



**Works & Services Department**

**Government of Sindh**

## **GHOTKI KANDHKOT BRIDGE PROJECT**



## **REQUEST FOR PROPOSAL**

**Hiring Consultant for Feasibility Study & Transaction Advisory Services**

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# **1. INVITATION LETTER**

Dear Sir/Madam,

**Sub: Feasibility Study and Transaction Advisory Services for Ghotki Kandhkot Bridge Project**

The *Works & Services Department*, Government of Sindh (the “**Procuring Agency**”), invites “Technical and Financial proposals” for “Feasibility Study and Transaction Advisory Services to implement the Ghotki Kandhkot Bridge project under Public Private Partnership mode” (the **Assignment**), from prospective firms/consortiums.

2. Geographically, Sindh is nearly bisected by River Indus with population living on its both sides. In order to ensure social proximity between the populations living on both sides of River Indus and to promote economic development, bridges over Indus have been constructed at different intervals. The conception of idea to construct a bridge over Indus between Ghotki and Kandhkot on Public Private Partnership (PPP) mode is the continuation of above ideas. A detailed description of the assignment and its objectives are given in the enclosed Terms of Reference (TORs).

3. Prospective bidders/firms/consortiums are encouraged to acquaint fully with the Assignment and local conditions before submitting their proposals, by sending written queries to the Client, if any. Please note that no cost of any such visit or queries is reimbursable.

4. A firm/consortium will be selected under Quality and Cost Based Selection Method (QCBS) described in this RFP, in accordance with the Sindh Public Procurement Rules, 2010 and amended from time to time. The participants are therefore advised to carefully go through these statutes to understand nature of their possible relationship with the client and the rules governing this relationship.

5. The RFP includes the following documents:

- Section 1: Letter of Invitation
- Section 2: Instructions to Consultants (including Data Sheet)
- Section 3: Technical Proposal - Standard Forms
- Section 4: Financial Proposal - Standard Forms
- Section 5: Terms of Reference
- Section 6: Evaluation Criteria and Scoring System
- Section 7: Integrity Pact
- Appendix-I: Draft Consultancy Contract

Yours sincerely,  
**Additional Secretary**  
Works & Services Department  
Government of Sindh

## **2. INSTRUCTIONS TO CONSULTANTS**

### **2.1 Definition**

- (a) **“Contract”** means consultancy services contract to be executed between selected Consultant and Procuring Agency.
- (b) **“Consultant”** means a professional who can study, design, organize, evaluate and manage projects or assess, evaluate and provide specialist advice or give technical assistance for making or drafting policies, institutional reforms and includes private entities, consulting firms, legal advisors, engineering firms, construction managers, management firms, procurement agents, inspection agents, auditors, international and multinational organizations, investment and merchant banks, universities, research institutions, government agencies, nongovernmental organizations, and individuals.
- (c) **“Data Sheet”** means such part of the Instructions to Consultants that is used to reflect specific assignment conditions.
- (d) **“Day”** means calendar day including holiday.
- (e) **“Government”** means the Government of Sindh.
- (f) **“Instructions to Consultants”** (Section 2 of the RFP) means the document which provides Consultants with all information needed to prepare their Proposals.
- (g) **“LOI”** (Section 1 of the RFP) means the Letter of Invitation sent by the procuring agency to the Consultant.
- (h) **“Procuring Agency”** means the Works & Services Department with which the selected Consultant signs the Contract for the Assignment.
- (i) **“Proposal”** means the Technical Proposal and the Financial Proposal.
- (j) **“RFP”** means the Request For Proposal prepared by the Procuring Agency for the selection of Consultants.
- (k) **“Terms of Reference”** (TOR) means the document included in the RFP as Section 5 which explains the objectives, scope of work, activities, tasks to be performed, respective responsibilities of the procuring agency and the Consultant, and expected results and deliverables of the assignment.

### **2.2 Introduction**

- 2.2.1 The Procuring Agency named in the Data Sheet will select a consulting firm/organization (the Consultant) in accordance with the method of selection specified in the Data Sheet.
- 2.2.2 The Consultants are invited to submit a Technical Proposal and a Financial Proposal as specified in the Data Sheet. The Proposal will be the basis for contract negotiations and ultimately for a signed Contract with the selected Consultant.

- 2.2.3 Consultants should familiarize themselves with rules / conditions and take them into account while preparing their Proposals. Consultants may liaise with procuring agency's representative named in the Data Sheet for gaining better insight into the assignment.
- 2.2.4 Consultants shall bear all costs associated with the preparation and submission of their proposals and contract negotiation. The Procuring Agency reserves the right to annul the selection process at any time prior to contract award, without thereby incurring any liability to the Consultants in line with Sindh Public Procurement Rules, 2010 (amended from time to time).
- 2.2.5 While submitting the Technical Proposal, the composition of the proposed team and task assignment to individual personnel shall be clearly stated.
- 2.2.6 If a firm as a consortium is qualified/selected on the strength of experience of a foreign company, requisite key personnel from that foreign company shall be fielded.
- 2.2.7 In case a firm is proposing key personnel from educational/research institutions, a 'No Objection Certificate' from the concerned institution shall be enclosed with the CV of such person.

## **2.3 Conflict of Interest**

- 2.3.1 Consultants are required to provide professional, objective, and impartial advice and holding the Procuring Agency interest paramount. They shall strictly avoid conflict with other assignments or their own corporate interest. Consultants have an obligation to disclose any situation of actual or potential conflict that impacts their capacity to serve the best interest of the Procuring Agency, or that may reasonably be perceived as having such effect. Failure to disclose said situations may lead to the disqualification of the Consultant or the termination of its contract.
- 2.3.2 Without limitation on the generality of the foregoing, Consultants, and any of their affiliates, shall be considered to have a conflict of interest and shall not be recruited, under any of the circumstances set forth below:
- i. A consultant that has been engaged by the procuring agency to provide goods, works or services other than consulting services for a project, any of its affiliates, shall be disqualified from providing consulting services related to those goods, works or services. Conversely, a firm hired to provide consulting services for the preparation or implementation of a project, any of its affiliates, shall be disqualified from subsequently providing goods or works or services other than consulting services resulting from or directly related to the firm's consulting services for such preparation or implementation.
  - ii. A Consultant (including its Personnel and Sub-Consultants) or any of its affiliates shall not be hired for any assignment that, by its nature, may be in conflict with another assignment of the Consultant to be executed for the same or for another Procuring Agency.
  - iii. A Consultant (including its Personnel and Sub-Consultants) that has a business or family relationship with a member of the Procuring Agency's staff who is directly or indirectly involved in any part of (i) the preparation of the Terms of Reference of the assignment, (ii) the selection process for such assignment, or (iii) supervision of the contract, may not be awarded a contract, unless the conflict stemming from this relationship has been resolved.

## **2.4 Conflicting Relationships**

Government officials and civil servants may be hired as consultants only if:

- i. They are on leave of absence without pay;
- ii. They are not being hired by the agency they were working for, six months prior to going on leave; and
- iii. Their employment would not give rise to any conflict of interest.

## **2.5 Fraud and Corruption**

2.5.1 It is Government's policy that Consultants under the contract(s), observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this policy, the Procuring Agency follows the instructions contained in Sindh Public procurement Rules 2010 which defines:

"corrupt and fraudulent practices" includes the offering, giving, receiving, or soliciting, directly or indirectly of anything of value to influence the act of another party for wrongful gain or any act or omission, including misrepresentation, that knowingly or recklessly misleads or attempt mislead a party to obtain a financial or other benefit or to avoid an obligation;

Under Rule 35 of SPPR2010, "The PA can inter-alia blacklist Bidders found to be indulging in corrupt or fraudulent practices. Such barring action shall be duly publicized and communicated to the SPPRA, provided that any supplier or contractor who is to be blacklisted shall be accorded adequate opportunity of being heard".

## **2.6 Integrity Pact**

Pursuant to Rule 89 of SPPR 2010 Consultant undertakes to sign an Integrity pact in accordance with prescribed format attached hereto for all the procurements estimated to exceed Rs. 2.5 million (Section 7).

## **2.7 Only one Proposal**

Consultants may only submit one proposal. If a Consultant submits or participates in more than one proposal, such proposals shall be disqualified. Participation of the same Sub-Consultant, including individual experts, to more than one proposal is not allowed.

## **2.8 Proposal Validity**

- i. The Data Sheet indicates Proposals validity that shall not be more than 90 days. During this period, Consultants shall maintain the availability of Professional staff nominated in the Proposal. The Procuring Agency will make its best effort to complete negotiations within this period. Should the need arise; however, the Procuring Agency may request Consultants to extend the validity period of their proposals. Consultants who agree to such extension shall confirm that they maintain the availability of the Professional staff nominated in the Proposal, or in their confirmation of extension of validity of the Proposal, Consultants may submit new staff in replacement, who would be considered in the final evaluation for contract award. Consultants who do not agree have the right to refuse to extend the validity of their Proposals.
- ii. Consultants shall submit required bid security along with financial proposal defined in the data sheet. Bid security shall be released to the unsuccessful bidders once the contract has been signed with the successful bidder or the validity period has expired. The Bidder shall provide the Bid Security in accordance with the Sindh Public Procurement Rules, 2010

acceptable to the Client. The Bid shall be summarily rejected if it is not accompanied with the Bid Security.

## **2.9 Clarification and Amendment in RFP Documents**

- i. Consultants may request for a clarification of contents of the bidding document in writing, and procuring agency shall respond to such queries in writing within three calendar days, provided they are received at least five calendar days prior to the date of opening of proposal. The procuring agency shall communicate such response to all parties who have obtained RFP document without identifying the source of inquiry. Should the PA deem it necessary to amend the RFP as a result of a clarification, it shall do so.
- ii. At any time before the submission of Proposals, the Procuring Agency may amend the RFP by issuing an addendum/ corrigendum in writing. The addendum shall be sent to all Consultants (or uploaded on procuring agency website) and will be binding on them. Consultants shall acknowledge receipt of all amendments. To give Consultants reasonable time in which to take an amendment into account in their Proposals the Procuring Agency may, if the amendment is substantial, extend the deadline for the submission of Proposals.

## **2.10 Preparation of Proposals**

- i. In preparing their Proposal, Consultants are expected to examine in detail the documents comprising the RFP. Material deficiencies (deviation from scope, experience and qualification of personnel) in providing the information requested may result in rejection of a Proposal.
- ii. Your proposal shall be prepared in two separate parts, each to be contained in a separate cover as follows:

Cover 1: Technical Proposal

Cover 2: Financial Proposal

## **2.11 Language**

The Proposal as well as all related correspondence exchanged by the Consultants and the Procuring Agency shall be written in English. However it is desirable that the firm's Personnel have a working knowledge of the national and regional languages of Islamic Republic of Pakistan.

## **2.12 Technical Proposal Format and Content**

While preparing the Technical Proposal, Consultants must give particular attention to the following:

- i. If a consultant considers that it does not have all the expertise for the assignment, it may obtain a full range of expertise by associating with individual consultant(s) and/or other firms or entities in a joint venture or sub- consultancy, as appropriate. The international consultants are encouraged to seek the participation of local consultants by entering into a joint venture with, or subcontracting part of the assignment to, national consultants.
- ii. It is desirable that the majority of the key professional staff proposed be permanent employees of the firm or have an extended and stable working relationship with it.



- iii. Proposed professional staff must, at a minimum, have the experience indicated in the Evaluation Criteria as given in Section 6, preferably working under similar geographical condition.
- iv. Alternative professional staff shall not be proposed, and only one curriculum vitae (CV) shall be submitted for each position.

The Technical Proposal shall provide the following information using the attached Standard Forms (Section 3):

- i. A brief description of the consultant organization and an outline of recent experience on assignments (Section 3B) of a similar nature. For each assignment, the outline should indicate, inter alia, the profiles of the staff, duration of the assignment, contract amount, and firm's involvement.
- ii. Any comments or suggestions on the Terms of Reference and on the data, a list of services, and facilities to be provided by the PA (Section 3C).
- iii. The list of the proposed staff team by specialty, the tasks that would be assigned to each staff team member, and their timing (Section 3E).
- iv. CVs recently signed by the proposed professional staff and the authorized representative submitting the proposal (Section 3F). Key information should include number of years working for the consultant and degree of responsibility held in various assignments.
- v. Estimates of the total staff input (professional and support staff; staff time) needed to carry out the assignment, supported by bar chart diagrams showing the time proposed for each professional staff team member (Sections 3E and 3G).
- vi. A detailed description of the proposed methodology, work plan for performing the assignment, staffing.
- vii. Any additional information requested in the Data Sheet.

The Technical Proposal shall not include any financial information.

## **2.13 Financial Proposals**

The Financial Proposal shall be prepared using the attached Standard Forms (Section 4). It shall list all costs associated with the assignment. All activities and items described in the Technical Proposal must be priced separately; activities and items described in the Technical Proposal but not priced, shall be assumed to be included in the prices of other activities or items.

## **2.14 Taxes**

The Consultant will be subject to all admissible taxes including stamp duty and service charges at a rate prevailing on the date of Contract agreement unless exempted by relevant tax authority.

## **2.15 Submission, Receipt, and Opening of Proposals**

- 2.15.1 Proposal shall contain no interlineations or overwriting. Submission letters for both Technical and Financial Proposals should respectively be in the format of TECH-1 of

Section 3, and FIN-1 of Section 4. All pages of the original Technical and Financial Proposals will be initialed by an authorized representative of the Consultants (Individual Consultant). The authorization shall be in the form of a written power of attorney accompanying the Proposal.

