

**MINISTRY OF INFORMATION AND  
COMMUNICATIONS  
DEPARTMENT OF AIR TRANSPORT**



**PROCUREMENT OF CONSULTANCY SERVICE  
FOR PAVEMENT EVALUATION OF EXISTING  
AIRFIELD PAVEMENT AND DESIGN,  
PROCUREMENT AND CONSTRUCTION  
SUPERVISION OF PAVEMENT REHABILITATION  
WORK**

**JULY 2019**

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**SECTION 1: LETTER OF INVITATION**

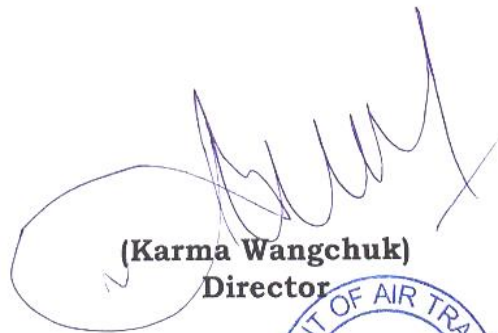


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 Department of Air Transport  
 Paro International Airport  
 Ministry of Information & Communications  
 Royal Government of Bhutan



**INVITATION FOR EXPRESSION OF INTEREST**

The Department of Air Transport, would like to invite expression of interest for the **PROCUREMENT OF CONSULTANCY SERVICE FOR PAVEMENT EVALUATION OF EXISTING AIRFIELD PAVEMENT AND DESIGN, PROCUREMENT AND CONSTRUCTION SUPERVISION OF PAVEMENT REHABILITATION WORK.** The detailed invitation is uploaded on our website [www.doat.gov.bt](http://www.doat.gov.bt) Interested consulting firms are requested to kindly visit our website and download the document free of charge. For any queries, please call +975-8-272168, 271750 during office hours (BST) or email us at [udorji@doat.gov.bt](mailto:udorji@doat.gov.bt)/ [plhamo@doat.gov.bt](mailto:plhamo@doat.gov.bt) Deadline for submission of EoI is on **12<sup>th</sup> August 2019.**

  
**(Karma Wangchuk)**  
 Director



**Letter of Invitation**

To:.....

.....

From: Director, Department of Air Transport  
Paro International Airport

**Date of publication: 27<sup>th</sup> July 2019**

Subject: **Invitation for expression of interest for consulting services for pavement evaluation, design for pavement rehabilitation, assistance in procurement of works, construction supervision, and related services in Paro International Airport.**

1. Department of Air Transport intends to evaluate the current strength of existing airfield pavement, design and carry out rehabilitation work based on the pavement evaluation report.
2. The Expression of Interest (EOI) is invited from interested, eligible and experienced international consultant in association (Joint Venture/Sub Consultant) with national consultants. The total number of firms including the lead firm should not exceed a maximum of three. Same firm is not allowed to enter into more than one joint venture.
3. Consultant must have completed at least two pavement evaluations and design of rehabilitation projects for international airports. All the copies of certificates shall be notarized by notary office.
4. The EOI document is available for download, free of charge from our website [www.doat.gov.bt](http://www.doat.gov.bt)
5. Two sets of duly completed hard copy EOI documents should be submitted in sealed envelope along with its soft copy to the following address clearly mentioning the name of the project and the consultancy service on or before **12<sup>th</sup> August 2019, 14:00 hrs (Bhutan Standard Time)**

Director

Department of Air Transport

Paro International Airport

Bhutan

Phone no: +975-8-272168, 271750, 271403

Email address: [kwangchuk@doat.gov.bt](mailto:kwangchuk@doat.gov.bt)/[udorji@doat.gov.bt](mailto:udorji@doat.gov.bt)

Name of project: Airfield Pavement evaluation and design of rehabilitation of pavement

