
- Consultant shall submit printout and softcopies of all pages as appeared in output of the computer Program without disturbing the output as generated by the program.

Comments of the Client shall be delivered to the consultant's representative at Dehradun by hand or by email. The consultant will submit the comments in duplicate hard copies and soft copies to the Engineer-in-Charge and will also be required to give a presentation on the same as & when required. A weekly progress report shall

be discussed with the Engineer-in-Charge for further improvement in the future activity schedule.

All drawings to be prepared by the consultant would be in Auto CAD or the latest software. Design criteria, structural & geotechnical analysis, and detailed design calculations should be in MS word and PDF. Minimum 6 (Six) sets of all documents/design and drawings would be submitted by consultant in hard and its soft copy should be submitted in CD (software File).

In order to perform the above activities efficiently, the consultant is required to establish a well-equipped office at his own cost having sufficient number of professional experts at Dehradun (Uttarakhand) for carrying out various design/design review activities and assist the Client in approval of different reports/design documents and drawings during the contract period and conduct regular meeting with Client. Consultant is also required to place suitably various key professionals and support staff to carry out required activities during contract period.

2.25. Progress Review

For effective co-ordination and expeditious inflow and outflow of the drawings, representatives of the Client (Uttarakhand Landslide Mitigation & Management center) and the Consultant shall meet once in a month. Besides regular meetings at Dehradun (Uttarakhand), the meetings may be held at site, as per requirement. Discussion shall not be limited only to the Design and drawings but also on the engineering of the project viz. quality of the works, construction methodology and implementation.

Consultant has to open a office in Dehradun for timely progress review of project.

2.26. The Bid Documents for EPC mode & Item rate mode shall be submitted, for the identified packages as per approval by the employer. The documents shall contain the following:

- i. Volume-I shall contain Instructions to Bidders, Appendix to Bid, General and Particular Conditions of Contract based on Standard Procurement Document (SPD), various Forms etc.
- ii. Volume-II shall contain Technical Specifications based on MORTH's, PWD & state government Technical Specifications for protection work;
- iii. Volume-III shall contain Bill of Quantities
- iv. Volume-IV shall contain Drawings
- v. Volume -V Site Plan

These bid documents are to be prepared by the Consultant in consultation with the Employer.

The Consultant shall do the following:

- Contract packages will be procured under arrangements acceptable to the state government of Uttarakhand. Detailed design will be used to prepare the bidding documents.
- Submit completed draft bidding documents to ULMMC for review. Bidding
 documents reviewed and accepted by ULMMC shall be presented by them to the
 other state department for their further review and No-Objection. After receipt of
 comments from ULMMC including observations made by the other state
 government, the consultant will prepare the final versions of the documents in the
 required number of copies and provide soft copies of all documents, suitably
 documented.

Note: Any other activity that is deemed necessary for the project design, execution & completion, but not included in the above-mentioned list shall form the part of scope of work of the DPR and the decision of ULMMC shall be final in this regard.

3.REPORTING REQUIREMENTS AND TIME SCHEDULE FOR DELIVERABLES:

Sr. No.	Activities	Cumulative Time Schedule from the date of award of work	Mode of submission
1	Submission and Approval of	1.5 Months	5 sets in physical
	Feasibility Report & Preliminary		copies and 2
	investigation report		CDs/DVDs
2	Submission and Approval of Draft	3 Months	5 sets in physical
	Detailed Project Report (DDPR)		copies and 2
			CDs/DVDs
3	Submission and Approval of Final	5 Months	5 sets in physical
	Detailed Project Report (FDPR)		copies and 2
			CDs/DVDs
4	Technical approval & Technical	6 Months	5 sets in physical
	sanction from PWD or Concerned		copies and 2
	department		CDs/DVDs

Total Duration	6 Months	

4. PAYMENT SCHEDULE: -

Sr. No.	Activities	Payment Schedule Breakup
		(in % of the contract value)
1	Approval of Feasibility Report &	20%
	Preliminary investigation report.	
2	Approval of Draft DPR.	30%
3	Approval of Final DPR.	40%
4	Technical approval & Technical sanction	10%
	from PWD or Concerned department	
	Total	100%

4. Team Composition & Qualification Requirements for the Key Experts (and any other requirements which will be used for evaluating the Key Experts under Data Sheet 21.1 of the ITC)

S. No.	Key Position	No. of Months	Qualification and Total Experience	Relevant Experience
1	Team Leader cum Geotechnical Engineer (on Full time basis during DPR preparation)	6	Minimum Essential Qualification: Post-Graduate in Geotechnical Engineering. Minimum Total Experience: 10 years	Minimum 7 years of experience in preparation of Detailed Design and Engineering of Landslide mitigation measure project. Leading at least 2 Landslide mitigation measure projects as Team Leader for 4 years.
2.	Geotechnical Engineer (During DPR preparation and as per the requirement of the Client)	4	Minimum Essential Qualification: Post-Graduate in Geotechnical Engineering. Minimum Total Experience: 5 years	Minimum 3 years of experience in preparation of Detailed Design and Engineering of Landslide mitigation measure project. Leading at least 2 Landslide mitigation measure projects as Team Leader for 4 years.

3.	Geological Expert (During DPR preparation and as per the requirement of the Client)	2	Minimum Essential Qualification: Post Graduate degree in Geology/Applied Geology/Engineering Geology Minimum Total Experience: 7 years	Minimum 5 years of experience in conducting & preparation of Geological investigation reports.
4	Structural Engineer (During DPR preparation and as per the requirement of the Client)	4	Minimum Essential Qualification: Post-Graduate degree in Structural Engineering Minimum Total Experience: 7 years	Minimum 5 years of experience of designing structures required for mitigation measures
5	Environment Expert (During DPR preparation and as per the requirement of the Client)	3	Minimum Essential Qualification: Post-Graduate in Environment Engineering/Environment science Minimum Total Experience: 7 years	Minimum 5 years of experience in preparation of Environment impact assessment reports, environment management plan.
6	Social expert (During DPR preparation and as per the requirement of the Client)	3	Minimum Essential Qualification: Post graduate in social sciences/Masters in social work Minimum Total Experience: 7 years	Minimum 5 years of experience in preparation of social screening reports and Resettlement Action Plan (RAP) in the area of Design and construction related Projects.
7	Geo-physicist (During DPR preparation and as per the requirement of the Client)	3	Minimum Essential Qualification: M.Sc./M.Sc Tech/M.Tech in Geophysics Minimum Total Experience: 5 years	Minimum 5 years of experience in conducting & preparation of Geophysical investigation reports.
8.	Surveyor (During DPR preparation and as per the requirement of the Client)		Minimum Essential Qualification: Diploma in Civil Engineering Minimum Total Experience: 10 years	Minimum 7 years of experience in conducting survey work

	Hydrologist	Minimum Essential Qualification:	
9.	(During DPR preparation and as per the requirement of the Client)	Graduate in civil Engineering/M.Tech in Hydrology Minimum Total Experience: 5 years	Minimum 5 years of experience in conducting hydrological Investigation

The consultant may in addition, procure the services of AutoCAD expert, MEP expert etc., while preparation of DPR in addition to the manpower mentioned above as per the requirement of ULMMC for preparation of DPR.