- 2.15.2 All required copies of the Technical Proposal are to be made from the original. If there are discrepancies between the original and the copies of the Technical Proposal, the original governs.
- 2.15.3 The original and all copies of the Technical Proposal shall be placed in a sealed envelope clearly marked **“TECHNICAL PROPOSAL”** Similarly, the original Financial Proposal shall be placed in a sealed envelope clearly marked **“FINANCIAL PROPOSAL”** followed by name of the assignment, and with a warning **“DO NOT OPEN WITH THE TECHNICAL PROPOSAL.”** If the Financial Proposal is not submitted in a separate sealed envelope duly marked as indicated above, this will constitute grounds for declaring the Proposal non-responsive.
- 2.15.4 The Proposals must be sent to the address indicated in the Data Sheet and received by the PA no later than the time and the date indicated in the Data Sheet, or any extension to this date. Any proposal received by the PA after the deadline for submission shall be returned unopened. In order to avoid any delay arising from the postal or PA’s internal despatch workings, Consultants should ensure that proposals to be sent through couriers should reach a day before the deadline for submission.

## **2.16 Proposal Evaluation**

- 2.16.1 From the time the Proposals are opened to the time the contract is awarded, the Consultants should not contact the PA on any matter related to its Technical and/or Financial Proposal. Any effort by Consultants to influence the PA in the examination, evaluation, ranking of Proposals, and recommendation for award of contract may result in the rejection of the Consultants’ Proposal. Evaluators of Technical Proposals shall have no access to the Financial Proposals until the technical evaluation is concluded.
- 2.16.2 A QCBS will be adopted in evaluating the proposal. In the first stage a technical evaluation will be carried out. Only those Technical proposals, which score at least 80 points out of 100, shall be considered for financial evaluation in the second stage. The evaluation of the technical and financial bids shall be held under the Quality and Cost Based Selection (QCBS) method. The Evaluation criteria under QCBS is at Section 6A.

## **2.17 Evaluation of Technical Proposals**

The evaluation committee shall evaluate the Technical Proposals on the basis of their responsiveness to the Terms of Reference, applying the evaluation criteria, sub-criteria, and point system specified in the Data Sheet. Each responsive Proposal will be given a technical score (TS). A Proposal shall be rejected at this stage if it fails to achieve the minimum technical score indicated in the Section 6A.

After the technical evaluation is completed, the PA shall notify in writing Consultants that have secured the minimum qualifying marks, the date, time and location, allowing a reasonable time, for opening the Financial Proposals. Consultants’ attendance at the opening of Financial Proposals is optional. Financial proposals of those consultants who failed to secure minimum qualifying marks shall be returned un-opened.

## **2.18 Evaluation of Financial Proposals**

- 2.18.1 Financial Proposals shall be opened publicly in the presence of the Consultants' representatives who choose to attend. The name of the Consultants and the technical scores of the Consultants shall be read aloud. The Financial Proposal of the Consultants who met the minimum qualifying mark will then be inspected to confirm that they have remained sealed and unopened. These Financial Proposals shall be then opened, and the total prices read aloud and recorded. Copy of the record shall be sent to all Consultants.
- 2.18.2 The Evaluation Committee will correct any computational errors. When correcting computational errors, in case of discrepancy between a partial amount and the total amount, or between word and figures the formers will prevail. In addition to the above corrections, activities and items described in the Technical Proposal but not priced, shall be assumed to be included in the prices of other activities or items.
- 2.18.3 The lowest evaluated Financial Proposal (Fm) will be given the maximum financial score (FS) of 100 points. The financial scores (FS) of the other Financial Proposals will be computed as indicated in the Section 6A. Proposals will be ranked according to their combined weighted technical (TSw) and financial (FSw) scores using the weights indicated in the Section 6A. The firm achieving the highest combined technical and financial score will be invited for negotiations.

## **2.19 Negotiations**

Negotiations will be held at the date and address to be communicated by the Procuring Agency. The invited Consultant will, as a pre-requisite for attendance at the negotiations, confirm availability of all Professional staff. Failure in satisfying such requirements may result in the PA proceeding to negotiate with the next-ranked Consultant. Representatives conducting negotiations on behalf of the Consultant must have written authority to negotiate and conclude a contract.

## **2.20 Technical Negotiations**

Technical Negotiations will include a discussion of the Technical Proposal, the proposed technical approach and methodology, work plan, organization and staffing, and any suggestions made by the Consultant to improve the Terms of Reference. The PA and the Consultants will finalize the Terms of Reference, staffing schedule, work schedule, logistics, and reporting. These documents will then be incorporated in the Contract as part of the Scope of Work. Minutes of negotiations, which will be signed by the PA and the Consultant, will become part of Contract agreement.

## **2.21 Availability of Professional staff/experts**

Having selected the Consultant on the basis of, among other things, an evaluation of proposed Professional staff, the PA expects to negotiate a Contract on the basis of the Professional staff named in the Proposal. Before contract negotiations, the PA will require assurances that the Professional staff will be actually available. The PA will not consider substitutions during contract negotiations unless both parties agree that undue delay in the selection process makes such substitution unavoidable or for reasons such as death or medical incapacity. If this is not the case and if it is established that Professional staff were offered in the proposal without confirming their availability, the Consultant may be disqualified. Any proposed substitute shall have equivalent or better qualifications and experience than the original candidate and be submitted by the Consultant within the period of time specified in the letter of invitation to negotiate.

## **2.22 Award of Contract**

- 2.22.1 After completing negotiations, the Procuring Agency shall award the contract to the selected Consultant and within seven days of the award of contract, Procuring Agency shall publish on the website of the Authority and on its own website, if such a website exists, the result of the bidding process, identifying the bid through procuring identifying number, if any and the following information, evaluation report, form of contract and letter of award, bill of quantity or schedule of requirement, as the case may be.
- 2.22.2 After publishing of award of contract Consultant required to submit a performance security at the rate indicated in date sheet.

## **2.23 Confidentiality**

Information relating to evaluation of Proposals and recommendations concerning awards shall not be disclosed to the Consultants who submitted the Proposals or to other persons not officially concerned with the process, until the publication of the award of Contract. The undue use by any Consultant of confidential information related to the process may result in the rejection of its Proposal.

## **2.24 Consortium Agreement**

- 2.24.1 In case of Consortium of firms, the proposal shall be accompanied by a certified true copy of the **Consortium Agreement**. The Consortium Agreement as applicable shall confirm the following therein:
- i. Date and place of signing;
  - ii. Purpose of consortium (must include the details of contract works for which the consortium has been invited to bid) ;
  - iii. A clear and definite description of the proposed administrative arrangements for the management and execution of the assignment;
  - iv. Delineation of duties, responsibilities and scope of work to be undertaken by each along with resources committed by each partner/member of the Consortium for the proposed services;
  - v. An undertaking that the firms are jointly and severally liable to the Client for the performance of the services;
  - vi. Duties, responsibilities and powers of the lead firm;
  - vii. The authorized representative of the consortium.
- 2.24.2 In case of Consortium, it is expected that the lead partner would be authorized to incur liabilities and to receive instructions and payments for and on behalf of the consortium. For a consortium to be eligible for bidding, the experience of lead partner and other partner should be indicated.
- 2.24.3 Any alternative proposal, such as one by a firm in sole capacity and another in Consortium with another firm or as a part of 2 or more consortiums, for the assignment will be summarily rejected. In such an event, all the proposals submitted by such firm and its Consortium or associate shall be rejected.
- 2.24.4 The proposal of a firm is liable to be rejected if the firm makes any false or misleading statement in the proposal(s) without prejudice to the rights of the Client to initiate further proceedings against the said firm(s).
- 2.24.5 Notwithstanding anything to the contrary contained in this RFP, the detailed terms specified in the draft Contract agreement shall have overriding effect; provided, however,

that any conditions or obligations imposed on the Bidder hereunder shall continue to have effect in addition to its obligations under the Contract.

## DATA SHEET

The following specific data shall supplement the provisions in the Document.

<b>1</b>	<b>Project Name</b>	<b>Ghotki-Kandhkot Bridge Project</b>
<b>2</b>	<b>Address and Contact Person of Procuring Agency</b>	<b>Works &amp; Services Department, Mr. Khalid Huda, Deputy Director, P.M &amp; E Cell,</b>  Building # 1, 3 <sup>rd</sup> Floor, Government of Sindh, Karachi  Tel: +92-21-99212953 Email: khalidhuda@ymail.com
<b>3</b>	<b>Address and Contact Person of PPP Unit</b>	<b>Fahad Ansari</b> <b>Director, PPP Unit Sindh Secretariat</b> 7th Floor, Building No.6, Finance Department, Kamal Attaturk Road, Barrack No. 17, Government of Sindh, Karachi, Pakistan. Tel: +92 21 9922 2193 Email: <a href="mailto:pppunitsindh@gmail.com">pppunitsindh@gmail.com</a>
<b>4</b>	<b>Address for Submission of Bids</b>	<b>Additional Secretary, Works &amp; Services Department</b>  Sindh Secretariat Building # 1, 3 <sup>rd</sup> Floor, Government of Sindh, Karachi, Pakistan.
<b>6</b>	<b>Submission Deadline date and time</b>	2:00 P.M. Pakistan time on May 26, 2015
<b>7</b>	<b>Bid Opening</b>	2:30 P.M. Pakistan time on May 26, 2015
<b>8</b>	<b>Envelops</b>	“ORIGINAL PROPOSAL”  DOCUMENTS IN TECHNICAL PROPOSAL or FINANCIAL PROPOSAL as appropriate; and,  DO NOT OPEN, EXCEPT IN PRESENCE OF THE CONSULTANT SELECTION COMMITTEE on outer envelope.
<b>9</b>	<b>Language of Bid and correspondence</b>	English
<b>10</b>	<b>Proposal Validity</b>	90 days
<b>11</b>	<b>Evaluation Criteria</b>	Minimum 80 points for technical proposal qualification for eligibility of financial proposal

		opening. Refer Section 6A
12	<b>Scoring System</b>	Refer Section 6B
13	<b>Method of Selection</b>	Quality and Cost Based Selection Method
14	<b>Bid Security</b>	The Consultant shall deposit a bid security <b>in original Financial Proposal</b> of an amount equivalent to 1% (one per cent) of the bid price, which shall remain valid for a period of 28 days beyond the Proposal validity period for bids, in order to provide the Procuring Agency reasonable time to act, if the security is to be called;
15	<b>Performance Security</b>	5%
16	<b>Contract Stamping</b>	Duly stamped @ 0.03% of bid price by successful bidder at his own cost
17	<b>Tax Liability</b>	Government of Sindh will only deduct Income Tax on Services. Consultant has to assess all other applicable taxes while quoting the price in the financial proposal.
18	<b>Eligibility Criteria</b>	Registration with Sindh Revenue Board (SRB), relevant tax authorities and relevant professional body.

### **3. TECHNICAL PROPOSAL – STANDARD FORMS**

*[Comments in brackets [ ] provide guidance to the Consultants for the preparation of their Technical Proposals; they should be deleted from the Technical Proposals to be submitted.]*

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**FORM TECH-1. TECHNICAL PROPOSAL SUBMISSION FORM**

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[Location, Date]

To: [Name and address of PA]

Dear Sirs:

We, the undersigned, offer to provide the consulting services for [Insert title of assignment] in accordance with your Request for Proposal dated [Insert Date] and our Proposal. We are hereby submitting our Proposal, which includes this Technical Proposal, and a Financial Proposal sealed under a separate envelope.

We are submitting our Proposal in association with: [Insert a list with full name and address of each associated Consultant]

We hereby declare that all the information and statements made in this Proposal are true and accept that any misinterpretation contained in it may lead to our disqualification.

If negotiations are held during the period of validity of the Proposal, i.e., before the date indicated in the Data Sheet, we undertake to negotiate on the basis of the proposed staff. Our Proposal is binding upon us and subject to the modifications resulting from Contract negotiations.

We undertake, if our Proposal is accepted, to initiate the consulting services related to the assignment not later than the date indicated in the Data Sheet.

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

We remain,  
Yours sincerely,

Authorized Signature [In full and initials]: \_\_\_\_\_  
Name and Title of Signatory: \_\_\_\_\_  
Name of Firm: \_\_\_\_\_  
Address: \_\_\_\_\_

**FORM TECH-2. CONSULTANT'S ORGANIZATION AND EXPERIENCE**

---

***A – Consultant's Organization***

*[Provide here a brief (two pages) description of the background and organization of your firm/entity and each associate for this assignment.]*

### ***B – Consultant’s Experience***

*[Using the format below, provide information on each assignment for which your firm, and each associate for this assignment, was legally contracted either individually or as a corporate entity or as one of the major companies within an association, for carrying out consulting services similar to the ones requested under this assignment.]*

Assignment Name:	Country:	
Location within Country :	Professional Staff Provided by your firm	
Name of Client :	No. of Staff :	
Address :	No. of Staff Months :	
Start Date (Month / Year)	Completion Date (Month / Year)	Approx. Value of Services : (in current PKR) :
Name of Association Firm(s) if any :	No. of Months of Professional Staff provided by Associated Firm(s)	
Name of Senior Staff (Project Director / Coordinator, Team Leader) involved and functions performed:		
Narrative Description of Project :		
Description of actual services provided by your staff within the assignment:		

Firm’s Name: \_\_\_\_\_

**FORM TECH-3. COMMENTS AND SUGGESTIONS ON THE TERMS OF REFERENCE**

---

***On the Terms of Reference (TORs)***

*[Present and justify here any modifications or improvement to the Terms of Reference you are proposing to improve performance in carrying out the assignment (such as deleting some activity you consider unnecessary, or adding another, or proposing a different phasing of the activities). Such suggestions should be concise and to the point, and incorporated in your Proposal.]*

1.

2.

3.

4.

5.

..

..

## FORM TECH-4. DESCRIPTION OF APPROACH, METHODOLOGY AND WORK PLAN FOR PERFORMING THE ASSIGNMENT

---

The approach and methodology will be detailed precisely under the following topics.