6. The completed EOI documents received by due date and within specified time will be opened at **14.30 hrs (BST) on 12<sup>th</sup> August 2019 in the director's conference hall on the 2<sup>nd</sup> floor of the arrival terminal in Paro Airport** in the presence of the applicants or their authorized representative who choose to attend. Absence of the applicant or their authorized representative, however, shall not prevent the opening of the EOI documents.
7. All clarifications must be sought in writing in the following email Id.  
[udorji@doat.gov.bt](mailto:udorji@doat.gov.bt)/[plhamo@doat.gov.bt](mailto:plhamo@doat.gov.bt)/[jtdorji@doat.gov.bt](mailto:jtdorji@doat.gov.bt)
8. All announcements pertaining to this EOI shall be uploaded on the DoAT website [www.doat.gov.bt](http://www.doat.gov.bt) Therefore all interested consulting firms are requested to visit our website to stay informed about the tender.

## **SECTION 2: EOI FORMAT**

**EXPRESSION OF INTEREST FOR CONSULTING SERVICES: PAVEMENT  
EVALUATION OF AIRFIELD PAVEMENT AND DESIGN FOR IMPROVEMENT  
OF PAVEMENT AND RELATED WORKS IN PARO INTERNATIONAL  
AIRPORT**

**EOI Template**

Project name	
Project country	

I. Information of the consulting firm

Consultant name:	Country of incorporation:
Acronym:	Registration no:
EOI submission authorized by:	Position:

Associations (JV or sub-consultants)

Registration no:	Consultant name	Acronym	Country of incorporation	Association (JV or Sub-consultant)	EOI Authorization By	Position

Present the rationale for and benefits of working in association (JV or Sub-consultant) with others rather than undertaking the assignment independently



(as appropriate). Describe the proposed management and coordination approach of the association and the role of each firm.

**I confirm that**

- Documentation regarding our corporate structure including beneficial ownership has been attached.
- Documentation regarding our Board of Directors has been attached.
- A written agreement to associate for the purpose of this Expression of Interest has been signed between the consortium partners and has been attached

**II. Assignment specific qualification and experience**

**A. Technical competence**

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Cross-referencing from your profile projects in Section E. Project References, highlight the technical qualifications of your entity/consortium in undertaking similar assignments. Provide details of past experiences working with similar project authorities.

**B. Geographical experience**

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Cross-referencing from your profile projects in Section E. Project References, present experiences in similar geographic areas.

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**C. Management competence**

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1. Describe standard policies, procedures, and practices that your entity has to assure quality interaction with clients and outputs. Please state if your company is ISO certified.

2. How will your firm/consortium handle complaints concerning the performance of experts or quality of the reports submitted for this assignment? What internal controls are in place to address and resolve complaints?

3. How will you ensure the quality of your firm's/consortium's performance over the life of this assignment?

4. Describe standard policies, procedures and practices that your firm has put in place to avoid changes/replacements of personnel and to ensure the continuity of professional services once contracted.

5. Describe what social protection practices you have in place to safeguard the well-being of your proposed experts? Specifically describe arrangements you have in place for medical, accident, and life insurance coverage during the assignment.

**E. Project references**

Please select most relevant projects to demonstrate the firm’s technical qualifications and geographical experience (maximum 10 projects).

<b>Sl.no</b>	<b>Project</b>	<b>Period</b>	<b>Client</b>	<b>Country</b>	<b>Firm</b>
1					
2					
3					
4					
5					
6					
7					
8					
9					

## Project Sheets

Indicate up to 10 reference projects from the past 10 years (June 2009 -June 2019) that the consultant feels are relevant.

Project name			
Name of client			
Country:		Project location within country:	
Participation (Lead firm/ Associate firm)			
Value of services			
i. No. of staff			
ii. No. of person months			
Length of consultancy assignment			
Start date (dd/mm/yyyy)			
Completion date (dd/mm/yyyy)			
Name of associate firms (if any)			
No. of person-months of professional staff provided by associated firm(s)			
Name of senior staff (Project director/ coordinator, team leader) involved and functions performed			
Detailed narrative description of the project			

Detailed description of the actual services provided by your firm

(Please insert more tables as necessary)

III. Comments on terms of reference

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IV. Key consideration in approaching this assignment (no more than 9000 characters summarizing approach and methodology)

--

V. International Experts

Please provide list of international experts proposed for the assignment. Also attach brief CV of proposed personnel.

