Request for Quotation (RFQ)

Consultancy Services for Design & Preparation of Detailed Project Report (DPR) for Rockfall Protection Gallery / Open Tunnel/Slope Stabilization and Instrumentation and Monitoring System at km 3 chainage 2/10 in Chirbasa landslide zone on the Gaurikund-Shri Kedarnath Ji Pedestrian Route, Uttarakhand.

Issued on *03/11/2026*

Issued by

Office of Executive Engineer

Construction Division

PWD Guptkashi

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Letter of Invitation (LoI)

Letter of Invitation

Date:	03-11-2026
Ref No:	EE CD PWD Guptkashi Letter NO. 1370/6 ac dated 29/10/2026
Location:	Office of The Executive Engineer CD PWD Uttarakhand

Dear Mr./Ms.:

The Executive Engineer Construction Division Public Works Department Guptkashi *here in after called the Client,* intends to get prepared **Design & cost estimation for the Rockfall Protection Gallery / Open Tunnel/Slope Stabilization and Instrumentation and Monitoring System at km 3 chainage 2/10 in Chirbasa landslide zone on the Gaurikund-Shri Kedarnath Ji Pedestrian Route, Uttarakhand.** The Client intends to select a consultant from the list Empanelled with the Central Government/State Government departments or Public Sector Undertakings and enter into a contract with the consultant for this consulting assignment. This Request for Quotation is being issued for the purpose of obtaining proposals from empaneled slope protection Design Consultants interested in this assignment.

1) The Client now invites proposals to provide the following consulting services (here in after called **Consultancy Services for Preparation of Detailed Project Report (DPR) for Rockfall Protection Gallery / Open Tunnel/Slope Stabilization and Instrumentation and Monitoring System at km 3 chainage 2/10 in Chirbasa landslide zone on the Gaurikund-Shri Kedarnath Ji Pedestrian Route, Uttarakhand** *(RFO एवं TOR के अनुसार)*

   More details on the Services are provided in the Terms of Reference (Appendix A).

2) This Request for Quotation (RFQ) has been addressed to the following empaneled consultants:
   The consultant empanelled with the Central Government/State Government departments or Public Sector Undertakings for the consultancy services of design & cost estimation for the Rockfall Protection Gallery / Open Tunnel/Slope Stabilization works

3) It is not permitted to transfer this invitation to any other firm, such as Consultant's parent companies, subsidiaries and affiliates.

4) The RFQ includes the following documents:
   Section 1 - Letter of Invitation
   Section 2 - Instructions to Consultants
   Section 3 - Financial Proposal - Standard Forms
   Section 4 - Contract Conditions
   Appendix A: Terms of Reference
   Appendix B: Experts and CVs
   Appendix C: Contract Price and Payment Schedule

5) Details on the proposal's submission date, time and address are provided in Clauses 15 and 16 of the instructions to consultants (ITC).

Yours sincerely,
Executive Engineer
Construction Division, PWD Guptkashi

Instructions to Consultant (ITC)

Instructions to Consultant (ITC)

1. The Government of Uttarakhand has decided to undertake slope protection works/the construction of an open tunnel at Cheer Basa in District Rudraprayag. The assignment of design and consultancy services for the proposed works has been invited in the anticipation of the govt. approval.
2. The Executive Engineer, Construction Division, Public Works Department, Guptkashi (hereinafter referred to as the "Client"), on behalf of the Governor of Uttarakhand, invites proposals from consultants empanelled with the central govt./state govt./PSU (hereinafter referred to as the "Consultants") for providing design, DPR preparation and consultancy services for **Rockfall Protection Gallery / Open Tunnel/Slope Stabilization and Instrumentation and Monitoring System at km 3 chainage 2/10 in Chirbasa landslide zone on the Gaurikund-Shri Kedarnath Ji Pedestrian Route, Uttarakhand** and related services during the execution of the works. The assignment shall be funded by the Government of Uttarakhand through the regular budgetary provisions made available to the Client.
3. The objective of this RFQ process is to select a specialized firm already Empanelled with the Central Government/State Government departments or Public Sector Undertakings for the design and cost estimation of the afore-mentioned project. The consultant is expected to make use of the latest material and technology in the design and cost estimation considering the topography, availability of construction material and constructability of the project at the identified location.
4. The details of the activities to be performed by the selected consultant along with the list of deliverables and their submission schedule are provided in the Appendix A: Terms of Reference (ToR) enclosed with this document.

5. The interested consultant shall be required to submit their Proposal with a quotation for carrying out the Task defined in the Appendix A: Terms of Reference (ToR)

6. The interested consultant may seek clarification on this issued RFQ document from the client at least 2 days before the opening of the proposal, i.e. latest by 14.11.2026. The clarification may be sought by email at the email id cdpwdguptkashi@gmail.com . The consultants shall be sent a response to request for clarification through email or through an addendum to the RFQ document as the case may be. The proposal submitted by the consultants must acknowledge the receipt of the addenda issued by the client.

7. The consultant shall submit its proposal in the Proposal Submission Forms Q-1, Q-2, Q-3 and Q-4 as in Section-3 as a response to this Request for Proposal (RFQ). The completed quotation for carrying out the services proposed in the ToR must be submitted in the formats provided in Section-3. Incomplete submissions, i.e. proposals without the complete details or with any form missing shall be rejected being non-responsive.

8. The cost for providing local transportation, accommodation and incidental expenses to the experts deployed by the selected consultant shall be borne by the consultant and shall be deemed to be included in the quoted price.

9. The consultant is required to quote only the basic rates excluding GST. GST shall be paid extra as per the prevailing rates.

10. All prices shall be quoted by the consultant in Indian Rupees (INR)

11. The proposal shall remain valid for forty five (45) days following the date of closing of tender. A proposal valid for a shorter period will be rejected on the grounds that it is non-responsive.

12. Proposals submitted are offers only and the decision to accept or reject shall be based on the evaluation of lowest price to the client. The evaluation model that will be used is lowest price conforming. This means that all Quotes that are received within the time allowed for submission of the proposal shall be opened. The Quote that is the lowest price will be selected as the Successful Respondent.

13. This Request for Proposal does not commit the client to award a contract or to reimburse the consultant for costs incurred in submitting this proposal. The client reserves the right to reject any or all proposals received because of this request.