*[Technical approach, methodology and work plan are key components of the Technical Proposal. You are suggested to present your Technical Proposal (50 pages, inclusive of charts and diagrams) divided into the following three chapters:*

- 1) **Technical Approach and Methodology.** *In this chapter you should explain your understanding of the objectives of the assignment, approach to the services, methodology for carrying out the activities and obtaining the expected output, and the degree of detail of such output. You should highlight the problems being addressed and their importance, and explain the technical approach you would adopt to address them. You should also explain the methodologies you propose to adopt and highlight the compatibility of those methodologies with the proposed approach.*
- 2) **Work Plan.** *In this chapter you should propose the main activities of the assignment, their content and duration, phasing and interrelations, milestones (including interim approvals by the PA), and delivery dates of the reports. The proposed work plan should be consistent with the technical approach and methodology, showing understanding of the TOR and ability to translate them into a feasible working plan. A list of the final documents, including reports, drawings, and tables to be delivered as final output, should be included here. The work plan should be consistent with the Work Schedule of Form-VIII.*
- 3) **Organization and Staffing.** *In this chapter you should propose the structure and composition of your team. You should list the main disciplines of the assignment, the key expert responsible, and proposed technical and support staff.]*

## FORM TECH-5. TEAM COMPOSITION AND TASK ASSIGNMENT

---

<b>I. Professional Staff</b>					
S. No	Name	Firm	Area of expertise	Position	Task Assignment
1					
2					
3					
4					
..					
...					

**FORM TECH-6. FORMAT OF CURRICULUM VITAE (CV) FOR PROPOSED PROFESSIONAL STAFF**

---

1. **Proposed Position** [*only one candidate shall be nominated for each position*]: \_\_\_\_\_
2. **Name of Firm** [*Insert name of firm proposing the staff*]: \_\_\_\_\_
3. **Name of Staff** [*insert full name*]: \_\_\_\_\_
4. **Date of Birth:** \_\_\_\_\_
5. **Nationality:** \_\_\_\_\_
6. **Educational Qualification:** [*Summarize college/university and other specialized education of staff member, giving names of schools, dates attended and degrees obtained*]: \_\_\_\_\_
7. **Membership of Professional Societies:** \_\_\_\_\_
8. **Other Training** [*indicate significant training since degrees under 6 – Education were obtained*]: \_\_\_\_\_
9. **Countries of Work Experience:** [*list countries where staff has worked*]: \_\_\_\_\_
10. **Languages** [*for each language indicate proficiency: good, fair, or poor in speaking, reading and writing*]: \_\_\_\_\_

**11. Employment Record:**

[*Starting with present position, list in reversed order, every employment held by staff member since graduation, giving for each employment (see format here below): dates of employment, name of employing organization, position held*]:

From [Year]: \_\_\_\_\_ To [Year]: \_\_\_\_\_

Employer: \_\_\_\_\_

Position held: \_\_\_\_\_

**12. Detailed Tasks Assigned** [*List all tasks to be performed under this assignment*]:

**13. Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned**

[*Among the assignments in which the staff has been involved, indicate the following information for those assignments that best illustrate staff capability to handle the tasks listed under point 12*]:

Name of assignment or project: \_\_\_\_\_

Year: \_\_\_\_\_

Location: \_\_\_\_\_

PA: \_\_\_\_\_

Main project features: \_\_\_\_\_

Positions held: \_\_\_\_\_

Activities performed: \_\_\_\_\_

**14. Certification:**

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualification and my experience. I understand that any willful misstatement described herein may lead to my disqualification or dismissal, if engaged.

\_\_\_\_\_ Date: \_\_\_\_\_  
*[Signature of staff member or authorized representative of the staff]*      *Day/Month/Year*

Full name of authorized representative: \_\_\_\_\_



## FORM TECH-7. STAFFING SCHEDULE

### Months (in the Form of Bar Chart)

S. No.	Name	Position	Report Due/ Activities	Months										Number of Months			
1																	Sub Total (1)
2																	Sub Total (2)
3																	Sub Total (3)
4																	Sub Total (4)
...																	
....																	

Part Time :



## FORM TECH-9. COMPLETION AND SUBMISSION OF REPORTS

---

S. No	Reports	Program
1		
2		
3		
4		
5		

## 4. FINANCIAL PROPOSAL – STANDARD FORMS

*[Comments in brackets [ ] provide guidance to the Consultants for the preparation of their Financial Proposals; they should be deleted from the Financial Proposals to be submitted.]*

Financial Proposal Standard Forms shall be used for the preparation of the Financial Proposal according to the instructions provided under Section 2. Such Forms are to be used as per the selection method.

Form FIN-1.	Financial Proposal Submission Form.....	28
Form FIN-2.	Summary of Costs.....	29

**FORM FIN-1. FINANCIAL PROPOSAL SUBMISSION FORM**

[Location, Date]

To: [Name and address of PA]

**Subject: Providing Consultant's Services for Ghotki Kandhkot Bridge Project**

Dear Sirs:

We, the undersigned, offer to provide the consulting services for **Ghotki Kandhkot Bridge Project** in accordance with your Request for Proposal dated [Insert Date] and our Technical Proposal. Our attached Financial Proposal is for the sum of [Insert amount(s) in words and figures<sup>1</sup>].

Our Financial Proposal shall be binding upon us up to expiration of the validity period of the Proposal, i.e. before the date indicated in the Data Sheet.

Yours faithfully,

Authorized Signature [*In full and initials*]\_\_\_\_\_

Name and Title of Signatory \_\_\_\_\_

Name of Firm \_\_\_\_\_

Address\_\_\_\_\_

[*The Financial Proposal is to be filled strictly as per the format given in RFP.*]

1 \_\_\_\_\_  
Amounts must coincide with the ones indicated under Total Cost of Financial proposal in Form FIN-2.

**FORM FIN-2****SUMMARY OF COSTS (in Local Currency PKR)**

<b>Description</b>		<b>Amount (in Rs)</b>
<b>Phase I: <u>Technical Feasibility</u></b>		<b>40%</b>
<b>Phase II: <u>Feasibility and Project Structuring</u></b>		<b>30%</b>
Legal Viability Assessment	5%	
Socio Economic Viability Assessment	5%	
Initial Environment Examination	5%	
Financial Viability Assessment	10%	
PPP Options Analysis	5%	
<b>Phase III: <u>Bid Process Management and Transaction Marketing</u></b>		<b>30%</b>
Marketing	10%	
Bid Management	10%	
Transaction Negotiation and Financial Closure	20%	
<b>Total Costs</b>		

\*\* Total Costs net of taxes shall be considered for financial evaluation

Note: No escalation shall be payable during the services

## 5. TERMS OF REFERENCE

### 5.1 Project Background

- 5.1.1 Province of Sindh has a land area of about 140,914 sq: Kms having estimated population of 42.40 million (as of year 2012). Sindh being predominantly an agrarian province, agriculture and its related industries are the backbone of its economy. Major portion of its population lives in rural areas and directly or indirectly involved with agricultural sector and get their earning. Agriculture cannot be developed unless infrastructure is developed and living standards of normal population are improved. Sindh is nearly bisected by River Indus with a large population living on both sides of the river. Ghotki which is an emerging industrial area is on one side and Kandhkot which is located on the proposed Pak-China economic corridor, is on the other. Ghotki and Khandkot together host one of the largest oil and gas fields, power projects and fertilizer plants in the country. These districts serve as entry points into Sindh for all traffic coming from the populous upcountry and headed for the port city of Karachi.
- 5.1.2 The traffic from Punjab to Baluchistan using the route N-5 has to traverse through Sukkur at downstream then move to N-65 to reach Jacobabad for onward journey to Baluchistan province and vice versa. Similarly, traffic from Punjab and Khyber Pakhtunkhwa plying towards lower country utilizing route N-55, also has to cross Shikarpur at N-65 and then Sukkur to reach N-5 for further onward journey and vice versa. The people of Ghotki, Ubaru, Pano Akil, Kandhkot, Ghouspur, Mirpur Mathelo and several other adjoining areas have to travel long distances of about 150 kms to reach either side of river Indus.
- 5.1.3 Traffic from Punjab to Jacobabad and Baluchistan and vice versa: The commuters from Punjab have to follow N-5 then have to turn at Sukkur to connect N-65 to continue their journey towards Baluchistan, thereby it has to follow a lengthy route of about 152 km. With the construction of this bridge the traffic will not only bypass the congested route of Sukkur but would have shorter distance of around 110 km directly from Kandhkot to Jacobabad, thus saving 40 km distance and time saving of 1.25 hours too.
- 5.1.4 Traffic from Punjab, Khyber Pakhtunkhwa to lower Country (Sindh): For this route the traffic has to pass Shikarpur then Sukkur and has to track around 110 kms whereas with the construction of this bridge they will be provided with fast connectivity of 95 km of road.
- 5.1.5 Traffic from Kandhkot to Ghotki and adjoining areas: At present the distance between Kandhkot and Ghotki via Guddu Barrage is 151 Km. With the construction of this bridge the distance from Kandhkot to Ghotki will be drastically reduced to 42 Km from 151 km thus saving of 108 precious kms and would have time saving of around 2 hours.
- 5.1.6 This project has scope to construct 43.20 km connection between N-5 and N-55 in shape of road and bridge at the point of Qadirpur (Ghotki) on one side and Kandhkot on the other side, the access road from Kandhkot side would have link with Jacobabad-Kandhkot road to divert the Baluchistan bound traffic towards the shorter route of Jacobabad instead of moving via Shikarpur.

#### Scope:

Construction of Road (24 feet wide)

42 Km (24 feet wide)

Bridge over River Indus	1 (1370 M)
Pre-stressed bridge over B.S Feeder	100 M
Pre-stressed bridge over Ghotki Feeder	46 M
Pre-stressed bridge over Khahi Wah	10 M
Construction of small culverts	70 Nos

## 5.2 Project Objectives

5.2.1 Government of Sindh desires to achieve following objectives from the Project:

- a) To build a shorter route for traffic between the provinces of Balochistan and Punjab. This infrastructural development is expected to promote economic output and social integration of the districts of Ghotki and Kandhkot.
- b) Construction of a bridge over River Indus with 42 km long approach roads.

## 5.3 The Assignment

5.3.1 The transaction advisor (successful bidder) shall be required to conduct feasibility study and structure the transaction for Ghotki Kandhkot Bridge Project in PPP mode in line with GoS's objectives.

5.3.2 The scope of work has been broadly categorized into three phases. However, the Government reserves the right to end the Transaction Advisory Services for this assignment at the end of any of the Phases if it is satisfied that proceeding further will not help achieve the Government Objectives.

## 5.4 Terms of Reference

5.4.1 **Phase 1: Technical Feasibility** shall include but not limited to the following components:

### A. Outline Design of Project

- i. Carry out map/ satellite picture study supplemented with detailed area reconnaissance and study number of options for Bridge location with approach Roads of the bridge and present all options with merits and demerits after ground assessment of salient features of each location.
- ii. The Consultant shall recommend alignment/inception report, most suitable option for approval from Client
- iii. Carryout hydrological studies also taking into consideration river flow patterns during peak flood and recession period.
- iv. Frame Terms of Reference for Hydraulic Model Study for bridge, approaches and guide banks/protection works and coordinate with Irrigation Research Institute for conduct of model study.
- v. Carry out Outline soil investigations for bridge and approach roads.
- vi. Frame TOR for detailed designing of the project based on x-section of bridge and approach road, which will be in conformity with applicable standards and in accordance with the Design requirements as set out below.
- vii. Detailed reconnaissance of project and review of all material / documents provided.



- viii. Carryout topographic survey for the selected bridge location and approach road, soil investigation survey to determine Subsoil Condition, other required soil tests and analysis for the authenticity of any available report.
- ix. Geometric design as per the geometric design criteria for roads given in the AASHTO Standards. Also carry out Preliminary Design of pavement, retaining/ protection works, design of erosion protection works and drainage works.
- x. Carry out Outline Structural Design of Bridge in accordance with provisions of AASHTO LRFD Bridge Design Specifications.
- xi. Preliminary Design of other minor structures and intersections (at-grade or grade separated)
- xii. Carryout IEE of the Project.
- xiii. Prepare Preliminary drawings.
- xiv. Preparation of Indicative land acquisition and utility/ infrastructures folders.
- xv. Carry-out layout plan of Administration Building and weigh bridges.
- xvi. Give detailed plan of implementation strategy.
- xvii. The general performance requirements for the Road and Bridge are given below:

a. Geometric Design Criteria

Design Life

Bridge and Structures – 50 years

Pavement Structures – 10 years

Design Speed

Flat terrain rural – 100 Km/h

Flat terrain town – 60 Km/h

Maximum Super elevation 4.0%

Transverse slop (Camber)

Pavement 2.0%

Shoulders 4.0%

Gradient

Maximum 3%

Minimum 0.2%

Carriageway Width 7.3 meters

Shoulders width either side 3.00m

Outer shoulder treatment Double Surface Treatment

Embankment Height Varies

Embankment side slop

Fill 2H:1V to 3H:1V

Carriageway width 7.3 meters

Shoulder width (both sides) 3.0 meters

b. For Bridge

Width (see cross section attached)

Live Load Class AA Loading

c. For Material Testing

ASTM – American Society for Testing and Materials

AASHTO-American Association of State Highway and Transportation Officials.

d. For Structures

AASHTO LRFD (Latest Edition) American Association of State Highway and Transportation Officials.