Sl.no	Name	Email	Position title	Nationality

VI. EOI Attachments

Sl.no	Description
1	Certificate of incorporation of the lead member
2	Certificate of Incorporation of the JV member (for each member)
3	Certificate of Incorporation of the Sub-Consultant (for each sub-consultant)
4	Letter of Association
5	Firms Registration, VAT, Tax Clearance (in case of national firms)

(Insert more rows as necessary)

VII. Eligibility declaration

We, the undersigned, certify to the best of our knowledge and belief:

- We have read the advertisement, including the terms of reference (TOR), for this assignment
- Neither the consulting firm nor its JV member or sub-consultant or any of its experts prepared the TOR for this activity.

- We confirm that the project references submitted as part of this EOI accurately reflect the experience of the specified firm/consortium
- We further confirm that, if any of our experts is engaged to prepare the TOR for any ensuing assignment resulting from our work product under this assignment, our firm, JV member or sub-consultant, and the expert(s) will be disqualified from short-listing and participation in the assignment.
- All consulting entities proposed in this EOI are eligible to participate in the EOI.
- The lead entity and JV member or sub-consultant are NOT currently sanctioned by RGoB (Royal Government of Bhutan) and other Governmental and Non Governmental agencies. Neither the consulting firm nor the JV member or sub-consultant has ever been convicted of an integrity-related offense or crime related to theft, corruption, fraud, collusion or coercion.
- We understand that it is our obligation to notify DoAT should any member of the consortium become ineligible to work with RGoB and other Governmental and Non Governmental agencies or be convicted of an integrity-related offense or crime as described above
- JV member or sub-consultant named in this EOI confirmed their interest in this activity in writing.
- JV member or sub-consultant authorized us in writing to represent them in expressing interest in this activity.
- None of the proposed consortiums are subsidiaries of and/or dependent on Department of Air Transport or individuals related to them.

- We understand that any misrepresentations that knowingly or recklessly mislead, or attempt to mislead may lead to the automatic rejection of the proposal or cancellation of the contract, if awarded.



**SECTION 3: OUTLINE TERMS OF REFERENCE**

**OUTLINE TERMS OF REFERENCE OF CONSULTING SERVICES:  
PAVEMENT EVALUATION OF EXISTING AIRFIELD PAVEMENT AND  
DESIGN FOR IMPROVEMENT OF PAVEMENT AND RELATED WORKS IN  
PARO INTERNATIONAL AIRPORT**

A. Background

The Paro International Airport is in need of a complete study for pavement evaluation of the runway, apron and taxiway to evaluate the status of the pavement strength. Upon completion of the pavement evaluation, based on the results obtained, design of rehabilitation of the pavement shall be carried out by the consultant.

B. Objectives of assignment

The main objective of the assignment is to study the airfield pavement in Paro International Airport and find out their current strength after which necessary design of pavement rehabilitation works can be carried out.

C. Scope of services

*Part I: Airfield pavement evaluation*

Consultant shall study the existing airfield pavement (Runway, taxiway and apron) and find out their current strength using the state of the art technology available in aviation industry for the purpose. PCN shall be reported in the pavement evaluation report by performing practical tests at the airport.

*Part II: Design of pavement rehabilitation*

Consultant shall provide various options of rehabilitation work based on the pavement evaluation report. The design shall be conducted based on international standards (ICAO) and national standards issued by Bhutan Civil Aviation Authority. Consultant shall provide detailed estimate for the work. Design of pavement rehabilitation work shall be done using locally available material. The scope of work shall consist of pavement

evaluation and design engineering services including geotechnical investigation, laboratory testing services, pavement investigation and non-destructive testing, specific expertise in the areas of asphalt and concrete pavement construction, pavement rehabilitation design, design for improvement of drainage system. Several design proposals and their corresponding detailed estimates shall be prepared by the consultant and submitted to the client.