Note: The consultant shall deploy all the key experts as proposed in the proposal. During the contract execution, the consultant shall not replace any key experts. In case of death, serious illness or any other condition acceptable to the client to replace any key expert, the consultant shall:

- 1. Submit a written request for approval to replace the expert with valid justification to the client.
- 2. Upon approval from the client, the consultant shall propose a CV of new expert having equal or better qualification & experience then the expert proposed in the proposal.
- 3. In case the justification provided by the consultant is not acceptable to the client, the new replacement having equal or higher qualification & Experience than the one proposed in the proposal shall have 5% less remuneration for that particular expert.

5. Reporting Requirements and Time Schedule for Deliverables

Sr. No.	Activities	Cumulative Time Schedule from the date of award of work	Mode of submission
1	Submission and Approval of Feasibility Report	1.5 Months	5 sets in physical copies and 2
2	Submission and Approval of Draft Detailed Project Report (DDPR)	3 Months	CDs/DVDs 5 sets in physical copies and 2 CDs/DVDs
3	Submission and Approval of Final Detailed Project Report (FDPR)	5 Months	5 sets in physical copies and 2 CDs/DVDs
4	Technical approval & Technical sanction from PWD or Concerned department	6 Months	5 sets in physical copies and 2 CDs/DVDs
	Total Duration	6 Months	

5.1.PAYMENT SCHEDULE:

Sr. No.	Activities	Payment Schedule Breakup (in %
		of the contract value)
1	Approval of Feasibility Report.	20%
2	Approval of Draft DPR.	30%
3	Approval of Final DPR.	40%
4	Technical approval & Technical sanction from PWD or Concerned department	10%
	Total	100%

- 6. **Indemnity:** The consultant shall indemnify cost of all the government losses in any form incurred due to the act of the consultant. There shall be no bar for validity for indemnity.
- 7. Deficiency of services: In case of deficiency in the services on part of consultant, the consultant will correct the deficiency immediately and shall replace the responsible expert with equal or better qualified expert. The Sample deficiencies shall include but not limited to the following:
 - (i) Shortfall of required key expert/non key experts.
 - (ii) Not keeping proper records of sampling/testing of Geotechnical Investigation reports, Geophysical investigation reports and other reports mentioned in TOR.
 - (v) Failure to submit the requisite reports & design on time to the Client/Employer.
 - (viii) Refusing to give reasons for decisions when called for by the client
 - (xi) Lack of proper coordination with Assistant Engineer, ULMMC, Dehradun, representative to ensure smooth implementation of projects
 - (xii) Permitting subletting of any part/major works without authorization.
 - (xiv) Not being fully conversant with manuals, specifications, standards, Ministry's guidelines and requirement of the project.
 - (xv) Failure to maintain the deployment of the required staff (maximum one month).
 - (xvi) Any other obligation as mention in TOR.

Note:-If consultant does not fulfill any condition mentioned in "*Deficiency of services*". Additional deduction of 5% of contract value will be imposed on consultant

STANDARD FORM OF CONTRACT

Consultant's Services

Lump-Sum

Preface

- 1. The standard Contract form consists of four parts: The Form of Contract to be signed by the Client and the Consultant, the General Conditions of Contract (GCC), including Attachment 1 Fraud and Corruption; the Special Conditions of Contract (SCC); and the Appendices.
- 2. The General Conditions of Contract, including Attachment 1, shall not be modified. The Special Conditions of Contract that contain clauses specific to each Contract intend to supplement, but not over-write or otherwise contradict, the General Conditions.

CONTRACT FOR CONSULTANT'S SERVICES

Lump-Sum

Project Name
Contract No Assignment Title:
between
[Name of the Client]
and
[Name of the Consultant]
Dated:

I. Form of Contract

LUMP-SUM

(Text in brackets [] is optional; all notes should be deleted in the final text)

This CONTRACT (hereinafter called the "Contract") is made the [number] day of the month of [month], [year], between, on the one hand, [name of Client or Recipient] (hereinafter called the "Client") and, on the other hand, [name of consultant] (hereinafter called the "Consultant").

WHEREAS

- (a) the Client has requested the Consultant to provide certain consulting services as defined in this Contract (hereinafter called the "Services");
- (b) the Consultant, having represented to the Client that it has the required professional skills, expertise and technical resources, has agreed to provide the Services on the terms and conditions set forth in this Contract:

NOW THEREFORE the parties hereto hereby agree as follows:

- 1. The following documents attached hereto shall be deemed to form an integral part of this Contract:
 - (a) The General Conditions of Contract
 - (b) The Special Conditions of Contract;
 - (c) Appendices:

Appendix A: Terms of Reference

Appendix B: Key Experts

Appendix C: Breakdown of Contract Price

In the event of any inconsistency between the documents, the following order of precedence shall prevail: The Special Conditions of Contract; the General Conditions of Contract, including Attachment 1; Appendix A; Appendix B; Appendix C. Any reference to this Contract shall include, where the context permits, a reference to its Appendices.

- 2. The mutual rights and obligations of the Client and the Consultant shall be as set forth in the Contract, in particular:
 - (a) the Consultant shall carry out the Services in accordance with the provisions of the Contract; and

(b) the Client shall make payments to the Consultant in accordance with the provisions of the Contract.

IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names as of the day and year first above written.

For and on behalf of [Name of Client]
[Authorized Representative of the Client – name, title and signature]
For and on behalf of [Name of Consultant]
[Authorized Representative of the Consultant – name and signature]

II. General Conditions of Contract

A. GENERAL PROVISIONS

1. Definitions

- 1.1 Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:
- (a) "Applicable Law" means the laws and any other instruments having the force of law in the Client's country, or in such other country as may be specified in the **Special Conditions of Contract (SCC)**, as they may be issued and in force from time to time.
- (b) "Applicable Regulations" means Procurement Regulations for IPF Borrowers of date specified in **Special Conditions of Contract** (SCC).
- (c) "Client" means the implementing agency that signs the Contract for the Services with the Selected Consultant.
- (d) "Consultant" means a legally-established professional consulting firm or entity selected by the Client to provide the Services under the signed Contract.
- (e) "Contract" means the legally binding written agreement signed between the Client and the Consultant and which includes all the attached documents listed in its paragraph 1 of the Form of Contract (the General Conditions (GCC), the Special Conditions (SCC), and the Appendices).
- (f) "Day" means a working day unless indicated otherwise.
- (g) "Effective Date" means the date on which this Contract comes into force and effect pursuant to Clause GCC 11.
- (h) "Experts" means, collectively, Key Experts, Non-Key Experts, or any other personnel of the Consultant, assigned by the Consultant to perform the Services or any part thereof under the Contract.
- (i) "Foreign Currency" means any currency other than the currency of the Client's country.
- (i) "GCC" means these General Conditions of Contract.
- (k) "Government" means the government of the Client's country.
- (l) "Key Expert(s)" means an individual professional whose skills, qualifications, knowledge and experience are critical to the performance of the Services under the Contract and whose

