



## **REQUEST FOR PROPOSAL (RFP)**

**Consultancy services for Collection of Bridge Inventory and Condition Data through app., its rating and providing rehabilitation measures with bill of quantity in state of Himachal Pradesh.**

**HIMACHAL PRADESH  
PUBLIC WORKS DEPARTMENT**

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# SECTION 1

## **REQUEST FOR PROPOSAL (RFP)**

**(National Competitive Bidding)**

The Employer i.e. Chief Engineer (Shimla Zone), HPPWD., Nirman Bhawan, Nigam Vihar, Shimla (HP) invites bids for the work under the Department from the short listed consultants:

Sl. No.	Name of work	Earnest Money (Rs. in lakh)
1.	Consultancy services for Collection of Bridge Inventory and Condition Data through app., its rating and providing rehabilitation measures with bill of quantity in state of Himachal Pradesh.	2 Lakhs

The Bid documents (RFP) may be purchased in person or through authorized representative on written request/requisition by the prospective bidders and the full name and address of the prospective bidders should be mentioned; a non-refundable fee of Rs.5,000/- in the form of Demand Draft drawn on any scheduled bank or any multinational bank having its branch in India in favour of the address mentioned against each zone as below.

Pack age No.	Office Address.	DD to be drawn in favour of	State	Number of Bridges to be inspected
1	Chief Engineer (Shimla Zone), HPPWD., Nirman Bhawan, Nigam Vihar, Shimla (HP)	Pay & Accounts Officer	Himachal Pradesh	150 (tentatively)

RFP documents can also be downloaded from the Department's website [www.hppwd.gov.in](http://www.hppwd.gov.in) by the shortlisted firms but in that case, cost of Bid document may be furnished with an Application fees of Rs.5000/- with the submission of bid to Chief Engineer (Shimla Zone), HPPWD., Nirman Bhawan, Nigam Vihar, Shimla (HP). The format of the downloaded RFP/tender document should not be disturbed / altered; otherwise the bid will be rejected. The RFP/tender documents are non-transferable and only the firms to whom the tenders have been issued may submit their bids.

The technical bids should be submitted in hard bound form with page numbering and index. Any additional information shall also be furnished by the bidder in hard bound form with proper indexing and page numbering. The details submitted in other forms like spiral bound form, loose form etc would be rejected.

The last date for submission of the hardbound Bid Documents is **25.10.2018** up to **15.00 hours**. The technical bids would be opened on **25.10.2018** at **15.30 hours** in the office chamber of Chief Engineer (Shimla Zone) HPPWD Nirman Bhawan, Nigam Vihar, Shimla-171002(H.P)

Further information can be obtained at the address below during office hours i.e. 1000 to 1700 hours Indian Standard Time (IST) on working day.

**REQUEST FOR PROPOSAL (RFP)** must be delivered in a written form to the address below (in person, or by post) by **October 25, 2018** at 1500 hours (IST).

Dated:- , 2018.

Chief Engineer (Shimla Zone)  
HPPWD Nirman Bhawan, Nigam Vihar,  
Shimla-171002(H.P)  
Tel:+91-177-2620474 Fax: +91-177-2629319  
E-mail: hp-shi4@nic.in

## **SECTION 2**

### **2. INSTRUCTION TO BIDDERS**

#### **2.1 INTRODUCTION**

2.1.1

The Himachal Pradesh Public Works Department (HPPWD) is responsible for the development, maintenance and management of SHs/MDRs/Other roads and for the matters connected or incidental thereto. In case of National Highways, some roads are maintained through NH wing of HPPWD under MoRTH.

2.1.2

HPPWD officiates from Nirman Bhawan located at Nigam Vihar, Shimla-171002.

2.1.3

Bids are invited by HPPWD from shortlisted consultants for Collection and analysis of bridge condition and bridge inventory data of Bridges on state roads.

#### **2.2 DEFINITIONS**

- a) **“HPPWD”** means Himachal Pradesh Public Works Department
- b) **“The Employer”** means the Chief Engineer (Shimla Zone), HPPWD, Nirman Bhawan, Nigam Vihar, Shimla (HP).
- c) **“The Consultant”** means agency appointed by HPPWD with stipulated mandate or Firm, or Institution undertaking the assignment.
- d) **“The Bidder”** means a firm or JV or Consortium which participates in the tender and submits its proposal.
- e) **“The Products/equipment/ system”** means all the equipments **such as** Mobile Bridge Inspection Unit or any other type of equipment which is required to collect bridge inventory & bridge condition data.
- f) **“Successful Bidder”** means the Bidder, who, after the complete evaluation process, gets the Letter of Award. The Successful Bidder shall be deemed as “Consultant” appearing anywhere in the document.
- g) **“The Letter of Acceptance”** means the issue of a signed letter by the employer of its intention to accept the offer of successful bidder and awarding the work mentioning the total Contract Value.
- h) **“The Contract”** means the agreement entered into between the Employer and the Consultant, as recorded in the Contract documents signed by the parties, including all attachments and appendices thereto and all documents incorporated by references therein.
- i) **“The Contract Price”** means the price payable to the Successful Bidder under the Letter of Acceptance for the full and proper performance of its

Contractual obligations. The Contract Price shall be deemed as “**Contract Value**” appearing anywhere in the document.

- j) “**Services**” means collecting data related to inventory and condition of bridges and as specified in the scope.
- k) “**NIT**” is the Notice Inviting Tender. It is essentially the Press Notification of the Tender.
- l) “**Mobile Bridge Inspection Unit (MBIU)**” is state of the art vehicle, which allow unrestricted access to all under bridge related tasks; inspections, painting, repairs, general maintenance, installation & maintenance of under bridge pipe & cables, stripping operations, replacement & maintenance of bearings, etc. MBIU is designed for completing all types of Bridge Inspection and Maintenance work.

## **2.3 BID DOCUMENT**

2.3.1 The process and procedures of bidding, the materials to be supplied and the various terms and conditions of this tender are provided in the Bid Document. The Bid Document include:

Section 1	Notice Inviting Tender
Section 2	Instructions to Bidders
Section 3	General (Financial & legal) Conditions of Contract
Section 4	Special Conditions of Contract
Section 5	Scope of the work
Section 6	Formats for Submission of Proposals
Section 7	Formats for submission of bank guarantees.
Section 8	Draft Contract Agreement

2.3.2 The Bidder should carefully read all the instructions, terms and conditions, specifications and various forms that are provided in the Bid Document. The tender may be rejected if any or all of the information asked for in this document are not furnished along with the tender or if the tender is not responsive technically or financially in accordance with the Bid Document.

## **2.4 PRE-BID MEETING**

Pre bid meeting is scheduled on **16.10.2018** at **15:00 hours in the office chamber of Chief Engineer (Shimla Zone) HPPWD Nirman Bhawan, Nigam Vihar, Shimla-171002(H.P)** Clarifications sought during the meeting will be issued at the same time and if any issue could not be resolved on the same day, clarifications of the same can be collected from office of the Chief Engineer, HPPWD (Shimla Zone) Shimla, 5 days prior to bid submission. No separate information will be passed on to any individual Bidder in this regard. The same will be loaded on department website also.

## **2.5 AMENDMENT OF BID DOCUMENTS**

At any time, 5 days prior to bid submission, the Employer may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify bid documents by amendments.

## **2.6 COST OF BIDDING**

The Bidder has to bear all the costs associated with the preparation and submission of the bid. Employer will, in no case, be responsible or liable for any of the costs, regardless of the conduct or outcome of the bidding process.

## **2.7 APPLICATION FEE (AF) AND EARNEST MONEY DEPOSIT (EMD)**

2.7.1 The proposal should be submitted along with EMD (for the amount given in section 1 of this document) in the form of a Bank Guarantee and the format specified in section 7 of this document **valid for 45 days beyond the validity of the bid**. The Bid submitted without EMD will be summarily rejected. Application fees of Rs.5000/- should also be accompanied with the furnished offer, in case, the Bid documents has been downloaded from the Department's website [www.hppwd.gov.in](http://www.hppwd.gov.in)

2.7.2 The EMD of the successful Bidder will be returned when the Bidder has signed the Contract Agreement with the Employer and has furnished the required Performance Guarantee for the amount equivalent to 10% of the contract price on the prescribed format specified in section 7, within 15 days from the receipt of the Letter of Acceptance.

2.7.3 The EMD will be forfeited:

- (a) If a Bidder withdraws its bid during the period of bid validity. Or
- (b) If the Bidder fails to accept the Employer's corrections of arithmetic errors in the Bidder's bid (if any), or
- (c) If the Successful Bidder fails to sign the contract agreement with the Employer within the prescribed period, or
- (d) If the Successful Bidder fails to furnish the Performance with in the stipulated time.

2.7.4 The technically unqualified bidders would be informed regarding their non-qualification, and thereafter EMD, price bid (Financial proposal) would be returned unopened after the evaluation of the financial proposal and signing the contract agreement with the successful bidder.

## **2.8 BID PRICES**

2.8.1 Bidder shall give the pricing as individual and as a total composite price inclusive of

all levies & taxes i.e. Sales Tax, Octroi, Entry Tax, Custom/ Excise Duty Packing, Forwarding, Freight, Insurance etc. except service tax. Client shall reimburse only service tax.

- 2.8.2 The prevailing levies and taxes as applicable as per law shall be quoted separately. The client's evaluation of the Consultant's financial proposal shall exclude applicable GST, duties, taxes etc.
- 2.8.3 If any or all of the information asked in the **Section-6** are not available in the Financial Proposal, the bid is liable for rejection.

## **2.9 DISCOUNTS**

The Bidders are informed that discount, if any, should be indicated separately at part-I and part-II of **section 6**.

## **2.10 BID VALIDITY**

The bids shall remain valid for a period up to and including the date 120 (one hundred and twenty) days from the last date of submission of bids.

## **2.11 SUBMISSION OF PROPOSALS**

All the proposals will have to be submitted through **in HARDBOUND** (Hard bound implies such binding between two covers throughstitching or otherwise whereby it may not be possible to replace any paper without disturbing the document) form with all pages sequentially numbered either at the top or at the bottom right hand corner of each page eg. by writing page 1 of 10 on page 1, if total pages are 10. It should also have an index giving page wise information of above documents. Incomplete proposal or those received without hard bound will summarily be rejected.

The Bidders are required to fill up and submit the Section 6 documents with their proposals. Clause-by-clause compliance should be provided against the technical specifications of the equipment mentioned in Section 6.

The proposals shall be submitted in two parts, viz.,

**Envelope-1:** Containing application fee of Rs. 5000/- if a Bid document has been downloaded from the Department's website and an EMD as prescribed in the tender document in section 2.7.1. The envelope should be subscribed as "**Envelope 1 –EMD /** for Collection of Bridge Inventory and Condition data through app., its rating and providing rehabilitation measures with bill of quantity in state of Himachal Pradesh under Chief Engineer (Shimla Zone), HPPWD.,Nirman Bhawan, Nigam Vihar, Shimla (HP)" at the top left corner.

**Envelope-2:** The Technical Proposals subscribed as "**Envelope 2 –Pre qualification and Technical Proposal** for Collection of Bridge Inventory and Condition Data through app., its rating and providing rehabilitation measures with bill of quantity in state of Himachal Pradesh under "Chief Engineer (Shimla Zone),HPPWD.,Nirman Bhawan, Nigam Vihar, Shimla (HP)" (Containing duly signed PRE-QUALIFICATION PROPOSAL SUBMISSION FORM as prescribed in Section-6, Other required Prequalification documents, all technical literature, brochures etc.). In the technical proposal, there should not be any indication about the prices (printed or otherwise) of

any of the products offered.

**Envelope-3:** The Financial Proposal subscribed as **Envelope-3 -Financial Proposal** for Collection of Bridge Inventory and Condition Data through app., its rating and providing rehabilitation measures with bill of quantity in state of Himachal Pradesh under Chief Engineer (Shimla Zone),HPPWD.,Nirman Bhawan, Nigam Vihar, Shimla (HP)

All the sealed envelopes should again be placed in a sealed cover super scribed as **“Collection of Bridge Inventory and Condition Data through app., its rating and providing rehabilitation measures with bill of quantity in state of Himachal Pradesh”** **Bid from: M/s \_\_\_\_\_**)” **“NOT TO BE OPENED BEFORE 25.10.2018** which should be received in the office of Chief Engineer (Shimla Zone), HPPWD.,Nirman Bhawan, Nigam Vihar, Shimla (HP) up to **25.10.2018...[Insert last date of physical submission of Technical Bid]** at 15:00 Hrs. Any individual(s) signing the bid or other documents connected therewith should specify whether he is signing the offer as Chief Executive of a single firm / agency / institution making the offer, Lead partner of the consortium of firm / agency / institution making the offer, a Director, Manager or Secretary in case of the authority conferred by Memorandum of Association.

The power of attorney should be executed separately by each member of JV/ consortium authorizing the individual to sign the bid document on behalf of JV/ consortium.

- 2.11.1 In the case of a firm not registered under the Indian Partnership Act, all the partners or the attorney duly authorized by all of them should sign the bid and all other connected documents. The original power of attorney or other documents empowering the individual or individuals to sign should be furnished to the Employer for verification, if required.
- 2.11.2 The consultant shall submit, a copy of original document defining constitution or legal status, place of registration, principal place of business and power of attorney along with the proposal. In case of a company, Memorandum of Association and Article of Association, Name of directors and shareholders may also be furnished.
- 2.11.3 The Bids and all correspondence and documents relating to the bids, shall be written in the English language.

## **2.12 LATE BIDS**

Any bid received by the Employer after the time and date for receipt of bids prescribed by the Employer in the tender as per Section-2.11 may be rejected and returned unopened to the Bidder.

## **2.13 MODIFICATION AND WITHDRAWAL OF BIDS**

- 2.13.1 The Bidder is allowed to modify or withdraw its submitted bid at any time prior to the last date prescribed for receipt of bids, by giving a written notice to the Employer. Subsequent to the last date for receipt of bids, no modification/withdrawal of bids

shall be allowed.

2.13.3 The Bidders cannot withdraw the bid in the interval between the last date for receipt of bids and the expiry of the bid validity period specified in the Bid. Such withdrawal may result in the forfeiture of its EMD from the Bidder.

