

## **EoI (Expression of Interest)**

**Subject: EoI (Expression of Interest)-cum-Financial bid for conducting Geotechnical Investigation, Topographical and Drone Survey for various projects**

Sealed bids are invited for the finalization/empanelment of agency for conducting Geotechnical Investigation, Topographical and Drone Survey on different locations throughout the state of Himachal Pradesh. The key objective of the proposed appointment as per Terms of Reference (TOR) enclosed as **Annexure-A**.

### **Bidding Parameters:-**

- I. The bid shall be accompanied with cost of document amounting to Rs. 1,000/- plus GST in the shape of Accounts Payees Bank Draft in the name of Deputy General Manager, Ropeways and Rapid Transport System Development Corporation H.P. Limited, Shimla or RTGS on following account:

**Account no. - 50100297437422**

**Name- ROPEWAYS & RAPID TPT SYS DEV CORP HP LTD**

**Name of the Bank- HDFC the Mall Shimla**

**IFSC- HDFC0000524**

- II. The bid shall be accompanied with Earnest Money/Bid Security amounting to Rs. 10,000 (Ten Thousand Rupees) in the shape of Accounts Payees Bank Draft/Bank Guarantee with a validity of 120 days from the date of opening of tenders in the name of Deputy General Manager, Ropeways and Rapid Transport System Development Corporation H.P. Limited, Shimla or RTGS on following account:

**Account no. - 50100297437422**

**Name- ROPEWAYS & RAPID TPT SYS DEV CORP HP LTD**

**Name of the Bank- HDFC the Mall Shimla**

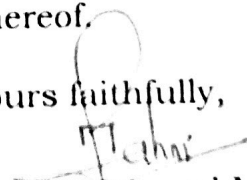
**IFSC- HDFC0000524**

- III. Eligibility Criteria:- The Bidder must have done Geotechnical Investigations, Topographical & Drone Survey for 10 Infrastructure projects in the last one year i.e. 2022-23.
- IV. Bidder must demonstrate its strength by submitting detailed credentials of Experience and details of successful projects, undertaken
- V. In the financial bid the quotation must be submitted by the time and date mentioned in the schedule covered in the TOR. The schedule of

quantities in Annexure -B shall be duly filled with the rates and signatures affixed wherever required which shall be paid to the selected agency after the completion and submission of work, as per the Scope of the Work attached as per Annexure -'A', to be submitted in a separate envelope to be super-scribed as "Financial Bid".

- VI. The financial bids of the technically qualified parties shall only be opened. Further, in case Financial Bid is not submitted in separate envelope and is accidentally opened during technical evaluation, the RTDC reserves the right to accept or reject the same without assigning any reasons thereof.
- VII. Both the envelopes should be put into one single envelope to be super-scribed as **EOI (Expression of Interest)-cum-Financial Bid for conducting Geotechnical Investigation, Topographical and Drone Survey for various projects.**
- VIII. The rates shall be finalized on the basis of lowest bid (L-1) and shall be valid for the period of one year.
- IX. The other technically qualified agencies shall also be given a chance to match the L1 rates subsequent to which the agencies shall be empanelled as rates fixed for a period of one year.
- X. The work shall be allotted to the empanelled agencies on equitable proportions subject to their performance.
- XI. The EOI shall be addressed to the Deputy General Manager, Ropeways and Rapid Transport System Development Corporation H.P. Limited (RTDC), US Club, Shimla-171001 and should reach on or before 23/06/2023 up to 3:00 PM and the technical bid shall be opened on same day at 3:30PM. The RTDC reserves the right to accept or reject any or all the Bids at any stage of the process or any of the terms without assigning any reasons thereof.

Yours faithfully,

  
Deputy General Manager,  
Ropeways & Rapid Transport System  
Development Corporation, H.P.Ltd.  
US Club, Shimla-1.