- Curricula Vitae (CV) was taken into account in the technical evaluation of the Consultant's proposal.
- (m) "Local Currency" means the currency of the Client's country.
- (n) "Non-Key Expert(s)" means an individual professional provided by the Consultant or its Sub-consultant to perform the Services or any part thereof under the Contract.
- (o) "Party" means the Client or the Consultant, as the case may be, and "Parties" means both of them.
- (p) "Procurement Regulations" means Uttarakhand Procurement Guidelines 2017.
- (q) "SCC" means the Special Conditions of Contract by which the GCC may be amended or supplemented but not over-written.
- (r) "Services" means the work to be performed by the Consultant pursuant to this Contract, as described in Appendix A hereto.
- (s) "Sub-consultants" means an entity to whom/which the Consultant subcontracts any part of the Services while remaining solely liable for the execution of the Contract.
- (t) "Third Party" means any person or entity other than the Government, the Client, the Consultant or a Sub-consultant.
- 2. Relationship between the Parties
- 2.1. Nothing contained herein shall be construed as establishing a relationship of master and servant or of principal and agent as between the Client and the Consultant. The Consultant, subject to this Contract, has complete charge of the Experts and Sub-consultants, if any, performing the Services and shall be fully responsible for the Services performed by them or on their behalf hereunder.
- 3. Law Governing Contract
- 3.1. This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Applicable Law.
- 4. Language
- 4.1. This Contract has been executed in the language specified in the **SCC**, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract.
- 5. Headings
- 5.1. The headings shall not limit, alter or affect the meaning of this Contract.
- 6. Communications
- 6.1. Any communication required or permitted to be given or made pursuant to this Contract shall be in writing in the language specified in Clause GCC 4. 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 to such Party at the address specified in the **SCC**.

- 6.2. A Party may change its address for notice hereunder by giving the other Party any communication of such change to the address specified in the **SCC**.
- 7. Location
- 7.1. The Services shall be performed at such locations as are specified in **Appendix A** hereto and, where the location of a particular task is not so specified, at such locations, whether in the Government's country or elsewhere, as the Client may approve.
- 8. Authority of Member in Charge
- 8.1. Deleted
- 9. Authorized Representatives
- 9.1. Any action required or permitted to be taken, and any document required or permitted to be executed under this Contract by the Client or the Consultant may be taken or executed by the officials specified in the **SCC.**
- 10. Fraud and Corruption
- 10.1 Deleted
- a. Commissions and Fees

10.2 The Client requires the Consultant to disclose any commissions, gratuities or fees that may have been paid or are to be paid to agents or any other party with respect to the selection process or execution of the Contract. The information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee. Failure to disclose such commissions, gratuities or fees may result in termination of the Contract

B. COMMENCEMENT, COMPLETION, MODIFICATION AND TERMINATION OF CONTRACT

11. Effectiveness of Contract

11.1. This Contract shall come into force and effect on the date (the "Effective Date") of the Client's notice to the Consultant instructing the Consultant to begin carrying out the Services. This notice shall confirm that the effectiveness conditions, if any, listed in the SCC have been met.

- 12. Termination of Contract for Failure to Become Effective
- 12.1. If this Contract has not become effective within such time period after the date of Contract signature as specified in the SCC, either Party may, by not less than twenty two (22) days written notice to the other Party, declare this Contract to be null and void, and in the

event of such a declaration by either Party, neither Party shall have any claim against the other Party with respect hereto.

13. Commencement of Services

13.1. The Consultant shall confirm availability of Key Experts and begin carrying out the Services not later than the number of days after the Effective Date specified in the **SCC**.

14. Expiration of Contract

14.1. Unless terminated earlier pursuant to Clause GCC 19 hereof, this Contract shall expire at the end of such time period after the Effective Date as specified in the SCC.

15. Entire Agreement

15.1. This Contract contains all covenants, stipulations and provisions agreed by the Parties. No agent or representative of either Party has authority to make, and the Parties shall not be bound by or be liable for, any statement, representation, promise or agreement not set forth herein.

16. Modifications or Variations

16.1. Any modification or variation of the terms and conditions of this Contract, including any modification or variation 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 or variation made by the other Party.

17. Force Majeure

a. Definition

- 17.1. For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party, is not foreseeable, is unavoidable, and makes a Party's performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible under the circumstances, and subject to those requirements, includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions, strikes, lockouts or other industrial action confiscation or any other action by Government agencies.
- 17.2. Force Majeure shall not include (i) any event which is caused by the negligence or intentional action of a Party or such Party's Experts, Sub-consultants or agents or employees, nor (ii) any event which a diligent Party could reasonably have been expected to both take into account at the time of the conclusion of this Contract, and avoid or overcome in the carrying out of its obligations hereunder.
- 17.3. Force Majeure shall not include insufficiency of funds or failure to make any payment required hereunder.

b. No Breach of Contract

17.4. 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 Contract 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 Contract.

c. Measures to be Taken

- 17.5. A Party affected by an event of Force Majeure shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall take all reasonable measures to minimize the consequences of any event of Force Majeure.
- 17.6. A Party affected by an event of Force Majeure shall notify the other Party of such event as soon as possible, and in any case not later than fourteen (14) calendar days following the occurrence of such event, providing evidence of the nature and cause of such event, and shall similarly give written notice of the restoration of normal conditions as soon as possible.
- 17.7. Any period within which a Party shall, pursuant to this Contract, 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.
- 17.8. During the period of their inability to perform the Services as a result of an event of Force Majeure, the Consultant, upon instructions by the Client, shall either:
 - (a) demobilize, in which case the Consultant shall be reimbursed for additional costs they reasonably and necessarily incurred, and, if required by the Client, in reactivating the Services; or
 - (b) continue with the Services to the extent reasonably possible, in which case the Consultant shall continue to be paid under the terms of this Contract and be reimbursed for additional costs reasonably and necessarily incurred.
- 17.9. In the case of disagreement between the Parties as to the existence or extent of Force Majeure, the matter shall be settled according to Clauses GCC 44 & 45.

18. Suspension

18.1. The Client may, by written notice of suspension to the Consultant, suspend part or all payments to the Consultant hereunder if the Consultant fails to perform any of its obligations under this Contract, including the carrying out of the Services, provided that such notice of suspension (i) shall specify the nature of the failure, and (ii) shall request the Consultant to remedy such failure within a period not

exceeding thirty (30) calendar days after receipt by the Consultant of such notice of suspension.

19. Termination

19.1. This Contract may be terminated by either Party as per provisions set up below:

a. By the Client

- 19.1.1. The Client may terminate this Contract in case of the occurrence of any of the events specified in paragraphs (a) through (f) of this Clause. In such an occurrence the Client shall give at least thirty (30) calendar days' written notice of termination to the Consultant in case of the events referred to in (a) through (d); at least sixty (60) calendar days' written notice in case of the event referred to in (e); and at least five (5) calendar days' written notice in case of the event referred to in (f):
- (a) If the Consultant fails to remedy a failure in the performance of its obligations hereunder, as specified in a notice of suspension pursuant to Clause GCC 18;
- (b) If the Consultant becomes (or, if the Consultant consists of more than one entity, if any of its members becomes) insolvent or bankrupt or enter into any agreements with their creditors for relief of debt or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary;
- (c) If the Consultant fails to comply with any final decision reached as a result of arbitration proceedings pursuant to Clause GCC 45.1;
- (d) If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than sixty (60) calendar days;
- (e) If the Client, in its sole discretion and for any reason whatsoever, decides to terminate this Contract;
- (f) If the Consultant fails to confirm availability of Key Experts as required in Clause GCC 13.
- 19.1.2. Furthermore, if the Client determines that the Consultant has engaged in Fraud and Corruption in competing for or in executing the Contract, then the Client may, after giving fourteen (14) calendar days written notice to the Consultant, terminate the Consultant's employment under the Contract.

b. By the Consultant

19.1.3. The Consultant may terminate this Contract, by not less than thirty (30) calendar days' written notice to the Client,

in case of the occurrence of any of the events specified in paragraphs (a) through (d) of this Clause.