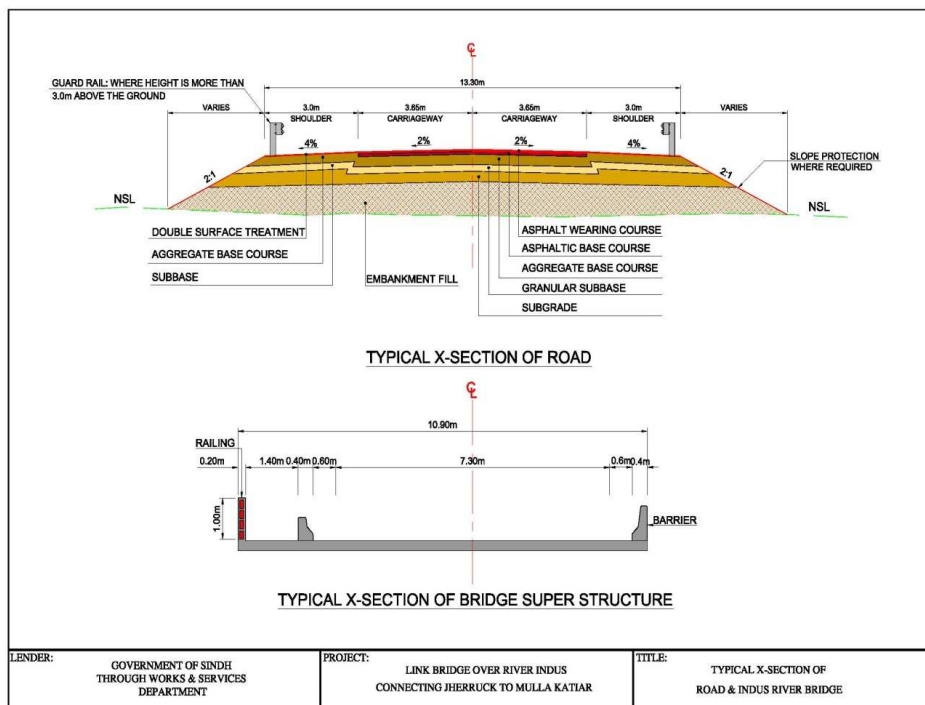
e. **Loading**

West Pakistan Code of Practice for Highway Bridges 1967.

f. **Seismic Design**

AASHTO analysis and design with latest Seismic zoning map for Pakistan as per revised current GoP Seismic parameters.  
Other design criteria not specified herein shall be approved by the Independent Engineer/GoS before being adopted for the design.

g. **Suggested Typical X-Sections**



**B. Reconnaissance Survey**

Subsequent to Desk study including satellite imagery; a reconnaissance survey of the area shall be carried out to identify the most suitable and viable Bridge location and approaches. Terrain type soil conditions, River flow conditions, length and geometry of approaches and other important features related to specific site conditions shall be considered for selection of most viable Bridge alignment and approaches.

**C. Riverine Survey**

The Consultant shall carry out Riverine survey in whole width of River Indus covering the following requirements. The extent of the riverine survey will be 10 km upstream and 5 km downstream from the proposed centre line of the Bridge. The limits will be adjusted to the local site condition where found necessary.

- Cross section of river at ever 300 meters will be taken by the Consultant.
- Longitudinal section of the river shall also be provided showing the bed slope.

- The lines showing the location of cross sections and longitudinal sections shall be indicated on survey plans.
- Location of the x-sections shall be marked on the Satellite Imagery.

**D. Topographic Survey**

Topographic survey for design of approach roads on either side of the bridge in relation with the proposed alignment of the bridge shall be carried out through EDM Tachy method using Total Stations. Field survey data shall be computer processed and computer aided mapping shall be carried out. This data shall be AutoCAD compatible for use on Road Calc and other Highway design software.

**E. Soil Investigation**

**E.1 General**

Sub-surface investigations consisting of boreholes/ drill-holes of required depth, supplemented by field and laboratory testing to accurately assess the engineering properties of the underlying soil strata for layout plan of foundations, substructures and roads shall be undertaken. A separate report will be prepared to this effect and will be submitted to the GoS for approval. Original laboratory reports shall be attached in the soil report along with coloured photographs.

**E.2 Scope of Work**

Geotechnical investigations shall comprise of

- i. Soil survey from 10 pits of 1.5m deep along the alignment of approaches.
- ii. Soil Investigation, 4 number 70m deep boreholes for main bridge over River Indus.
- iii. Soil Investigations 1 number 30m deep boreholes for each canal bridge.

**E.3 Methodology**

Bore logs shall be included in the Soil Investigation Report along with the laboratory results. Testing of samples collected from site shall be carried out in a reputed laboratory, under strict quality control and adherence to relevant ASTM procedures/ standards. Standard penetration tests shall be started from the ground surface and carried out in accordance with ASTM D1586 Penetration Test and Split Barrel sampling of soils.

Where clays are encountered, undisturbed samples shall be obtained in accordance with ASTM on thin tube sampling of soils, Where cohesion less strata is encountered, disturbed samples shall be obtained at every change of strata.

If rock is encountered, then drilling in rock shall be carried out and cores shall be drilled at regular intervals of 2m. If rock is encountered at tip of bore hole, then drilling in rock shall continue for 5m below the tip level of the bore. The samples obtained tested for compressive strength of the rock employing unconfined compression test.

Following laboratory tests (requirements and frequency of test to be decided by the Consultant) shall be conducted.

**All Samples**

- Grain size analysis (Sieve and Hydrometer) / Soil Classification.
- Atterberg Limits
- Moisture content.
- Density
- Socked 3-point CBR at NSL

**Un-disturbed Cohesion less Samples**

- Direct Shear Test

#### **Un-disturbed Cohesive Samples**

- Unconfined Compression test
- Consolidation test (for clays)

#### **Rock Cores**

- Unconfined Compression test

#### **Triaxial Compression test**

- Three (03) samples from each borehole shall be tested.

### **E.4 Information required**

Based on the results of the above tests, following information shall be furnished:

- i. Cohesion of soil
- ii. Angle of Internal Friction
- iii. Bearing Capacity Factors
- iv. Coefficient of the volume compressibility of clays
- v. Compression Index
- vi. Density and specific gravity of soil.
- vii. Modulus of subgrade reaction of soil
- viii. Modulus of elasticity of soil

### **F. Material, Survey And Testing**

The Consultant shall carry out the survey and testing of the construction materials. The sources/quarries and water resources shall be properly marked on the sheets. Materials and water samples will be tested for conformance to standard such as Los Angeles Abrasion test, specification. Soundness Test, Physio-chemical for Analysis, etc. testing and aggregates undesirable reactive shall also be done. A report covering naturally substances occurring construction materials such as aggregates, sands, etc., as well as the manufactured material such as cement, reinforcing steel, bitumen, etc. shall be included in the report.

Review the suitability of locally available construction materials, and if necessary, locate new quarries and borrow pits and assess the quality and quantity of materials and hauling distance.

### **G. Geotechnical Investigation Report**

Geotechnical report including all field investigation bore logs, location of Ground Water Table, location of boreholes / drill-holes and test pits shall be prepared. Geotechnical investigation report shall provide results of laboratory testing along with the recommendations for the type of foundations and pavement.

### **H. Hydrology And Hydraulic Study**

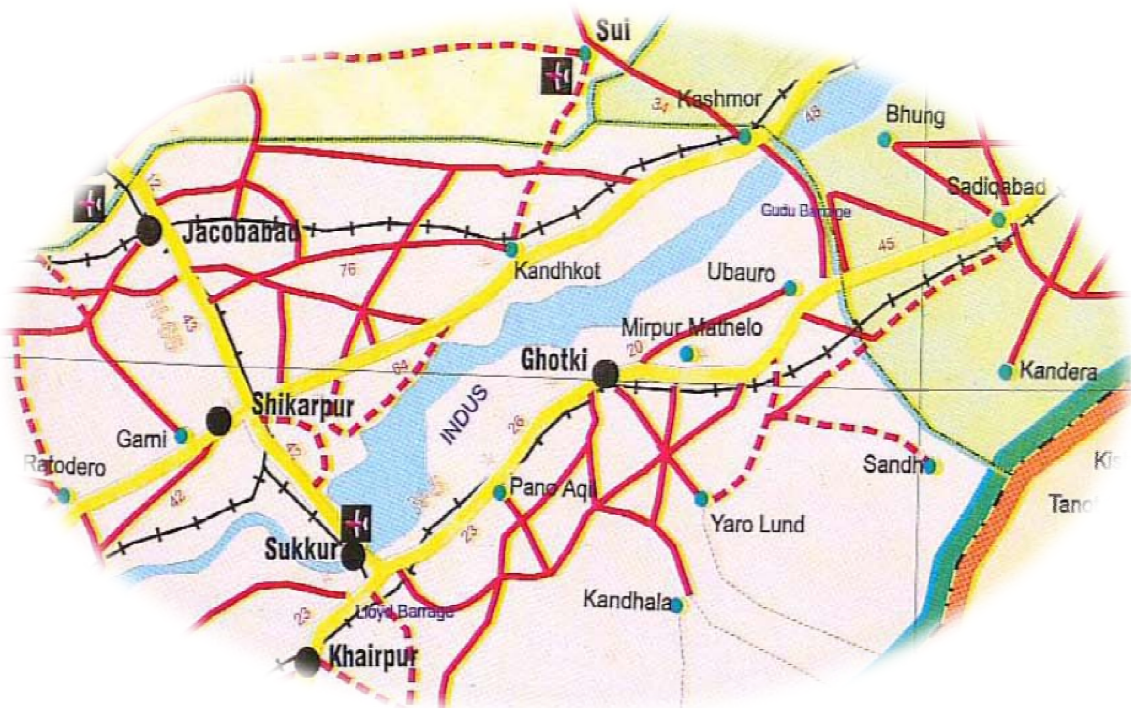
The Consultant shall carry out Preliminary Hydraulic Study for peak, medium and low discharge behavior for design of bridge while detailed Hydraulic Study shall be carried out at the time of execution. The river guide bank shall be determine after the Hydraulic Model Study by the successful bidder.

Waterway, Maximum Peak Discharge, High Water Levels, Scour Estimates, Type of Bed Material, Maximum Velocity, Clearance, Structure Profile, Protection Works etc.

## I. Traffic Study

The traffic study required for the proposed bridge over Indus connecting the National Highways N-5 and N-55 near Ghotki and Kandhkot respectively would require the following activities in connection with the planning and design of the project:

- Collection and review of historic traffic data and socio-economic characteristics of the area of influence of the project;
- Fresh traffic surveys including classified traffic counts and O-D Surveys at the following locations on the existing routes serving the project's area of influence, since it would be a new route:
  - On National Highway, N-5 near Ghotki
  - On National Highway, N-55 near Kandhkot
  - On the two existing bridges over Indus upstream and downstream at Guddu Barrage and Sukkur Barrage respectively.
- Speed and delay studies on the available alternate routes linking the two highways in the immediate vicinity of the project.
- Analysis of these data for determining the annual average daily traffic expected to use the proposed bridge and its approach roads taking into account:
  - The travel desire pattern obtained from the O-D Surveys
  - The travel time and cost differentials
  - The sectional capacities of the network segments
  - The socio-economic characteristics including population and trip attraction / generation potential of the various regions falling within the study area
- Analysis and application of appropriate traffic growth rates and traffic volume forecasting for about 25years post-construction period;
- Capacity analysis comprising determination of the year-wise level of service and lane requirements;
- Determining the pavement design traffic load for the design of pavement structure for the approach roads and finally;
- Preparation and submission of Traffic Study Report.



Detailed traffic analysis and forecast of traffic will be prepared for 10 years and 20 years period. The Consultant shall collect and study the available traffic data from the GoS and other agencies to carryout traffic study. 24 hour traffic counts will be carried out if available data is not sufficient to base traffic study. The traffic study shall include the following.

- a. Traffic counts and composition of traffic. Vehicle axle loads and truck factors shall be taken from NTRC study or other studies available.
- b. Vehicle operating cost will be computed using NTRC factors or other relevant information based on existing practice.

#### **J. Preliminary Report**

After carrying out site reconnaissance and desk study the Consultant shall submit "Preliminary Report" which shall contain all possible options with merits and demerits of various bridge locations plus the alignment of approach roads and other likely bottlenecks for example level crossings, other road crossing, intersections, populated areas etc. Consultant shall also recommend most suitable option giving proper justification/ reasons as per their judgment for approval by the GoS.

Preliminary Report shall also cover in formation of traffic data and main hydraulic design parameters to be adopted for layout plan for approval by the GoS.

The Consultant shall submit report marking all the options on the SOP maps and satellite imagery. The Consultant will be required to give presentation to the GoSfor approval of Bridge location site and alignment of approach roads& their Anticipated cost with backup calculations.

#### **K. DESIGN & CONSTRUCTION STANDARDS AND CRITERIA:**

##### Design & Construction Standards:

The following Design Standards would be followed:

##### For Material and Testing:

ASTM -American Society for Testing and Materials

AASHTO-American Association of State Highway and Transportation Officials.

##### For Material and Testing:

AASHTO Guide for Design of Pavement Structures

##### For Structures:

AASHTO LRFD (Latest Edition) American Association of State Highway and Transportation Officials.

##### Loading:

West Pakistan Code of Practice for Highway Bridges 1967.

##### Seismic Design:

AASHTO analysis and design with latest Seismic zoning map for Pakistan as per revised current GoP Seismic parameters.

##### Structural Design:

For Bridge locations, drawing scale of 1:500 shall be used showing the main features of the structure proposed, the tentative alignment of the proposed carriageway, the topography of the adjoining terrain and the benchmarks. The final design plans shall include all details in appropriate scale necessary to construct the said structures.The Design will be based on AASHTO LRFD specification For Bridge

##### For Construction:

NHA General Specifications 1998, and all standards mentioned in this specification.

#### **L. Geometric Design**

Geometric design shall be based on the following criteria:

S.No.	PARAMETERS	UNIT	PLAIN AREAS
a)	Design Road Rural Town	Km/h Km/h	100 60
b)	Number of Lanes	Number	02
c)	Formation Width	M	13.3
d)	Width of Travelled Way (Carriageway)	M	7.3
e)	Width of Shoulders 3.0m wide shoulders	M	3.0m each side
f)	Cross Slope i) Carriageway ii) Shoulder	%	2 4
g)	Maximum Gradient	%	3.0
h)	Other design criteria not specified herein shall be approved by Client before being adopted for the design at the time of construction.		