*Part III: Procurement of work through international competitive bidding*

The pavement rehabilitation work shall be tendered out through international competitive bidding. The consultant shall provide assistance in preparation of the bidding document, advertisement of the bid, tender opening, tender evaluation and preparation of reports for opening and tender evaluation.

*Part IV: Project execution and project management*

The consultant shall provide project supervision work

1. Approving contractor's work program, method statements
2. Approving contractor's plants and equipment and materials.
3. Approving contractor's yards, material stock
4. Approving contractor's mobilization of personnel, plants and equipment and materials and establishment of quality control laboratory as per the approved work program
5. Approving Safety Management Plan, Security Control Plan, Environment Management Plan and Transport Management Plan of the Contractor.
6. Ensuring compliance with aerodrome safety management during contractor's execution of the works.
7. Approving and/or issuing working/shop drawings, approving the setting out of the works, and giving instructions to the contractor.

8. Reviewing the quality control programs of the contractor
9. Inspecting materials and works to ensure compliance with specifications and giving immediate notice to the contractor in the event that such materials and works fail to comply with the specifications.
10. Inspecting Contractor's yards, labour camp facilities as per the contract
11. Accepting or rejecting any part or parts of the completed works.
12. Making measurements and keeping measurement records.
13. Maintaining records, correspondence, and diaries.
14. Certifying work and interim payment certificates for progress payments.
15. Certifying completion of part or all of the works.
16. Periodically checking the remaining quantities, and undertaking constant monitoring of each contract's costs.
17. Reviewing and recommending to the Employer variation orders, extensions of time, claims, and other matters that may come from each contractor.
18. Negotiating with each contractor and recommending to the Employer the rates for any unscheduled items of work that may arise.
19. Advising the Employer's representative on all matters relating to the execution of the works; and assisting the representative with processing the contractor's possible claims.
20. Ensuring compliance with the environmental and social impact mitigation requirements of civil works contract, and providing information to client on those processes in the monthly progress reports.
21. Preparing, at the completion of the contracts, a consolidated project completion report in a standard format provided by different international agencies.

22. Checking and certifying as-built drawings for the works prepared by the contractors
23. Inspecting the works at appropriate intervals during the defects liability/notification period and certifying the defects liability certificate for issuance by the Employer's representative.
24. Providing the Employer with complete records, and inception, monthly, and completion reports.
25. Assisting the Employer to provide on-site training where required for the Employer's field staff on quality assurance and contract administration.
26. Assisting and training the Employer's staff to monitor and administer the performance based maintenance portion of the civil works contract (immediately following the full or sectional transfer of completed works).

D. Minimum requirement of manpower for the assignment

**International Experts**

S.N	Position	Qualification Requirement	Experience Requirement	Nos	No. of
					P-M
1	Team Leader/Chief Pavement Design Engineer	B.E./B.Sc. Civil Eng. (Post graduate/Diploma in Aerodrome Eng. – Desirable)	• Overall Experience 15 Yrs.	1	10
			• As a Team Leader/Project Manager for 3 Projects of min 12 months inputs		
			• Overseas Experience 3 projects of min 6 months inputs		
2	Pavement Engineer	B.E./B.Sc. Civil Eng. (Post graduate/Diploma in Airport Pavement Engineering – Desirable)	• Overall Experience 10 Yrs.	1	7
			• As an Airport Pavement Engineer for 3 Projects of min 6 month inputs		
			• Overseas Experience 3 projects of min 3 months inputs		
3	Geotechnical Engineer	B.E./B.Sc. Civil Eng. (M.Sc./Post Graduate Diploma in Geotechnical Engineering – Desirable)	• Overall Experience 10 Yrs.	1	1
			• As a Geotechnical Engineer for 2 Projects of min 6 months inputs		
			• Overseas Experience 2 projects of min 3 months inputs		