- (a) If the Client fails to pay any money due to the Consultant pursuant to this Contract and not subject to dispute pursuant to Clause GCC 45.1 within forty-five (45) calendar days after receiving written notice from the Consultant that such payment is overdue.
- (b) If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than sixty (60) calendar days.
- (c) If the Client fails to comply with any final decision reached as a result of arbitration pursuant to Clause GCC 45.1.
- (d) If the Client is in material breach of its obligations pursuant to this Contract and has not remedied the same within forty-five (45) days (or such longer period as the Consultant may have subsequently approved in writing) following the receipt by the Client of the Consultant's notice specifying such breach.
- c. Cessation of Rights and Obligations
- 19.1.4. Upon termination of this Contract pursuant to Clauses GCC 12 or GCC 19 hereof, or upon expiration of this Contract pursuant to Clause GCC 14, 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, (ii) the obligation of confidentiality set forth in Clause GCC 22, (iii) the Consultant's obligation to permit inspection, copying and auditing of their accounts and records set forth in Clause GCC 25 and to cooperate and assist in any inspection or investigation, and (iv) any right which a Party may have under the Applicable Law.
- d. Cessation of Services
- 19.1.5. Upon termination of this Contract by notice of either Party to the other pursuant to Clauses GCC 19a or GCC 19b, the Consultant 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 Consultant and equipment and materials furnished by the Client, the Consultant shall proceed as provided, respectively, by Clauses GCC 27 or GCC 28.

e. Payment upon Termination

- 19.1.6. Upon termination of this Contract, the Client shall make the following payments to the Consultant:
- (a) payment for Services satisfactorily performed prior to the effective date of termination; and
- (b) in the case of termination pursuant to paragraphs (d) and (e) of Clause GCC 19.1.1, reimbursement of any reasonable cost incidental to the prompt and orderly termination of this Contract, including the cost of the return travel of the Experts.

C. OBLIGATIONS OF THE CONSULTANT

20. General

a. Standard of Performance

- 20.1 The Consultant shall perform the Services and carry out the Services with all due diligence, efficiency and economy, in accordance with generally accepted professional standards and practices, and shall observe sound management practices, and employ appropriate technology and safe and effective equipment, machinery, materials and methods. The Consultant shall always act, in respect of any matter relating to this Contract or to the Services, as a faithful adviser to the Client, and shall at all times support and safeguard the Client's legitimate interests in any dealings with the third parties.
- 20.2. The Consultant shall employ and provide such qualified and experienced Experts and Sub-consultants as are required to carry out the Services.
- 20.3. The Consultant may subcontract part of the Services to an extent and with such Key Experts and Sub-consultants as may be approved in advance by the Client. Notwithstanding such approval, the Consultant shall retain full responsibility for the Services.

b. Law Applicable to Services

- 20.4. The Consultant shall perform the Services in accordance with the Contract and the Applicable Law and shall take all practicable steps to ensure that any of its Experts and Sub-consultants, comply with the Applicable Law.
- 20.5. Throughout the execution of the Contract, the Consultant shall comply with the import of goods and services prohibitions in the Client's country when
 - (a) as a matter of law or official regulations, the Borrower's country prohibits commercial relations with that country; or

- (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's Country prohibits any import of goods from that country or any payments to any country, person, or entity in that country.
- 20.6. The Client shall notify the Consultant in writing of relevant local customs, and the Consultant shall, after such notification, respect such customs.

21. Conflict of Interest

- 21.1. The Consultant shall hold the Client's interests paramount, without any consideration for future work, and strictly avoid conflict with other assignments or their own corporate interests.
- a. Consultant
 Not to Benefit
 from
 Commissions,
 Discounts, etc.
- 21.1.1 The payment of the Consultant pursuant to GCC F (Clauses GCC 38 through 42) shall constitute the Consultant's only payment in connection with this Contract and, subject to Clause GCC 21.1.3, the Consultant shall not accept for its own benefit any trade commission, discount or similar payment in connection with activities pursuant to this Contract or in the discharge of its obligations hereunder, and the Consultant shall use its best efforts to ensure that any Sub-consultants, as well as the Experts and agents of either of them, similarly shall not receive any such additional payment.
- 21.1.2 Furthermore, if the Consultant, as part of the Services, has the responsibility of advising the Client on the procurement of goods, works or services, the Consultant shall comply with the client's Applicable Regulations, and shall at all times exercise such responsibility in the best interest of the Client. Any discounts or commissions obtained by the Consultant in the exercise of such procurement responsibility shall be for the account of the Client.
- b. Consultant and Affiliates Not to Engage in Certain Activities
- 21.1.3 The Consultant agrees that, during the term of this Contract and after its termination, the Consultant and any entity affiliated with the Consultant, as well as any Sub-consultants and any entity affiliated with such Sub-consultants, shall be disqualified from providing goods, works or non-consulting services resulting from or directly related to the Consultant's Services for the preparation or implementation of the project.
- c. Prohibition of Conflicting Activities
- 21.1.4 The Consultant shall not engage, and shall cause its Experts as well as its Sub-consultants not to engage, either directly or indirectly, in any business or professional activities that would conflict with the activities assigned to them under this Contract.

- d. Strict Duty to Disclose Conflicting Activities
- 21.1.5 The Consultant has an obligation and shall ensure that its Experts and Sub-consultants shall have an obligation to disclose any situation of actual or potential conflict that impacts their capacity to serve the best interest of their Client, or that may reasonably be perceived as having this effect. Failure to disclose said situations may lead to the disqualification of the Consultant or the termination of its Contract.

22. Confidentiality

- 22.1 Except with the prior written consent of the Client, the Consultant and the Experts shall not at any time communicate to any person or entity any confidential information acquired in the course of the Services, nor shall the Consultant and the Experts make public the recommendations formulated in the course of, or as a result of, the Services.
- 23. Liability of the Consultant
- 23.1 Subject to additional provisions, if any, set forth in the **SCC**, the Consultant's liability under this Contract shall be provided by the Applicable Law.
- 24. Insurance to be taken out by the Consultant
- 24.1 The Consultant (i) shall take out and maintain, and shall cause any Sub-consultants to take out and maintain, at its (or the Sub-consultants', as the case may be) own cost but on terms and conditions approved by the Client, insurance against the risks, and for the coverage specified in the SCC, and (ii) at the Client's request, shall provide evidence to the Client showing that such insurance has been taken out and maintained and that the current premiums therefore have been paid. The Consultant shall ensure that such insurance is in place prior to commencing the Services as stated in Clause GCC 13.
- 25. Accounting, Inspection and Auditing
- 25.1 The Consultant shall keep, and shall make all reasonable efforts to cause its Sub-consultants to keep, accurate and systematic accounts and records in respect of the Services and in such form and detail as will clearly identify relevant time changes and costs.
- 26. Reporting Obligations
- 26.1 The Consultant shall submit to the Client the reports and documents specified in **Appendix A**, in the form, in the numbers and within the time periods set forth in the said Appendix.
- 27. Proprietary Rights of the Client in Reports and Records
- 27.1 Unless otherwise indicated in the SCC, all reports and relevant data and information such as maps, diagrams, plans, databases, other documents and software, supporting records or material compiled or prepared by the Consultant for the Client in the course of the Services shall be confidential and become and remain the absolute property of the Client. The Consultant shall, not later than upon termination or expiration of this Contract, deliver all such documents to the Client, together with a detailed inventory thereof. The Consultant may retain a copy of such documents, data and/or software but shall not use the

same for purposes unrelated to this Contract without prior written approval of the Client.