Parameters not specified above shall conform to AASHTO Highway Design Guide (Green Book), 2004 Edition.

**M. Embankment Design**

In areas of high water table, filter cut-off layer shall be designed to protect the pavement structure. This should include day-lighting of the pavement layers to outer side of the embankment. Surface drainage should also be designed properly with defined disposal points with special consideration in the built-up area.

**N. Pavement Design**

Pavement design shall be done according to AASHTO Recommendations (latest edition) with load factors from NTRC Report and confirm the design with the mechanistic design methodology. The pavement design will be based on the calculated volume of traffic keeping overload factors in view. Traffic growth factor shall be established through the study of available traffic data. Recommendations of the Asphaltic Concrete Institute latest note shall be kept in view while designing.

**O. Bridge Structure**

Main Bridge shall be designed as two lane (02) lane and each lane shall not be less than 3.65 meters wide. A walkway on one side, separated by the main carriageway (for animals crossing) shall be provided. Bridge deck shall be designed for minimum of 5,000 psi concrete.

**P. Land Acquisition Requirements**

After final location and alignment survey, the Consultant shall prepare land acquisition folders. Details of property falling within ROW shall be indicated. Details of land to be acquired for road construction shall also be updated. The Consultant shall submit ROW plans showing the alignment and total area to be acquired. The Consultant shall also prepare estimate for acquiring any additional land and removal of structures and utilities and prepare cost estimates for implication of removal.

**Q. Hydraulic Model Study**

The Consultant shall prepare detailed Terms of Reference for conducting hydraulic model study and carryout necessary coordination with Irrigation Research Institute.

**R. Final Report**

The Consultant shall prepare a final report consisting of the final alignment, Design of Pavement and Preliminary design of Structures bridges (culverts, underpasses, and retaining walls); containing all relevant tables, (with proper explanation), interpretation of the all compiled and complete with sketches relevant to the preparation of Preliminary drawings properly cross referenced between the drawings and the calculation sheets.

**S. Initial Environment Examination**

It should include but not limited to the following:

- a. Review of legislation and legal framework
- b. Project features and analysis of various alternatives
- c. Identification of project's various impacts e.g. ecological, socio-economic etc.
- d. Impacts from the surrounding ongoing and proposed development, during planning, construction and on completion
- e. Impact identification, analysis and mitigation measures
- f. Any other requirements of the statutory authorities as required for the approval of the study.

5.4.2 **Phase 2: Feasibility and Project Structuring** shall include but not limited to the following components:

5.4.2.1 **Legal Viability Assessment**

- a) What laws, rules, regulations will be involved in the project implementation?
- b) What kind of District, Provincial and Federal approvals are required for establishing the project?

5.4.2.2 **Socio-Economic Viability Assessment**

- a) Conduct stakeholder consultation for awareness and feedback;
- b) Highlight factors impacting the project during the procurement, development and operations phases;

5.4.2.3 **Financial Viability Assessment**

- a) Develop financial model of the Project covering the projected revenues, construction/development and Operations & Maintenance cost estimates over the life of the Project;
- b) Prepare cost estimates for allied facilities and ancillary works based on the schematic



designs;

#### 5.4.2.4 PPP Options Analysis

- a) Prepare a viable transaction structure for implementation of the Project;
- b) Value for Money (VfM) analysis based on public sector comparator model;
- c) Identify possible PPP options and their impact on the financial and commercial viability, financial model and transaction structuring;
- d) Identify possible Government support may be required by developer, both financial and other
- e) Identify the project risks and develop risk matrix.

*Note: The Transaction Advisor would be responsible to undertake all related surveys needed for preparation of feasibility study report.*

5.4.3 **Phase 3: Bid Process Management and Transaction Marketing** shall include but be not limited to the following:

##### 5.4.3.1 Marketing

- a) Develop a marketing and communication strategy for sensitizing potential investors and other project stakeholders with the project;
- b) Sensitize potential investors, operators and financiers for the project and seek their feedback for incorporation in the project structure;
- c) Seek investor interest and feedback on project prior to launch of official solicitation;
- d) Arrange investor/bidder conferences, road shows and investor visits to market the project;
- e) Assist the Client to establish a data room which will include all the relevant documents and information on the project for investor due diligence.

##### 5.4.3.2 Bid Management

- a) Prepare Expressions of Interests (the **EOI's**), pre-qualification criteria, Request for Proposal (the **RFP**) documents, concession agreements and project information memorandum for bidders;
- b) Help the Client to invite EOIs, pre-qualify the bidders based on the pre-qualification criterion given in RFQ;
- c) Assist the Client to invite proposals from the pre-qualified bidders and handle queries, if any received in response to the RFP, of the pre-qualified bidders by holding a pre-bid conference(s)
- d) Assist the Client to evaluate the bids.

##### 5.4.3.3 Transaction Negotiation and Financial Closure

- a) Assist in final negotiation with preferred party;
- b) Assist in execution of the PPP agreement between GOS, Special Purpose Vehicle/Company (SPV) and the successful bidder;
- c) Assist the GoS by achieving financial close.

## **6. EVALUATION CRITERIA AND SCORING SYSTEM**

### ***A – Evaluation Criteria***

The evaluation of the technical and financial bids shall be held under the Quality and Cost Based Selection (QCBS).

#### **1. Evaluation of Technical Proposals**

- 1.1 The Technical Proposal will be evaluated on the basis of Consultants' relevant experience, its understanding of assignment, proposed methodology, financial capability and Work Plan, the experience of Key professional staff. Only those Consultants' whose Technical Proposals score 80% marks or more shall qualify for further consideration, and shall be ranked from highest to lowest on basis of their technical score. Financial proposals of those bidders who secure less than 80% marks shall be returned un-opened to the firm/consortium.
- 1.2 The total score of the technical and financial evaluation shall be 100, out of which 80% weight-age shall be for the technical and remaining 20% weight age shall be allocated to the financial evaluation.
- 1.3 The technical proposals shall be assigned marks/ score without weight-age (TS) on the basis of the criteria mentioned at Section 3B. Subsequently, this score shall be scaled up by assigning weight-age as mentioned above to this proposal. The final technical score (TSw) shall be calculated in the following manner:  $TSw = TS \times 0.80$ .

#### **2. Financial Bid opening**

- 2.1 A public Financial Bid opening shall be held at the time, date and venue which shall be communicated to all technically qualified Bidder(s).
- 2.2 Confirm submission of bid security. In case the security is not submitted along with the financial proposal in the same sealed envelope, such proposal(s) shall be rejected without being evaluated.
- 2.3 The financial proposals shall first be checked for arithmetic errors. Financial scores shall be computed on the basis of following formula.  $FS = 100 \times (RFS_{min}/RFS)$ . Where  $RS_{min}$  = Lowest Total bid fee and  $RFS$  = Total bid fee by the consortium under consideration. The financial scores thus obtained shall be assigned weight-age (20%) and final weighted score will be arrived at.  $FSw = FS \times 0.20$ , FSw is weighted financial score.

#### **3. Combined Score**

- 3.1 The combined technical and financial proposal (CS) shall be calculated in the following manner, namely:  $CS = TSw + FSw$ .
- 3.2 Bid obtaining maximum combined score shall be declared as the Best Evaluated Bid and the consultants offering the Best Evaluated Bid shall be declared the successful Bidder and issued Letter of Acceptance, containing invitation for contract negotiation. Any factor having a bearing on the quoted price shall not be subject to negotiations.
- 3.3 The Contract shall however, be signed after getting the same duly vetted and approved from the competent authority.

## ***B – Scoring System***

The Technical Proposal will be evaluated on the basis of the criteria given below:

<b>Criteria</b>	<b>Marks</b>	
<b>1. Firm's relevant Experience</b>	Transaction advisory experience for construction of Bridge/Road projects undertaken during last 10 years	6
	3 or more projects                      6 marks 2 projects                                    4 marks 1 projects                                    2 marks	
	Feasibility study experience of construction of Bridge projects	12
	3 or more projects                      12 marks 2 projects                                    8 marks 1 projects                                    4 marks	
	Designing experience of Bridge projects	6
	3 or more projects                      6 marks 2 projects                                    4 marks 1 projects                                    2 marks	
	Construction supervision experience of Bridge projects	6
	3 or more projects                      6 marks 2 projects                                    4 marks 1 project                                    2 marks	
	<b>TOTAL</b>	<b>30</b>
	<b>2. Key Professional Staff</b>	Financial Team
Financial Team Leader            10 marks Financial Analyst                    10 marks		
Technical Team		30
Sr. Engineer                            10 marks Highway Engineer                  5 marks Planning Engineer                  5 marks Engineer Economist                10 marks		
Legal Team		10
Legal Expert                            10 marks		
<b>TOTAL</b>	<b>60</b>	
<b>3. Financial Capability</b>	* Annual Turn over	4
	PKR 40 million                      4 marks PKR 30 million                      3 marks PKR 20 million                      2 marks PKR 10 million                      1 mark	

	* bidders to submit audit financial statements of last three years	
<b>4. Understanding of the Assignment and Proposed Methodology</b>	Appreciation of TOR	02
	Approach and Methodology	02
	Work Plan and Manning Schedule	02
	<b>TOTAL</b>	<b>6</b>
<b>Total</b>		<b>100</b>

The Works & Services Department may conduct a Presentation from bidders during the Technical evaluation period for clarity on proposed methodology for the assignment.

The weight age points given to evaluation sub-criteria for qualifications and competence of key staff are:

#### Weight-age points for Key Professionals

Description			Weight (%)
<b>1. General Qualifications</b>			25
Technical Specialist	Financial Team	Legal Team	
PHD (25 marks)	CA/CFA/MBA (Finance) (25 marks)	LLM (25 marks)	
Masters (20 marks)	Bachelor (15 marks)	LLB (20 marks)	
Bachelor (15 marks)			
<b>2. Employment with the firm</b>			5
5 or more years	5 marks		
4 years	4 marks		
2-3 years	3 marks		
Less than 2 years	2 marks		
<b>3. Relevant Experience and Adequacy for the Project</b>			70
12 or more years	70 marks		
9-10 year	56 marks		
7-8 years	42 marks		
5-6 years	28 marks		
Less than 5 years	14 marks		
Total			100

## 7. INTEGRITY PACT

### DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC. PAYABLE BY THE SUPPLIERS OF GOODS, SERVICES & WORKS IN CONTRACTS WORTH RS 10.00 MILLION OR MORE

Contract No. \_\_\_\_\_ Dated \_\_\_\_\_  
Contract Value: \_\_\_\_\_  
Contract Title: \_\_\_\_\_

..... [name of Supplier] hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Sindh (GoS) or any administrative subdivision or agency thereof or any other entity owned or controlled by GoS through any corrupt business practice.

Without limiting the generality of the foregoing, [name of Supplier] represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoS, except that which has been expressly declared pursuant hereto.

[name of Supplier] certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GoS and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

[name of Supplier] accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other rights and remedies available to GoS under any law, contract or other instrument, be voidable at the option of GoS.

Notwithstanding any rights and remedies exercised by GoS in this regard, [name of Supplier] agrees to indemnify GoS for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GoS in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by [name of Supplier] as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoS.

Name of Buyer: .....  
Signature: .....  
[Seal]

Name of Seller/Supplier: .....  
Signature: .....  
[Seal]



## Appendix-I, Draft Consultancy Services Contract

Works & Services Department

Government of Sindh

# GHOTKI KANDHKOT BRIDGE PROJECT



Hiring Consultant for Feasibility Study & Transaction Advisory  
Services

April, [ ] 2015

## DRAFT CONSULTANCY SERVICES CONTRACT

### DRAFT CONSULTANCY SERVICES CONTRACT

This Consultancy Services Contract (“Contract”) is entered into at Karachi on this the -  
-- day of -----, 2015

#### By and between:

1. **THE WORKS & SERVICES DEPARTMENT OF THE GOVERNMENT OF SINDH**, having its offices at Sindh Secretariat Building No. 1, 3<sup>rd</sup> Floor, Kamal Attaturk Road, Government of Sindh, Karachi represented by the Secretary Works & Services Department (hereinafter referred to as “GoS”); and
2. \_\_\_\_\_, a company incorporated under the laws of the Islamic Republic of Pakistan and having its principal place of business at \_\_\_\_\_ Pakistan (hereinafter referred to as “Lead Advisor”) (GoS and the Lead Advisor are hereinafter referred to individually as a “Party” and collectively as the “Parties”).

#### WHEREAS:

- A. The GoS is desirous of constructing Ghotki Kandhkot Bridge Project (“Project”).
- B. In order to proceed further, GoS is desirous of engaging qualified consultants for conducting the feasibility study and providing the transaction advisory services in relation to the Project in accordance with the terms of reference listed in **Schedule A** of this Contract (“Assignment”).
- C. The Advisory Consortium (defined below), led by the Lead Advisor, participated in, and was selected for the Assignment in a competitive bidding process by the issuance of a Request for Proposals (RFP) on April [●], 2015 and scope clarification issued by GoS on [●].
- D. The Lead Advisor in collaboration with \_\_\_\_\_, have confirmed to GoS that they have the requisite experience and resources to undertake the Assignment for such consideration and terms given herein below.
- E. GoS has agreed to accept the offer of the Lead Advisor for undertaking the Assignment.