## **2.14 LOCAL CONDITIONS**

2.14.1.1 Each Bidder is expected to visit and examine the sites / its surroundings for getting fully acquainted with the local conditions & factors and to obtain all information, which would have any effect on the execution / performance of the contract and / or the cost for preparing the bid, at their own interest and cost. The Employer shall not entertain any request for clarification from the Bidder regarding such local conditions.

2.14.1.2 The Bidder and any of their employees/agents/sub consultants will be granted permission by the Employer to enter upon its premises and lands for the purpose of such inspection, but only upon the express condition that the Bidder and any of their employees/agents/sub consultants will be responsible for any personal injury (whether fatal or otherwise), loss of or damage to life, property and other loss damage, costs and expenses however caused, which, but for the exercise of such permission would not have arisen.

2.14.1.3 It is the Bidder's responsibility that such factors have properly been investigated and considered while submitting the bid proposals and no claim whatsoever including those for financial adjustment to the contract awarded under the bidding documents will be entertained by the Employer. Neither any change in the time schedule of the contract nor any financial adjustments arising thereof shall be permitted by the Employer on account of failure of the Bidder to know the local laws / conditions.

2.14.1.4 The site related information furnished by EMPLOYER in this Bid Document is only indicative. The bidders are advised to undertake site visits and make their own assessment as to the correctness of the information. Requests for price revision after bid opening on account of inaccuracies in information given by EMPLOYER shall not be entertained at any stage

## **2.15 CONTACTING THE EMPLOYER**

Any effort by a Bidder influencing the Employer's bid evaluation, bid comparison or contract award decisions may result in the rejection of the bid.

## **2.16 ELIGIBILITY/ PRE-QUALIFICATION CRITERIA**

2.16.1 A consultant is allowed to submit only one bid for a package. Alternative proposals i.e. one as sole or in JV with other consultant and another in JV with any other consultant for the same package will be summarily rejected. In such cases, all the involved proposals shall be rejected.

2.16.1.1 A consultant can bid for more than one package by submitting separate application document along with application fee and EMB for each package. A consultant can

bid for more than one package with same/common/ different team for each package. If the consultant has applied for more than one package with same/common team, only one package will be award to the consultant with that team based on the sequence of opening indicated in the RFP document. For avoidance of doubt, it is to make clear that, after one package is awarded, the subsequent packages with same/common team will not be opened. Upto two numbers of packages will be awarded to consultant with different team for each package. However, if the CV of same Key Personnel is submitted by more than one consultant, zero marks shall be given for such CV. The financial proposal for different packages will be opened on e-tendering mode in the ascending order of package Number indicated in section 1 of RFP document. The packages will be awarded to the consultant on the basis of sequence of opening and award principle will be as under:

- i. One consultant individually or as JV will get maximum of two Packages
- ii. Once a consultant individually or as JV gets two packages based on the sequence of opening , their financial bids for remaining packages will not be opened.

If a bidder comes successful bidder, all the team key personals will called for interview. The LOA will be issued only after getting satisfied with the key personals.

2.16.1.2 If the consultant submits bids as sole applicant in one package and in JV with other consultant with same team of key personnel/common key personnel in another package, both bids shall be summarily rejected.

2.16.1.3 Bidders that meet **ALL** of the following criteria need only apply.

- (i) Annual turnover of any one of the last five financial years i.e. from 2013-2014 to 2017-2018 updated to the current financial year shall be more than Rs.10 crores. In case of JV, the lead member shall have more than Rs.7 crores of annual turnover (updated) of any one of the last five financial years. This threshold for each other member of JV shall be more than Rs.5 crores. Documentary proof in the form of a Certificate from the statutory auditorcharted accountant of the Bidder's company strictly as per the format specified in Section 6 duly signed and stamped by the statutory auditorcharted accountant needs to be submitted as proof for the above. Any declaration or letter from the Bidder in any other format will not be accepted. For arriving at updated value, turnover of any financial year shall be multiplied by the enhancement/updating factor as under:-

<b>Sr. No.</b>	<b>Year</b>	<b>Enhancement/ Updating factor</b>
1.	2017-18	1.0
2.	2016-17	1.1
3.	2015-16	1.21
4.	2014-15	1.331
5.	2013-14	1.464

- (ii) The experience of Conducting condition survey of all types of bridges using latest machineries and non-destructive testing equipments, each project

involving not less than 100 bridges (at least 40 bridges of span not less than 25 Mtr) and detailed recommendation for replacement and rehabilitation of bridges alongwith BOQ for rehabilitation. Such projects must have been completed within last five years including the year 2018.

- (iii) The consultant must have successfully developed and implemented a web based application for periodical condition survey and data collection of bridges with software capable of generating customized report including ratings of bridges.
- (iv) Experience of having executed externally added similar projects in hilly area shall be given preference.

2.16.2 Each bidder should further demonstrate availability of key personnel with adequate experience as required; as per clause 2.17.5.

**2.16.3 Bids submitted by a Joint Venture or Consortium shall meet the following:**

- 2.16.3.1** The Registered JV Agreement should legally bind on all partners/members.
- 2.16.3.2** Consortium or Joint venture allowed (maximum 2 partners). One of the members/partners shall be nominated by the JV/Consortium as being in charge, and this authorization shall be evidenced by submitting a Power of Attorney signed by legally authorized signatories of each member/partner.
- 2.16.3.3** The partner in-charge shall be authorized to incur liabilities and receive instructions for an on behalf of any and all partners of the Joint Venture/ Consortium during the entire execution of the Contract.
- 2.16.3.4** All partners of the Joint Venture/Consortium shall be liable jointly and severally for the execution of the contract in accordance with the Contract terms, and a statement to this effect shall be included in the Agreement (in case of successful bidder).
- 2.16.3.5** The joint-venture/consortium agreement shall indicate precisely the responsibility of all members in respect of planning, design construction equipment, key personnel, work execution and financing of the project. All the members should have active participation during the currency of the contract. This shall not be varied/ modified subsequently without prior approval of the Employer.
- 2.16.3.6** Copy of the agreement entered into by the partners shall be submitted with the Bid.
- 2.16.3.7** In case of a joint venture the minor partner must have executed at least one project in the relevant field. Manufacturer or authorized supplier of MBIU or similar bridge inspection unit can also be a minor partner. In that case atleast the lead partner must have executed two projects in the relevant field.
- 2.16.3.8** For calculation of annual average turnover, annual turnover of each partner in proportion to their JV participation will be evaluated. However, each partner should have minimum average turnover of Rs.5 Crores in the last three financial years.

**2.17 EVALUATION**

2.17.1 Any time during the process of evaluation, the Employer may seek for clarifications from any or all Bidders.

## 2.17.2 Evaluation procedure

### **Stage-1(a): Responsiveness w.r.t. Application Fee & EMD:**

First, the envelope containing Application fee (in case of Bid Document downloaded from HPPWD's web site) and Earnest Money Deposit will be opened and if both are found furnished by the Bidders in the prescribed manner as mentioned in para 2.7.1, then the second envelope containing Pre-Qualification & Technical Proposal documents shall be opened. At any stage during the evaluation, if the EMD is found invalid, the respective Bidder's bid will be summarily rejected.

### **Stage-1(b): Technical Proposal Evaluation:**

The Bidder shall have to fulfill all the Pre-qualification Criteria as specified in para 2.16.1.3, in totality and submit all the required documents that relate to the Pre-qualification Criteria terms and conditions. These documents will be scrutinized along with the Technical Proposal in this phase of evaluation. Those bidders who do not fulfill the terms and conditions of Pre-qualification Criteria as specified in this tender or whose Technical Proposal is non-responsive will not be eligible for further Financial Proposals Evaluation. Technical Proposals of the Bidders would be evaluated for the clause-by-clause compliance of the technical specifications as mentioned in the Bid document. Evaluation of Pre-qualification and Technical Proposal by HPPWD shall not be questioned by any of the Bidders. The Employer reserves the right to ask for a technical elaboration/clarification in the form of a technical presentation from the Bidder on the already submitted Technical Proposal at any point of time before opening of the Financial Proposal. Finally bidders would be evaluated for technical competence using the marking system as in **2.17.3** and only those bidders who score  $\geq 75\%$  marks shall qualify for financial bid opening. Decision of Authorities in the technical evaluation shall be taken as FINAL and no questions shall be entertained in this regard.

### **Stage-2: Financial Proposal Evaluation:**

The financial Bids submitted will be open for short list-qualified firms. The Price Bids of only the qualifying firms who are short-listed in Stage-I will be evaluated. The date of opening shall be intimated to the qualified bidders at the appropriate time. The unqualified bidders would be informed regarding their non-qualification along with the reason and thereafter their price bid (Financial proposal) will not be opened. The financial proposal shall be excluding applicable taxes which will be payable after the consultant submits the proof of deposit of applicable taxes. The Financial Proposal Evaluation will be based on the total payouts including all other taxes, duties and levies for Collection of bridge condition and bridge inventory data under each Regional Office of the Department for a period of consultancy service as per financial proposal. The financial evaluation is as under:

- (i) The bids will be opened as indicated in Section 1 of the RFP document. as per the sequence of packages indicated in Section 1 of RFP document.
- (ii) The Evaluation Committee will determine whether the submitted Financial Proposal is complete (i.e. whether they have included cost of all items of the corresponding proposals; if not, then the cost towards such missing items will be

considered as NIL, but the Consultant shall, however, be required to carry out such obligations without any additional compensation.) and without computational error. In case under such circumstances, if Client feels that the work cannot be carried out within the overall cost as per the submitted financial proposal, such proposals shall be considered non responsive.

(iii) The lowest financial proposal (FM) will be given a financial score (SF) of 100 points. The financial scores of other proposals will be computed as follows:

$$SF = 100 \times FM/F \quad (F = \text{amount of financial proposal})$$

(iv) Proposals will finally be ranked according to their combined technical (ST) and financial (SF) scores as follows:

$$S = ST \times Tw + SF \times Fw$$

Where S is the combined score, and Tw and Fw are weights assigned to Technical Proposal and Financial Proposal that shall be 80 and 20 respectively.

(v) The selected Consultant shall be the first Ranked Applicant (H-1, having the highest combined score). The second ranked applicant (H-2) shall be kept in reserve and may be invited for negotiation in case the first ranked Applicants withdraws, or fails to comply the requirements specified in this document. In the event the proposals of two or more consultants have the same scores in the final ranking, the proposal with the highest technical score should be ranked first.

(vi) If any consultant is H-1 bidder in more than two packages, based on sequence of opening, upto two number of packages will be awarded to the consultant in the order of sequence of the financial proposal and remaining financial proposals of the consultant, if any will not be opened.

(vii) In case H1 applicant withdraws or fails to comply the requirements specified in this document, H2 may be called for negotiation and in case he matches the rates with H1 or at his rates, whichever is lower, the work will be awarded to H2 bidder.

#### 2.17.3 Evaluation of technical bid shall be done based on the following:

Sl. No	Evaluation Criteria	Max. Marks
1	Past experience of firm or Institution in collection of bridge data related to condition survey and/or inventorization separately or as part of preparation of Feasibility / detailed project reports.	25
2.	Experience for development and implementation of Web based applications for periodical condition survey and data collection of bridges capable of generating customized reports and rating of bridges.	10
3	Past experience of firm in collecting bridge related data with Mobile Bridge Inspection unit/similar equipment.	5
4	Key Personnel	45
5	Methodology & Work Plan	10
6	Structure and Organization	5
	Total	100

Only bids securing  $\geq 75\%$  marks shall qualify for further consideration.

Bidders shall fill up all formats as given in **Section-6**

2.17.4 The marking criteria will be based on the following:

1. Past experience of consultant in collecting bridge data related to condition survey and/or inventorization separately or as part of preparation of feasibility / detailed project reports as per clause **2.17.3(1)** in following preference in last 5 years. Maximum marks in 2.17.4.(1) will be limited to 25.

a) On bridges with overall length greater than 60m with at least one span length greater than 40m	- 1 mark/bridge max of 25 marks
b) On bridges with overall length greater than 60m with any span length (other than bridges mentioned under sub item (a) above)	- 1 mark/bridge, max of 20 marks
c) On any other bridge (other than bridges mentioned under sub item (a) and (b) above)	- 1 mark/ bridge, max of 15 marks

2. Past experience of development and implementation of web based application for periodical condition survey and data collection of bridges with software capable of generating customized report including ratings of bridges.

Past experience of firm of web based application.	5 marks / assignment per P.I.U. max of 10 Marks
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3. Past experience of Consultant in collecting bridge related data with Mobile Bridge Inspection Unit/similar equipment in last 5 years Subjected to satisfactory certificate from client as per clause 2.17.3(2).

Past experience of firm in collecting bridge condition/inventory data using Mobile Bridge Inspection Unit/similar Equipment.	1 mark/ assignment, max of 5 marks.
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3. Key Personnel will be evaluated as per clause **2.17.5**

4. Methodology & Work Plan- Maximum 10 marks: The marks will be provided on the basis

of quality of approach and the methodology, work program and manning schedule proposed and unique features of IT tools/application.

5. Structure and Organization- Maximum 5 marks:-

Sl.No.	Formation of company	Marks
1	5 years before date of RFP	5
2	3 to 5 year before date of RFP	2

The bidders are advised in their own interest to frame the technical proposal in an objective manner as far as possible so that these could be properly assessed in respect of points to be given as part of evaluation criteria.