27.2 If license agreements are necessary or appropriate between the Consultant and third parties for purposes of development of the plans, drawings, specifications, designs, databases, other documents and software, the Consultant shall obtain the Client's prior written approval to such agreements, and the Client shall be entitled at its discretion to require recovering the expenses related to the development of the program(s) concerned. Other restrictions about the future use of these documents and software, if any, shall be specified in the **SCC**.

28. Equipment, Vehicles and Materials

- 28.1 Equipment, vehicles and materials made available to the Consultant by the Client, or purchased by the Consultant wholly or partly with funds provided by the Client, shall be the property of the Client and shall be marked accordingly. Upon termination or expiration of this Contract, the Consultant shall make available to the Client an inventory of such equipment, vehicles and materials and shall dispose of such equipment, vehicles and materials in accordance with the Client's instructions. While in possession of such equipment, vehicles and materials, the Consultant, unless otherwise instructed by the Client in writing, shall insure them at the expense of the Client in an amount equal to their full replacement value.
- 28.2 Any equipment or materials brought by the Consultant or its Experts into the Client's country for the use either for the project or personal use shall remain the property of the Consultant or the Experts concerned, as applicable.

D. CONSULTANT'S EXPERTS AND SUB-CONSULTANTS

29. Description of Key Experts

29.1 The title, agreed job description, minimum qualification and estimated period of engagement to carry out the Services of each of the Consultant's Key Experts are described in **Appendix B.**

30. Replacement of Key Experts

- 30.1 Except as the Client may otherwise agree in writing, no changes shall be made in the Key Experts.
- 30.2 Notwithstanding the above, the substitution of Key Experts during Contract execution may be considered only based on the Consultant's written request and due to circumstances outside the reasonable control of the Consultant, including but not limited to death or medical incapacity. In such case, the Consultant shall forthwith provide as a replacement, a person of equivalent or better qualifications and experience, and at the same rate of remuneration.

31. Removal of Experts or Sub-consultants

- 31.1 If the Client finds that any of the Experts or Sub-consultant has committed serious misconduct or has been charged with having committed a criminal action, or if the Client determines that a Consultant's Expert or Sub-consultant has engaged in Fraud and Corruption while performing the Services, the Consultant shall, at the Client's written request, provide a replacement.
- 31.2 In the event that any of Key Experts, Non-Key Experts or Subconsultants is found by the Client to be incompetent or incapable in discharging assigned duties, the Client, specifying the grounds therefore, may request the Consultant to provide a replacement.
- 31.3 Any replacement of the removed Experts or Sub-consultants shall possess better qualifications and experience and shall be acceptable to the Client.
- 31.4 The Consultant shall bear all costs arising out of or incidental to any removal and/or replacement of such Experts.

E. OBLIGATIONS OF THE CLIENT

32. Assistance and Exemptions

- 32.1 Unless otherwise specified in the **SCC**, the Client shall use its best efforts to:
- (a) Assist the Consultant with obtaining work permits and such other documents as shall be necessary to enable the Consultant to perform the Services.
- (b) Assist the Consultant with promptly obtaining, for the Experts and, if appropriate, their eligible dependents, all necessary entry and exit visas, residence permits, exchange permits and any other documents required for their stay in the Client's country while carrying out the Services under the Contract.
- (c) Facilitate prompt clearance through customs of any property required for the Services and of the personal effects of the Experts and their eligible dependents.
- (c) Issue to officials, agents and representatives of the Government all such instructions and information as may be necessary or appropriate for the prompt and effective implementation of the Services.
- (d) Assist the Consultant and the Experts and any Sub-consultants employed by the Consultant for the Services with obtaining exemption from any requirement to register or obtain any permit to practice their profession or to establish themselves either

- individually or as a corporate entity in the Client's country according to the applicable law in the Client's country.
- (e) Assist the Consultant, any Sub-consultants and the Experts of either of them with obtaining the privilege, pursuant to the applicable law in the Client's country, of bringing into the Client's country reasonable amounts of foreign currency for the purposes of the Services or for the personal use of the Experts and of withdrawing any such amounts as may be earned therein by the Experts in the execution of the Services.
- (f) Provide to the Consultant any such other assistance as may be specified in the **SCC**.

33. Access to Project Site

- 33.1 The Client warrants that the Consultant shall have, free of charge, unimpeded access to the project site in respect of which access is required for the performance of the Services. The Client will be responsible for any damage to the project site or any property thereon resulting from such access and will indemnify the Consultant and each of the experts in respect of liability for any such damage, unless such damage is caused by the willful default or negligence of the Consultant or any Sub-consultants or the Experts of either of them.
- 34. Change in the Applicable Law Related to Taxes and Duties
- 34.1 If, after the date of this Contract, there is any change in the applicable law in the Client's country with respect to taxes and duties which increases or decreases the cost incurred by the Consultant in performing the Services, then the remuneration and reimbursable expenses otherwise payable to the Consultant under this Contract shall be increased or decreased accordingly by agreement between the Parties hereto, and corresponding adjustments shall be made to the Contract price amount specified in Clause GCC 38.1
- 35. Services, Facilities and Property of the Client
- 35.1 The Client shall make available to the Consultant and the Experts, for the purposes of the Services and free of any charge, the services, facilities and property described in the Terms of Reference (**Appendix A**) at the times and in the manner specified in said **Appendix A**.

36. Counterpart Personnel

- 36.1 The Client shall make available to the Consultant free of charge such professional and support counterpart personnel, to be nominated by the Client with the Consultant's advice, if specified in **Appendix A**.
- 36.2 Professional and support counterpart personnel, excluding Client's liaison personnel, shall work under the exclusive direction of the Consultant. If any member of the counterpart personnel fails to perform adequately any work assigned to such member by the Consultant that is consistent with the position occupied by such

member, the Consultant may request the replacement of such member, and the Client shall not unreasonably refuse to act upon such request.

37. Payment Obligation

37.1 In consideration of the Services performed by the Consultant under this Contract, the Client shall make such payments to the Consultant for the deliverables specified in **Appendix A** and in such manner as is provided by GCC F below.

F. PAYMENTS TO THE CONSULTANT

38. Contract Price

- 38.1 The Contract price is fixed and is set forth in the **SCC**. The Contract price breakdown is provided in **Appendix C**.
- 38.2 Any change to the Contract price specified in Clause GCC 38.1 can be made only if the Parties have agreed to the revised scope of Services pursuant to Clause GCC 16 and have amended in writing the Terms of Reference in **Appendix A**.

39. Taxes and Duties

- 39.1 The Consultant, Sub-consultants and Experts are responsible for meeting any and all tax liabilities arising out of the Contract unless it is stated otherwise in the **SCC**.
- 39.2 As an exception to the above and as stated in the **SCC**, all local identifiable indirect taxes (itemized and finalized at Contract negotiations) are reimbursed to the Consultant or are paid by the Client on behalf of the Consultant.