#### NOW THEREFORE, the parties hereto agree as follows:

##### 1. Definition

In this Contract, unless the contrary intention appears:

“Advisory Consortium” means collectively the members of advisory team for the Project \_\_\_\_\_ comprising \_\_\_\_\_ of \_\_\_\_\_ (i) \_\_\_\_\_ (ii) \_\_\_\_\_ (iii) \_\_\_\_\_ (iv) \_\_\_\_\_ for \_\_\_\_\_

the Advisory Consortium, as listed in more detail in **Schedule B**, attached hereto;

“**Contract**” means this contract executed between GoS, through Works & Services Department and the Lead Advisor;

“**Terms of Reference**” means work required to be carried out by the Advisory Consortium in relation to the Project, as listed and detailed in **Schedule A** attached hereto;

“**Sub-consultants**” means and includes members of the Advisory Consortium, appointed under specific terms and to whom, a portion or a part, of the Terms of Reference is allocated or assigned by the Lead Advisor for the purposes of this Contract;

“**Technical Proposal**” means the technical proposal in connection with the Assignment submitted by the Advisory Consortium on [●],[●], 2015.

## 2. **Terms of Reference**

- 2.1 GoS hereby appoints the Lead Advisor for the purpose of carrying out of the Assignment and the provision of the services stated in the Terms of Reference and the Lead Advisor agrees to such appointment for such consideration as set out in Clause 3 below. GoS agrees that specified portions of the Terms of Reference may be delegated by the Lead Advisor to members of the Advisory Consortium. It is further agreed between the Parties that unless the Terms of Reference is amended in writing with the mutual agreement of the Parties, the work to be undertaken by the Advisory Consortium will be restricted to Work as set out in Contract.
- 2.2 The approach and methodology outlined in the Technical Proposal submitted by the Advisory Consortium shall be applied for the purposes of any interpretation of the Terms of Reference. If any issue arises regarding interpretation of approach and methodology outlined in the Technical proposal then the Parties will discuss and resolve so as to fulfill the requirement of Assignment.

## 3. **Fee and Commencement Date**

### 3.1 **Fee**

- 3.1.1 In consideration of the Advisory Consortium providing the services to GoS in terms of this Contract, GoS shall pay an “**Advisory Fee**” of PKR \_\_\_\_\_ (Pak Rupees \_\_\_\_\_ Only) to the Advisory Consortium. The Advisory Fee due and payable to the Advisory Consortium shall be made within a period of thirty (30) days from the date of completion of the milestone and approval of the same by the GoS, specified in **Schedule C** attached hereto.
- 3.1.2 Any amendment to the Terms of Reference shall only become effective once the Parties have agreed to amendments/changes (if any) to the Advisory Fee subject to relevant SPPRA rules 2010 (amended from time to time), which may occur as a result of such amendment in the Terms of Reference. For avoidance of doubt it is



clarified that the agreement between the Parties in relation to the adjustment in the Advisory Fee as a result of any amendment in the Terms of Reference is a condition precedent to the effectiveness of such amended Terms of Reference.

- 3.1.3 The Advisory Fee due and payable by GoS to the Advisory Consortium shall be a fixed advisory fee, subject to any amendments and/or adjustments in the same as a result of a change in the Terms of Reference in accordance with Section 3.1.

### 3.2 **Commencement Date**

- 3.2.1 For the purposes of this Contract and the services to be provided hereunder, the commencement date for the Assignment shall be *the date of signing of this Consultancy Services Contract*.

## 4. **Warranties**

- 4.1 GoS hereby represents and warrants to the Lead Advisor that it has all the necessary authorization, mandate and capacity to award the Terms of Reference to the Advisory Consortium pursuant to this Contract.

- 4.2 The Lead Advisor warrants that:

- (a) It has, in collaboration with its Consortium Partners, all necessary knowledge base, human and material resources to undertake the Assignment according to the best international practices;
- (b) It has all necessary warranties from Consortium Partners confirming that they have the necessary professional, intellectual and material resources to undertake their respective parts of the Terms of Reference in connection with the Assignment; and
- (c) It has all necessary consent from Consortium Partners to accept the Assignment, abide by the terms of the Contract and that they shall perform their respective parts of work professionally and according to the international best practices.

## 5. **Communication**

- 5.1 All the significant communication between the Parties shall be in writing delivered through some established credible medium which will include email but deliverables shall be in hard and also in soft copy form.
- 5.2 All of the substantive nature communication between the Parties shall be sent to the following persons without fail in addition to any other person(s) or official(s) the Parties to the agreement may notify each other or the person(s) or official(s) to whom it is necessary and obligatory to send that communication. The respective key contact persons for communication shall be:

<p><b>For GoS Communication/Deliverable/report address to:</b></p> <p>Name: Designation: Deputy Director, Works &amp; Service Department, Government of Sindh Address: Sindh Secretariat Building- 1,.....</p> <p>Telephone: +92(21)                   +92(21)</p> <p>Email:</p>	
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<p><b>For PPP Unit Copy of communication / deliverable/ report to:</b></p> <p>Name: Designation: Address: 7<sup>th</sup> Floor, Building No. 6, Sindh Secretariat, Shahrah-e-Kamal Atta Turk, Karachi</p> <p>Telephone: +92(21)                   +92(21)</p> <p>Email:</p>	<p><b>For Lead Advisor</b></p> <p>Name: Designation: Address:</p> <p>Telephone: +92(21)                   +92(21)</p> <p>Email:</p>
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**6. Reporting/Deliverables**

- 6.1 The Lead Advisor shall provide GoS with the following deliverables during the course of the Assignment:-
  - i. To be finalized after receipt of bids
- 6.2 The outcome of the Project is to complete the Assignment as per the Terms of Reference.
- 6.3 Whilst each submission of the work products shall address different aspects of the Assignment that the Advisory Consortium shall perform, the Final Feasibility Report shall take into consideration the outputs from earlier work products submitted by the Advisory Consortium.
- 6.4 In order to confirm that the Advisory Consortium’s reports address all the matters within the agreed Terms of Reference, the Lead Advisor will submit a draft of its reports/plans/models to the GoS for its comments prior to issuing it in final form. If the GoS does not revert with any comments within a period of three (3) weeks

from the date of submission by the Lead Advisor of its draft reports/plans/models (as the case may be), the same will be deemed to be accepted by the GoS for the purposes of achievement of the milestones as set down in **Schedule C**, and the Lead Advisor will be entitled to (i) issue the final versions of the relevant deliverables; and (ii) payment for completion of such milestone in accordance with **Schedule C**.

## **7. Access**

7.1 For undertaking the Assignment the Advisory Consortium will have the access to and the GoS will make all efforts to provide to it all the relevant and necessary information and documents wherever applicable and possible, which would facilitate the Advisory Consortium in connection with the Assignment.

## **8. Assignment and Charges**

The Lead Advisor shall not assign this Contract or any part hereof except with prior consent in writing of the GoS, which consent the GoS shall be entitled to decline without assigning any reason whatsoever. Notwithstanding the generality of this clause, nothing herein shall restrict the ability of the Lead Advisor to delegate part of the Terms of Reference to members of the Advisory Consortium, possessing relevant expertise.

## **9. Law Governing Contract and Language**

The Contract shall be governed by the laws of Islamic Republic of Pakistan or the Provincial Government and the language of the Contract shall be English.

## **10. Term, Termination and Survival**

### **10.1 Term**

i. The appointment of the Lead Advisor in terms of this Contract shall automatically terminate upon completion of the services as per the Terms of Reference or a period of **.... months** from the Commencement Date of the Assignment, whichever comes earlier. During the stated period the Advisory Consortium shall endeavor to facilitate the GoS in the timely completion of all services relating to the Project. In case the Project is not completed within the agreed time, the Advisory Consortium shall request GoS for reasonable extensions with justifications. Upon expiry of the term specified herein, this Contract may be renewed for further services/Projects, upon the mutual consent of the Parties.

### **10.2 Termination**

#### **10.2.1 By the GoS**

The GoS may terminate this Contract in case of the occurrence of any of the events specified in paragraphs (a) through (f) of this clause. In such an occurrence the GoS shall give not less than thirty (30) days' written notice of termination to the Lead Advisor, and sixty (60) days' in the case of the event referred to in (e).

- a) If the Lead Advisor does not remedy the failure in the performance of their obligations under the Contract, within thirty (30) days after being notified or within any further period as the GoS may have subsequently approved in writing.
- b) If the Lead Advisor becomes insolvent or bankrupt.
- c) If the Lead Advisor, in the judgment of the GoS has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.
- d) If, as the result of Force Majeure, the Advisory Consortium are unable to perform a material portion of the services for a period of not less than sixty (60) days.
- e) If the GoS, in its sole discretion and for any reason whatsoever, decides to terminate this Contract.
- f) If the Advisory Consortium fails to comply with any final decision reached as a result of arbitration proceedings.

In case of the event referred to in (a), the Lead Advisor shall be liable to the GoS for the performance of the Assignment. Failure in the performance of obligations may lead to termination of Contract along with performance security forfeiture and / or black-listing of Lead Advisor.

#### **10.2.2 By the Lead Advisor:**

The Lead Advisor may terminate this Contract, by not less than thirty (30) days' written notice to the GoS, such notice to be given after the occurrence of any of the events specified in paragraphs (a) through (c) of this clause:

- a) If the GoS fails to pay any money due to the Advisory Consortium pursuant to this Contract without Advisory Consortium fault.
- b) Pursuant to clause 27 (Good Faith) hereof within forty-five (45) days after receiving written notice from the Lead Advisor that such payment is overdue.
- c) If, as the result of Force Majeure, the Advisory Consortium is unable to perform a material portion of the Assignment for a period of not less than sixty (60) days.
- d) If the GoS fails to comply with any final decision reached as a result of arbitration proceedings.

#### **10.2.3 Payment upon Termination**

Upon termination of this Contract, the GoS shall make the following payment to the Lead Advisor:

- i. Payment for milestones satisfactorily performed as per Contract prior to the effective date of termination;

#### **10.3 Survival**

Termination of this Contract (a) shall not relieve the Lead Advisor or the GoS of any obligations hereunder which expressly or by implication survives Termination

hereof (b) shall not relieve GoS for making payment of the Advisory Fee and other amounts due and payable in terms of this Contract; and (c) except as otherwise provided in any provision of this Contract expressly limiting the liability of either Party, shall not relieve either Party of any obligations that have already arisen or liabilities for loss or damage to the other Party arising out of or caused by acts or omissions of such Party prior to the effectiveness of such Termination or arising out of such Termination.

**11. Amendments**

This Contract and the Schedules together constitute a complete and exclusive statement of the terms of the Contract between the Parties on the subject hereof and no amendment or modification hereto shall be valid and effective unless agreed to by all the Parties hereto and evidenced in writing.

**12. Notices**

Unless otherwise stated, notices to be given under this Contract including but not limited to a notice of waiver of any term, breach of any term of this Contract and termination of this Contract, shall be in writing and shall be given by hand delivery, recognized courier, mail, telex or facsimile transmission and delivered or transmitted to the Parties at their respective addresses set forth below:

<i><b>For GoS</b></i>	<i><b>For Advisory Consortium</b></i>
Secretary Works & Services Department, Government of Sindh, Building No. 1, Sindh Secretariat, Kamal Atta Turk Road <u><b>Karachi.</b></u>	-----
Telephone: +92(0) 21-992 Fax: +92(0) 21-992	Telephone: +92 +92 Fax: +92 Email:

Or such mail address, telephone number, telex number, or email address as may be duly notified by the respective Parties from time to time.

**13. Severability**

If for any reason whatever any provision of this Contract is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any manner, and the Parties will negotiate in good faith with a view to agreeing upon one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable. Provided failure to agree upon any

such provisions shall not be subject to dispute resolution under this Contract or otherwise.

#### **14. Fraud and Corruption**

A. If the GoS determines that the Lead Advisor and/or its Personnel, sub-contractors, sub-consultants, services providers and suppliers has engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices, in competing for or in executing the Contract, then the GoS may, after giving 14 days notice to the Lead Advisor, terminate the Consultant's employment under the Contract, and may resort to other remedies including blacklisting/disqualification as provided in SPPR 2010. Any personnel of the Advisory Consortium, who engages in corrupt, fraudulent, collusive, coercive, or obstructive practice during the execution of the Contract, shall be removed in accordance with clause 26.

#### **Integrity Pact**

B. If the Advisory Consortium or any of his Sub-consultants, agents or servants is found to have violated or involved in violation of the Integrity Pact signed by the Lead Advisor as **Appendix – A** to this Contract, then the GoS shall be entitled to:

- a) recover from the Lead Advisor an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by the Consultant or any of his Sub-consultant, agents or servants;
- b) terminate the Contract; and
- c) recover from the Lead Advisor any loss or damage to the GoS as a result of such termination or of any other corrupt business practices of the Lead Advisor or any of his Sub-consultant, agents or servants.

On termination of the Contract under Sub-Para (b) of this Sub-Clause, the Lead Advisor shall proceed in accordance with Sub-Clause 15 A. Payment upon such termination shall be made under Sub-Clause 15 A after having deducted the amounts due to the Client under 15 B Sub-Para (a) and (c).

#### **15. Performance Standard**

The Lead Advisor undertakes to perform the Assignment with the highest standards of professional and ethical competence and integrity. The Lead Advisor shall promptly replace any employees assigned under this Contract that the GoS considers unsatisfactory.

#### **16. Confidentiality**

The Lead Advisor shall not, during the term of this Contract and within two years after its expiration, disclose any proprietary or confidential information relating to the Assignment, this Contract or the GoS's business or operations without the prior written consent of the GoS.

**17. Ownership of Material**

Any studies, reports or other material, graphic, software or otherwise, prepared by the Advisory Consortium for the GoS under the Contract shall belong to and remain the property of the GoS. The Lead Advisor may retain a copy of such documents and software.

**18. Advisory Consortium Not to be Engaged in Certain Activities**

The Lead Advisor agrees that, during the term of this Contract and after its termination, the Lead Advisor and any entity affiliated with the Advisory Consortium, shall be disqualified from providing goods, works or services (other than the Assignment or any continuation thereof) for any project resulting from or closely related to the services specified in the agreement.