**2.17.5 List of key personnel to be deployed on contract work**

S.N.	Personnel	Essential Qualification	Number
1	Bridge Engineer- Team Leader	The candidate should possess a minimum Master degree in structures from IIT/NIT/any other deemed university from UGC and any international university of repute and should have minimum following experience: <ul style="list-style-type: none"> <li>• 5 year experience in design of bridges.</li> <li>• 5 year experience in execution of bridges as bridge engineer in NHAI/World Bank/ADB/ any externally aided project executed in India/ abroad.</li> <li>• Should not have age more than 40 years.</li> </ul>	1
2	Assistant Bridge Engineer-1	The candidate should possess a minimum Master degree in structures from IIT/NIT/any other deemed university (from UGC)and should have minimum following experience: <ul style="list-style-type: none"> <li>• 5 year experience in execution of bridges as bridge engineer in NHAI/World Bank/ADB/ any externally aided project executed in India/ abroad.</li> <li>• Should not have age more than 35 years.</li> </ul>	2
4	IT person	The candidate should have minimum experience of at-least 5 years in designing android based apps for collection of data, designing small data-base to link the app with the database for monitoring purpose. The age of the person should not be more than 35 years. He should possess experience in training people in at least any two projects.	1
5	Professor of Structures from Deemed University	The person should be serving as professor of Structure Engineering in the IIT/NIT/ International University	1

**2.17.5.1** Qualification and competence of following professional/sub-professional staff for the assignment shall only be evaluated. The weight age for various key staff are as under:-

<b>S.No.</b>	<b>Staff Position</b>	<b>Marks</b>
1	Bridge Engineer-Team Leader	15
2	Assistant Bridge Engineer-1	10
3	Assistant Bridge Engineer-2	10
4	IT person	5
5	Professor of Structures from NIT/IIT/International University	5
	<b>Total</b>	<b>45</b>

**2.17.5.2** Sub criteria for qualification of key Personnel (i.e. Professional staff)

<b>S. No</b>	<b>Qualification</b>	<b>Marks (%)</b>
1	General qualifications	25
2	Adequacy for the project	70
3	Employment with the firm	5
	<b>Total</b>	<b>100</b>

**2.17.5.2.1** Sub Criteria for General Qualification:-

<b>S. No</b>	<b>Qualification</b>	<b>Marks(%)</b>
1	Educational Qualification	20%
2	Training, publication etc.	5%
	<b>Total</b>	<b>25%</b>

**2.17.5.2.1.1** Sub Criteria for Educational Qualification:-

<b>S. No</b>	<b>Staff Position</b>	<b>Qualification</b>	<b>Marks</b>
1	Bridge Engineer-Team leader	Min. M.Tech/ME – Structures from IIT/NIT/ any Deemed University (UGC guidelines)/ any international university of repute	20%
2	Assistant Bridge Engineer-1	Min. M.Tech/ME – Structures from IIT/NIT/ any Deemed University (UGC guidelines)/ any international university of repute	20%
3	Assistant Bridge Engineer-2	Min. M.Tech/ME – Structures from IIT/NIT/ any Deemed University (UGC guidelines)/ any international university of repute	20%

4	IT person	Min. B.Tech/BE /BCA/in computer science / B.Tech/BE(IT) from deemed university/ any recognized university of India	15%
		Masters degree in computer applications/ computer science from deemed university/ any recognized university of India.	+5%
5	Professor of structures	Phd in structures and serving as professor in any recognized institute of repute.	20%

**2.17.5.2.1.2 Sub Criteria for Training, publication etc.- Maximum 5% Marks.:-**

Key professional who has undergone at least **two** trainings in the relevant field or whose at least **two** technical articles have been published will be given 5% marks.

**2.17.5.2.2 Sub Criteria for Adequacy for the project- Maximum 70 marks:-**

S. No	Staff Position	Experience	Marks
1	Bridge Engineer- Team leader	i) Less than 5 years experience in <b>bridge design</b>	0%
		ii) More than 5 years and less than 10 years in <b>bridge design</b>	35%
		i) Less than 5 years experience in <b>execution</b> of bridges at site as bridge engineer	0%
		ii) More than 5 years experience in <b>execution</b> of bridges at site as bridge engineer	35%
2	Assistant Bridge Engineer-1	i) Less than 5 years experience in <b>execution</b> of bridges at site.	0%
		ii) More than 5 years experience in <b>execution</b> of bridges at site in NHAI/externally funded project in India/ abroad.	70%
3	Assistant Bridge Engineer-2	i) Less than 5 years experience in <b>execution</b> of bridges at site.	0%
		ii) More than 5 years experience in <b>execution</b> of bridges at site in NHAI/externally funded project in India/ abroad.	70%
4	IT person	i) Less than 5 years experience in designing android based apps & data base including connecting database with app. for collection of data.	0%
		ii) More than 5 years experience in designing android based apps & data base including connecting database with app. for collection of data.	50%
		iii) Having done training assignment of staff in atleast any two projects	20%
5	Professor of structures	Ph.d in structures and serving as professor in any recognized institute of repute (IIT/NIT/Deemed University) and having done atleast two consultancy projects on rehabilitation of bridges.	70%

Note: Any upper age relaxation in case of candidates will not be allowed and the CV will not be evaluated.

#### **2.17.5.2.3 Sub Criteria for Employment with the firm–maximum 5 marks-:**

<b>S. No</b>	<b>Criteria</b>	<b>Marks</b>
1	Employed for more than 3 years	5
2	Employed for 1 to 3 years	3
3	Employed for less than one year	1

#### **2.18**

#### **NOTICES**

Any notice to be served under this contract shall be deemed to be validly served if sent by registered post, speed post or fax to the Consultant's registered office herein before mentioned or in respect of the Employer, to the Chief Engineer (Shimla Zone),HPPWD.,Nirman Bhawan, Nigam Vihar, Shimla (HP).as the case may be. Any notice so posted shall be prima-facie proof of serving at the expiration of the time within which in the normal course of posting, it would have reached the address to which it was sent.

#### **2.19**

#### **MISCELLANEOUS**

- a. The contract or any interest there under shall not be assignable to any third party by the consultant unless such assignment is mutually agreed to in writing by both the Employer and the consultant.
- b. No modification to the Contract document shall be binding unless it is in writing and signed by both the parties to the Contract.
- c. The terms and conditions in the Bidding document and the bids submitted and accepted constitute the entire Contract Agreement between the parties. Signed contract agreement shall supersede previous communications, representations or agreements either oral or written between the parties with respect to the subject matter of the Contract Agreement and no agreement or understanding varying or extending the Contract Agreement shall be binding on either the Employer or the Consultant. Contract shall have to be executed in writing and signed by duly authorized officers or representatives of both the parties.
- d. All the provisions of the contract agreement shall be harmoniously construed. In case of variation between certain points in the Tender document and the attached specifications/requirements for the inspection and acceptance of the system, the provision contained in Contract Agreement shall have and overriding effect.
- e. The contract shall be concluded in good faith and shall be kept confidential by both the contracting parties.
- f. The headings of Clauses are for the purposes of reference only and shall have no effect on the meaning or substances of any clause of the contract.
- g. Any further modifications/improvements in the system desired by the Employer shall be carried out by the consultant on mutually agreed terms.
- h. The contract shall be governed, interpreted and executed according to the Indian Law.
- i. The complete tender document comprising page no- 1 to page no- \_\_\_\_\_ forms the "Accepted Tender" (AT). The authorized signatory of the consultant i.e. the firm is supposed to initial every page of the AT with complete signatures at places where the representatives of the Employer has signed to acknowledge the

acceptance of AT within one week failing which it will be deemed as accepted by the consultant. The number of this AT would be quoted in all future correspondence.

## **2.20 COMING INTO FORCE**

After submission of performance Guarantee, the contract will be signed the contract shall come into force with effect from the date of its signing contract agreement by both the contracting parties. The contract agreement will be operated by the Authorized Representative of Chief Engineer (Shimla Zone),HPPWD.,Nirman Bhawan, Nigam Vihar, Shimla (HP).

**2.21** After signing of contract the Employer will be issuing letter to proceed to the consultant. The consultant shall start the work within 28 days from letter to proceed, failing which a penalty @ 1% per month subject to maximum of 10% will be imposed on the consultant.

## **2.22 FORCE MAJEURE**

- a. If either party is temporarily unable by reason of force majeure or the laws or regulations of India to meet any of its obligations under the contract, and if such party gives to the other party written notice of the event within fourteen (14) days after its occurrence, such obligations of the party as it is unable to perform by reason of the event shall be suspended for as long as the inability continues.
- b. Neither party shall be liable to the other party for loss or damage sustained by such other party arising from any event referred to in above mentioned section or delays arising from such event.
- c. The term 'force majeure' as employed herein shall mean acts of God, strikes, lock outs or other industrial disturbances, acts of the public enemy, wars, blockades, insurrection riots, epidemics, landslides, earthquakes, storms, lightning, floods, washouts, civil disturbances, explosions, and any other similar events, not within the control of either party and which by the exercise of due diligence neither party is able to overcome.

## **2.23 ADDRESS AND COMMUNICATION**

- a. All communications to the Employer are to be addressed to the Chief Engineer (Shimla Zone),HPPWD.,Nirman Bhawan, Nigam Vihar, Shimla-171002 (H.P), [Tel:+91-177-2620474](tel:+91-177-2620474) Fax: +91-177-2629319 E-mail: [hp-shi4@nic.in](mailto:hp-shi4@nic.in).
- b. All communications to the consultant are to be addressed to:-

Chief Engineer (Shimla Zone) HPPWD Nirman Bhawan, Nigam Vihar, Shimla-171002 (H.P), [Tel:+91-177-2620474](tel:+91-177-2620474) Fax: +91-177-2629319 E-mail: [hp-shi4@nic.in](mailto:hp-shi4@nic.in)

## **SECTION 3**

### **3.0 GENERAL (FINANCIAL AND LEGAL) CONDITIONS OF THE CONTRACT**

#### **3.1 GENERAL**

3.1.1 The consultant will procure; hire all necessary equipment/machine including Mobile Bridge Inspection Unit (MBIU) required for collection of bridge condition and bridge inventory data for a period of consultancy service.

3.1.2 The time period of the services after the Effective Date as per clause 2.20 to ITB shall be **eight months** or as mutually agreed between the parties.

3.1.3 This Contract shall expire when services have been completed and all payments have been made at the end of such time period after the Effective Date, as has been agreed between the parties.

#### **3.2 PAYMENT TERMS**

3.2.1. Payments will be made in **Indian Rupees only**

3.2.2 Payments shall be adjusted for deductions for advance payments, security deposit, other recoveries in terms of the Contract and taxes at source, as applicable under the law.

#### **3.2.3 ADVANCE PAYMENT**

3.2.3.1 The Employer will make the advance payment to the Consultant against provision by the Consultant of an Unconditional Bank Guarantee from a commercial bank acceptable to the Employer in amounts equal to 110% of the advance payment, up to 10% of Contract Value. The guarantee shall remain effective until the advance payment has been repaid, but the amount of the guarantee shall be progressively reduced by the amounts repaid by the Consultant.

3.2.3.2 The Consultant is to use the advance payment only to pay for procurement/hiring of Equipment/ Mobilization expenses required specifically for the Work. The Consultant shall demonstrate the advance payment has been used in this way by supplying copies of invoices or other documents.

3.2.3.3 Deleted.

3.2.3.4 The mobilization advance will be recovered in two installments from second & third running bill. In any case, the mobilization advance must be recovered within 6 months from the date of agreement. No account shall be taken of the advance payment or its repayment in assessing valuations of work.

### 3.2.4 PAYMENT SCHEDULE

Payments will be made within 30 days of successful submission of desired documents to the Chief Engineer (Shimla Zone),HPPWD., Nirman Bhawan, Nigam Vihar, Shimla (HP) Office at shimla as per following payment schedule and deliverables:

S.No.	Task/Report	Copies	Time allowed from start of assignment (days)	Approval time after submission (days)	%age of lump sum amount to be released.
1	Draft Inception Report	5 hard & soft copies.	25	15	10
2	Presentation by consultant on final inception report with time lines.	5 soft copies	50	5	5
3	Design of app and database with user friendly front end submission	Manual of operation-5 soft copies and hard copies	85	10	5
4	Live demonstration of software and app. successfully.	.	100	10	5
5	Handing over successfully the software and training the JE (IT).	Training manual- 2 number soft and hard copies	120	5	5
6	Collection of bridge inventory & condition survey data	5 hard & soft copies	170	15	45
7	Final submission of the reports with rating of bridges	5 hard & soft copies	195	10	25

3.2.5 The part payment can be allowed, if the consultant submits report for some Bridges, on pro-rata basis.

3.2.6 If the client had delayed payments beyond thirty(30) days after the due date stated above ,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 of 8% in local currency.

### 3.3 PRICES

3.3.1 The rates and prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subjected to any adjustment.

3.3.2 Bidder shall give the pricing as individual and as a total composite price inclusive of

all levies & taxes i.e. Sales Tax, Octroi, Entry Tax, Custom/ Excise Duty Packing, Forwarding, Freight, Insurance etc. except service tax. Client shall reimburse only taxes as per applicable laws.

3.3.3 Deleted

#### **3.4 EMPLOYER'S RIGHTS**

3.4.1 The Employer reserves the right to make changes within the scope of the Contract Agreement at any point of time.

3.4.2 The Employer reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids, at any time prior to award of contract without assigning any reason whatsoever and without thereby incurring any liability to the affected bidder or bidders on the grounds of Employer's action.

#### **3.5 SUBCONTRACTING BY THE BIDDER**

3.5.1 If subcontracting for specialized work is required, the Successful Bidder will take prior permission from HPPWD. Under all circumstances, the value of works subcontracted by Successful Bidder should not exceed 25% of the Contract Price. The Bidder is required to provide the details of the activities that it proposes to subcontract to third parties as per format given in **Section-6**.

3.5.2 In any case, the Successful Bidder shall be solely responsible to ensure compliance of all obligations under the contract.

3.5.3 Changes in a Firm

- (i) Where the consultant is a partnership Firm, partners shall not be changed in the Firm except with the previous consent in writing of the Chief Engineer (Shimla Zone), HPPWD., Nirman Bhawan, Nigam Vihar, Shimla (HP)., which may be granted only on a written undertaking by the all (old/new) partners to perform the contract and accept allliabilities incurred by the firm under the contract prior to the date of such undertaking.
- (ii) On the death of any partner of the consultant firm before complete performance of the contract, the Chief Engineer (Shimla Zone), HPPWD., Nirman Bhawan, Nigam Vihar, Shimla (HP).may, at the option of the consultant, cancel the contract, and in such case the consultant shall have no claim whatsoever to compensation against the Employer.
- (iii) If the contract is not determined as provided in sub-clause (ii) above, notwithstanding the retirement of a partner from the Firm, he shall continue to be liable under the contract for acts of the Firm until a copy of the public notice given by him under section 32 of the Partnership Act has been sent by him to the Chief Engineer (Shimla Zone), HPPWD., Nirman Bhawan, Nigam Vihar, Shimla (HP).by registered post acknowledgement due.

### **3.6 STANDARDS GOVERNING THE TENDER**

Wherever applicable, the standards published by following recognized bodies shall be applicable for equipment, if any to be supplied under this contract.