14. The proposal should be submitted in a sealed envelope marked as 'Proposal Consultancy Services for Preparation of Detailed Project Report (DPR) for Rockfall Protection Gallery / Open Tunnel/Slope Stabilization and Instrumentation and Monitoring System at km 3 chainage 2/10 in Chirbasa landslide zone on the Gaurikund-Shri Kedarnath Ji Pedestrian Route, Uttarakhand.

15. The proposal should be submitted until 3.00 pm on 16-11-2026. Proposals received after the time specified above shall not be considered.

16. The proposal should be submitted to the following address:
    Office of Executive Engineer, Construction division , PWD Guptkashi District-Rudraprayag 246439, Email Id : cdpwdguptkashi@gmail.com , Contact No: 9536597244.
17. The proposals received on or before the time indicated in para 15 above shall be opened on the same date at 3.00 pm in the presence of the consultant's representatives who choose to attend the opening of the proposals.

18. The lowest evaluated consultant shall be awarded the contract through a written communication by the client. The consultant shall commence the services within 7 days of signing the contract.

Proposal Submission Forms

Form Q-1

Proposal Submission Form (on letter head of the consultancy firm)

To,

Executive Engineer
Construction Division
PWD Guptkashi

Dear Sir,

Having examined the RFQ document, the receipt of which is hereby duly acknowledged, we the undersigned, offer to provide services for Design and Cost Estimation of the [*enter name of the project as in the RFQ document*] in accordance with your Request for Quotation dated [*enter date of issue of the RFQ*]. We are hereby submitting our proposal in a sealed envelope which includes details of our consultancy firm in the form Q-2, financial proposal in the form Q-3 and team composition and CVs of Key Experts positions indicated in the ToR in the form Q-4 provided for in the issued RFQ document.

If our proposal is accepted, we undertake to deliver the services in accordance with the task requirements and the delivery schedule specified in the Terms of Reference.

We agree to abide by this proposal for a period of Forty five (45) days from the RFQ closing date and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
We understand that you are not bound to accept any proposal you may receive.

Yours Sincerely,

[Signature of Authorized Signatory]
I am duly authorized to sign the proposal on behalf of:
Company/ Firm Name:
Authorized Person:
Title:
Contact Number:
Email:
Date:

Form Q-2

Details of the Consultancy Firm (on letter head of the consultancy firm)

S.No.	Description	Details
1	Name of Firm	
2	Registered address of consultancy firm	
3	Telephone Number	
4	Email id of the consultancy firm	
5	Name of Authorized Person	
6	Mobile number of authorized person	
7	Legal Status of the consultancy firm	
8	Date of incorporation of the consultancy firm	
9	Email id of authorized person	
10	List of documents enclosed showing legal status of organization	
11	Power of Attorney of Authorized Person (if applicable)	
12	Enclose self-attested copy of order of empanelment in Centre govt./state govt./PSU	
	GST Registration Details (enclose self-attested copy of the GST registration)	
	PAN Details (Enclose self-attested copy of PAN Card)	

Signature:

Name of Authorized Person:
Name of Consultancy Firm:
Designation:
Address:
Place:
Date:
Seal of the Consultancy Firm:

Form Q-3

Financial Proposal (on letter head of the consultancy firm)

रॉकफाल प्रोटेक्शन गैलरी / ओपन टनल / स्लोप स्टेबिलाइजेशन एवं इन्स्ट्रूमेंटेशन एण्ड मॉनीटरिंग सिस्टम की डीपीआर गठन की कुल लागत का मदों में विभाजन।

Sl. No.	Scope of Services	% of the cost of DPR preparation
1	Reconnaissance, Data Collection and Topographical Survey	10%
2	Geological, Geophysical, Geotechnical and Hydrological Investigations	15%
3	Rockfall Hazard Assessment and Slope Stability Analysis , Detailed Engineering Design, Structural Design Calculations, Drawings and Preparation & Submission of Draft DPR, including BOQ and Cost Estimates for rockfall protection gallery/ open tunnel / slope protection and instrumentation monitoring system	50%
4	Independent Design Vetting, Incorporation of Observations and Submission of Final DPR & Tender Documents	15%
5	Construction-stage Technical Consultancy, Site Visits and Technical Assistance	10%
	Total	100%

Sl. No.	Scope of Services	Quantity	Unit	Rate	
				In figure	In words
1	Reconnaissance, Data Collection and Topographical Survey	1	Job		
2	Geological, Geophysical, Geotechnical and Hydrological Investigations	1	Job		
3	Rockfall Hazard Assessment and Slope Stability Analysis , Detailed Engineering Design, Structural Design Calculations, Drawings and Preparation & Submission of Draft DPR, including BOQ and Cost Estimates for rockfall protection gallery/ open tunnel / slope protection and instrumentation monitoring system	1	Job		
4	Independent Design Vetting, Incorporation of Observations and Submission of Final DPR & Tender Documents	1	Job		
5	Construction-stage Technical Consultancy, Site Visits and Technical Assistance	1	Job		

Note: 1. Consultant shall enter the quotation for the consultancy assignment against the major tasks indicated and cost for any items not mentioned hereinabove shall be deemed to be included in the quote for these items.

2. Consultant shall quote the price exclusive of GST. GST shall be paid extra as per prevailing rates.

3. The total of the quote entered for each of the items above shall be the contract price for the assignment.

4. This form for quotation is valid for this assignment only.

5. This quotation by the consultant shall be valid for a period of 45 days from the date of proposal closing.

Form Q-4

Team Composition and CVs of the Key Expert Positions indicated in the ToR

TEAM COMPOSITION

Key Expert Inputs:

S.No.	Expert Position	Name of Proposed Expert
1	Team leader/project coordinator	
2	Geotechnical Engineer	
3	Engineering geologist	
4	Hydrologist/ drainage expert	
5	Structural design engineer	
6	CAD Engineer	
7	Quantity Surveyor cum Total Station Engineer	

Non-Key Expert Inputs:

S.No.	Expert Position	Name of Proposed Expert
1	CAD Draughtsman	
2	Documentation Support Staff	

Attach the CVs (updated and signed by the respective Key Experts) demonstrating the qualifications of Key Experts in following standard form:

CURRICULUM VITAE (CV)

Position Title and No.	{e.g. TEAM LEADER}
Name of Firm	*Insert name of firm proposing the expert*
Name of Expert:	{Insert full name}
Date of Birth:	{day/month/year}
Citizenship	
Personal contact details of the Expert (mailing address and email address)	

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, *type of employment (full time, part time, contractual),* 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. xxx, Chief Engineer]		

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 in which the Expert will be involved)	

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

Certification:

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

(i) This CV correctly describes my qualifications and experience.