40. Currency of Payment

40.1 Any payment under this Contract shall be made in the currency (ies) of the Contract.

41. Mode of Billing and Payment

- 41.1 The total payments under this Contract shall not exceed the Contract price set forth in Clause GCC 38.1.
- 41.2 The payments under this Contract shall be made in lump-sum installments against deliverables specified in **Appendix A**. The payments will be made according to the payment schedule stated in the **SCC**.

41.2.1 Deleted

41.2.2 <u>The Lump-Sum Installment Payments.</u> The Client shall pay the Consultant within sixty (60) days after the receipt by the Client of the deliverable(s) and the cover invoice for the related lump-sum installment payment. The payment can be withheld if the Client does not approve the submitted deliverable(s) as satisfactory in which case the Client shall provide comments to the Consultant within the same sixty (60) days period. The Consultant shall thereupon promptly make any necessary

corrections, and thereafter the foregoing process shall be repeated.

- 41.2.3 <u>The Final Payment</u>. The final payment under this Clause shall be made only after the final report have been submitted by the Consultant and approved as satisfactory by the Client. The Services shall then be deemed completed and finally accepted by the Client. The last lump-sum installment shall be deemed approved for payment by the Client within ninety (90) calendar days after receipt of the final report by the Client unless the Client, within such ninety (90) calendar day period, gives written notice to the Consultant specifying in detail deficiencies in the Services, the final report. The Consultant shall thereupon promptly make any necessary corrections, and thereafter the foregoing process shall be repeated. 41.2.4 All payments under this Contract shall be made to the accounts of the Consultant specified in the SCC.
- 41.2.4 With the exception of the final payment under 41.2.3 above, payments do not constitute acceptance of the whole Services nor relieve the Consultant of any obligations hereunder.

42. Interest on Delayed Payments

42.1 If the Client had delayed payments beyond fifteen (15) days after the due date stated in Clause GCC 41.2.2, interest shall be paid to the Consultant on any amount due by, not paid on, such due date for each day of delay at the annual rate stated in the **SCC**.

G. FAIRNESS AND GOOD FAITH

43. Good Faith

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

H. SETTLEMENT OF DISPUTES

44. Amicable Settlement

- 44.1 The Parties shall seek to resolve any dispute amicably by mutual consultation.
- 44.2 If either Party objects to any action or inaction of the other Party, the objecting Party may file a written Notice of Dispute to the other Party providing in detail the basis of the dispute. The Party receiving the Notice of Dispute will consider it and respond in writing within fourteen (14) days after receipt. If that Party fails to respond within fourteen (14) days, or the dispute cannot be amicably settled within fourteen (14) days following the response of that Party, Clause GCC 45.1 shall apply.

45. Dispute Resolution

45.1 Any dispute between the Parties arising under or related to this Contract that cannot be settled amicably may be referred to by either Party to the adjudication/arbitration in accordance with the provisions specified in the **SCC**.

III. Special Conditions of Contract

[Notes in brackets are for guidance purposes only and should be deleted in the final text of the signed contract]

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract		
1.1(a)	The Contract shall be construed in accordance with the law of India		
1.1 (b)	The date of the "Applicable Regulations" is: Uttarakhand Procurement Regulations 2017		
4.1	The language is: English.		
6.1 and 6.2	The addresses are [fill in at negotiations with the selected firm]: Client: Director General, ULMMC		
8.1	DELTED		
9.1	The Authorized Representatives are: For the Client: [name, title] For the Consultant: [name, title]		
11.1	The effectiveness conditions are the following: Signing of Contract by both the parties		
12.1	Termination of Contract for Failure to Become Effective:		

	The time period shall be [insert time period, e.g.: four months].		
13.1	Commencement of Services:		
	The number of days shall be 10 days].		
	Confirmation of Key Experts' availability to start the Assignment shall be submitted to the Client in writing as a written statement signed by each Key Expert.		
14.1	Expiration of Contract:		
	The time period shall be 6 months		
21 b.	The Client reserves the right to determine on a case-by-case basis whether the Consultant should be disqualified from providing goods, works or non-consulting services due to a conflict of a nature described in Clause GCC 21.1.3		
	No		

23.1	No additional provisions.						
24.1	GCC 24.1 is replaced as follow: 1. Within 21 days of Notification of Award, the consultant shall furnish Performance Security to the client for an amount of 10% of the contract value, valid up to 60 days after the date of completion of all the performance obligations.						
	the Performance Security shall be in the form of a unconditional "Bank Guarantee" or "FDR" drawn in favor of the client.						
	Discharge of the performance Security shall take place not later than 60 days following the date of completion of the consultant's performance obligations.						
	2. Professional liability insurance, with a minimum coverage of [equal to the contract amount];						
	3. employer's liability and workers' compensation insurance in respect of the experts and Sub-consultants in accordance with the relevant provisions of the applicable law in the Client's country, as well as, with respect to such Experts, any such life, health, accident, travel or other insurance as may be appropriate						
27.1	[If applicable, insert any exceptions to proprietary rights provision]						
27.2	The Consultant shall not use <i>documents and software</i> for purposes unrelated to this Contract without the prior written approval of the Client.						
32.1 (a) through (e)	Deleted						
32.1(f)	Deleted						
38.1	The Contract price is: [insert amount and currency for each currency as applicable] [indicate: inclusive or exclusive] of local indirect taxes.						
39.1 and 39.2	Deleted						

41.2	Sr.	Activities	Payment Schedule						
	No.		Breakup (in % of the						
			contract value)						
	1	Approval of Feasibility Report.	20%						
	2	Approval of Draft DPR.	30%						
	3	Approval of Final DPR.	40%						
	4	Technical approval & Technical sanction from PWD or Concerned department	10%						
		Total	100%						
41.2.1	deliverables mentioned in the contract, the following liquidated damages shall be applicable: • 0.5% of contract value per week on late submission or late completion of any deliverable mentioned in the contract with maximum upto 10% of the contract value Deleted								
41.2.4	The accoun	ts are:							
	for local cur	rency: [insert account].							
42.1	The interest	t rate is:							
45.1	following pr								
	arbitra	etion of Arbitrators. Each dispute submitted by a Party to ration shall be heard by a sole arbitrator or an arbitration panel posed of three (3) arbitrators, in accordance with the following isions:							
	a	n case of Dispute or difference ari nd a domestic consultant relating t f or connected with this agreer	o any matter arising out						

difference shall be settled in accordance with the Arbitration and Conciliation Act. 1996. The arbitral tribunal shall consist of 3 Arbitrators one each to be appointed by the Client and the Consultant. The third Arbitrator shall be chosen by the two Arbitrators so appointed by the Parties and shall act as Presiding Arbitrator. In case of failure of the two Arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the Arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed by the* Indian Council of Arbitration/ President of the Institution of Engineers (India)/The International Centre for Alternative Disputes Resolution (India). For the purposes of this Sub-Clause, the term "Domestic (Indian) Consultant" means a consultant who is registered in India and is a juridical person created under Indian law as well as a joint venture between such a consultant and a Foreign Consultant