**19. Advisory Consortium not to Benefit from Commissions, Discounts, etc.**

The payment of the Lead Advisor pursuant to this Contract shall constitute the Lead Advisor's only payment in connection with this Contract or the Services, and the Advisory Consortium shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations under the Contract, and the Advisory Consortium shall use their best efforts to ensure that the Personnel, any Sub-Consultants, and agents of either of them similarly shall not receive any such additional payment.

**20. Prohibition of Conflicting Activities**

The Lead Advisor shall not engage, and shall cause their Personnel as well as their Sub-Consultants and their Personnel not to engage, either directly or indirectly, in any business or professional activities which would conflict with the activities assigned to them under this Contract.

**21. Change in the Applicable Law Related to Taxes and Duties**

If, after the date of this Contract, there is any change in the Applicable Law with respect to taxes and duties which increases or decreases the cost incurred by the Consultant in performing the services under this Contract shall be increased or decreased accordingly by agreement between the Parties.

**22. Force Majeure**

The failure on the part of the parties to perform their obligation under the Contract will not be considered a default if such failure is the result of natural calamities, disasters and circumstances beyond the control of the parties.

**23. No Breach of Contract**

The failure of a Party to fulfill any of its obligations under the contract shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event (a) has taken all reasonable precautions, due care and reasonable

alternative measures in order to carry out the terms and conditions of this Contract, and (b) has informed the other Party as soon as possible about the occurrence of such an event.

**24. Extension of Time**

Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

**25. Lead Advisor's Actions Requiring GoS's Prior Approval**

The Lead Advisor shall obtain the GoS's prior approval in writing before taking any of the following actions:

- a) entering into a subcontract for the performance of any part of the Assignment;
- b) appointing such members of the Personnel not listed by name in **Schedule-B** (Project Team);

**26. Removal and / or Replacement of Personnel**

- a) Except as the GoS may otherwise agree, no changes shall be made in the Key Professional Staff. If, for any reason beyond the reasonable control of the Advisory Consortium, such as retirement, death, medical incapacity, among others, it becomes necessary to replace any of the Key Professional Staff, the Lead Advisor shall provide as a replacement a person of equivalent or better qualifications.
- b) If the GoS finds that any of the Personnel have (i) committed serious misconduct or have been charged with having committed a criminal action, or (ii) have reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Lead Advisor shall, at the GoS's written request specifying the grounds thereof, provide as a replacement a person with qualifications and experience acceptable to the GoS.
- c) The Lead Advisor shall have no claim for additional costs arising out of or incidental to any removal and/or replacement of Personnel.

**27. Good Faith**

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

**28. Settlement of disputes**

In the event of any dispute or claim arising out of or relating to this Contract or a breach hereof, the Parties shall consult and negotiate with each other and, recognizing their mutual interests, attempt to reach a solution satisfactory to the parties. If the Parties fail to settle the dispute or claim at the expiration of thirty (30) days from the date of such dispute or claim, the matter will be referred to a



sole arbitrator to be appointed with the mutual consent of the Parties within fifteen (15) days from the date of receipt of a notice of arbitration served by any Party hereto. In case the Parties fail to agree on sole arbitrator within the said period, the matter shall be referred to two arbitrators, one to be appointed by each of the Parties to dispute and to an Umpire to be appointed by the arbitrators before entering upon the reference. The sole arbitrator or the arbitrators and Umpire shall proceed to arbitrate in accordance with and subject to the provisions of the Arbitration Act, 1940 or any statutory modification or reenactment thereof for the time being in force.

**The Parties agree that:**

- (a) All arbitration proceedings will take place in the jurisdiction of Sindh Province.
- (b) Except as may be required by law, neither a party nor its representatives may disclose the existence, content or results of any arbitration hereunder without the prior written consent of all Parties.

**29. Arbitration**

The language of the arbitration shall be English.

- (a) It is the intent of the Parties that, barring extraordinary circumstances, arbitration proceedings will be concluded within 120 days from the date the arbitrator is appointed. The arbitral tribunal may extend this limit in the interests of justice. Failure to adhere to this time limit shall not constitute a basis for challenging the award.
- (b) The decision of such arbitration to award or awards made by such arbitrators
  - i. and Umpire shall be final and binding upon the Parties hereto without appeal to any court or other party (s),
- (c) Pending the decision or award, the Parties shall continue to perform their obligations pursuant to the Contract;
- (d) This clause shall continue in force notwithstanding the termination of this Contract; and
- (e) Resort to arbitration shall be a condition precedent to any legal proceedings through a court of Law.

Should arbitration occur between the parties relating to the provisions of this Contract, each Party shall bear its arbitration expenses, witness and representation fees.

**30. Schedules to the Contract**

The following schedules shall form the integral part of this Contract:

- Schedule A - Terms of Reference
- Schedule B -Project Team
- Schedule C -Deliverables and Payments
- Schedule D -Time Plan

**IN WITNESS WHEREOF** the Parties have executed and delivered this Contract as of the date first above written.

**[Signature Page Follows]**

<b>For and on behalf of:</b> <b>Works &amp; Services Department</b> <b>GOVERNMENT OF SINDH</b>		
<p style="text-align: right;">(Signature)</p> <p>( _____ )</p> <p>Secretary Works &amp; Services Department</p>		<b>In presence of the following witnesses:</b>  Signature: ..... Name:..... CNIC No: .....
		Signature: ..... Name: ..... CNIC No: .....
<b>For and on behalf of:</b> <b>Consortium</b>		
<p style="text-align: right;">(Signature)</p>		<b>In presence of the following witnesses:</b>  Signature: ..... Name:..... CNIC No: .....
		Signature: ..... Name: ..... CNIC No: .....

## SCHEDULE A- TERMS OF REFERENCE

### 1.1 Terms of Reference

1.1.1 **Phase 1: Technical Feasibility** shall include but not limited to the following components:

#### A. Outline Design of Project

- i. Carry out map/ satellite picture study supplemented with detailed area reconnaissance and study number of options for Bridge location with approach Roads of the bridge and present all options with merits and demerits after ground assessment of salient features of each location.
- ii. The Consultant shall recommend alignment/inception report, most suitable option for approval from Client
- iii. Carryout hydrological studies also taking into consideration river flow patterns during peak flood and recession period.
- iv. Frame Terms of Reference for Hydraulic Model Study for bridge, approaches and guide banks/protection works and coordinate with Irrigation Research Institute for conduct of model study.
- v. Carry out Outline soil investigations for bridge and approach roads.
- vi. Frame TOR for detailed designing of the project based on x-section of bridge and approach road, which will be in conformity with applicable standards and in accordance with the Design requirements as set out below.
- vii. Detailed reconnaissance of project and review of all material / documents provided.
- viii. Carryout topographic survey for the selected bridge location and approach road, soil investigation survey to determine Subsoil Condition, other required soil tests and analysis for the authenticity of any available report.
- ix. Geometric design as per the geometric design criteria for roads given in the AASHTO Standards. Also carry out Preliminary Design of pavement, retaining/ protection works, design of erosion protection works and drainage works.
- x. Carry out Outline Structural Design of Bridge in accordance with provisions of AASHTO LRFD Bridge Design Specifications.
- xi. Preliminary Design of other minor structures and intersections (at-grade or grade separated)
- xii. Carryout IEE of the Project.
- xiii. Prepare Preliminary drawings.
- xiv. Preparation of Indicative land acquisition and utility/ infrastructures folders.
- xv. Carry-out layout plan of Administration Building and weigh bridges.
- xvi. Give detailed plan of implementation strategy.
- xvii. The general performance requirements for the Road and Bridge are given below:
  - a. Geometric Design Criteria

#### Design Life

Bridge and Structures – 50 years

Pavement Structures – 10 years

#### Design Speed

Flat terrain rural – 100 Km/h

Flat terrain town – 60 Km/h

Maximum Super elevation 4.0%

#### Transverse slop (Camber)

Pavement	2.0%
Shoulders	4.0%
<u>Gradient</u>	
Maximum	3%
Minimum	0.2%
Carriageway Width	7.3 meters
Shoulders width either side	3.00m
Outer shoulder treatment	Double Surface Treatment
Embankment Height	Varies
Embankment side slop	
Fill	2H:1V to 3H:1V
Carriageway width	7.3 meters
Shoulder width (both sides)	3.0 meters

b. For Bridge

Width (see cross section attached)  
 Live Load Class AA Loading

c. For Material Testing

ASTM – American Society for Testing and Materials  
 AASHTO-American Association of State Highway and Transportation Officials.

d. For Structures

AASHTO LRFD (Latest Edition) American Association of State Highway and Transportation Officials.

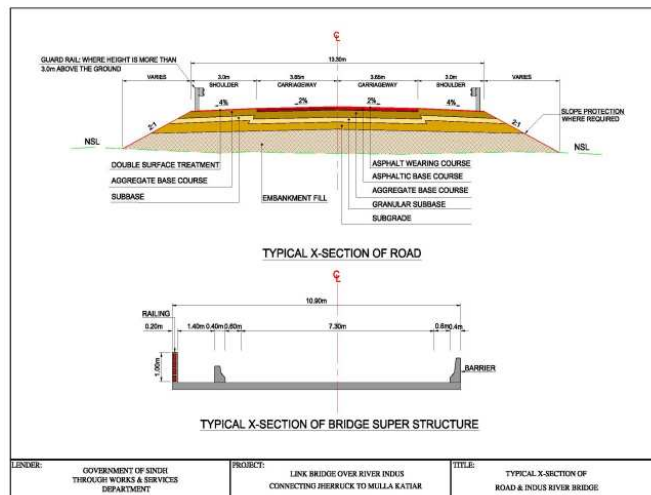
e. Loading

West Pakistan Code of Practice for Highway Bridges 1967.

f. Seismic Design

AASHTO analysis and design with latest Seismic zoning map for Pakistan as per revised current GoP Seismic parameters.  
 Other design criteria not specified herein shall be approved by the Independent Engineer/GoS before being adopted for the design.

g. Suggested Typical X-Sections



**B. Reconnaissance Survey**

Subsequent to Desk study including satellite imagery; a reconnaissance survey of the area shall be carried out to identify the most suitable and viable Bridge location and approaches. Terrain type soil conditions, River flow conditions, length and geometry of approaches and other important features related to specific site conditions shall be considered for selection of most viable Bridge alignment and approaches.

**C. Riverine Survey**

The Consultant shall carry out Riverine survey in whole width of River Indus covering the following requirements. The extent of the riverine survey will be 10 km upstream and 5 km downstream from the proposed centre line of the Bridge. The limits will be adjusted to the local site condition where found necessary.

- Cross section of river at ever 300 meters will be taken by the Consultant.
- Longitudinal section of the river shall also be provided showing the bed slope.
- The lines showing the location of cross sections and longitudinal sections shall be indicated on survey plans.
- Location of the x-sections shall be marked on the Satellite Imagery.

**D. Topographic Survey**

Topographic survey for design of approach roads on either side of the bridge in relation with the proposed alignment of the bridge shall be carried out through EDM Tachy method using Total Stations. Field survey data shall be computer processed and computer aided mapping shall be carried out. This data shall be AutoCAD compatible for use on Road Calc and other Highway design software.

**E. Soil Investigation**

**E.1 General**

Sub-surface investigations consisting of boreholes/ drill-holes of required depth, supplemented by field and laboratory testing to accurately assess the engineering properties of the underlying soil strata for layout plan of foundations, substructures and roads shall be undertaken. A separate report will be prepared to this effect and will be submitted to the GoS for approval. Original laboratory reports shall be attached in the soil report along with coloured photographs.

**E.2 Scope of Work**

Geotechnical investigations shall comprise of

- i. Soil survey from 10 pits of 1.5m deep along the alignment of approaches.
- ii. Soil Investigation, 4 number 70m deep boreholes for main bridge over River Indus.
- iii. Soil Investigations 1 number 30m deep boreholes for each canal bridge.

**E.3 Methodology**

Bore logs shall be included in the Soil Investigation Report along with the laboratory results. Testing of samples collected from site shall be carried out in a reputed laboratory, under strict quality control and adherence to relevant ASTM procedures/ standards. Standard penetration tests shall be started from the ground surface and carried out in accordance with ASTM D1586 Penetration Test and Split Barrel sampling of soils.

Where clays are encountered, undisturbed samples shall be obtained in accordance with ASTM on thin tube sampling of soils, Where cohesion less strata is encountered, disturbed samples shall be obtained at every change of strata.

If rock is encountered, then drilling in rock shall be carried out and cores shall be drilled at regular intervals of 2m. If rock is encountered at tip of bore hole, then drilling in rock shall continue for 5m below the tip level of the bore. The samples obtained tested for compressive strength of the rock employing unconfined compression test.

Following laboratory tests (requirements and frequency of test to be decided by the Consultant) shall be conducted.

#### **All Samples**

- Grain size analysis (Sieve and Hydrometer) / Soil Classification.
- Atterberg Limits
- Moisture content.
- Density
- Socked 3-point CBR at NSL

#### **Un-disturbed Cohesion less Samples**

- Direct Shear Test

#### **Un-disturbed Cohesive Samples**

- Unconfined Compression test
- Consolidation test (for clays)

#### **Rock Cores**

- Unconfined Compression test

#### **Triaxial Compression test**

- Three (03) samples from each borehole shall be tested.

### **E.4 Information required**

Based on the results of the above tests, following information shall be furnished:

- i. Cohesion of soil
- ii. Angle of Internal Friction
- iii. Bearing Capacity Factors
- iv. Coefficient of the volume compressibility of clays
- v. Compression Index
- vi. Density and specific gravity of soil.
- vii. Modulus of subgrade reaction of soil
- viii. Modulus of elasticity of soil

### **F. Material, Survey And Testing**

The Consultant shall carry out the survey and testing of the construction materials. The sources/quarries and water resources shall be properly marked on the sheets. Materials and water samples will be tested for conformance to standard such as Los Angeles Abrasion test, specification. Soundness Test, Physio-chemical for Analysis, etc. testing and aggregates undesirable reactive shall also be done. A report covering naturally substances occurring construction materials such as aggregates, sands, etc., as well as the manufactured material such as cement, reinforcing steel, bitumen, etc. shall be included in the report.