(ii) I am not employed by the Executing or the Implementing Agency.

(iii) In the absence of medical incapacity, I will undertake this assignment for the duration and in terms of the inputs specified for me provided team mobilization takes place within the validity of this proposal.

(vi) I confirm that I will be available to carry out the assignment for which my CV has been submitted.

I understand that any willful misstatement described herein may lead to my disqualification or dismissal, if engaged.

_____ Date: _____

[Signature of expert] Day/Month/Year

Contract Conditions

CONTRACT FOR CONSULTANCY SERVICES

Consultancy Services for Preparation of Detailed Project Report (DPR) for Rockfall Protection Gallery / Open Tunnel/Slope Stabilization and Instrumentation and Monitoring System at km 3 chainage 2/10 in Chirbasa landslide zone on the Gaurikund-Shri Kedarnath Ji Pedestrian Route, Uttarakhand.

Contract No. _____

Between

Executive Engineer

Construction Division

PWD Guptkashi

and

[**Name of the Client**]

and

_____

[**Name of the Consultant**]

Dated: _____

Form of Contract

This CONTRACT (the "Contract") is made the *[number]* day of the month of *[month]*, *[year]*, between, on the one hand, *[name of Client]* and, on the other hand, *[name of Consultant]* for the provision of *[include title of the consulting assignment/services]* (the "Services") described in the Terms of Reference in the Appendix A.

WHEREAS, the Client has accepted the Consultant's proposal for the performance of the Services, and the Consultant is capable and willing to perform said Services.

THE CLIENT AND THE CONSULTANT (the "Parties") AGREE AS FOLLOWS:

1. This Contract, its meaning, interpretation and the relation between the Parties shall be governed by the applicable law of India.

2. The Contract is signed and executed in English language, and all communications, notices and modifications related to this Contract shall be made in writing and in the same language.

3. The total Contract price is *[insert amount and the currency]* and is exclusive of Goods and Services Tax (GST). The Contract price and payment schedule is provided in Appendix C.

4. The expected date for the commencement of the Services is [*insert date, month and year*]. The time period shall be *[insert time period, e.g.: three months]*.

5. The Client designates *[insert the name and title]* as Client's Coordinator and the Consultant designates *[insert the name and title]* as their respective representatives for the purpose of coordination of activities under this Contract. *Nothing contained in this Contract shall be construed as establishing or creating between the Client and the Consultant a relationship of master and servant or principal and agent. The Consultant has complete control 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.*

6. Any dispute, controversy or claim that cannot be amicably settled between the parties and arising out of, or relating to this Contract or the breach, termination or invalidity thereof, shall be finally settled by arbitration in accordance with the national rules governing arbitration as in force and effect on the date of this Contract.

7. The following documents form an integral part of this Contract:
   (a) Letter of Award
   (b) The General Conditions of Contract

(b) Appendices:

Appendix A: Terms of Reference and Reporting Requirements

Appendix B: Key Experts (including CVs)

Appendix C: Contract Price and Payment Schedule

SIGNED:

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]

General Conditions of Contract

1. Definitions

1.1. Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:

a) "Experts" means, collectively, Key Experts, Non-Key Experts, or any other personnel of the Consultant, Sub-consultant assigned by the Consultant to perform the Services or any part thereof under the Contract.

b) 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.

c) "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.

d) "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.

2. Eligibility

1.1 It is the Consultant's responsibility to ensure that its Experts, Sub-consultants, agents (declared or not), sub-contractors, service providers, suppliers and/or their employees have not been debarred or blacklisted by any undertaking of the Government of Uttarakhand or the Government of India.

3. Corrupt and Fraudulent Practices

3.1 The client requires compliance with the country policy in regard to corrupt and fraudulent practices.

4. Force Majeure

a. Definition

4.1 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.

3.2 Force Majeure shall not include insufficiency of funds or failure to make any payment required hereunder.

b. Breach of Contract

4.3 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

4.4 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.

4.5 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.

4.6 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.

4.7 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

(c) 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.

5. Suspension of Payments

5.1 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 seven (7) calendar days after receipt by the Consultant of such notice of suspension.

6. Termination

6.1 This Contract may be terminated by either Party as per provisions set out below.

a. By the Client

6.2 The Client may terminate this Contract with at least fourteen (14) calendar days prior written notice to the Consultant after the occurrence of any of the events specified in paragraphs (a) through (e) of this Clause:

(a) If the Consultant does not remedy a failure in the performance of its obligations under the Contract after being notified by the Client in writing by specifying the nature of the failure and requesting to remedy it within at least ten (10) calendar days after the receipt of the Client's notice;

(b) If the Consultant becomes insolvent or bankrupt;

(d) If the Consultant, in the judgment of the Client, has engaged in integrity violations or if in the judgment of the Client, continuing the Contract will be detrimental to the interests or reputation of the Client, or the project;

(e) If the Client, in its sole discretion and for any reason whatsoever, decides to terminate this Contract.

b. By the Consultant

6.3 The Consultant shall promptly notify the Client in writing of any situation or any event beyond the reasonable control of the Consultant, which makes it impossible for the Consultant to carry out its obligations under the Contract.

6.4 Upon written confirmation by the Client or upon failure of the Client to respond to such notice within 14 (fourteen) calendar days of receipt thereof, the Consultant shall be relieved from all liability and may thereupon terminate the Contract by giving no less than fourteen (14) calendar days, a written termination notice.

7. Obligations of the Consultant

a. Standard of Performance

7.1 The Consultant shall carry out the Services with due diligence and efficiency, and shall exercise such reasonable skill and care in the performance of the Services as is consistent with sound professional practices.

7.2 The Consultant shall act at all times so as to protect the interests of the Client and shall take all reasonable steps to keep all expenses to a minimum, consistent with sound professional practices.

b. Compliance

7.3 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.

c. Conflict of Interests

7.4. 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.