- 2. <u>Substitute Arbitrators</u>. If for any reason an arbitrator is unable to perform his/her function, a substitute shall be appointed in the same manner as the original arbitrator.
- 3. Nationality and Qualifications of Arbitrators. The sole arbitrator or the third arbitrator appointed pursuant to paragraphs 1(a) through 1(c) above shall be an internationally recognized legal or technical expert with extensive experience in relation to the matter in dispute. In case of a Contract awarded to foreign consultants, sole arbitrator or the third arbitrator shall not be a national of the Consultant's home country [Note: If the Consultant consists of more than one entity, add: or of the home country of any of their members or Parties] or of the Government's country. For the purposes of this Clause, "home country" means any of:
- (a) the country of incorporation of the Consultant [Note: If the Consultant consists of more than one entity, add: or of any of their members or Parties]; or
- (b) the country in which the Consultant's [or any of their members' or Parties'] principal place of business is located; or
- (c) the country of nationality of a majority of the Consultant's [or of any members' or Parties'] shareholders; or

(d) the country of nationality of the Sub-consultants concerned, where the dispute involves a subcontract. 5. Miscellaneous. In any arbitration proceeding hereunder: proceedings shall, be held at _____, India and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English. [In case of foreign consultant, select a country which is neither the Client's country nor the Consultant's country] (b) The decision of the majority of Arbitrators shall be final and binding upon both parties. The cost and expenses of Arbitration proceedings will be paid as determined by the arbitral tribunal. However, the expenses incurred by each party in connection with the preparation, presentation, etc. of its proceedings as also the fees and expenses paid to the Arbitrator appointed by such party or on its behalf shall be borne by each party itself. Where the value of the contract is Rs.50 million and below, (c) the disputes or differences arising shall be referred to the Sole Arbitrator. The Sole Arbitrator should be appointed by agreement between the parties; failing such agreement, by the appointing authority, namely the * Indian Council of Arbitration/President of the Institution of Engineers (India)/The International Centre for Alternative Disputes Resolution (India). (d) The Arbitrator should give final award within...... days of starting of the proceedings [indicate the days (Between 120-180) by which arbitrator should give award]. Performance under the contract shall continue during the (e) arbitration proceedings and payments due to the consultant by the Client shall not be withheld, unless they are the subject matter of the arbitration proceedings. * Choose one alternative. Insert Chairman of the Executive Committee of the Indian Roads Congress (for highway project) or any other appropriate institution (for other types of works). of this contract or the validity or the breach thereof shall be settled by arbitration in accordance with the Rules of Domestic Commercial Arbitration of the Indian Council of Arbitration and the award made in pursuance thereof shall be binding on the parties.

IV. Appendices

APPENDIX A – TERMS OF REFERENCE

[This Appendix shall include the final Terms of Reference (TORs) worked out by the Client and the Consultant during the negotiations; dates for completion of various tasks; location of performance for different tasks; detailed reporting requirements and list of deliverables against which the payments to the Consultant will be made; Client's input, including counterpart personnel assigned by the Client to work on the Consultant's team; specific tasks or actions that require prior approval by the Client.

Insert the text based on the Section 7 (Terms of Reference) of the ITC in the RFP and modified based on the Forms TECH-1 through TECH-5 of the Consultant's Proposal. Highlight the changes to Section 7 of the RFP]
APPENDIX B - KEY EXPERTS
[Insert a table based on Form TECH-6 of the Consultant's Technical Proposal and finalized at the Contract's negotiations. Attach the CVs (updated and signed by the respective Key Experts) demonstrating the qualifications of Key Experts.]

APPENDIX C - BREAKDOWN OF CONTRACT PRICE

[Insert the table with the unit rates to arrive at the breakdown of the lump-sum price. The table shall be based on [Form FIN-3 and FIN-4] of the Consultant's Proposal and reflect any changes agreed at the Contract negotiations, if any. The footnote shall list such changes made to [Form FIN-3 and FIN-4] at the negotiations or state that none has been made.]

When the Consultant has been selected under Quality-Based Selection method, also add the following:

"The agreed remuneration rates shall be stated in the attached Model Form I. This form shall be prepared on the basis of Appendix A to Form FIN-3 of the RFP "Consultants' Representations regarding Costs and Charges" submitted by the Consultant to the Client prior to the Contract's negotiations.

Should these representations be found by the Client (either through inspections or audits pursuant to Clause GCC 25.2 or through other means) to be materially incomplete or inaccurate, the Client shall be entitled to introduce appropriate modifications in the remuneration rates affected by such materially incomplete or inaccurate representations. Any such modification shall have retroactive effect and, in case remuneration has already been paid by the Client before any such modification, (i) the Client shall be entitled to offset any excess payment against the next monthly payment to the Consultants, or (ii) if there are no further payments to be made by the Client to the Consultants, the Consultants shall reimburse to the Client any excess payment within thirty (30) days of receipt of a written claim of the Client. Any such claim by the Client for reimbursement must be made within twelve (12) calendar months after receipt by the Client of a final report and a final statement approved by the Client in accordance with Clause GCC 45.1(d) of this Contract."

Name and Title:

Model Form I Breakdown of Agreed Fixed Rates in Consultant's Contract

We hereby confirm that we have agreed to pay to the Experts listed, who will be involved in performing the Services, the basic fees and away from the home office allowances (if applicable) indicated below:

(Expressed in [insert name of currency])*

Ехр	perts	1	2	3	4	5	6	7	8
Name	Position	Basic Remuneration rate per Working Month/Day/Year	Social Charges ¹	Overhead ¹	Subtotal	Profit ²	Away from Home Office Allowance	Agreed Fixed Rate per Working Month/Day/Hour	Agreed Fixed Rate per Working Month/Day/Hour ¹
Home	Office								
	ne Client's intry								

	as percentage of	

* If more than one currency, add a table		
Signature	Date	

² Expressed as percentage of 4

APPENDIX D - DELETED

Validate	

Print

Help

Tender Inviting Authority: Director General. ULMMC

Name of Work: Hiring of Consultancy Firm for conducting Topographic survey, Geological Investigation, Geotechnical investigation, Geo-physical Investigation & Slope stability analysis in Nainital city, Uttarakhand

Package No.: 06/ULMMC/RFP/2023

Name of the Bidder/ Bidding			
Firm / Company	,		
:			

PRICE SCHEDULE

(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevent columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)