- (i) Bureau of Indian Standards (BIS)
- (ii) International Standards Organization ( ISO)

### **3.7 DELAYS IN COLLECTION OF DATA AND PROVIDING TECHNICAL SUPPORT / STAFF / TEAM LEADER**

Should any of the said services / personnel not be executed / provided during the contract period, the Employer shall in respect of any delays, have the right to claim and deduct from the payments due affected by such delay as agreed, liquidated damages in respect of such said services / personnel for the sum of 1% of the contract price of the unexecuted portion of the anticipated services / personnel for each and every week or part of a week subject to a maximum of 10% of the contract price for delayed services / personnel. Should the said delay in respect of execution of the said services / personnel exceed two months, the Employer shall have the right to terminate this contract fully, or in so far as it relates to the services / personnel which are subject matter of such delay, by sending written notice to that effect to the Consultant, in which case the furnished performance Bank Guarantee will be revoked.

However, if the completion of service is delayed due to the reasons beyond the control of the consultant, suitable extension may be granted by the Chief Engineer (Shimla Zone),HPPWD,Nirman Bhawan, Nigam Vihar, Shimla (HP).on receipt of express request along with full justification. In case of grant of any time extension, the consultant upon advice shall also suitably extend the validity of the Bank Guarantee. It is made explicitly clear that the payment of penalty shall not relieve the consultant from the obligations and liabilities under the contract agreement.

The Employer is also entitled to cancel the contract either in whole or in part, if the consultant fails to redo the rejected data of inventory and condition survey within one month from the date of its notification, in which case the furnished performance Bank Guarantee will be revoked.

### **3.8 LAWS GOVERNING THE CONTRACT**

- (a) This contract shall be governed by the laws of India for the time being in force.
- (b) Irrespective of the place of installation, the place of performance or place of payment under the contract, the contract shall be deemed to have been made at the place from which the acceptance of tender has been issued.
- (c) Jurisdiction of courts: The courts of the place from where the acceptance of tender has been issued shall alone have jurisdiction to decide any dispute arising out of or in respect of the contract.

### **3.9 CONSEQUENCE OF BREACH**

The decision of the Chief Engineer (Shimla Zone),HPPWD.,Nirman Bhawan, Nigam Vihar, Shimla (HP). as to any matter or thing concerning or arising out of the consultant or any partner of the consultant firm has committed a breach of any of the conditions of the contract, shall be final and binding on the consultant.

Should the consultant or a partner in the consultant firm commit breach of either of the conditions of the contract, it shall be lawful for the Chief Engineer (Shimla Zone),HPPWD.,Nirman Bhawan, Nigam Vihar, Shimla (HP).to cancel the contract, and award the contract to another consultant, at the risk and cost of the consultant.

### **3.10 RIGHT OF ACCEPTANCE OF OFFER**

The Employer reserves the right to accept partly or reject any offer without assigning any reason thereof. The Employer does not pledge itself to accept the lowest or any other tender and reserves to itself the right of acceptance of the whole or any part of the tender or portion of the quantity offered and the consultant shall supply the same at the rate quoted.

### **3.11 BANKRUPTCY**

If the consultant commits any act of bankruptcy or goes into liquidation or shall commence winding up by reasons of its insolvency or shall make an assignment for the benefit of creditor or goes into liquidation, this agreement may be terminated wholly or in part by the Employer and amount paid in advance if any received by the consultant shall become due to the Employer including interest.

## **SECTION 4**

### **4. SPECIAL CONDITIONS OF THE CONTRACT**

#### **4.1 DEFINITION**

These conditions given in this **Section 4**, supplement the "Instructions to the Bidders" given in **Section 2** & "General (Financial and Legal) Conditions of the Contract" given in **Section 3** and in case of any conflict, the conditions given herein shall prevail over those in **Sections 2 and 3**.

#### **4.2 EQUIPMENT**

- 4.2.1 Equipment / system, if any to be procured/hired by the Consultant shall conform to the relevant technical requirements necessary for execution of the contract.
- 4.2.2 Bidders have to give clause-by-clause compliance to the clauses mentioned in **Section-5** of this document along with reference to documentary support, giving the Page / Para number of the document. The clauses for which the compliances are required to be provided by the Bidders are given in the Section-6.
- 4.2.3 The cost of all data and / or analysis shall be fully borne by the consultant. Material put up for inspection shall be those to be supplied and in quantities laid down in the Schedule of Quantities. Any variation shall require the prior approval of the Employer before the material is manufactured/ offered for inspection.
- 4.2.4 The Employer shall inspect and re-check the data at all stages and shall have full powers to reject all or any data that may be considered defective or inferior in quality. The Consultant shall carry out any additional collection of data at his cost as are necessary in the opinion of the Employer.
- 4.2.5 All material/equipment brought to site shall be permitted to be erected/ utilized only after initial inspection / acceptance by the Employer.
- 4.2.6 The completed installation at all stages shall be subjected to checks and tests as decided by Employer. The consultant shall be liable to remedy all of such defects as discovered during these checks and tests and make good all deficiencies brought out.
- 4.2.7 The consultant shall advise the Employer at least 15 days in advance for inspection when any equipment or a portion of the work is offered for inspection. The Employer shall carry out inspection upon receipt of such advice.

#### **4.3 PERFORMANCE AND SPARES**

Consultant shall maintain sufficient spares for equipments utilized for conducting Bridge Inventory and Condition Survey by him for the satisfactory performance of the Contract.

## **4.4 INSURANCE**

4.4.1 All insurances (e.g. all risk insurance including transit, fire, theft etc., third party insurance, workmen's compensation insurance etc.) are the responsibility of the Bidder. The equipments utilized by the Consultant under the contract shall be fully insured by the Bidder against any kind of loss or damage incidental to manufacture or acquisition, transportation, storage, delivery and installation. The period of insurance shall be from the date of commissioning of products/equipment at each site till the completion of contract period.

4.4.2 The consultant shall cause all its workmen and the workmen of any sub consultants of the Consultant to be covered by workmen's compensation insurance in accordance with applicable laws. The consultant agrees that the Employer shall not be liable for any damages or compensation payable to any workman or other person in the employment of the Consultant.

4.4.3 The Consultant hereby undertakes:

- (a) adequate all-risks insurance in respect of all the equipment and
- (b) any additional insurance required by law in respect of the Contract Works and the performance thereof by the Consultant, including in respect of motor vehicles used by the Consultant in relation thereto.
- (c) any other insurance sufficient to provide adequate coverage for those types of risk which are reasonably foreseeable in the performance of the Contract Works.

## **4.5 ARBITRATION**

- (a) In the event of any question, dispute or difference arising under general conditions or special conditions of contract, or in connection with this contract (except as to any matters the decision of which is specially provided for by the general or the special conditions), the same shall be referred to the sole arbitrator, appointed by the Engineer-in-Chief, Nirman Bhawan, PWD, Shimla. The appointment of Arbitrator shall be made in accordance with Arbitration and conciliation Act,2015. The 'Award' of the arbitrator shall be final and binding on the parties to this contract.
- (b) In the event of the Arbitrator's dying, neglecting or refusing to act or resign or being unable to act for any reason, or his Award being set aside by the Court for any reason, it shall be lawful for the ENGINEER-IN-CHIEF, NIRMAN BHAWAN, PWD, SHIMLA to appoint another arbitrator in place of the outgoing arbitrator in the manner aforesaid.
- (c) It is further a term of this contract that no person, other than the person appointed by the ENGINEER-IN-CHIEF, NIRMAN BHAWAN, PWD, SHIMLA as aforesaid, should act as arbitrator and that, if for any reason that is not possible, the matter is not to be referred to Arbitration at all.
- (d) The Arbitrator shall announce the award within the time specified in the Arbitration and Conciliation Act, 2015.
- (e) Upon every and any such reference, the assessment of the costs incidental to the reference and Award, respectively, shall be at the discretion of the arbitrator.

- (f) Subject as aforesaid, the Arbitration Act, 1996 as amended and the rules there under and any statutory modification thereof for the time being in force shall be deemed to apply to the Arbitration proceedings under this clause.
- (g) If the value of the claim in a reference exceeds Rs. 1 lakh, the arbitrator shall give reasoned Award.
- (h) The venue of arbitration shall be the place from which formal Acceptance of Tender is issued or such other place as the Learned Arbitrator at his discretion may determine in consultation with the parties.

## **Section – 5**

### **5. SCOPE OF WORK**

The scope is for Collection of Bridge Inventory and Condition Data through app., its rating and providing rehabilitation measures with bill of quantity in state of Himachal Pradesh. The bridges shall be rated according to the severity index. In addition, the consultant will list possible reasons of distress with rehabilitation measures to be taken, write technical specifications and bill of quantity, bridge wise. The list of bridges proposed for investigation along with the relevant data as mentioned in Annexure-C will be provided by the department to the consultant.

### **5.1 METHOD OF WORK**

- 5.1.1 The work shall be executed to the highest standards using state of art technologies. The consultant is free to refer to the Indian/ International Standards best suited for this job and within the resources allocated. The consultant has been provided with sample formats (Annexure A & B) for the entire bridge inspection and data collection which shall be improved upon during the submission of the inspection report.
- 5.1.2 The complete operation and collection of data shall be subject to checks at all stages as deemed necessary by the Employer which will be discussed during the inception report and will be freezed. The consultant shall be liable to rectify such defects in data as brought out by the Employer or as noticed during the inspection and he shall make good all deficiencies at his own cost. In addition, separate chapter shall be dedicated in inception report on the way of presenting comparison of data (whichever is relevant i.e. theoretical and actual scour depths and other data) collected from the department and actually noticed at site.
- 5.1.3 The consultant shall rate the bridges in order of severity for which he will provide the rating methodology and index as per the best practices during submission of the inception report, as a separate chapter with references. This will be agreed with the employer during the discussions.
- 5.1.4 The consultant shall establish a temporary office at Shimla manned by senior coordinating personnel during the course of the data collection. The address of the office including the personnel manning it including their Telephone & FAX numbers and e-mail address, will be intimated by the consultant to the Employer before commencement of the services.

### **5.2 DATA COLLECTION**

#### **Task-1:**

- 5.2.1 Sample formats for collection of bridge condition data are enclosed at **Annexure-A** and Bridge inventory data to be collected utilizing Mobile Bridge Inspection Unit/similar equipment is enclosed at **Annexure-B**. The consultant will improve upon these sample formats to best of the practices and these formats will be agreed upon during the approval for the inception report. The consultant shall also provide the format in which inspection report for each bridge shall be generated through software (sample of the format is at Annex-E). The data required for generating inspection report shall invariably be collected and is part of the scope of work.

- 5.2.2 The consultant shall provide the rating methodology and index as per the best practices during submission of the inception report, as a separate chapter with references. This will be agreed with the employer during the discussions on inception report.
- 5.2.3 The consultant shall present the final inception report at Shimla and arrange presentation for about 30 officers of PWD.

**Task-2:**

- 5.2.4 The consultant shall first design the data collection app & data base with user friendly front end, based on the formats freezed during the inception report. The front end will also include the button for producing the bridge ratings on all the collected data. The code of the software shall be provided to the employer on finishing the assignment and it will be property of GoHP.
- 5.2.5 The data base and app will be made live before starting the overall exercise of data collection. The consultant will bear all the expenses including certification and other charges for hosting database on the database center of Department of IT at Shimla.
- 5.2.6 The software provided should be able to generate reports for the overall rating of the each bridge, summary and inspection report of each bridge as per the format agreed.

**Task-3**

- 5.2.7 The Bridge Inventory and Condition data shall be collected for the list of bridges attached at **Annexure-C** or as per formats agreed with the employer during the inception report.
- 5.2.8 A team of minimum three personnel (Bridge Engineer with at least two Assistant Engineers) shall travel with the MBIU/similar equipment for collection of bridge condition and bridge inventory data.
- 5.2.9 The bridge condition data is to be collected in one go utilizing Mobile Bridge Inspection Unit (BMI)
- 5.2.10 The consultant will arrange his own equipment for collection of the data.
- 5.2.11 During the Inspection, if any bridge is required to be repaired on urgent basis, consultant shall report the same to the Employer within 10 days of Inspection by email and by post. The consultant shall also evolve and provide rehabilitation measured with BOQ.

**Task-4**

- 5.2.12 The consultant at the end of the assignment shall rate the bridges according the severity and shall indentify the bridges requiring the complicated rehabilitation measures. He shall suggest in the report in technical specifications and bill of quantity, bridge wise based on the measures required. These measures shall also be discussed & approved by the consultant with the professor mobilized in his team.
- 5.2.13 The consultant shall arrange final presentation on the findings and the cost is to be borne by him for about 30 number of officers at shimla.

**Task-5**

- 5.2.14 The consultant shall give on job training to 8 bridge design engineers (2 from each zone) who will be associated with them during the collection of the data.
- 5.2.15 The consultant shall give the required training to two numbers of the Junior Engineer (IT) of HPPPWD at Shimla of 2 days in managing the app & software.

### 5.3 SUBMISSION OF REPORTS

SN	Task/Report	Copies	Time allowed from start of assignment (days)	Approval time after submission (days)	%age of lump sum amount to be released.
1	Draft Inception Report	5 hard & soft copies.	25	15	10
2	Presentation by consultant on final inception report with time lines.	5 soft copies	50	5	5
3	Design of app and database with user friendly front end submission	Manual of operation-5 soft copies and hard copies	85	10	5
4	Live demonstration of software and app. successfully.	.	100	10	5
5	Handing over successfully the software and training the JE (IT).	Training manual- 2 number soft and hard copies	120	5	5
6	Collection of bridge inventory & condition survey data	5 hard & soft copies	170	15	45
7	Final submission of the reports with rating of bridges	5 hard & soft copies	195	10	25

### 5.4 PREVENTIVE AND CORRECTIVE MAINTENANCE DURING THE CONTRACT PERIOD

5.4.1 During the contract period, the consultant shall inter alia:

- Diagnose and rectify equipments procured for the work, if any.
- Repair and replace the faulty equipment or part thereof
- Carry out the periodic preventive maintenance.
- Ensure commitments as per Requirements.

5.4.2 The consultant shall be solely responsible for the maintenance, repair of the equipments procured/ provided by the department.