Email: [dgmrtdchp@gmail.com](mailto:dgmrtdchp@gmail.com)

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No. RTDC/Geotech-Drone Survey/ 2023/ 936

Dated: 15/06/2023

**Copy forwarded to:-**

1. The Director (RTDC) HP, for information please.

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Deputy General Manager,  
Ropeways & Rapid Transport System  
Development Corporation, H.P.Ltd.  
US Club, Shimla-1.  
Email: dgmrdchp@gmail.com

## **Term of Reference (ToR)**

### **PROJECT OBJECTIVE**

The objective of the assignment is preparation of EOI (Expression of Interest)-cum-Financial Bid for conducting Geotechnical Investigation, Topographical and Drone Survey for various projects.

### **SCOPE OF WORK**

#### **1. Drone Survey**

- Carrying out drone survey of the area
- The detailed Orthomosaic imagery of the area covering 60m on either side of the alignment provided.
- To provide 3D model of the drone surveyed area.
- The ground level contours of the entire imagery/survey area.
- To provide building/tree height profile of the alignment given to the survey agency.
- To provide revised building/tree height profile if alignment revised.
- To provide any other data as required for the line design of the project.
- Submission of data for drone survey in soft and hard copy for relevant information along with photo graph, videography, drawings and topographic data.

#### **2. Site Topographical Survey**

- Carrying out topographical survey of the area
- Topographic Survey showing all existing buildings, trees, and other details including marking of legends and plotting contour map with 1m interval levels.
- Submission of data for Topographical survey in soft and hard for relevant information along with photo graph, videography, drawings and topographic data.

#### **3. Geo Technical Studies**

- Setting up site organization including complete mobilization of personnel, equipment & accessories as per specification, Locating all



boreholes & other field test points.

- Carry out detailed Geo-technical investigations to ascertain the Safe Bearing Capacity for design of foundation (one each at all terminal location) and the Reports shall include the following

- ✓ Introduction
- ✓ Site Description and scope of work
- ✓ Field Investigation details -

Collection (including preservation & transportation to laboratory) of Undisturbed tube samples of soil from bore holes as per specification.
Collection (including preservation & transportation to laboratory) of Disturbed samples from bore hole as per specification.
Performing Standard Penetration Test in original soil & highly weathered rock layer (including preservation and transportation of sample collected from split spoon sampler) as per specification.
Collection (including preservation & transportation to laboratory) of Water samples from bore hole as per specification.
Performing field Vane Shear Test in borehole & recording of results, all as per specification.
Recording of stable ground water table for each bore hole as per specification

- ✓ Laboratory investigation -

Determination of Liquid Limit of soil.
Determination of Natural Moisture Content of soil.
Determination of Plastic Limit of soil.
Determination of Shrinkage Limit of soil.
Determination of grain size distribution of soil.
Sieve Analysis for coarser fraction
Hydrometer Analysis for finer fraction.
Determination of Specific Gravity of soil.
Determination of Bulk Density & Dry Density of soil.
Conducting Unconfined Compression Test on soil.
Conducting Triaxial Compression test on soil.
Unconsolidated Undrained test
Consolidated Undrained test
Direct Shear test on soil.
Conducting consolidation test on soil.
Determination of Free Swell of soil.
Conducting Swelling Pressure test on soil.
Conducting Vane Shear test on soil.
Conducting Standard Proctor compaction test on soil.
Determination of Permeability of soil.
By constant head method
By falling head method
Determination of Organic content of soil.
Determination of pH value of soil.
Determination of Sulphate content of soil.

Determination of Chloride content of soil.
Determination of pH value of sub-surface water
Determination of Sulphate content of sub-surface water.
Determination of Chloride content of sub-surface water.

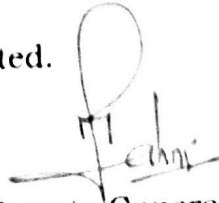
- ✓ Bore log with ground water table details
- ✓ Recommendation with supporting calculations for foundation type
- ✓ Borehole location map
- ✓ Soil/strata description sheet for each bore hole
- Preparation & submission of Final Geotechnical Investigation Report.