NUMBER#	TEXT #	NUMBER#	TEXT #	TEXT #	NUMBER #	NUMBER#	TEXT #
SI. No.	Item Description	Quantity	Units	Quoted Currency in INR / Other Currency	BASIC RATE In Figures To be entered by the Bidder (Excl. GST) Rs. P	TOTAL AMOUNT (Excl. GST) in Rs. P	TOTAL AMOUNT (Excl. GST) In Words
1	2	4	5	12	13	53	55
1	TOPOGRAPHIC SURVEY						
1.01	Total Station/Digital Level instruments shall be used as required for traversing and leveling to install/fix the BM/TBM/GPS Pillars as control points on the ground. High precision DGPS instrument shall be used in determining the geographical co-ordinate of the TBM & GPS Pillars. For land based surveys (a) horizontal accuracy of 1 cm or better (b) vertical accuracy of 1.5 cm or better (c) Topographical survey shall have to be done of the proposed site at suitable grid inverval of about(3M×3M) by total station equipnment., a check point survey using DGPS (for horizontal accuracy) and (for vertical accuracy) shall be carried out to establish the horizontal and vertical accuracy(all the conditions mentioned in clause3.3 of RFP are inclusive in the item) and major contour interval of 5m and normall contour interval line of 1m as per slope. Mobilisation of necessary equipnment,men & materials to the project site for carrying out the Topographic survey and demobilisation of the same after completion of all the field works etc.	7.56	sq.km	INR		0.00	INR Zero Only
2	GEOLOGICAL INVESTIGATION						
2.01	Geological mapping of the whole town on 1:2000 scale. Engineering geological mapping of all the Grids on 1:1000 scale(all the conditions mentioned in clause3.4 of RFP are inclusive in the item). Mobilisation of necessary equipnment,men & materials to the project site for carrying out the Geological Investigation and demobilisation of the same after completion of all the field works etc.	7.56	sq.km	INR		0.00	INR Zero Only
3	GEOPHYSICAL SURVEY						
3.01	Electrical Resistivity Tomography (ERT) of 500m each in 29 grids (1 no, sounding per 5 m)(all the conditions mentioned in clause3.5 of RFP are inclusive in the item)and submission of factual report. Mobilisation of necessary equipnment, men & materials to the project site for carrying out the Geophysical Investigation and demobilisation of the same after completion of all the field works etc.	14,500	m	INR		0.00	INR Zero Only

	The state of the s		1	1		
3.02	Seismic Refraction Tomography (SRT) of 500m each in 29 grids (1 no, sounding per 5 m)(all					
	the conditions mentioned in clause3.5 of RFP are inclusive in the item)and submission of					
	factual report. Mobilisation of necessary equipnment, men & materials to the project site	14,500	m	INR	0.00	INR Zero Only
	for carrying out the Geophysical Investigation and demobilisation of the same after					
	completion of all the field works etc.					
4	GEOTECHNICAL SURVEY					
4.01	Mobilisation & De-mobilsation of Rig machine to site required for drilling including					
	installation and levelling of rig machine etc. Complete in all respect as per direction of	58	No.s	INR	0.00	INR Zero Only
	Engineer incharge					
4.02						
	58 Bore hole using Tripple tube core barrel of 100 mm extended up to a depth of					
	maximum 20 meter below ground level in all type of the soil including laterite/weathered					
	soft rock using suitable approved method of boring including chesiling, cleaning, providing					
	casing pipes as required or as directed; perfoming standard penetration test at every	1160	m	INR	0.00	INR Zero Only
	1.5m interval down to required depth below ground level and at change of strata and at					
	the depth however undisturbed soil samples could not be collected; Bore hole location					
	shall be identified and shown to ULMMC officials prior to commencement(all the					
	conditions mentioned in clause3.6 of RFP are inclusive in the item).					
4.03						
	58 numbers of Core drilling (N×size) in rock upto a depth of maximum 5 meter, tripple					
	tube core barrel with diamond bit including collection of core samples with TC/Diamond					
	bits as per IS 6926-1996 RA 2001. Each run of the core drilling is to be properly recorded.					
	The cores are to be carefully transferred to the core boxes, preserved, numbered and	116	m	INR	0.00	INR Zero Only
	labelled properly. Cost of machinery,transportation and any other cost required to	110	"	"""	0.00	INVICED OTHY
	conduct the test are inclusive(all the conditions mentioned in clause3.6 of RFP are					
	inclusive in the item). Mobilisation of necessary equipnment, men & materials to the					
	project site for carrying out the Geotechnicall Investigation and demobilisation of the					
	same after completion of all the field works etc					
5	Hydrological Investigations as per clause 3.7 of TOR	1	Job	INR	0.00	INR Zero Only
6	Details of Utility Services and Other Physical Features as per clause 3.10 of TOR	1	Job	INR	0.00	INR Zero Only
7	Conduct Simplified Vulnerability Assessment (SVA) as per clause 3.11 of TOR	1	Job	INR	0.00	INR Zero Only
8	Preperation of DPR					
8.01	Preparation of Detailed Project Report (DPR) for Comprehensive Topographic survey,					
	geological Investigation, Geotechnical Investigations and Mitigation Works of Subsidence/					
	Toe Erosion/ Soil Erosion/ Subsidence for the Sustainable Safety of nainital city,					
	Uttarakhand					
8.02	Monthly Remuniration cost of Geotechnical Engineer cum Team leader(K-1)	6	Month	INR	0.00	INR Zero Only
8.03	Monthly Remuniration cost Geotechnical Engineer(K-2.1)	4	Month	INR	0.00	INR Zero Only
8.04	Monthly Remuniration cost Geotechnical Engineer(K-2.2)	4	Month	INR	0.00	INR Zero Only
8.05	Monthly Remuniration cost Geotechnical Engineer(K-2.3)	4	Month	INR	0.00	INR Zero Only
8.06	Monthly Remuniration cost Geotechnical Engineer(K-2.4)	4	Month	INR	0.00	INR Zero Only
8.07	Monthly Remuniration cost of Geological Expert(K-3.1)	2	Month	INR	0.00	INR Zero Only
8.08	Monthly Remuniration cost of Geological Expert(K-3.2)	2	Month	INR	0.00	INR Zero Only
8.09	Monthly Remuniration cost of structural Engineer(K-4.1)	4	Month	INR	0.00	INR Zero Only

Quoted Rate in Words					INR Z	ero Only	
Total in Figures						0.00	INR Zero Only
8.25	Monthly Remuniration cost of Hydrologist(K-9.2)	3	Month	INR			INR Zero Only
8.24	Monthly Remuniration cost of Hydrologist(K-9.1)	3	Month	INR		0.00	INR Zero Only
8.23	Monthly Remuniration cost of Surveyor(K-8.4)	3	Month	INR		0.00	INR Zero Only
8.22	Monthly Remuniration cost of Surveyor(K-8.3)	3	Month	INR		0.00	INR Zero Only
8.21	Monthly Remuniration cost of Surveyor(K-8.2)	3	Month	INR		0.00	INR Zero Only
8.2	Monthly Remuniration cost of Surveyor(K-8.1)	3	Month	INR		0.00	INR Zero Only
8.19	Monthly Remuniration cost of Geo-physicist(K-7.2)	3	Month	INR		0.00	INR Zero Only
8.18	Monthly Remuniration cost of Geo-physicist(K-7.1)	3	Month	INR		0.00	INR Zero Only
8.17	Monthly Remuniration cost of Social Expert(K-6.2)	3	Month	INR		0.00	INR Zero Only
8.16	Monthly Remuniration cost of Social Expert(K-6.1)	3	Month	INR			INR Zero Only
8.15	Monthly Remuniration cost of Environment Engineer(K-5.2)	3	Month	INR		0.00	INR Zero Only
8.14	Monthly Remuniration cost of Environment Engineer(K-5.1)	3	Month	INR		0.00	INR Zero Only
8.13	Monthly Remuniration cost of structural Engineer(K-4.5)	4	Month	INR			INR Zero Only
8.12	Monthly Remuniration cost of structural Engineer(K-4.4)	4	Month	INR		0.00	INR Zero Only
8.11	Monthly Remuniration cost of structural Engineer(K-4.3)	4	Month	INR		0.00	INR Zero Only
8.1	Monthly Remuniration cost of structural Engineer(K-4.2)	4	Month	INR		0.00	INR Zero Only