7.5 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.

7.6 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.

7.7 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.

8. Confidentiality

8.1 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, including Experts, make public the recommendations formulated in the course of, or as a result of, the Services. This confidentiality does not limit the Consultant, including Experts and Sub-consultants, from disclosing any integrity violations or producing any such documents, records, evidence, or testimony as required by law.

9. Insurance to be taken out by the Consultant

9.1 The Consultant shall take out and maintain at its own cost adequate professional liability insurance as well as adequate insurance against third party liability. The Consultant shall ensure that such insurance is in place prior to commencing the Services.

9.2 The Client undertakes no responsibility in respect of any life, health, accident, travel or other insurance which may be necessary or desirable for the Consultant, Expert(s), Sub-consultants, or specialists associated with the Consultant for purpose of the Services, nor for any dependent of any such person.

9.3 The Client reserves the right to require original evidence that the Consultant has taken out the necessary insurance.

10. Reporting Obligations

10.1 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 said Appendix.

11. Proprietary Rights of the Client in Reports and Records

11.1 All reports and relevant data and information such as maps, diagrams, designs, drawings, 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 unless otherwise agreed by the Client in writing. 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.

(a) The consultant shall indemnify the Client from and against any and all claims, liabilities, obligations, losses, damages, penalties, actions, judgments, suits, proceedings, demands, costs, expenses and disbursements of whatsoever nature that may be imposed on, incurred by or asserted against, the Client during or in connection with the Services by reason of i) infringement or alleged infringement by the Consultant of any patent or other protected right, or ii) plagiarism or alleged plagiarism by the Consultant.

(b) The Consultant shall ensure that all goods and services (including without limitation all computer hardware, software and systems) procured by the Consultant from the Client funds or used by the Consultant in the carrying out of the Services do not violate or infringe any industrial property or intellectual property right or claim of any third party.

12. Description of Key Experts

12.1 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 A.** The composition of Key Experts with their CVs is described in the **Appendix B.**

13. Replacement of Key Experts

13.1 Except as the Client may otherwise agree in writing, no changes shall be made in the Key Experts.

13.2 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.

14. Removal of Experts or Sub-consultants

14.1 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 act, or if the Client determine that a Consultant's Expert or Sub-consultant has engaged in corrupt, fraudulent, collusive, coercive *[or obstructive]* practice while performing the Services, the Consultant shall, at the Client's written request, provide a replacement.

14.2 In the event that any of Key Experts, Non-Key Experts or Sub-consultants 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 or vary the contract to remove costs associated with removed experts or sub-consultants.

14.3 Any replacement of the removed Experts or Sub-consultants shall possess better qualifications and experience and shall be acceptable to the Client.

14.4 The Consultant shall bear all costs arising out of or incidental to any removal and/or replacement of such Experts.

15. Client's Payment Obligation

15.1 In consideration of the Services performed by the Consultant under this Contract, the Client shall make such payments to the Consultant for the services specified in **Appendix A** and in such manner as described in **Appendix C**.

16. Mode of Billing and Payment

16.1 The payments under this Contract shall be made in accordance with the payments provisions in **Appendix C**. The payments under this contract shall be subject to deductions in accordance with any provisions with respect to deficiency in service stated in **Appendix A** and notified to the consultant.

16.2 Payments do not constitute acceptance of the whole Services nor relieve the Consultant of its obligations.

16.3 Upon termination of this contract pursuant to clause 6 hereof, the payment to the consultant shall be governed by the payment provisions in **Appendix C**, and shall be limited to the deliverables submitted by the consultant and approved by the client till the date of termination of the contract.

17. Amicable Settlement of disputes

17.1 The Parties shall seek to resolve any dispute amicably by mutual consultation.

17.2 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 seven (7) calendar days after receipt. If that Party fails to respond within seven (7) calendar days, or the dispute cannot be amicably settled within seven (7) calendar days following the response of that Party, Clause "Dispute Resolution" below shall apply.

18. Dispute Resolution

18.1. 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 applicable adjudication/ arbitration.

Appendix A: TERMS OF REFERENCE

Appendix A: TERMS OF REFERENCE

Preparation of Design and Cost Estimate for Project

Job Title: Consultancy Services for design & Preparation of Detailed Project Report (DPR) for Rockfall Protection Gallery / Open Tunnel/Slope Stabilization and Instrumentation and Monitoring System at km 3 chainage 2/10 in Chirbasa landslide zone on the Gaurikund-Shri Kedarnath Ji Pedestrian Route, Uttarakhand.

Location: Executive Engineer Construction Division, PWD Guptkashi.

Contract term: 03 Months

Start date: Within 7 days of contract signing.

Responsible to: Executive Engineer Construction Division, PWD Guptkashi.

Responsible for: Design and Cost Estimation

1. INTRODUCTION

Approximately 18–20 lakh pilgrims visit Shri Kedarnath Dham every year, making the Kedarnath Trek an important pilgrimage route in Uttarakhand. The Chirbasa stretch along the trek is a landslide-prone zone that poses a serious risk to the safety and lives of pilgrims. During the monsoon season and even during other periods of rainfall, landslides frequently obstruct the trekking route, disrupting the movement of pilgrims and resulting in prolonged suspension of the Kedarnath Yatra. Such incidents not only endanger human lives but also cause significant financial losses and inconvenience to pilgrims, local stakeholders, and the administration. In view of these recurring hazards and the critical importance of ensuring the safe and uninterrupted movement of pilgrims, it is proposed to undertake the preparation of the Design and Cost Estimate for the Chirbasa Landslide Mitigation Project through a competitive tendering process. The project aims to identify and implement suitable slope stabilisation and landslide mitigation measures to enhance the safety, reliability, and resilience of the Kedarnath Trek. The prepared design and cost estimate shall subsequently be submitted to the Government of Uttarakhand for consideration and necessary approval.

This TOR is to procure services of specialized firm for the design and cost estimation of the afore mentioned project.

The Executive Engineer Construction Division, PWD Guptkashi will be the client for this assignment. Uttarakhand Public Works Department (PWD) will be the Executing Agency (EA) for this project project through Construction Division, PWD Guptkashi headed by the Executive Engineer.