### **DUTIES AND RESPONSIBILITIES OF THE SUCCESSFUL BIDDER**

- Employ suitable skilled persons and equipment to carry out the works.
- Abide by the technical suggestions / direction given by the Engineer – in-Charge of Ropeway & Rapid Transport System Development Corporation H.P. Ltd.
- Be responsible for bringing any discrepancy to the notice of the Engineer – in-Charge of Ropeway & Rapid Transport System Development Corporation H.P. Ltd. seek necessary clarification.
- Be responsible for all security and watch and ward arrangements at site till completion of the assignment.

### **NOTES**

1. There will be a penalty of 2% per week or part thereof (only working days), of the installment due, for delay on the part of the agency, if any, in submission of deliverables.
2. Financial quote shall be quoted in absolute amount.
3. In case the project is abandoned at any stage the payment till the work submitted by the agency shall be made by the RTDC.
4. The invoice shall be considered for payment only after acceptance of deliverable by RTDC.
5. Conditional bid shall not be accepted.

  
 Deputy General Manager,  
 Ropeways and Rapid Transport System  
 Development Corporation H.P. Ltd.  
 U.S. Club, Shimla -1.  
 Email: - dgmrtdchp@gmail.com

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(Annexure B)

## FINANCIAL BID

**Tender Inviting Authority:- Deputy General Manager RTDC US Club Shimla**

**Name of work: - EoI (Expression of Interest)-cum-Financial bid for conducting, Geotechnical Investigation, Topographical and Drone Survey for various projects .**

S.No	Description of Work	Unit	Rate (Rs.)
1	Mobilizing, conducting topographical survey to pinpoint all existing features, boundary measurements internal angles, providing coordinates of all corner points inclusive of calculation of surveyed area Surveying of Site features, Buildings & Submitting as Built Drawings by using Total Station Laser survey to pinpoint all the following: - i) Taking spot levels Topography of plot (@ 5m x 5m grid internal in both directions & contour @ 0.50 mtr.) ii) Roads & Parking, Footpaths iii) Boundary wall & Gates iv) Trees & Plantation v) Electrical lines vi) Building Services Equipment's & Drains / Trenches where visible. vii) North Direction viii) Plot Area ix) Levels of area immediate abutting the site boundary on the outside. x) All existing building footprint / plinth. xi) Preparation of survey drawings on auto cad format xii) Supplying above in 3 sets of hard copies and in form of soft copy to be mailed to Ropeway & Rapid Transport System Development Corporation H.P. Ltd.	Sqm	
2.	Drone survey using unmanned aerial vehicle (UAV), to capture aerial data with downward-facing cameras/sensors for capturing topographic data along with videography as per scope of work in TOR.	Hectare	
3.	<b>Geotechnical Survey :</b> a) Boring of not less than 150 mmdia.Up to 10 mts depth or up to hard strata (SPT N>100) whichever occurs earlier. By power operated, winch driven, Shell /Bailer, through all types of Soil including Chiselling through local obstructions, if required, Prevention of collapse of bore hole walls, wherever necessary, maintaining of detailed boring record, all as per specification	m	

	<p>b) Boring of not less than 150 mm dia. From 10- 30 mts depth or up to hard strata (SPT N&gt;100) whichever occurs earlier by power operated, winch driven, Shell /Bailer, through all types of Soil including Chiselling through local obstructions, if required, Prevention of collapse of bore hole walls, wherever necessary, maintaining of detailed boring record, all as per specification</p>	m	
	<p>c) Boring of not less than 150 mmdia. From 30-50 mts or up to hard strata (SPT N&gt;100) whichever occurs earlier. By power operated, winch driven, Shell /Bailer, through all types of Soil including Chiseling through local obstructions, if required, Prevention of collapse of bore hole walls, wherever necessary, maintaining of detailed boring record, all as per specification</p>	m	

**Dated**

**(Authorised Signatory)**  
**Name of Agency**  
**Address with Telephone Number**