4	Aerodrome safety expert	B.E./B.Sc. in Civil Eng.; Pilot or ATC with Specialized trainings in Safety Mgmt. System – Desirable	• Overall Experience 10 Yrs.	1	3
			• As an Aerodrome Safety Expert for 2 projects		
			• Overseas Experience 2 projects of min 3 months inputs		
5	Procurement & Contract Specialist	B.E./B.Sc. in any Eng. or Bachelor in Relevant Social Sciences (Familiarity with FIDIC, ADB SBD Contracts – Desirable)	• Overall Experience 15 Yrs.	1	4
			• As a Contract Specialist / Procurement Specialist for 3 Projects of min 6 month inputs		
			• Overseas Experience 3 projects of min 3 months inputs		
6	Cost Estimate Specialist/ Quantity surveyor	B.E./B.Sc. in Civil Eng. (Specialized training in Cost Estimating for Structures – Desirable)	• Overall Experience 10 Yrs.	1	2
			• As a Cost Estimator for 2 Projects of min 3 month inputs		
			• Overseas Experience 2 projects		
7	Environmental Engineer	B.E./B.Sc. in any Eng. or Bachelor in Relevant Social Sciences (Post Graduate in	• Overall Experience 10 Yrs.	1	1
			• As an Environmental Engineer for 2 Projects of min 6 months inputs		

		Environmental Sciences/Management - Desirable)	<ul style="list-style-type: none"> <li>• Overseas Experience 2 projects</li> </ul>		
8	Material Engineer/ QC Engineer	B.E./B.Sc. in Civil Engineering (Specialized training in Quality Control/Materials Testing - Desirable)	<ul style="list-style-type: none"> <li>• Overall Experience 10 Yrs.</li> <li>• As a QA/QC Engineer for 3 Projects of min 6 month inputs</li> <li>• Overseas Experience 3 projects of min 3 month inputs</li> <li>• As a Quantity Surveyor for 2 Projects of min 3 month inputs</li> <li>• Overseas Experience 2 projects</li> </ul>	1	5
	<b>Sub-total</b>				<b>33</b>



### National Experts

S.N.	Position	Qualification Requirement	Experience Requirement	Nos.	No. of
					P-M
1	Resident Engineer (Civil)	B.E./B.Sc. Civil Eng. (Post graduate/ Diploma in Construction Mgmt. – Desirable)	<ul style="list-style-type: none"> <li>• Overall Experience 10 Yrs.</li> <li>• As a Resident Engineer/ Project Manager for 2 Projects of min 12 month inputs</li> <li>• Experience with Intl. Firms or Intl. Organizations 2 projects of min 3 month inputs</li> </ul>	1	6
2	Civil Engineers	B.E./B.Sc. Civil Eng. (Post graduate/ Diploma Course in Civil Eng. – Desirable)	<ul style="list-style-type: none"> <li>• Overall Experience 7 Yrs.</li> <li>• As a Civil Engineer for 2 Projects of min 6 month inputs</li> <li>• Experience with Intl. Firms or Intl. Organization 1 project</li> </ul>	2	18
3	CAD Engineer	B.E./B.Sc. Eng. (Specialized training in CAD – Desirable)	<ul style="list-style-type: none"> <li>• Overall Experience 5 Yrs.</li> <li>• As a CAD Engineer for 1 Project of min 6 months inputs</li> <li>• Experience in Intl. Firms or Intl. Organization 1 project</li> </ul>	1	4
<b>Sub-total</b>					<b>28</b>

## **National Support Staff**

The consultant will provide 103 person-month of National Support Staff consisting of, as follows, to assist in carrying out the services.