2. DESIGN SERVICES REQUIRED FOR DESIGN AND COST ESTIMATION OF PROJECT

The proposed Design Consultant's services shall include, but not be limited to, the following:

i. Collection, review and assessment of available project data, existing drawings, geological reports, site conditions and other relevant information, and carrying out necessary field surveys and investigations, including topographical survey, geological mapping, geotechnical investigation, hydrological and drainage studies, etc., for the preparation of appropriate designs.

ii. Carrying out detailed site reconnaissance and identification of vulnerable locations, landslide-prone zones, slope instability, rockfall hazards and other geological and geotechnical issues affecting the project area.

iii. Assessment of slope stability and identification of suitable slope protection and stabilization measures, including rock bolting, wire mesh, shotcrete, rockfall barriers, retaining structures, breast walls, gabion structures, drainage arrangements and other appropriate protection measures, as per site requirements.

iv. Preparation of suitable design alternatives and finalization of the appropriate type of slope protection measures and open gallery/tunnel structures, considering site conditions, geological formations, topography, safety requirements and constructability.

v. Preparation of detailed engineering designs and structural analysis of the proposed slope protection works and open gallery/tunnel structures, including foundations, substructure, superstructure, retaining arrangements, drainage systems and associated components.

vi. Preparation of detailed design calculations, structural drawings, cross-sections, longitudinal sections, typical sections, reinforcement details and construction drawings for all proposed components of the project.

vii. Preparation of detailed cost estimates, including item-wise quantities, BOQ, rate analysis wherever required, and cost abstract based on applicable Schedule of Rates (SOR), MoRTH Specifications and relevant departmental guidelines.

viii. Preparation and submission of Detailed Project Report (DPR), including design philosophy, technical specifications, construction methodology, drawings, cost estimates and other necessary technical documents.

ix. Submission of General Arrangement Drawings (GAD), detailed drawings, design calculations and other required documents to the Client for examination and approval.

x. Incorporation of observations and suggestions of the Client and revision/modification of designs, drawings and cost estimates, wherever required, until final approval.

xi. Participation in meetings and technical discussions with the Client and other concerned authorities regarding the design, investigation, cost estimation and execution methodology of the proposed works.

xii. Providing technical assistance during execution of the works, including site visits, clarification of design-related issues and revision of designs and drawings, if required, based on actual site conditions and confirmatory investigations.

To ensure that the above-mentioned tasks are completed, following measures are to be ensured by the design consultant:

i. The Design Consultant shall designate one senior officer of the firm/company (who has served the firm/company, full time for at least two years) to act as Project Manager for the project design Contract. The Project Manager should be available for discussion on progress of design and estimation at all times. The Project Manager shall contact the Assistant Engineer in the field for collection of available data and submission and verification of the field investigation report.

ii. The design consultant shall assist the client during construction

3. **DURATION**

The total duration allowed for the design and preparation of cost estimate of this project is **3 months (three months)**.

4. **OTHER RELEVANT INFORMATION**

The Design consultant shall perform the services in accordance with the laws and any other instruments having the force of Law in India, as they may be issued from time to time.

5. **SCOPE OF CONSULTING SERVICES**

I. Inception Report and Investigation Programme.

II. Topographical Survey and Investigation Reports.

III. Engineering Geological, Geophysical and Geotechnical Investigation Reports.

IV. Rockfall Hazard and Slope Stability Assessment Report.

V. Design and Drawings for the Proposed Protection Gallery/Open Tunnel.

VI. Slope Stabilization and Approach Protection Design.

VII. Instrumentation and Monitoring System Design.

VIII. Detailed BOQ, Cost Estimates and Technical Specifications.

IX. Draft Detailed Project Report.

X. Final Detailed Project Report and Tender Documents.

XI. site visit & assistance during construction

6. **SPECIAL CONDITIONS FOR DESIGN WORK**

i. The Design consultant shall give all references of the codes followed in the design along with the reference of the clauses and page numbers of the relevant codes used as part of Cost Estimate.

ii. The designer shall compulsorily mention the design philosophy used in the process of design (like Elastic Design/Ultimate load theory/Limit State Design).

iii. While developing the design, Design consultant shall engage in discussions with field staff and Superintending Engineer/Zonal Chief Engineer as appropriate, so as to incorporate their suggestions, and resolve field problems.

iv. Design consultant shall prepare the details of measurement and Bill of Quantity as per PWD practice and shall use the items of relevant SOR of Uttarakhand available on website. The rate analysis of the items used in SOR shall be downloaded from website (website- http://pwduk.in) and shall form the part of DPR. However, those items which are not available in SOR shall be picked up from the market (from at least three sources) quotations and all these will form part of DPR.

v. The Design consultant shall use advance software tools which are generally used in practice for such type of design. The Design consultant should have a valid license to use such software and shall submit a proof mentioning it.

vi. The design consultant shall submit to the client the input and output files of the structural analysis of the analysis software used by the consultant for record after clearly demonstrating the performance of the analysis model with the input files and confirming the outputs obtained with the design report.

vii. The consultant shall design the details of superstructure in excel sheets elaborating step by step design procedure. All excel sheets so evolved for design of constituent elements should be user friendly as well as they should be amenable to hand calculations. The excel sheets should satisfy the proof checking authority and client.

viii. The computer program, excel sheets and all technical literatures so developed under the scope of work shall become property of client.

ix. The structural design shall be based on latest version of IRC codes along with amendments. In case details are not available in the IRC Code, reference shall be made to other codes such as BIS, AASHTO, EURO etc. with prior approval of client. SI system of units shall be followed.

x. The consultant shall prepare and submit relevant technical specifications for materials, construction and maintenance, schedule of reinforcement, general notes, schedule of construction activities and precautionary measures.

xi. The consultant shall also submit maintenance manual for ensuring durability of structure for design life along with list of quality control tests required at field level along with acceptance criteria for finished product.

xii. The grade of structural steel, reinforcement steel and grade of concrete shall be decided in consultation with the client based on the structure system type and exposure conditions.

7. **APPROVAL OF DRAWINGS**

a) The CLIENT reserves the right to approve the drawing in full or in part depending upon the information available. In case the client does not approve the drawing due to site specific technical infeasibility or technical fault with the drawings, the consultant will have to revise and re-submit the drawings as per actual site conditions.

b) On completion of review, the CLIENT will return the submitted drawings with one of the following comments:

"Approved" to allow work to proceed.