## Section – 6

### 6.0 FORMATS TO BE USED FOR SUBMISSION OF PROPOSAL

#### 6.1 FINANCIAL PROPOSAL SUBMISSION FORM

\_\_\_\_\_ (Location)  
\_\_\_\_\_ (Date)

From \_\_\_\_\_ To \_\_\_\_\_  
The \_\_\_\_\_  
Himachal Pradesh Public Works  
Department, \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Subject:** Collection of Bridge Inventory and Condition Data through app., its rating and providing rehabilitation measures with bill of quantity in state of Himachal Pradesh.

**Ref.: Tender No. RW/**

Dear Sir/Madam

We, the undersigned, offer to provide the services as required in the above referenced tender and our Proposal (Pre-Qualification, Technical and Financial). Our attached financial proposal for *Collection of Bridge Inventory and Condition Data through app., its rating and providing rehabilitation measures with bill of quantity in state of Himachal Pradesh for a period of consultancy services INR\_\_\_\_\_ (Amount in words)*. This amount is inclusive of all taxes, duties etc.

Our Proposal is binding upon us and subject to the modifications resulting from contract negotiations, up to expiration of the validity period of the Proposal.

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".

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

Yours sincerely,

Authorized signatory:  
Name and title of Signatory:  
Name of Firm:  
Address:

**Detailed breakup of cost for Collection of Bridge Inventory and Condition Data through app., its rating and providing rehabilitation measures with bill of quantity in state of Himachal Pradesh for a period consultancy**

**1. Operation & Maintenance, Technical support system/staff for data collection, analysis, monthly report.**

Sl. No.	Particulars	Amount
1	Ownership, Operation and maintenance cost including fuel charges of Equipment procured/provided by the department for collection of data, if any	
2	Total Expenses for Key/Sub personnel including salary and deployment of computers/laptops, phone, fax, printer, digital camera with GPS and gate stamping facility <b>with breakup</b>	
3	Transport expenses	
4	Office Rental <b>at Shimla</b>	
5	Report preparation	
6	Wages of additional staff like operator - cum- mechanic for MBIU etc.	
7	Consumables	
8	Any other item	
9	Miscellaneous	
	<b>Total Amount</b>	

**2. Discounts, if any: INR.....**

**GRAND TOTAL AMOUNT (CONTRACT PRICE):**

**[(1-2)] = INR ..... (in figures)**  
**..... (in words)**

## 6.2 PRE-QUALIFICATION PROPOSAL SUBMISSION FORM

\_\_\_\_\_ (Location)  
\_\_\_\_\_ (Date)

From \_\_\_\_\_  
To \_\_\_\_\_  
The \_\_\_\_\_  
Himachal Pradesh Public Works Department, \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Subject:** Collection of Bridge Inventory and Condition Data through app., its rating and providing rehabilitation measures with bill of quantity in state of Himachal Pradesh.

**Ref.: Tender No. RW/**

Dear Sir/Madam,

We, the undersigned, confirm that we meet all the pre-qualification criteria listed in the bid document.

We are submitting the following documents for our eligibility for the above assignment.

Form PQ-1,  
Form PQ-2,  
Form PQ-3  
Form PQ-4  
Form PQ-5

Our Proposal is binding upon us and subject to the modifications resulting from contract negotiations, up to expiration of the validity period of the Proposal.

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

Yours sincerely,  
(Signature of the Authorized signatory):

Name and Designation of the Authorized signatory:

Name and Address of Firm:

Phone, Fax & E-Mail

Seal:

## Form: PQ-1

### BIDDER'S ANNUAL TURNOVER Proof for clause 2.16.1.3 (i)

\_\_\_\_\_ (Location)  
\_\_\_\_\_ (Date)

From \_\_\_\_\_  
To \_\_\_\_\_  
The \_\_\_\_\_  
Himachal Pradesh Public Works Department,  
\_\_\_\_\_

**Subject:** Collection of Bridge Inventory and Condition Data through app., its rating and providing rehabilitation measures with bill of quantity in state of Himachal Pradesh.

**Ref.: Tender No. RW/**

Dear Sir/Madam,

We hereby certify that the average annual turnover of M/s. \_\_\_\_\_ (name of the bidder) is not less than Rs. \_\_\_\_\_ during the last three financial years.

Sl. No.	Firm	Amount
1		

If the audited figures for 2015-16 is not available for any reason, it shall be indicated so and the audited figures of 2013-14 shall be included.

**Yours Sincerely,**

(Signature of Statutory Auditor)

Name of the Statutory Auditor:

Name of the Statutory Auditor Firm:

Seal:

**Important Notes: The above data should relate only to the Bidder /JV who has submitted the tender. Data relating to sister companies, group companies, parent company, subsidiary companies shall not be considered.**

## Form: PQ-2

### SIMILAR WORK EXPERIENCE Declaration for clause 2.17.4

\_\_\_\_\_ (Location)  
\_\_\_\_\_ (Date)

From \_\_\_\_\_  
To \_\_\_\_\_  
The \_\_\_\_\_  
Himachal Pradesh Public Works Department, \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Subject:** Collection of Bridge Inventory and Condition Data through app., its rating and providing rehabilitation measures with bill of quantity in state of Himachal Pradesh.

**Ref.: Tender No. RW/**

We hereby declare and confirm that we, \_\_\_\_\_ (Name of the Bidder), having registered office at \_\_\_\_\_ (address) have successfully executed the following qualifying works in the last 5 years. We are providing the details below: (Note: add rows as required).

Sl. No.	Name of the client organization	Purchase Order (P.O) No. & Date of issue of P.O.	Project Value	Brief Scope of Work	Whether the successful completion certificate as required, is attached?		Whether the copies of the purchase orders / contracts from the client as required, is attached?	
					Yes/No	Pg. No. on the Proposal	Yes/No	Pg. No. on the Proposal

**Yours Sincerely,**

**(Signature of Authorized Signatory)**

**Name and Designation of the Authorized Signatory:**

**Name and address of the Bidder Company:**

**Seal:**

### Form: PQ-3

## SUBCONTRACT DECLARATION & REQUEST FORM

### Declaration for clause 3.5

\_\_\_\_\_ (Location)  
\_\_\_\_\_ (Date)

From \_\_\_\_\_  
To \_\_\_\_\_  
The \_\_\_\_\_  
Himachal Pradesh Public Works Department, \_\_\_\_\_  
\_\_\_\_\_

**Subject:** Collection of Bridge Inventory and Condition Data through app., its rating and providing rehabilitation measures with bill of quantity in state of Himachal Pradesh.

**Ref.: Tender No. RW/**

1. We hereby declare and confirm that we, \_\_\_\_\_ (Name of the Bidder), having registered office at \_\_\_\_\_ (address), undertake that the following services towards this tender will not be subcontracted and will be executed only by the employees of our Company who are on our payrolls.
2. We are intending to subcontract the following works to the respective sub consultants as found in the table below. We submit the same for your approval.

Sl. No.	Name of Subcontracted Service	Details of the Subcontract work	Brief Profile of the Sub consultant proposed	Sub-Consultant Name, Address and Contact Numbers	Value of the subcontracted work.

3. We also undertake that under all Engineer-in-Chief, Nirman Bhawan, PWD, Shimla circumstances, the value of the works sub-contracted by us will not exceed 25% of the contract price.

**Yours Sincerely,**

(Signature of Authorized Signatory)

Name and Designation of the Authorized Signatory: Name  
and address of the Bidder Company:

Seal:

## Form: PQ-4

### KEY PROFESSIONEL

\_\_\_\_\_ (Location)  
\_\_\_\_\_ (Date)

From \_\_\_\_\_  
To \_\_\_\_\_  
The \_\_\_\_\_  
Himachal Pradesh Public Works Department,  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Subject:** Collection of Bridge Inventory and Condition Data through app., its rating and providing rehabilitation measures with bill of quantity in state of Himachal Pradesh.

**Ref.: Tender No. RW/**

Dear Sir/Madam,

We, M/s \_\_\_\_\_, hereby propose to engage following key personnel meeting the specified requirements stated in the Bid Document. The Bio data for each candidate indicating their qualification and experience is enclosed in the prescribed format.

1.	<b>Title of position*</b>	<b>Team leader-cum-Bridge Engineer</b>
	<b>Name</b>	
2.	<b>Title of position*</b>	<b>Assistant Bridge Engineer No-1</b>
	<b>Name</b>	
3.	<b>Title of position*</b>	<b>Assistant Bridge Engineer No-2</b>
	<b>Name</b>	
4.	<b>Title of position*</b>	<b>IT Person</b>
	<b>Name</b>	
5.	<b>Title of position*</b>	<b>Professor of Structural engineering</b>
	<b>Name</b>	

Yours Sincerely,

(Signature of Authorized Signatory)

Name and Designation of the Authorized Signatory: Name  
and address of the Bidder Company:

Seal:

**Form: PQ-5**

**RESUME OF PROPOSED PERSONNEL**

<b>Name of Bidder</b>		
<b>Position</b>		
<b>Personnel information</b>	<b>Name</b>	<b>Date of birth</b>
	<b>Professional qualifications</b>	
	<b>Total years of professional experience</b>	
	<b>Training, publication etc.</b>	
<b>Present employment</b>	<b>Name of employer</b>	
	<b>Address of employer</b>	
	<b>Telephone</b>	<b>Contact (manager / personnel officer)</b>
	<b>Fax</b>	<b>E-mail</b>
	<b>Job title</b>	<b>Years with present employer</b>

Summarize professional experience over the last 20 years, in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

<b>From</b>	<b>To</b>	<b>Company / Project / Position / Relevant technical and management experience</b>

## **Section -7**

### **FORMAT FOR SUBMISSION OF BANK GUARANTEES (PERFORMANCE BANKGUARANTEE)**

(To be stamped in accordance with Stamp Act if any, of the country of issuing bank)

To

The \_\_\_\_\_ Himachal Pradesh Public Works Department, \_\_\_\_\_  
against contract awarded vide letter no. \_\_\_\_\_ dated \_\_\_\_\_ for the  
\_\_\_\_\_ (hereinafter termed as the said "Contract") entered into  
between \_\_\_\_\_, Himachal Pradesh Public Works Department (hereinafter called

"THE EMPLOYER") and M/s \_\_\_\_\_ having its registered office at  
\_\_\_\_\_ and branch office at \_\_\_\_\_  
(hereinafter called the successful bidder), this is to certify that at the request of the successful bidder, we  
\_\_\_\_\_ Bank having its Registered/Head office at \_\_\_\_\_ and branch at  
\_\_\_\_\_ are holding in trust, in favour of THE EMPLOYER, the amount of Rs.  
\_\_\_\_\_ (Rs. in words \_\_\_\_\_) to indemnify and keep indemnified THE EMPLOYER against any loss  
or damage that may be caused to or suffered by THE EMPLOYER by reason of any breach by the successful  
bidder of any of the terms and conditions of the said contract/and/or in the performance thereof. We agree that the  
decision of THE EMPLOYER, whether any breach of any of the terms and conditions of the said contract and/or in  
the performance thereof has been committed by the Successful bidder and the amount of loss or damage that has  
been caused or suffered by THE EMPLOYER shall be final and binding on us and the amount of the said loss or  
damage shall be paid by us forthwith on demand, and without demur to THE EMPLOYER. The decision of THE  
EMPLOYER in this regard shall be final and binding upon the successful bidder and the bank.

We \_\_\_\_\_ Bank further agree that the guarantee herein contained shall remain in full force and effect  
up to the date six months after the expiry of the Contract period i.e. \_\_\_\_\_ (hereinafter referred as the said date)  
and that if any claim accrues or arises against us, we \_\_\_\_\_ Bank by virtue of this guarantee before the said date,  
the same shall be enforceable against us. Notwithstanding the fact that the same is enforced within six months after  
the said date, provided that notice of any such claim has been given to us by THE EMPLOYER within this period.  
Payment under this letter of guarantee shall be made within seven days upon receipt of notice to that effect from  
THE EMPLOYER.

It is fully understood that this guarantee is effective from the date of the said contract and that we  
\_\_\_\_\_ Bank undertake that no change or addition or modification of the terms of the contract or the work to  
be performed there under or any of the contract documents which may be made between  
"THE EMPLOYER" and the successful bidder, shall in any way release us from any liability under this guarantee,  
and we hereby waive notice of any such change, addition or modification.

We undertake to pay to THE EMPLOYER any money so demanded, notwithstanding any dispute or  
disputes raised by the Successful bidder in any suit or proceeding pending before any court or Tribunal relating  
thereto, our liability under this present being absolute and unequivocal.

The payment so made by us under this bond shall be a valid discharge of our liability for payment there  
under and the Successful bidder shall have no claim against us for making such payment.

We \_\_\_\_\_ Bank further agree that THE EMPLOYER shall have the fullest liberty, without affecting in any  
manner our obligations hereunder to vary any of the terms and conditions of the said contract or to extend time for  
performance by the Successful bidder from time to time or to postpone for any time any of the power exercisable

by THE EMPLOYER against the said Successful Bidder and is to forbear or Bank shall not be released from our liability under this guarantee by reason of any such variation or extension being granted to the said Successful bidder or for any forbearance by THE EMPLOYER or any other matter or thing what-so-ever, which under the law relating to sureties would, but for this provision have the effect of so releasing us from liability under this guarantee.

This guarantee will not be discharged due to the change in the constitution of the Bank or Successful Bidder.

Notwithstanding anything contained hereinbefore:

Our liability under this bank guarantee is limited to Rs. \_\_\_\_\_ (Rs. in words)

Will remain in force upto six months after the expiry of Contract period i.e. \_\_\_\_\_;

And unless a claim or demand under this guarantee is made on us in writing on or before \_\_\_\_\_ all our liability shall cease.

DATE \_\_\_\_\_

SIGNATURE OF THE AUTHORIZED SIGNATORY OF THE BANK  
(WITH CODE NO.) \_\_\_\_\_

SEAL OF THE BANK \_\_\_\_\_

SIGNATURE OF THE WITNESS \_\_\_\_\_

Name and Address of the Witness \_\_\_\_\_

The bank guarantee shall be issued either by a bank (Nationalized/Scheduled) located in India

## BANK GUARANTEE FORMAT FOR EARNEST MONEY DEPOSIT (EMD)

(To be stamped in accordance with Stamp Act if any, of the country of issuing bank)

Ref.: No. \_\_\_\_\_, dated \_\_\_\_\_

Bank Guarantee:

Date:

WHEREAS, \_\_\_\_\_ (Name of Bidder) (hereinafter called "the bidder") has submitted his bid dated \_\_\_\_\_ (date) for the **Tender bearing name.** \_\_\_\_\_, **dated** \_\_\_\_\_ (hereinafter called "the Bid").