- Office Manager	:	10 Months
- Driver (2 Nos.)	:	20 Months
- IOWs/ Site Engineers (2 Nos.)	:	10 Months
- CAD Operators (2 Nos.)	:	9 Months
- Sr. Lab Technician	:	9 Months
- Lab boys (2 Nos.)	:	18 Months
- Surveyor	:	9 Months
- Survey Helpers (2 Nos.)	:	18 Months

*The Office Manager should have minimum a Bachelor Degree in Business Administration and relevant minimum 7-year experience in organizing and supervising administrative activities of consulting services.*

*The IOWs/Site Engineers/Overseers should have minimum an Engineering degree or Diploma or a suitable technical qualification certificate in the appropriate discipline (civil, structural, pavement, road) with a minimum of 5-year practical work experience.*

### Notes:

- (i) The estimated person-months are indicative, and the actual will vary based on actual duration of works, and will be paid on actual time-basis. As common basis for financial proposal, the Consultants MUST use the staff person-months indicative above.
- (ii) The international inputs shall be provided by the consultant based in the field (i.e. in Paro, Bhutan). However, the consultant may consider providing certain inputs of few positions from the head office or any other location outside Bhutan as required for the purpose of betterment and supports to carry out the services effectively. The consultant shall provide rationale and estimates of such inputs in the technical and financial proposals.
- (iii) The CV and/or qualifications of the following *National Support Staff will not be evaluated* and are not required in the Technical Proposal. However, The CVs of these candidates shall be submitted for Client approval prior to the mobilization.
- (iv) Mobilization of all staff person-months during construction supervision shall be planned and managed for the optimal

utilization of inputs corresponding to level of progress of construction activities during entire project period. The Manning Schedule shall be updated/adjusted accordingly time to time.

- (v) Monthly Time sheet of each staffs shall be prepared which show the detail list of the activities performed during the working day(s) and must be submitted original copy(ies) to the Client during the monthly invoice claimed for the service.

**E. Reporting requirements and time schedule of deliverables**

The Consultant shall prepare and submit the following reports in the English language (5 copies). The final report shall be submitted in both hardcopy and soft copy to the Client.

<b>Report</b>	<b>Description</b>	<b>Time frame</b>
Pavement evaluation report	Consultant shall furnish a PCN testing equipment and perform pavement evaluation on site and submit a report. Consultant shall start with carrying out related studies such as soil investigation, geotechnical studies, environmental studies, surveying for designing the rehabilitation.	45 days from commencement date*
Rehabilitation design report and detailed estimates	Consultant shall study the local materials and provide different options of pavement evaluation. Several designs and their corresponding costs shall be submitted for the client to choose from.	30 days after submission of pavement evaluation report.
Bidding	Consultant shall prepare	15 days from

document	bidding document including all sections such as BoQ, drawings, technical specifications etc complete for international competitive bidding	selection of design by client
Weekly report during project execution	Progress report shall be submitted on a weekly basis by the project management team at site.	The 1 <sup>st</sup> working day of every week
Project completion report	Details of design, execution etc complete (Format shall be provided)	Within 30 days of completion of the pavement rehabilitation works.

**\*commencement date shall be considered the date of issuance of work order**

F. Data, local services and facilities to be provided by client

The department of air transport shall provide the following facilities

- a. Office space
- b. Access to site, data, survey reports, and other relevant records available with the department

**Note: During submission of RFP, consultants shall be asked to submit separate costs for providing the services stipulated in the TOR (Part I to IV) and the client shall reserve the right to eliminate any part of the services based on priority or availability of resources.**

## **SECTION 4: EVALUATION CRITERIA**

**EVLAUATION CRITERIA FOR SHORTLISTING OF CONSULTANT**

Management competence	15 points
1. Approach and methodology	.....5 points
2. Proposed management and coordination	.....5 points
3. Quality control and assurance	.....5 points
Technical competence	75 points
1. Availability of relevant personnel for the assignment	.....25 points
2. No. of similar assignments completed by the firm as a lead partner	.....25 points
3. No. of similar assignments completed by the firm as a JV partner or sub-consultant	.....25 points
Geographical competence	10 points
1. Firm's regional experience	.....5 points
2. Firm's local office in the country	.....5 points

**Total: 100 points**

All firms scoring 70 and above shall be shortlisted.