"Approved (withheld)" to allow work to proceed subject to amendments and Conditions.

"Not approved" resubmission required incorporating comments given.

c) The CLIENT may withdraw or modify his approval of approved drawings as a result of subsequent submissions, in case they contradict the provisions based on which the approval is given. The Consultant shall review such designs/drawings without any extra cost.

d) In case of total change in site design/drawing/DPR preparation work pertaining to new site will be treated as additional scope under the consultancy. The payment against which will be made as per the payment conditions.

e) Approval of drawings by the CLIENT shall mean checking in principle only and not verifying every dimension in a detailed manner.

f) To enable the Client to appreciate/ understand the observations/ comments of Consultant, the Consultant shall submit all the required documents such as drawings, Design calculations, explanatory note containing adopted design criteria, and loads etc., brief description of methodology used as well as the results etc.

8. DESIGN CALCULATIONS

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

a) Content list, Input data and source of information.

b) Scope (Description of the contents and purpose of the submission)

c) Design criteria to satisfy statutory requirements.

d) Formulae used and references for the same

e) Design assumptions made. Assumptions based on experience shall be clearly mentioned.

f) All Design prepared by the consultant would be required to satisfy Indian Codes & standards and guidelines/rules issued by Government of India. The Codes and Standards shall be referred with year of publication, revision number and amendment/addenda.

g) Reference Drawings and Documents along with their revision numbers.

h) Qualitative description and comments on final results.

i) Any other relevant information.

j) Conclusions / recommandation.

k) Appendix.

9. **COMPUTERIZED ANALYSIS AND DESIGN**

a) Following shall be compiled by the consultant in his submittals for review:
   i) Consultant shall use accredited / validated software and the same shall be indicated.
   ii) Details of figures of Modelling, wherever applicable.
   iii) All information as called for in clause of design calculations.
   iv) 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.

b) Comments of the Client shall be delivered to the consultant's representative by hand or by email.

c) The consultant will submit the compliance in duplicate hard copies and soft copy to the Engineer-in-Charge and will also be required to give a presentation on the same as & when required. Monthly progress report shall be discussed with the Engineer-in-Charge for further improvement in the future activity schedule.

d) All drawings to be prepared by the consultant would be on AutoCAD or latest software. Design criteria, structural & geotechnical analysis and detail design calculation should be in MS word and PDF. Minimum 5 (five) 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).

e) 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 contract period and conduct regular meeting with Client. Consultant is also required to place suitably various key professional/ Professional and support staff to carry out required activities during contract period.

10. PROGRESS REVIEW

An interactive approach shall be adopted by the design consultant and proof checking authority in order to finalize the design. For effective co-ordination and expeditious inflow and outflow of the drawings, representatives of Client (Executive Engineer, Assistant Engineer, or other nominated representative) and the Consultant shall meet once in a month. Besides regular meetings at Dehradun (Uttarakhand), the meetings may be held at Division Office, as per requirement. Discussion shall not be limited to the design and drawings but also cover the engineering of the project viz. provisions of work items and quality of the works.

11. **EXPECTED INPUTS FOR DESIGN AND ESTIMATION WORKS**

The composition and duration for Design Services expected for the Design Consultant is as in Table1. This table is given only for guidance and the Design Consultant shall make his own assessment of the extent of involvement of various professionals to the best and most economical use of available human resources.

Table No. 1

S.No.	KEY PROFESSIONAL / EXPERT	Scope
1	Team Leader cum / project coordinator	Overall management and coordination of the consultancy team, review of investigations, supervision of DPR preparation, coordination of engineering designs and ensuring compliance with applicable IRC, IS and MoRTH standards.
2	Geotechnical engineer	Carrying out detailed geotechnical investigations and analysis, slope stability assessment, rock mass analysis, foundation assessment and design of suitable slope stabilization measures, including rock bolting, anchoring, soil nailing and shotcreting.
3	Engineering geologist	Carrying out detailed geological and geomorphological mapping, rock mass characterization, identification of geological discontinuities, assessment of landslide and rockfall-prone zones and providing geological recommendations for suitable mitigation measures.
4	Hydrologist/drainage expert	Carrying out hydrological studies, assessment of surface and subsurface drainage conditions, estimation of runoff and design of suitable drainage, water diversion and erosion protection arrangements.
5	Structural design engineer	Carrying out analysis and detailed structural design of Rockfall Protection Gallery / Open Tunnel, RCC structures, retaining structures, foundations and associated protective works, including preparation of structural design calculations and drawings.
6	CAD Engineer	Preparation of all types of engineering drawings, including alignment plans, longitudinal and cross-sections, geological mapping drawings, structural drawings and detailed construction drawings as per the requirements of the project.
7	Quantity Surveyor cum Total Station Engineer	Carrying out detailed topographical surveys using Total Station and other surveying equipment, preparation of survey plans, calculation of quantities, preparation of BOQ, rate analysis and detailed cost estimates under the guidance of the Team Leader.

12. **DELIVERABLE FOR DESIGN OF project**

The Design consultant shall prepare the following reports and submit to the client on the format prepared by the design consultant and approved by the client.

1) Inception Report

a) Inception Report and Investigation Programme.

2) survey, investigation & assessment report

b) Topographical Survey and Investigation Reports.

c) Engineering Geological, Geophysical and Geotechnical Investigation Reports.

d) Rockfall Hazard and Slope Stability Assessment Report.

3) Draft design report and draft Detailed project report

e) Design and Drawings for the Proposed Protection Gallery/Open Tunnel.

f) Slope Stabilization and Approach Protection Design.

g) Instrumentation and Monitoring System Design.

h) Draft Detailed Project Report.

4) Final detailed project report, design, cost estimate and tender documents

i) Detailed BOQ, Cost Estimates and Technical Specifications.

j) Final Detailed Project Report, design report and Tender Documents.