KNOW ALL MEN by these presents that We, \_\_\_\_\_ [Name of Bank] of \_\_\_\_\_ [Name of Country] having our registered office at \_\_\_\_\_ (hereinafter called "the Bank") are bound unto \_\_\_\_\_ [Name of Employer] (hereinafter called "the Employer") in the sum of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ Lakhs Only) for which payment will and truly to be made to the said Employer the Bank binds himself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

THE CONDITIONS of this obligation are:

1. If the Bidder withdraws his Bid during the period of bid validity specified in the Bid document; or
2. If the Bidder does not accept the correction of arithmetical errors of his Bid Price in accordance with the Instructions to Bidder; or
3. If the Bidder having been notified of the acceptance of his Bid by the Employer during the period of bid validity,
  - a. fails or refuses to execute the Form of Agreement in accordance with the Instructions to Bidders, if required; or
  - b. fails or refuses to furnish the Performance Security, in accordance with the Instructions to Bidders,

we undertake to pay the Employer up to the above amount upon receipt of his first written demand, without the Employer having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him owing to the occurrence of one or any of the conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date 180 (one hundred and eighty) days after the deadline for submission of bids as such deadline is stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

Notwithstanding anything contained herein before, our liability under this guarantee is restricted to Rs. \_\_\_\_\_ (Rs. \_\_\_\_\_) and the guarantee shall remain valid till \_\_\_\_\_. Unless a claim or a demand in writing is made upon us on or before \_\_\_\_\_ all our liability under this guarantee shall cease.

DATE \_\_\_\_\_

SIGNATURE OF THE BANK \_\_\_\_\_

SEAL OF THE BANK \_\_\_\_\_

SIGNATURE OF THE WITNESS \_\_\_\_\_

Name and Address of the Witness \_\_\_\_\_

The bank guarantee shall be issued by a bank (Nationalized/Scheduled) located in India

## **Section -8**

### **DRAFT AGREEMENT**

**Contract agreement for Collection of Bridge Inventory and Condition Data through app., its rating and providing rehabilitation measures with bill of quantity in state of Himachal Pradesh.**

**(To be executed on appropriate Stamp Paper)**

This Contract agreement is made on \_\_\_\_\_ between the Governor of Himachal Pradesh, represented by the \_\_\_\_\_, Himachal Pradesh Public Works Department(hereinafter referred to as the 'Employer / Client' the term which shall mean and include its heads, administrators, executors and assignees) of the first part and M/s \_\_\_\_\_, (hereinafter referred to as the Consultant) of the second part.

- 1. WHEREAS** the Consultant represents that it is well reputed **Consultant**.
- 2. And WHEREAS** the Consultant has offered to the Employer for Collection of Bridge Inventory and Condition Data through app., its rating and providing rehabilitation measures with bill of quantity in state of Himachal Pradesh **for the period of consultancy service**(hereinafter called services) as given at para 5(iii) below.
3. And WHEREAS the Employer agrees to get the services and the Consultant agrees to provide the services in pursuant to the bid submitted by the consultants vide letterNo.\_\_\_\_\_ Dated \_\_\_\_\_ (hereinafter referred to as "the offer") and the Employer has by his letter of acceptance No.\_\_\_\_\_ Dated \_\_\_\_\_ accepted the offer submitted by the consultant at the contract price of Rs.\_\_\_\_\_ (in words) with details mentioned in para 5(iv) below in accordance with the terms and conditions below hereinafter contained and schedule of payment as mentioned in para 5(v) **AND WHEREAS** the consultant has agreed to provide services and has furnished performance security pursuant to para 2.7.2 of the instructions to bidders, **section- 2**.
4. Now this agreement witnessed as follows:-
  - (i) In this agreement words and expressions shall have the same meanings as are respectively assigned to them in the condition of contract hereinafter referred to:
  - (ii) The following documents/ sections of the Bidding Document shall be deemed to form and be read and construed as part of this agreement  
  
Section 1 Letter of Acceptance Section 2  
Instructions to Bidders  
Section 3 General (Financial and Legal) Conditions of Contract Section 4  
Special Conditions of Contract  
Section 5 Scope of Work  
Section 6 Formats submitted with the proposal
5. Scope is Collection of Bridge Inventory and Condition Data through app., its rating and providing rehabilitation measures with bill of quantity in state of Himachal Pradesh**for a period of consultancy service assumed as 205 days.**
  - (iv) Referring to consultant's price bid No. \_\_\_\_\_ dated \_\_\_\_\_ the total price of the **for a period of consultancy service is INR.....**

(v) Schedule of Payment

Payments will be made from respective regional officer, within 30 days of successful submission of desired half yearly summary reports to the \_\_\_\_\_ Engineer of the Regional Office at ..... as per following payment schedule:

SN	Task/Report	Copies	Time allowed from start of assignment (days)	Approval time after submission (days)	%age of lump sum amount to be released.
1	Draft Inception Report	5 hard & soft copies.	25	15	10
2	Presentation by consultant on final inception report with time lines.	5 soft copies	50	5	5
3	Design of app and database with user friendly front end submission	Manual of operation- 5 soft copies and hard copies	85	10	5
4	Live demonstration of software and app. successfully.	.	100	10	5
5	Handing over successfully the software and training the JE (IT).	Training manual- 2 number soft and hard copies	120	5	5
6	Collection of bridge inventory & condition survey data	5 hard & soft copies	170	15	45
7	Final submission of the reports with rating of bridges	5 hard & soft copies	195	10	25

(vi) In consideration of the payments to be made by the Employer to the Consultant as hereinafter mentioned, the consultant hereby covenants with the Employer to execute and complete the works and remedy any defects therein in all respects inconformity with the provisions of the Contract.

(vii) The consultant hereby also covenants that all the partners of Joint Venture shall be jointly and severally responsible to the Employer for the execution of the contract in accordance with the contract terms.

(viii) The Employer hereby covenants to the consultant in consideration of the execution and completion of the works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the Contract.

In witness whereof the parties hereto have caused this agreement to be executed the day the year first before written, signed, sealed and Delivered by the said Employer through his authorized representative and the Consultant through his Power of Attorney Holders.

(For an on behalf of the  
Consultant)

The \_\_\_\_\_  
Himachal Pradesh Public Works  
Department,

Witness

1. Signature \_\_\_\_\_

1. Signature \_\_\_\_\_

Name \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

Address \_\_\_\_\_

2. Signature \_\_\_\_\_

2. Signature \_\_\_\_\_

Name \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

Address \_\_\_\_\_

## ANNEXURE A

### PROFORMA FOR CONDITION SURVEY OF BRIDGES

1.	NH/SH/MDR/RR No/name	
2.	Location of bridge in Km	
3.	Name of River/Water Body/Bridge	
4.	Year of completion of bridge	
5.	Type of bridge (RCC/PSC, slab, timer, steel	
6.	Total length of bridge in 'm' with span	
7.	Width of carriageway and footpaths	
8.	Whether located in back Waters/chemical zone?	
	<b>Condition of the various bridge components:</b>	
	<b>Name of components</b>	<b>Condition</b>
9.	<b>Approaches:</b>	
9.1	Condition of pavement surface	Check unevenness settlement, cracking, potholes etc.
9.2	Side slopes	Erosion embankment, damage to pitching etc.
9.3	Approach slab	Check, settlement, cracks, movement etc.
9.4	Retaining walls	Check subsidence, tilting, weep holes
10.	<b>Protection Works:</b>	
10.1	Slope pitching, apron, floor protection, toe walls	Nature of damage, if any. etc
10.2	Scour in river bed	Check any abnormal scour noticed
11.	<b>Waterway:</b>	
11.1	Obstruction in waterways, island formation, Vegetation growth etc.	Presence and its impact on flow
11.2	Flow pattern and banks	Meandering inflow and erosion of banks
12.	<b>Foundation:</b>	
12.1	Type	CC/RCC/Masonry/well/Pile
12.2	Material	CC/Masonry/Timber
12.3	Condition of foundation	Settlement, Scour, Tilting
12.4	Piers/Abutments	Settlement, Scour Tilting
		Cracking, Disintegration, Decay, spelling, Rusting , Exposed reinforcement
13.	<b>Substructure</b>	
13.1	Type	Well(solid/hollow), Engineer-in-Chief, Nirman Bhawan, PWD, Shimla
13.2	Condition	Cavitations, honeycombing, spalling, rusting, strains.
14.	<b>Bearing:</b>	

<b>14.1</b>	<b>Type</b>	(Sliding plate/Rocker-
-------------	-------------	------------------------

		roller/Elastomeric/Paper/Concrete etc)
<b>14.2</b>	<b>Condition</b>	Movement/sliding
		Loss of shape, rusting, cleanliness, greasing, etc
<b>15.</b>	<b>Superstructure:</b>	
<b>15.1</b>	<b>Structural System</b>	Simply supported/continuous/Continuous overhand/balance cantilever
<b>15.2</b>	<b>Type</b>	(RCC/PSC/Steel/Timer/masonryetc)
<b>15.3</b>	<b>Arrangement</b>	T-beam, slab/box-girer
<b>15.4</b>	<b>Condition (girder)</b>	
<b>15.5</b>	<b>Condition (Deck)</b>	
		Cracking/Spalling/scaling/exposed reinforcement/leakage/vibration/exposed reinforcement
<b>15.6</b>	<b>In case of steel bridges</b>	Corrosion/painting/loose rivet joints
<b>15.7</b>	<b>In case of masonry bridges</b>	Pointing/joints mortar and bulging of spandrel
<b>16.</b>	<b>Expansion joint:</b>	
<b>16.1</b>	<b>Type</b>	
<b>16.2</b>	<b>Conditon</b>	
<b>17.</b>	<b>Wearing coat:</b>	
<b>17.1</b>	<b>Type</b>	(Concrete/Bituminous)
<b>17.2</b>	<b>Surface condition</b>	Cracks/potholes/riding Quality
<b>17.3</b>	<b>Drainage Spouts</b>	Clogging and damage if any
<b>18.3</b>	<b>Gabdrauks/Parapet:</b>	
<b>18.1</b>	<b>Type</b>	
<b>18.2</b>	<b>Damage/missing parts if any</b>	
<b>19.</b>	<b>Footpaths:</b>	
<b>21.</b>	<b>Type</b>	Water/sewer/electrical/Telephone
<b>22</b>	<b>Leakage/Damage if any</b>	
<b>23</b>	<b>Special Observation/Remarks if any</b>	

**ANNEXURE B**

<b>INVENTORY OF BRIDGES In HPPWD maintained roads</b>	
<b>(A) IDENTIFICATION</b>	
1.	Link No.
2.	State
3.	N.H./SH/MDR/RR NO / name
4.	Section
5.	Location
6.	Structure No.
7.	Latitude
8.	Longitude
9.	Features Intersected
10.	Facility Carried by Structure
11.	Popular/Official Name
12.	Highway Chief Engineer(Shimla Zone), Nirman Bhawan, PWD, Shimla
13.	Administrative District
14.	Nearest City/Town
15.	Custodian
16.	Year of Construction
17.	High Level or Submersible
18.	Overall Length of Bridge
19.	No. of Lanes
20.	Load Rating
21.	Average Daily Traffic(ADT)
22.	Year of ADT
23.	Detour Length
24.	Documentation
25.	Year of Inventory
<b>(B)STRUCTURE DATA</b>	
26.	Design Discharge in Cumecs
27.	Design HFL
27(a)	LWL/GL
28.	Design Scour Level at Pier
29.	Design Scour Level at Abutment
30.	Founding Strata
31.	Whether the Bridge is in Grade
32.	Road Level
33.	Road Width
34.	Overall Deck Width
35.	Approach Roadway Width Including Shoulder
36.	Height of Approach Embankment

37.	Average Skew	
38.	Whether Navigable	
39.	Vertical Clearance	
40.	Horizontal Clearance	

(B)(1)MAIN SPANS

41.	Total Number of Spans	
42.	Span Arrangement	
43.	Superstructure Type	
44.	Pier Type	
45.	Abutment Type	
46.	Pier Foundation Type	
47.	Maximum Depth of Pier Foundation	
48.	Abutment Foundation Type	
49.	Maximum Depth of Abutment Foundation	
50.	Type of Bearings	
51.	Wearing Coat Type	
52.	Expansion Joints Type	
53.	Railing Type	

(B)(2 )APPROACH SPANS

54.	Total Number of Spans	
55.	Span Arrangement	
56.	Superstructure Type	
57.	Pier Type	
58.	Abutment Type	
59.	Pier Foundation Type	
60.	Depth of Pier Foundation	
61.	Abutment Foundation Type	
62.	Depth of Abutment Foundation	
63.	Type of Bearings	
64.	Wearing Coat Type	
65.	Expansion Joints Type	
66.	Railing Type	

(B)(3)(GENERAL)

67.	Corrosion Protection Measures	
68.	Bank Protection & Type	
69.	Floor Protection & Type	

(C)HISTORY

70.	Suspension of Traffic	
71.	Erosion of Banks	
72.	Scour around Guide Bunds	

73.	Abnormal Scour Level Around Piers	
74.	Abnormal Scour Level Around Abutments	
75.	<u>Abnormal Flood Level</u>	
76.	Distress and Repair in Foundation	
77.	Distress and Repair Guide Bunds	
78.	Distress and Repair in <u>Substructure including Bearings</u>	
79.	Distress and Repair in <u>Superstructure</u>	
80.	Any other Observations	