Review the suitability of locally available construction materials, and if necessary, locate new quarries and borrow pits and assess the quality and quantity of materials and hauling distance.

**G. Geotechnical Investigation Report**

Geotechnical report including all field investigation bore logs, location of Ground Water Table, location of boreholes / drill-holes and test pits shall be prepared. Geotechnical investigation report shall provide results of laboratory testing along with the recommendations for the type of foundations and pavement.

**H. Hydrology And Hydraulic Study**

The Consultant shall carry out Preliminary Hydraulic Study for peak, medium and low discharge behavior for design of bridge while detailed Hydraulic Study shall be carried out at the time of execution. The river guide bank shall be determine after the Hydraulic Model Study by the successful bidder.

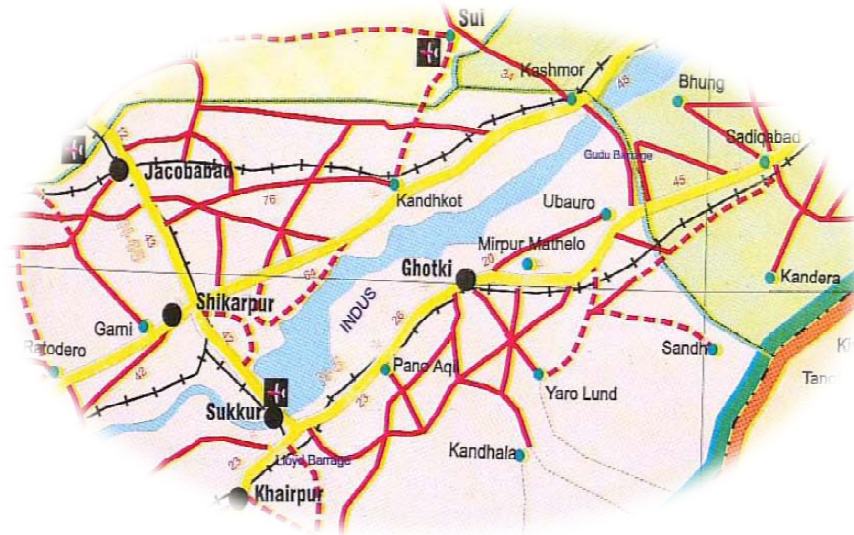
Waterway, Maximum Peak Discharge, High Water Levels, Scour Estimates, Type of Bed Material, Maximum Velocity, Clearance, Structure Profile, Protection Works etc.

**I. Traffic Study**

The traffic study required for the proposed bridge over Indus connecting the National Highways N-5 and N-55 near Ghotki and Kandhkot respectively would require the following activities in connection with the planning and design of the project:

- Collection and review of historic traffic data and socio-economic characteristics of the area of influence of the project;
- Fresh traffic surveys including classified traffic counts and O-D Surveys at the following locations on the existing routes serving the project's area of influence, since it would be a new route:
  - On National Highway, N-5 near Ghotki
  - On National Highway, N-55 near Kandhkot
  - On the two existing bridges over Indus upstream and downstream at Guddu Barrage and Sukkur Barrage respectively.
- Speed and delay studies on the available alternate routes linking the two highways in the immediate vicinity of the project.
- Analysis of these data for determining the annual average daily traffic expected to use the proposed bridge and its approach roads taking into account:
  - The travel desire pattern obtained from the O-D Surveys
  - The travel time and cost differentials
  - The sectional capacities of the network segments
  - The socio-economic characteristics including population and trip attraction / generation potential of the various regions falling within the study area
- Analysis and application of appropriate traffic growth rates and traffic volume forecasting for about 25years post-construction period;
- Capacity analysis comprising determination of the year-wise level of service and lane requirements;
- Determining the pavement design traffic load for the design of pavement structure for the approach roads and finally;
- Preparation and submission of Traffic Study Report.





Detailed traffic analysis and forecast of traffic will be prepared for 10 years and 20 years period. The Consultant shall collect and study the available traffic data from the GoS and other agencies to carryout traffic study. 24 hour traffic counts will be carried out if available data is not sufficient to base traffic study. The traffic study shall include the following.

- a. Traffic counts and composition of traffic. Vehicle axle loads and truck factors shall be taken from NTRC study or other studies available.
- b. Vehicle operating cost will be computed using NTRC factors or other relevant information based on existing practice.

#### **J. Preliminary Report**

After carrying out site reconnaissance and desk study the Consultant shall submit "Preliminary Report" which shall contain all possible options with merits and demerits of various bridge locations plus the alignment of approach roads and other likely bottlenecks for example level crossings, other road crossing, intersections, populated areas etc. Consultant shall also recommend most suitable option giving proper justification/ reasons as per their judgment for approval by the GoS.

Preliminary Report shall also cover in formation of traffic data and main hydraulic design parameters to be adopted for layout plan for approval by the GoS.

The Consultant shall submit report marking all the options on the SOP maps and satellite imagery. The Consultant will be required to give presentation to the GoSfor approval of Bridge location site and alignment of approach roads& their Anticipated cost with backup calculations.

#### **K. Design & Construction Standards and Criteria**

##### Design & Construction Standards:

The following Design Standards would be followed:

##### For Material and Testing:

ASTM -American Society for Testing and Materials

AASHTO-American Association of State Highway and Transportation Officials.

##### For Material and Testing:

AASHTO Guide for Design of Pavement Structures

##### For Structures:

AASHTO LRFD (Latest Edition) American Association of State Highway and Transportation Officials.

Loading:

West Pakistan Code of Practice for Highway Bridges 1967.

Seismic Design:

AASHTO analysis and design with latest Seismic zoning map for Pakistan as per revised current GoP Seismic parameters.

Structural Design:

For Bridge locations, drawing scale of 1:500 shall be used showing the main features of the structure proposed, the tentative alignment of the proposed carriageway, the topography of the adjoining terrain and the benchmarks. The final design plans shall include all details in appropriate scale necessary to construct the said structures. The Design will be based on AASHTO LRFD specification For Bridge

For Construction:

NHA General Specifications 1998, and all standards mentioned in this specification.

**L. Geometric Design**

Geometric design shall be based on the following criteria:

S.No.	PARAMETERS	UNIT	PLAIN AREAS
a)	Design Road		
	Rural	Km/h	100
	Town	Km/h	60
b)	Number of Lanes	Number	02
c)	Formation Width	M	13.3
d)	Width of Travelled Way (Carriageway)	M	7.3
e)	Width of Shoulders	M	3.0m each side
	3.0m wide shoulders		
f)	Cross Slope		
	i) Carriageway	%	2
	ii) Shoulder		4
g)	Maximum Gradient	%	3.0
h)	Other design criteria not specified herein shall be approved by Client before being adopted for the design at the time of construction.		

Parameters not specified above shall conform to AASHTO Highway Design Guide (Green Book), 2004 Edition.

**M. Embankment Design**

In areas of high water table, filter cut-off layer shall be designed to protect the pavement structure. This should include day-lighting of the pavement layers to outer side of the embankment. Surface drainage should also be designed properly with defined disposal points with special consideration in the built-up area.

**N. Pavement Design**

Pavement design shall be done according to AASHTO Recommendations (latest edition) with load factors from NTRC Report and confirm the design with the mechanistic design methodology. The pavement design will be based on the calculated volume of traffic keeping overload factors in view. Traffic growth factor shall be established through the study of available traffic data. Recommendations of the Asphaltic Concrete Institute latest note shall be kept in view while designing.

**O. Bridge Structure**

Main Bridge shall be designed as two lane (02) lane and each lane shall not be less than 3.65 meters wide. A walkway on one side, separated by the main carriageway (for animals crossing) shall be provided. Bridge deck shall be designed for minimum of 5,000 psi concrete.

**P. Land Acquisition Requirements**

After final location and alignment survey, the Consultant shall prepare land acquisition folders. Details of property falling within ROW shall be indicated. Details of land to be acquired for road construction shall also be updated. The Consultant shall submit ROW plans showing the alignment and total area to be acquired. The Consultant shall also prepare estimate for acquiring any additional land and removal of structures and utilities and prepare cost estimates for implication of removal.

**Q. Hydraulic Model Study**

The Consultant shall prepare detailed Terms of Reference for conducting hydraulic model study and carryout necessary coordination with Irrigation Research Institute.

**R. Final Report**

The Consultant shall prepare a final report consisting of the final alignment, Design of Pavement and Preliminary design of Structures bridges (culverts, underpasses, and retaining walls); containing all relevant tables, (with proper explanation), interpretation of the all compiled and complete with sketches relevant to the preparation of Preliminary drawings properly cross referenced between the drawings and the calculation sheets.

1.1.2 **Phase 2: Feasibility and Project Structuring** shall include but not limited to the following components:

1.1.2.1 **Legal Viability Assessment**

- a) What laws, rules, regulations will be involved in the project implementation?
- b) What kind of District, Provincial and Federal approvals are required for establishing the project?

#### 1.1.2.2 **Socio-Economic Viability Assessment**

- a) Conduct stakeholder consultation for awareness and feedback;
- b) Highlight Factors impacting the project during the procurement, development and operations phases;

#### 1.1.2.3 **Initial Environment Examination**

It should include but not limited to the following:

- a. Review of legislation and legal framework
- b. Project features and analysis of various alternatives
- c. Identification of project's various impacts e.g. ecological, socio-economic etc.
- d. Impacts from the surrounding ongoing and proposed development, during planning, construction and on completion
- e. Impact identification, analysis and mitigation measures
- f. Any other requirements of the statutory authorities as required for the approval of the study.

#### 1.1.2.4 **Financial Viability Assessment**

- a) Develop Financial Model of the Project covering the projected Revenue, Construction/Development and O&M cost estimates over the life of the Project;
- b) Prepare cost estimates for allied facilities and ancillary works based on the schematic designs;

#### 1.1.2.5 **PPP Options Analysis**

- a) Prepare a viable transaction structure for implementation of the project;
- b) Value for Money (VfM) analysis based on Public sector comparator model;
- c) Identify possible PPP Options and their impact on the Financial and Commercial Viability, Financial Model and Transaction Structure;
- d) Identify the project risks and develop risk matrix.

***Note:** The Transaction Advisor would be responsible to undertake all related surveys needed for preparation of feasibility study report.*

**1.1.3 Phase 3: Bid Process Management and Transaction Marketing** shall include but be not limited to the following:

##### 1.1.3.1 **Marketing**

- a) Develop a marketing and communication strategy for sensitizing potential investors and other project stakeholders with the project;
- b) Sensitize potential investors, operators and financiers for the project and seek their feedback for incorporation in the project structure;
- c) Seek investor interest and feedback on project prior to launch of official solicitation;

- d) Arrange investor/bidder conferences, road shows and investor visits to market the project;
- e) Assist the Client to establish a data room which will include all the relevant documents and information on the Project for investor due diligence.

#### **1.1.3.2 Bid Management**

- a) Prepare EOI, pre-qualification criteria, RFP document, Concession Agreement and Project Information Memorandum for bidders;
- b) Help the Client to invite EOIs, pre-qualify the bidders based on the pre-qualification criterion given in RFQ;
- c) Assist the Client to invite proposals from the pre-qualified bidders and handle queries, if any received in response to the RFP, of the pre-qualified bidders by holding a pre-bid conference(s)
- d) Assist the Client to evaluate the bids.

#### **1.1.3.3 Transaction Negotiation and Financial Closure**

- a) Assist in final negotiation with preferred party;
- b) Assist in execution of the PPP agreement between GOS, SPV and the Developer;
- c) Assist GoS through Financial Closure.

**SCHEDULE B - PROJECT TEAM**

<b>NAME</b>	<b>DESIGNATION</b>	<b>ORGANIZATION</b>
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The engagement will be carried out under the overall supervision of the Lead Advisor, who will be the Engagement Partner for the project.

The principal GoS contact for this engagement will be the Lead Advisor, who has been given overall responsibility for the performance of the obligations under this Contract and coordinating with the Lead Advisor in the performance of their Assignment.

**SCHEDULE C - DELIVERABLES AND PAYMENTS**

S. No	Activities and Milestones	Mode of Payment	
		% age	PRs.
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
	<b>TOTAL</b>		

Notes:

- a. Payment is due on achievement of each milestone as per Contract, (shown in bold above), however, milestones do not directly relate to the actual cost of the activity stated.
- b. In case any delay occurs in proceeding with the consultancy services for more than two months, beyond the control of consultants, then payments for the completed components of the milestones are to be made by the GoS.



## SCHEDULE D- TIME PLAN

To be provided by the winning bidder.

**INTEGRITY PACT**

**DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC. PAYABLE BY THE SUPPLIERS OF GOODS, SERVICES & WORKS IN CONTRACTS WORTH RS 10.00 MILLION OR MORE**

Contract No. \_\_\_\_\_ Dated \_\_\_\_\_  
Contract Value: \_\_\_\_\_  
Contract Title: \_\_\_\_\_

..... [name of Supplier] hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Sindh (GoS) or any administrative subdivision or agency thereof or any other entity owned or controlled by GoS through any corrupt business practice.

Without limiting the generality of the foregoing, [name of Supplier] represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoS, except that which has been expressly declared pursuant hereto.

[name of Supplier] certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GoS and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

[name of Supplier] accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other rights and remedies available to GoS under any law, contract or other instrument, be voidable at the option of GoS.

Notwithstanding any rights and remedies exercised by GoS in this regard, [name of Supplier] agrees to indemnify GoS for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GoS in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by [name of Supplier] as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoS.

Name of Buyer: .....  
Signature: .....  
[Seal]

Name of Seller/Supplier: .....  
Signature: .....  
[Seal]