S. No.	Report	Frequency	Due Date	No. of Hard Copies	No. of Soft Copies in CDs
1.	Inception Report	One Time	Within 7 days	5	1
2.	survey, investigation & assessment report	One Time	Within 30 days	5	1
3.	Draft design report and draft Detailed project report	One Time	Within 65 days	5	1
4.	Final detailed project report, design, cost estimate and tender documents	One Time	Within 90 days	5	1

13. **PAYMENT SCHEDULE**

Payment shall be processed to the design consultant in accordance with the following payment schedule. The consultant shall submit to the client the invoice for payment upon approval of the submission by the client or any authority designated for approval by the client. The consultant shall upon submission of the deliverable assist the client in its review and present the output in subsequent discussions and meetings.

Table No. 3

S.No.	Payment Condition	Percentage payable
1.	Inception Report	10% of total amount of the Consultancy Agreement.
2.	survey, investigation & assessment report	20% of total amount of the Consultancy Agreement.
3.	Draft design report and draft Detailed project report	30% of total amount of the Consultancy Agreement
4.	Final detailed project report, design, cost estimate and tender documents	40% of total amount of the Consultancy Agreement

Note: Retention money of 10% of each payment shall be retained by the client.

14. **VARIATION IN SERVICES**

15. The scope of consultancy services may be modified, expanded or reduced, with the mutual consent of the parties, in accordance with the contract rates, depending upon the actual site conditions and requirements of the project. Such variations may include additional geological, geophysical and geotechnical investigations, topographical surveys, detailed engineering designs, preparation of additional or revised DPRs, design of additional slope stabilization measures, rockfall protection galleries/open tunnels, associated structures, instrumentation and monitoring systems, and other related engineering services. The Department may also require the Consultant to undertake additional studies, investigations or design works at other vulnerable locations within the project area or at nearby locations, if considered necessary. Payment for such additional services shall be made as per the mutually agreed rates and terms, subject to the approval of the competent authority. Any variation in the scope of services shall be duly approved by the Department before execution and shall be limited to a maximum of 25% of the original scope of consultancy services or as otherwise approved by the competent authority.

15. **DEFICIENCY IN SERVICE**

Deficiencies in the services on part of Design consultant shall be notified to the consultant in writing and corrections to the deficiency shall be submitted by consultant in the time specified in the notice. If the consultant fails to correct the notified deficiency, the payment due to the consultant may attract penal provisions in the form of fines, up to a maximum amount of 10% of contract price and/or debarment by the Employer for a period of at least 5 years.

Sample deficiencies may include:

1. Inexcusable delay in submission of deliverables as mentioned in the point No. 12 of TOR. In case of delay in completion of services, a penalty equal to 0.05% of the contract price per day subject to a maximum 5% of the contract value will be imposed and shall be recovered from payments due. However in case of delay due to reasons beyond the control of the consultant, suitable extension of time will be granted.
2. Failure to give proper and timely advice to Employer/Contactor if required during construction.
3. Refusing to give reasons/justification for decisions/provisions in the deliverables when asked by the Employer.
4. Not being fully conversant with manuals, specifications, standards, MORTH guidelines and requirement of the project to be followed.
5. Failure to provide reviewed design to address comments of proof checking authority.
6. If variation in any of the main quantities of work total concrete quantities and reinforcing steel or slope protection works items or overall project cost found during execution is more than +/- 15%, the penalty equivalent to 5% of the contract value shall be imposed. For this purpose retention money equivalent to 5% of the contract value shall be forfeited. This shall exclude any additional/deleted items/works ordered during construction.

7. For inaccuracies in design work the penalties shall be imposed as per details given in Table below:

S.No.	Item	Penalty (%age of contract value)
1	Inaccuracy or deficiency in Geological, Geotechnical and Geophysical Investigation and Assessment.	0.5 to 1.0
2	Inaccuracy in Rockfall Hazard Assessment, Slope Stability Analysis and Calculation of Forces, Moments and Stresses.	0.5 to 1.0
3	Inaccuracies in Structural Design, including design of Protection Gallery/Open Tunnel, retaining structures, foundations, anchoring and slope stabilization measures.	0.5 to 1.0
4	Incomplete or erroneous drawings, including dimensional inaccuracies, reinforcement detailing and construction detailing.	0.5 to 1.0
5	Inaccuracy in Bill of Quantities, Cost Estimates and Technical Specifications.	0.5 to 1.0
6	Structural or slope protection design found to be unsafe, inadequate or grossly overdesigned due to errors or negligence attributable to the Consultant.	1.0 to 2.0

16. SUGGESTED QUALIFICATION AND EXPERIENCE REQUIREMENT OF KEY PERSONNEL

Team Leader cum Project coordinator

i)	Educational Qualification	
	Essential	Graduate in Civil Engineering with 15 years professional experience or Post Graduate in Structural Engineering/Geotechnical Engineering with 12 years professional experience.
ii)	Essential Experience	
	a) Total Professional Experience	15 years/12 years respectively
	b) Project Coordination Experience	Experience in coordinating multidisciplinary teams comprising Geological, Geotechnical, Structural and Civil Engineering professionals, including preparation and review of DPRs, designs, drawings and cost estimates.
	c) Experience in similar capacity	Should have independently handled or led at least 2 projects involving slope stabilization, landslide mitigation or rockfall protection works in hilly/mountainous terrain, preferably in Himalayan regions.
	d) Relevant Experience in Design and Engineering	Minimum 7 years of experience in planning, investigation, analysis and design of slope stabilization, landslide mitigation, rockfall protection, retaining structures, protection galleries or tunnels.

Geotechnical Engineer

i)	Educational Qualification	
	Essential	Post Graduate in Geotechnical Engineering
ii)	Essential Experience	
	a) Total Professional Experience	10 years
	b) Experience in similar capacity	Should have at least 5 years of experience in geotechnical investigation, slope stability assessment, landslide mitigation, rockfall protection, anchoring systems and foundation design for infrastructure projects in hilly/mountainous terrain.

Engineering geologist

i)	Educational Qualification	
	Essential	Post Graduate Degree in Applied Geology / Engineering Geology / Geology from a recognized University/Institute.
ii)	Essential Experience	
	a) Total Professional Experience	10 years
	b) Experience in similar capacity	Should have at least 5 years of experience in engineering geological investigations, rockfall hazard assessment, landslide investigations, rock slope stability assessment and geological assessment for tunnels, protection galleries or other infrastructure projects in hilly/mountainous terrain, preferably in Himalayan regions.