**BRIDGE PROPOSED FOR INVESTIGATION THROUGH CONSULTANCY SERVICE IN  
RESPECT OF ALL ZONES OF HPPWD**

<b>Sr. No</b>	<b>Circle/Division</b>	<b>Location of bridge (Km/Land Mark)</b>	<b>Name of road NH/SH/MDR No./Name</b>	<b>Type of bridge</b>	<b>Year of construction</b>	<b>Total length of bridge with span (In</b>
<b>KANGRA ZONE</b>						
<b>5th Palampur Circle</b>						
1	Palampur / Jaisinghpur	Bridge over Neogal Khad at Balakrudi	Alampur Lahru Majheen road at RD 1/510 to 1/620. (VR)	Pre-stressed Box Girder	1990	110-00 mtrs=70-00 mts +40-00 mts.
2	Palampur / Jaisinghpur	Sita Ram Khad	Alampur Harsipattan road at RD 21/165. (VR)	T-Beam and slab	1997	2x19.75 =39.50 Mtrs
3	Palampur / Jaisinghpur	Squard Khad Crossing No. 1	Hamirpur Sujanpur Thural Maranda road at RD 34/985 (MDR)	Vented causeway	1983	20.00 mtr
4	Palampur / Jaisinghpur	Squard Khad Crossing No. 2	Hamirpur Sujanpur Thural Maranda road at RD 34/702 (MDR)	Vented causeway	1981	105.00 mtr.
5	Palampur / Tanda	Joggal Khad Bridge at RD 0/420	Samloti Sarotri road T-3 (VR)	Steel Truss Bridge	1972	37 mtr.
6	Palampur / Tanda	Bathu Khad Bridge at RD 6/690	Chhughera Malmu road L-061 (VR)	Steel Truss Bridge	1986	50 mtr.
7	Palampur/ Kangra	Gaj Khad RD 17/090.	Ranital Kotla road at RD 17/090. (State Highway) (MDR)	PSC	1983	140
8	Palampur/ Kangra	Shingar Baan bridge RD 8/699.	chambi Dharamshala road at RD 8/699. (MDR-45)	Stone Arch. Type	1960	17.00
9	Palampur/ Kangra	Banoi Khad Kalla Nalla RD 12/240	Chambi Dharamshala road at RD 12/240.(MDR-45)	Stone Arch. Type	1950	16.80
10	Palampur/ Kangra	Bhor Bhalli khad RD 16/103.	Kahlian to Tiare Dhagiyari road at RD 16/103. R.R. )	Steel	1996	27.90
11	Palampur/ Kangra	Maned khad RD 19/710.	Bhanala to Rulehar roasd at RD 19/710.(R.R. )	Steel	1998	28.60
12	Palampur/ Kangra	Bandla Nalla RD 0/290.	Shahpur to Gandharp road at RD 0/290. (R.R. )	RCC	1912	16.00
13	Palampur/Dharmahsala	Bridge over Manooni Khad at RD 2/260 Near G.S.S.S. Mandal	Bagli Masrehar Yol Jheol road at RD 2/260 (V.R.)	RCC -T- Beam+solid slab bridge	1979	42.00
14	Palampur/ Dharmahsala	Bridge over Manjhi Khad Bridge at RD 2/435 at Chetru	Gaggal Chetru D/Shala Mcleodganj road at RD 2/435 (M.D.R.)	Arch. Type Bridge with Orthotropic Deck	2001	36.00

15	Palampur/ Palampur	Bhiral Khad at RD 32/525	Dharmasala Yol Dadh Palampur Road at RD 32/525 (M.D.R.)	RCC	1970	8.000
16	Palampur/ Palampur	Tahal Khad at RD 6/930	Parour Dheera Naura road at 6/930 (V.R.)	Steel Bridge	1970	30.000
17	Palampur/Palampur	Neogal Khad at RD 36/750	J.K.B.N. road at RD 36/750 (V.R.)	Steel Bridge	1974	42.870

### 7th Dalhousie Circle

18	Dalhousie/Dalhousie	RD. 18/0/Chakki khad bridge	Bakloh Shahpur Road at RD. 18/0 (SH)	P. S.C	1971	Two span 50 feet & one span 150 feet
19	Dalhousie/Dalhousie	RD. 39/0/Dehar khad bridge	Bakloh Shahpur Road at RD. 39/0 (SH)	P. S.C	1969	Two span 50 feet & one span 150 feet
20	Dalhousie/Dalhousie	RD. 4/320/Brahal khad bridge.	Shahpur Sihunta Chowari Jot Chamba Road at RD. 4/320 (SH)	P. S.C	1969	Two span 50 feet & one span 150 feet
21	Dalhousie/Dalhousie	RD. 25/973/Hobardi khad bridge	Nurpur Sanjha Nallah Lahru Tunuhatti road at RD. 25/973 (SH)	Steel truss bridge	1975	Two span 48.76 mtr. & 18.28 mtr.
22	Dalhousie/Dalhousie	RD. 24/800/ Channal bridge	Shahpur Sihunta Chowari Jot Chamba Road at RD. 24/800 (SH)	Steel truss bridge	1980	137 feet 6 inch.
23	Dalhousie/Chamba	RD. 0/010/Baloo Bridge	Chamba Tissa road at Km. 0/010. (NH)	Steel Truss	1975	75.00
24	Dalhousie/Chamba	RD 3/588/Sal bridge	Chamba Sahoo road at Km. 3/588 (MDR).	RCC-T-Beam bridge	3/1970	19.80
25	Dalhousie/Chamba	RD. 0/189/Kiri bridge.	Kiri Lagga road at Km. 0/189. (RR)	RCC Box Girder	1975	49.50
26	Dalhousie/Tissa	RD. 45/000/Kalhel bridge.	Chamba Tissa road at Km. 45/000 (NH).	RCC-T-Beam	1980	19.75
27	Dalhousie/Tissa	RD. 54/830/Chanju Nallah bridge.	Chamba Tissa road at Km. 54/830 (NH).	Arch Type	1979	19.00
28	Dalhousie/Tissa	RD. 56/350/Kurched Nallah bridge.	Chamba Tissa road at Km. 56/350 (NH).	RCC-T-Beam	1980	19.75
29	Dalhousie/Tissa	RD. 64/470/Tissa nalllah bridge	Chamba Tissa road at Km. 64/470. (NH)	Arch type	1979	22.50
30	Dalhousie/Salooni	RD 17/392/Bhalei Nalah	Bathri Sundla Langer J & K Boundary road at RD 17/392 (SH)	RCC T-Beam	1972	28.80
31	Dalhousie/Salooni	RD 56/855/Chakoli	Bathri Sundla Langer J & K Boundary road at RD 56/855 (SH).	Arch Bridge	1977	30.00

### 9th Nurpur Circle

32	Nurpur/Jawali	44/472 Bassa khad	Jawalamukhi Dehra Jawali Raja Ka Talab road MDR-80	RCC slab	1980	17.00
33	Nurpur/Jawali	44/965 Gaj Khad	Jawalamukhi Dehra Jawali Raja Ka Talab road MDR-80	Pretested concrete Box Girder	1984	135.00

34	Nurpur/Jawali	50/705 Giran khad	Jawalamukhi Dehra Jawali Raja Ka Talab road MDR-80	RCC T-Beam	1984	19.75
35	Nurpur/Jawali	59/420 Badela khad	Jawalamukhi Dehra Jawali Raja Ka Talab road MDR-80	RCC slab	1986	21.00
36	Nurpur/Jawali	70/293 Buhal khad	Jawalamukhi Dehra Jawali Raja Ka Talab road MDR-80	RCC slab	1968	71.20
37	Nurpur/Jawali	3/700 Nagrotu khad	Lab Mastgarh Jounta road Rural road	Steel Truss	1986	27.20
38	Nurpur/Jawali	68/215 Khakhod Khad	Ranital Kotla road MDR -88	Steel Truss	1985	19.37
39	Nurpur/Jawali	74/845 Bagga Nallah	Ranital Kotla road MDR-88	RCC slab	1981	12.00
40	Nurpur/Jawali	Nagrota Surian (Railway over bridge) (constructed by Railway) 35/600	Gaggal Tiara Lunj Nagrota Surian road Rural road RR	RCC slab	1974	8.00
41	Nurpur/Fathepur	Chatta Km. 21/795	Pong Dam Fatehpur Jassur road (MDR-82)	Dack slab.	1982-83	40 mtrs.
42	Nurpur/Fathepur	Sihal Khad Km. 24/150	Pong Dam Fartehpur Jassur road (MDR-82)	RCC Beam	1983-84	320.35 mtr.
43	Nurpur/Fathepur	Mohtli Km. 0/510	Mohtli Sirat Chhouchar Baleer road (RR No. 047)	RCC Slab Type	2006	31.89 mtrs.
44	Nurpur/Fathepur	Attara Km. 9/075	Jassur Gangath Indora road (RR No. 001)	T-beam	1986	82.96 mtrs.

## HAMIRPUR ZONE

### 8th Circle Hamirpur

1	8th Circle /Hamirpur	Beas River	Hamirpur Sujanpur Thural Maranda road at RD 24/465 (MDR )	RCC T-beam	1981	240.20 mtrs
2	8th Circle /Hamirpur	Pung Khad	Hamirpur to Sujanpur road via Chouri at RD 19/210 ( VR )	RCC T-beam	1988	62.25mtrs.
3	8th Circle /Hamirpur	Kunah Khad	Dhaneta Hamirpur road at RD 23/700 ( VR )	RCC T-beam	1982	82.00 mtrs
4	8th Circle /Hamirpur	Sukkar Khad	Kudhiar Masiana road at RD 7/610 ( VR )	RCC T-beam	2002	202.96 mtrs.
5	8th Circle /Hamirpur	Kunah Khad	Kudhiar Masiana road at RD 9/613 to 9/675 ( VR )	RCC T-beam	1995	62.80 mtrs
6	8th Circle /Hamirpur	Nadaun Sujanpur road at RD.2/645	Nadaun Sujanpur road (MDR)	RCC Box Girder Bridge	1978	3 No.spans of 37.00mtr each
7	8th Circle /Tauni Devi	Gudhwin Khad	Hamirpur Bhoranj Jahu road at RD 7/480 (MDR-35)	RCC T-beam bridge	1980-81	18.80 mtrs.
8	8th Circle /Tauni Devi	Kunah Khad	Hamirpur Bhoranj Jahu road at RD 17/555 (MDR-35)	RCC T-beam bridge	1982-83	19.75mtrs.
9	8th Circle /Tauni Devi	Mehali Khad	Sujanpur Sandhol Mari road at RD 2/800 (MDR-38)	RCC T-beam bridge	1988	134.00 mtrs.
10	8th Circle /Tauni Devi	Jangel Beri Khad	Sujanpur Sandhol Mari road at RD 9/750 (MDR-38)	RCC T-beam bridge	1994	152.00 mtrs.

11	8th Circle /Tauni Devi	Bakkar Khad	Sujanpur Sandhol Mari road at RD 18/780 (MDR-38)	RCC T-beam bridge	1997	288.00 mtrs.
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### 10th Circle Bilaspur

12	10th circle / Division No. I	RD 156/600	C/o Slapper bridge over Satluj river on Chandigarh Mandi Manali road NH-205.	Pre.strssed RCC. T-Beam Bridge.	1964	139.00 mtr
13	10th circle / Division No. II	R.D. 105/500.	Chandigarh Mandi Manali road NH-205(NH-21 Old)at R.D. 105/500.	Buttress Pier type bridge.	1962	106.50 mtrs

### 15th Circle Una

14	Una/Una	0/570 near Santokhgarh	Santokhgarh Polian road km. 0/780	Prestressed concrete bridge	1983	10 Nos. ( 8 span 42 mtr each and end 2 span 41.50 mtr. each Total span .=418 mtr
15	Una/Una	Hoshiarpur road at RD. 2/800	Una Hoshiarpur road km. 13/308	RCC T-Beam	1962	15 Nos span (17.84 mtr each) total span 270 mtr.each

## SHIMLA ZONE

### 3 rd Circle Solan

1	Solan/Kasauli	Kaushalya River on Bhognagar Chakki Mour road at RD 11/345.	RR	Arch Bridge	1985-86	20.00 meter.
2	Solan/Kasauli	Kaushalya River on Parwanoo Khadeen road at RD 2/425.	RR	Arch Bridge	1985-86	30.00 meter.
3	Solan/Kasauli	Gamber Khad on S.A.K.B road at RD 32/300.	MDR	Arch Bridge	1973-74	60.00 meter.
4	Solan/Kasauli	Kharshi Khad on S.A.K.B. road at RD 39/898.	MDR	Arch Bridge	1978-79	30.00 meter.
5	Solan/Kasauli	Beja Khad on S.A.K.B. road at RD 64/070	MDR	Steel Bridge	1969-70	25.00 meter.
6	Solan/Arki	Kuni Khad on SKRN road. at RD. 47/700.	MDR-77	RCC slab cantilever 3 nos spans -25.00 meter each.	1966-67	75.00 meter.
7	Solan/Arki	Gamber Khad on SKRN road at RD. 49/700.	MDR-77	RCC slab cantilever 4 nos spans -25.00 meter each.	1970	100.00 meter.
8	Solan/Arki	Kuni Khad on SAKB road at RD.17/100.	MDR-75	Arch Bridge.	1971	12.00 meter.
9	Solan/Arki	Sayard khad on SAKB road at RD. 4/100.	MDR-75	RCC-T-Beam span.	1974	13.50 meter.