Hydrologist/ Drainage expert

i)	Educational Qualification	
	Essential	Post Graduate Degree in Hydrology / Water Resources Engineering / Hydraulic Engineering / Civil Engineering (with specialization in Hydrology or Water Resources) from a recognized University/Institute.
ii)	Essential Experience	
	a) Total Professional Experience	8 years
	b) Experience in similar capacity	Should have at least 5 years of experience in hydrological and drainage studies for hill road infrastructure, landslide mitigation, slope protection works, tunnels or protection galleries in hilly/mountainous terrain, preferably in Himalayan regions.

Structural design engineer

i)	Educational Qualification	
	Essential	Post Graduate Degree in Structural Engineering / Structural Design from a recognized University/Institute.
ii)	Essential Experience	
	a) Total Professional Experience	10 years
	b) Experience in similar capacity	Should have at least 5 years of experience in structural design of protection galleries, open tunnels, retaining structures, rockfall protection structures, slope stabilization structures or similar infrastructure projects in hilly/mountainous terrain, preferably in Himalayan regions.

CADD Engineer

i)	Educational Qualification	
	Essential	Graduate in Civil Engineering with Diploma in Computer Aided Design and Drafting
ii)	Essential Experience	
	a) Total Professional Experience	5 years
	b) Experience in Preparation of DPRs in slope protection/ open tunnel/rockfall protection gallery projects	3 years working experience as a CADD engineer.

Quantity Surveyor cum Total Station Engineer

i)	Educational Qualification	
	Essential	Graduate Degree or Diploma in Civil Engineering from a recognized University/Institute.
ii)	Essential Experience	
	a) Total Professional Experience	8 years
	b) Experience in similar capacity	Should have at least 3 years of experience in quantity estimation, detailed measurement, preparation of BOQ and topographical surveys for slope stabilization, landslide mitigation, road protection works, tunnels or protection galleries in hilly/mountainous terrain.

Appendix B – Experts and CVs

Appendix B – Experts and CVs

TEAM COMPOSITION AND INPUTS

Key Expert Inputs:

S.No.	Expert Position	Name of Proposed Expert
1	Team Leader cum / project coordinator	
2	Geotechnical engineer	
3	Engineering geologist	
4	Hydrologist/drainage expert	
5	Structural design engineer	
6	CAD Engineer	
7	Quantity Surveyor cum Total Station Engineer	

Non-Key Expert Inputs:

S.No.	Expert Position	Name of Proposed Expert
1	CAD Draughtsman	
2	Documentation Support Staff	

Attach the CVs (updated and signed by the respective Key Experts) demonstrating the qualifications of Key Experts in following standard form:

CURRICULUM VITAE (CV)

Position Title and No.	{e.g. TEAM LEADER}
Name of Firm	*Insert name of firm proposing the expert*
Name of Expert:	{Insert full name}
Date of Birth:	{day/month/year}
Citizenship	
Personal contact details of the Expert (mailing address and email address)	

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, *type of employment (full time, part time, contractual),* 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. Bbbbbb, 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 in which the Expert will be involved)	

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

Certification:

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

(i) This CV correctly describes my qualifications and experience.

(ii) I am not employed by the Executing or the Implementing Agency.

(iii) In the absence of medical incapacity, I will undertake this assignment for the duration and in terms of the inputs specified for me provided team mobilization takes place within the validity of this proposal.

(vi) I confirm that I will be available to carry out the assignment for which my CV has been submitted.

I understand that any willful misstatement described herein may lead to my disqualification or dismissal, if engaged.

_____ Date: _____

[Signature of expert] Day/Month/Year

Appendix C –Contract Price and Payment Schedule

Appendix C –Contract Price and Payment Schedule

A. Contract Price-Breakdown

Sl. No.	Scope of Services	Quote in rupees
1	Reconnaissance, Data Collection and Topographical Survey	
2	Geological, Geophysical, Geotechnical and Hydrological Investigations	
3	Rockfall Hazard Assessment and Slope Stability Analysis , Detailed Engineering Design, Structural Design Calculations, Drawings and Preparation & Submission of Draft DPR, including BOQ and Cost Estimates for rockfall protection gallery/ open tunnel / slope protection and instrumentation monitoring system	
4	Independent Design Vetting, Incorporation of Observations and Submission of Final DPR & Tender Documents	
5	Construction-stage Technical Consultancy, Site Visits and Technical Assistance	
Total		
Total (in words)		

B. Payment Schedule

Schedule of Payments for Deliverables:		Currency	Amount
A. Payment for submission and approval of deliverable			
1.	*1st Payment for [Deliverable 1: Inception Report] (10%)*	Indian Rupees	
2.	*2nd Payment for [Deliverable 2: survey, investigation & assessment report] (20%)*	Indian Rupees	
3.	*3rd Payment for [Deliverable 3: Draft design report and draft Detailed project report] (30%)*	Indian Rupees	
4.	*4th Payment for [*	Indian Rupees	
B	Goods and Services Tax paid by *"Client" @18% of the amount raised in invoice for payment [the percentage of GST shall be as per the prevalent rate]*	Indian Rupees	
	Total	Indian Rupees	

Payment Conditions:

1. Payments to the consultant shall be subject to satisfactory conduct of services. Penal deductions to the payments shall be done in accordance with the provisions stated in the paragraph 15 [Deficiency in Service] of the Appendix A 'Terms of Reference'.

2. If this contract is terminated pursuant to clause 6 of the conditions of contract, the payment to the consultant shall be governed by the payment provisions contained herein, and shall be limited to payment for the number of deliverables submitted by the consultant and approved by the client till the date of termination of the contract

3. Retention money of 10% shall be retained from each payment to the consultant. The retention money shall be released to the consultant after the completion of construction provided the construction of the is started by the client within 2 years of approval of the Final Design Report & Cost Estimate.

4. In case the construction is not started within 2 years of approval of the Final Design Report & Cost Estimate, the client shall release the retention money at the end of the 2-year period. The consultant may replace the retention money with a bank guarantee of the same amount valid up to the end of a 2-year period starting on the date of approval of Final Design Report & Cost Estimate. If the construction is started within the 2-year period, the consultant shall extend the validity of the bank guarantee up to the end of the construction period.