### 4th Circle Shimla

10	4th Circle/ Shimla Division No.I	34/350	Shoghi Mehli Junga Sadhupul road(MDR-13)	RCC-T-Beam Bridge	1988	22.50 Mtr.Single lane
11	4th Circle/ Shimla Division No.I	42/230	Shoghi Mehli Junga Sadhupul road(MDR-13)	RCC Slab	1998	6.00 Mtr.Single lane
12	4th Circle/ Shimla Division No.I	8/500	Old Kasumpati Junga road(R.R)	Valley bridge Steel trussed	1912	31.00 Mtr.Jeepable
13	4th Circle/ Shimla Division No.I	1/870	Damachi to Bhad Road(R.R)	RCC T-Beam Bridge	2016	16.75 Mtr.Single lane
14	4th Circle/ Shimla Division No.I	149/010	Bridge on MRR(Shimla) over Combermere Nallah(MDR-67)	RCC T-Beam Bridge	1977	32.50 Mtr.Double lane
15	4th Circle/ SRD Dhami	Tatta Pani over Satluj River(RD 52/200)	Shimla Mandi Road via Tattapani(MDR-76)	Cantilever Prestressed Box Girder Bridge	2005	82 Mtrs.
16	4th circle /Theog	Imp.of Sainj Deha Chopal Road km 0/0 to 20/740 at Lelupul RD 1/450)	MDR No. 74	Arch Bridge	1967	30 mtrs. span
17	4th circle /Theog	Imp.of Sainj Deha Chopal Road km 0/0 to 20/740 at Bajrolipul RD 5/540	MDR No. 74	Arch Bridge	1966	30 mtrs. span

### 11th Circle Rampur

18	Rampur/Rampur	Katolu Bridge	Jeori Ganvi Road over Satluj RD 2/810	Steel Truss Bridge Deck Type	1991	75 Metres
19	Rampur/Rampur	Dalog Bridge	MashnooTaklech Bahli Sungri Road RD 40/000	Bailey Bridge DS Extra width	1998	30.48 Metres
20	Rampur/Rampur	Taklech Bridge	Mashnoo Taklech road at RD 48/000	T-beam bridge	1998	23 Metres
21	Rampur/Rampur	Sarahan Bridge	Gharat Circuit House Sarahan Road at RD 4/480	Bailey Bridge DS extra wide	1999	12.19 Meters
22	Rampur/Rampur	Melan Khad Bridge	Oddi Khaneti Kotgarh Road at RD 17/320	RCC T-Beam	1992	16 Metres
23	Rampur/Rampur	Jogni Nallah Bridge	Narkanda Thanedhar Kotgarh Bithal Road at RD 39/270	RCC T-Beam	1993	12 Metres
24	Rampur/ Nirmand	Kasholi Khad Bridge	Wazir Bowali Jhakri bye pass road at RD 4/638 to 4/667.	Pre-stress girder type bridge.	1989-90	29 Metres
25	Rampur/ Nirmand	Bridge at Jagat Khana	Wazir Bowali Jhakri bye pass road at RD 5/183 to 5/215.	Pre-stress girder type bridge.	1989-90	27 Metres
26	Rampur/ Nirmand	Bridge at Khunni Khad	Wazir Bowali Jhakri bye pass road at RD 7/812 to 7/847.	Pre-stress girder type bridge.	1989-90	35 Metres
27	Rampur/ Nirmand	Kaju Khad Bridge	Wazir Bowali Jhakri bye pass road at RD 12/645 to 12/695.	Pre-stress girder type bridge.	1994-95	30 Metres
28	Rampur/ Nirmand	Nagan Bridge	N.C.C Road at RD1/300.	R.C.C T- beam bridge	1973	23 Metres
29	Rampur/ Nirmand	Showad Bridge	N.C.C Road at RD 7/750.	Pre-stressed concrete bridge.	1991	46.5 Metres

30	Rampur/ Karchham	Sangla Bridge over Baspa Khad	Rutarang Boning Saring Road at RD 3/500	Bailey Bridge	1997	42.67 Metres
31	Rampur/ Karchham	Ramni Bridge over Satluj River	NH-22 to village Ramni at RD 0/000	Suspension Bridge	2000	92 Metres
32	Rampur/ Karchham	Nigulsari bridge over River Satluj	Link road to village Chhota Kamba at RD 5/250	Suspension Bridge	2000	80 Metres
33	Rampur/ Kalpa	Giabong Bridge	Chasso Ropa road RD. 0/560	Bailey Bridge DSR std width	1999	33.53 Metres
34	Rampur/ Kalpa	Moorang Bridge	Link road to village Thangi RD. 1/105	Bailey Bridge DS std width	1984	18.28 Metres
35	Rampur/ Kalpa	Moorang Bridge	MoorangRest House to Thowaring road RD. 1/375	Bailey Bridge SS std width	1997	21.34 Metres
36	Rampur/ Kalpa	Moorang Bridge	ThangiKunnuCharang road over satluj river RD. 0/180	Suspension Bridge	1987	126.25 Metres
37	Rampur/ Kalpa	Neesang bridge	Link road to village Nessang over Satluj river RD 0/700	Suspension Bridge	1988	95 Metres
38	Rampur/ Kalpa	Pangi Bridge	Link road to village Pangi	RCC T-Beam	1980	15.75 Metres
39	Rampur/Kaza	Takli Nallah Bridge	Kyato Chhicham Road at RD 4/185	Bailey Bridge SS Std width	1995	18.29 Meters
40	Rampur/Kaza	Attargu Bridge	Attargu Sagnam Mud Bhaba Road over Spiti River at RD 0/000	Steel Truss Semi Through Type	1986	48 Meters
41	Rampur/Kaza	Shila Nallah Bridge	Gramphoo Batal Kibber Road at Km. 132/100	Steel Truss bridge Deck Type	1975	10 Meters

### 12th Circle Nahan

42	12th Circle HPPWD Nahan/ Nahan.	1/015	C/O 33.18 mtr Box cell bridge over Malonwala ka Khalla on Khajurrna Malonwala road (RR-121).	Box cell bridge	2011	33.18 mtr
43	12th Circle HPPWD Nahan/ Nahan.	7/500	C/O 20.40 mtr solid slab bridge on Nagal Ka Khalla on Khajurrna Bikram Bag Suketi Kala Amb road (MDR -004).	Box cell bridge	1985	20.40 mtr
44	12th Circle HPPWD Nahan/ Nahan.	29/135	C/O 76.20 mtr arch bridge over Jalal Khud on Nahan Dadhau Haripurdhar road (MDR -001).	Arch bridge	1969	76.20 mtr
45	12th Circle HPPWD Nahan/ Nahan.	3/900	C/O 40.00 mtr Box cell bridge on Kala Amb Trilokpur road over Khari ka Khalla (MDR -004).	Box cell	1985	40.00mtr

46	12th Circle HPPWD Nahan/ Nahan.	4/865	C/O 40.00 mtr Box cell bridge on Kala Amb Trilokpur road over Khari ka Khalla (MDR -004).	Box cell	1991	40.00 mtr
47	12th Circle HPPWD Nahan/ Paonta Sahib.	10/130	MDR/ Paonta Puruwala Singhpura Bhagani Gojjar Dak Pather road (MDR -094).	PSC bridge	1985	292.00 mtrs span (6 Nos span of 48.66mtrs each) with 4.25 mtrs carriage
48	12th Circle HPPWD Nahan/ Shillai.	25/430	Renuka Sataun road km 13/450 to 29/060 (MDR-006).	Steel truss concrete bridge	1974	30.00 mtrs.

#### 14th Rohru Circle

49	Rohru/Chopal	Bharanu Nallah(RD-6/190)	RR/Banipul Mashrain Tharoch Road	Bailey Bridge(Steel Truss)	1983	27.5 Meters
50	Rohru/Chopal	Oul Bridge(RD-12/750)	RR/Sainj Khud Dimni Tharoch Kupvi Road	Bailey Bridge(Steel Truss)	1999	28.5 Meters
51	Rohru/Jubbal	Bridge over Tikkari Nallah (RD-1/315)	MDR/Gumma Baghi Road	RCC T-beam Bridge	1979	36 Meters

#### MANDI ZONE

#### 1st Circle Mandi

1	Mandi /Mandi-1	At RD 0/070.)	Pandoh Shiva road km. 0/0 to 13/0 (RR)	Suspension Bridge	1923	C/o 86.40 mtr.span Suspension bridge
2	Mandi /Mandi-1	At RD 12/690.	Ghatasani Tikken Barot road (RR)	Steel Truss Bridge	1975	C/48.78mtr. Span Steel truss Tikken Bridge
3	Mandi /Mandi-1	At RD 46/840	M.K.K.B. Road (RR)	R.C.C. T-Beam Bridge	1985	C/o15.25 mtr.span R.c.c. T-Beam at Ropa Nallah
4	Mandi /Mandi-1	At RD 22/215	M.K.K.B. Road (RR)	Composite Steel Plate Girder Bridge	1990	C/o 25.00 mtr. Span Composite Steel Plate
5	Mandi /Mandi-1	At RD 46/767	M.K.K.B. Road (RR)	R.C.C. T-Beam Bridge	1990	C/o13.00 mtr.span R.c.c. T-Beam at Ropa Nallah
6	Mandi /Mandi-1	At RD 5/060.	Urla Kotrupi chuku road (RR)	R.C.C. T-Beam Bridge	1994	C/o 19.75 mtr.span R.c.c. T- Beam bridge at Nagar
7	Mandi /Mandi-1	At RD 4/080	Tikken Shilbhhani road (RR)	Steel Truss Bridge	1995	C/33.50 mtr. Span Steel truss Tuin Bridge
8	Mandi /Mandi-1	At RD at 3/360	Deokhan Monal road (RR)	R.C.C. T-Beam Bridge	2000	C/o25.00 mtr.span R.c.c. T-Beam Munal Bridge
9	Mandi /Mandi-1	At RD 15/585	M.K.K.B. Road (RR)	Composite Steel Plate Girder Bridge	2005	C/o 19.75 mtr. Span Composite Steel Plate
10	Mandi /Mandi-1	At RD 0/150	Kamand Neri road (RR)	Composite Steel Plate Girder Bridge	2005	C/o 35.00 mtr. Span Composite Steel Plate
11	Mandi/Mandi-II	At RD 206/032	OLD PCM road portion Km 206.00 to 207.400	Suspention Bridge	1877	80.00 mtr

12	Mandi/Mandi-II	At RD 14/500	Kotli Kun Ka Tar road (MDR-32) at Rd 14/500	steel truss bridge	1996	75.70 mtr
13	Mandi/Mandi-II	At RD 5/150	Ratti Kalkhar road (MDR-80) Km 0/00 to 14/800	steel truss bridge	1978	35.00 mtr
14	Mandi/Mandi-II	At RD 0/215	Sinyah Dhawan road Km 0/00 to 6/200	RCC T-Beam Bridge	1990	21.00 mtr
15	Mandi /Sunder Nagar	At RD 164/680.	Chandigarh Mandi Manali road (old NH-21) New NH-205	Box girder bridge double lane.	1989	78.00 mtr. Span Box girder bridge double lane.
16	Mandi / Karsog	at RD 1/180	Chindi Pangna road Km. 0/0 to 10/200 . <b>(Bridge at RD 1/180).</b>	RCC T-Beam	1981	10.00
17	Mandi / Karsog	at RD 4/935	Chindi Pangna road Km. 0/0 to 10/200 . <b>(Bridge at RD 4/935).</b>	RCC T-Beam	1981	15.75
18	Mandi / Karsog	at RD 8/090	Chindi Pangna road Km. 0/0 to 10/200 . <b>(Bridge at RD 8/090).</b>	RCC T-Beam	1982	18.25
19	Mandi / Karsog	at RD 9/475	Chindi Pangna road Km. 0/0 to 10/200 . <b>(Bridge at RD 9/475).</b>	RCC T-Beam	1984	19.75
20	Mandi / Karsog	at RD 121/965	Shimla Mandi road via Tattapani Km. 52/250 to 145/00. <b>(Bridge at RD 121/965).</b>	RCC T-Beam	1983	19.75.
21	Mandi / Karsog	at RD 109/290	Shimla Mandi road via Tattapani Km. 52/250 to 145/00. <b>(Bridge at RD 109/290).</b>	RCC T-Beam	1982	12.25.
22	Mandi / Karsog	at RD 8/580	Bakhrot Sanarli Kelodhar Luhri Sainj road Km. 0/0 to 41/800 . <b>(Bridge at RD 8/580).</b>	RCC T-Beam	1980	7.27
23	Mandi / Karsog	at RD 10/075	Bakhrot Sanarli Kelodhar Luhri Sainj road Km. 0/0 to 41/800 . <b>(Bridge at RD 10/075).</b>	Steel Truss	1982	30.48
24	Mandi / Karsog	at RD 33/425	Bakhrot Sanarli Kelodhar Luhri Sainj road Km. 0/0 to 41/800 . <b>(Bridge at RD 33/425).</b>	Steel Truss	1997	40.00
25	Mandi / Karsog	at RD 41/465	Bakhrot Sanarli Kelodhar Luhri Sainj road Km. 0/0 to 41/800 . <b>(Bridge at RD 41/465).</b>	RCC T-Beam	1986	55.00
26	Mandi / Karsog	at RD 60/625	Tattapani Slapper road Km. 0/0 to 60/625 . <b>(Bridge at RD 60/625).</b>	Steel Truss	1990	40.00
27	Mandi / Karsog	at RD 0/975	Karsog Parlog road Km. 0/0 to 23/00 . <b>(Bridge at RD 0/975).</b>	RCC T-Beam	1997	19.30

28	Mandi / Karsog	at RD 1/233	Karsog Parlog road Km. 0/0 to 23/00 . <b>(Bridge at RD 1/233).</b>	Steel Truss	1991	30.48
29	Mandi / Karsog	at RD 7/950	Karsog Parlog road Km. 0/0 to 23/00 . <b>(Bridge at RD 7/950 ).</b>	Steel Truss	1997	25.00
<b>Jogindernagar Circle</b>						
30	JNR/Joginder Nagar	At km. 11/675	Baijnath Lad Bharol Kandhapattan road 0/0 to 46/0 (MDR-43).	Steel Truss	1990	33.28 mtr.
31	JNR/Joginder Nagar	At km. 21/940	Baijnath Lad Bharol Kandhapattan road km. 0/0 to 46/0 (MDR-43).	Steel Truss	1975	40.00 mtr.
32	JNR/Joginder Nagar	At. Km. 40/845	Baijnath Lad Bharol Kandapattan road km. 0/0 to 46/0 (MDR-43).	RCC T-Beam	1999	19.75 mtr.
33	JNR/Dharampur	Kandhapattan over River Beas at Km. 34/640	JNSG road (MDR)	RCC Pre stressed	1991	133.50 mtr.
						(7.50 mtr) carriage way

### **6th Circle Kullu**

34	Banjar Divsion/ 6th Circle Kullu	Banjar Khabal road at Damothi at Rd. 0/325	Rural Road	English Type Tubular Truss Bridge	1992	36.00 mtr.
35	Banjar Divsion/ 6th Circle Kullu	Banjar Bathad road at Gushaini.	Rural Road	English Type Tubular Truss & Girder Bridge	1988	(22.50+10.00+12.00) 44.50 mtr.

Sr.N	Name of Zone	Total Nos of Bridges to be investigated
1	Kangra Zone	44
2	Hamirpur Zone	15
3	Shimla Zone	51
4	Mandi Zone	35
	<b>Total</b>	<b>145</b>