

# NATIONAL HIGHWAY AUTHORITY

Procurement & Contract Administration Section : 28-Mauve Area, G-9/1, Islamabad Tel: 9032727, Fax: 9260419

No. 6(511)/GM(P&CA)/NHA/2021/19

Islamabad, .... January, 202/1

Director General,

Public Procurement Regulatory Authority, 1st Floor FBC Building near State Bank, Sector G-5/2, Islamabad

Subject:

ANNOUNCEMENT OF EVALUATION REPORT (PPRA RULE-35): Consultancy Services for Design Review and Construction

Supervision of Hoshab-Awaran-Khuzdar Section of M-8 Project

Package-I: Hoshab- Awaran (146 KM)

Reference: PPRA Rule-35

Find enclosed herewith the combined Bid Evaluation Report along with Evaluation Criteria (Annex-I) for the subject Services in line with PPRA Rule-35 for uploading on PPRA website at the earliest, please.

(MUHAMMAD TANWEER ISHAQ)

General Manager (P&CA)

Encl: Evaluation Report along with Annex- I

## Copy for kind information to:

Member (Planning), NHA, Islamabad;

Director (Tech. to Chairman), NHA, Islamabad;

Director (P&CA)-III, NHA, Islamabad.

# EVALUATION REPORT (As Per Rule 35 of PP Rules, 2004)

1.	Name of Procuring Agency:	National Highway Authority
2.	Method of Procurement:	Single Stage Two Envelope Procedure
3.	Title of Procurement:	Consultancy Services for Design Review and Construction Supervision of Hoshab-Awaran- Khuzdar Section of M-8 Project Package-I: Hoshab- Awaran (146 KM)
4.	Tender Inquiry No.:	6(511)
5.	PPRA Ref. No. (TSE):	TS431377E
6.	Date & Time of Bid Closing:	9 <sup>th</sup> October, 2020 at 1130 hours local time
7.	Date & Time of Bid Opening:	9 <sup>th</sup> October, 2020 at 1200 hours local time
8.	No of Bids Received:	Six (06) Proposals were received
9.	Criteria for Bid Evaluation:	Criteria of Bid Evaluation is attached at Annex-I
10.	Details of Bid(s) Evaluation:	As below

	Marks			<u></u>	Rule/Regulation/	
Name of Bidder	Technical (if applicable)	Financial (if applicable)	Total (out of 1000)	Evaluated Cost (EC)* (PKR)	SBD**/Policy/ Basis for Rejection / Acceptance as per Rule 35 of PP Rules, 2004.	
M/s Zeeruk International     (Pvt.) Ltd. in JV with M/s     Loya Associates and M/s     APEX Consulting     Engineering;	594	200	794	174,550,080	Top scoring firm in combined evaluation (PPRA Rule 36(b) (ix))	
2) M/s Engineering General Consultants (Pvt.) Ltd. in JV with M/s PEAS Consulting (Pvt.) Ltd., M/s Rehman Habib Consultants (Pvt.) Ltd. and M/s AAN Consulting Engineers;	613	147	760	236,764,975	2 <sup>nd</sup>	
3) M/s Republic Engineering Corporation (Pvt.) Ltd. in JV with M/s Prime Engineering & Description (Pvt.) Ltd., M/s Associated Consultancy Centre (Pvt.) Ltd. and M/s Concept Engineering Services;	595	161	756	216,903,466	3 <sup>rd</sup>	

# **EVALUATION REPORT**

(As Per Rule 35 of PP Rules, 2004)

	Marks				Rule/Regulation/	
Name of Bidder	Technical (if applicable)	Financial (if applicable)	Total (out of 1000)	Evaluated Cost (EC)* (PKR)	SBD**/Policy/ Basis for Rejection / Acceptance as per Rule 35 of PP Rules, 2004.	
4) M/s Techniques Consulting Engineers in JV with M/s Finite Engineering (Pvt.) Ltd. and M/s ECOS (SMC-Pvt.) Ltd.;	561	168	729	208,333,725	4 <sup>th</sup>	
5) M/s NESPAK (Pvt.) Ltd. in JV with M/s Associated Consulting Engineers Ltd. and M/s Euro Consult Pakistan (Pvt.) Ltd.;	Not Evaluated (Ineligible)	Financial	Proposal	not opened	PPRA Rule 36(b) (v)	
6) M/s Indus Associated Consultants (Pvt.) Ltd. in JV with M/s Umar Munshi Associates, M/s Cameos Engineering Consultants and M/s Power Aim Engineering (Pvt.) Ltd.	Not Evaluated (Ineligible)	Financial Proposal not opened		PPRA Rule 36(b) (v)		

EC is the Evaluated Cost used for evaluation purpose and includes only the cost of competitive component (i.e. Remuneration and Direct Non-Salary Cost) and is exclusive of Provisional Sum, Contingency and Indirect Taxes.

Top Ranked Bidder: M/s Zeeruk International (Pvt.) Ltd. in JV with M/s Loya Associates and M/s APEX Consulting Engineering

11. Any other additional/supporting information, the procuring agency may like to share: The Procurement was carried out in line with PPRA Rules & Regulations. The bidding was done on QCBS method with 80:20 Technical to Financial Proposals ratio. The Contract is being awarded to M/s Zeeruk International (Pvt.) Ltd. in JV with M/s Loya Associates and M/s APEX Consulting Engineering at evaluated financial proposal of Pak. Rs. 175,550,080 /-.

Signature

Official Stamp:.....

General Manager (P&CA)

National Highway Authority

Standard Bidding Documentsn(8BD).

# **National Highway Authority**



Annex-I
Criteria
FOR

# **Bid Evaluation**

Consultancy Services for Design Review and Construction Supervision of Hoshab-Awaran-Khuzdar Section of M-8 Project Package-I: Hoshab-Awaran (146 KM)

January, 2021



### **NATIONAL HIGHWAY AUTHORITY**

Procurement & Contract Administration Section 28 Mauve Area, G-9/I, Islamabad ☎ 051-9032727, ᠍ 051-9260419

Ref: 6(511)/DIR-III (P&CA/NHA/2020/ 131

Dated:

October, 2020

All Prospective Consultants

Subject:

Consultancy Services for Design Review & Construction Supervision of Hoshab-Awaran-Khuzdar Section of M-8

Project Package-I Hoshab-Awaran (146 Km)

"Minutes of Pre-Proposal Meeting"

Reference: Pre-Proposal meeting scheduled on 24th September, 2020.

Minutes of Pre-Proposal Meeting being integral part of RFP for the subject Consultancy services are enclosed herewith for necessary action, please.

(SAJJAD ATJI SHAH)

Director (Consultancy) P&CA

### Enclosure:

> Minutes of Pre-Proposal Meeting (02 Pages)

### Copy for information to:

- Member (Planning), NHA, Islamabad;

- General Manager (Planning), NHA, Islamabad;
- General Manager (Design), NHA, Islamabad;
- General Manager (P&CA) NHA, Islamabad;
- -- DD (MIS) NHA, Islamabad.

# MINUTES OF PRE-PROPOSAL MEETING HELD ON 24<sup>th</sup> September, 2020

### Consultancy Services for Design Review & Construction Supervision of Hoshab-Awaran-Khuzdar Section of M-8 Project Package-I Hoshab-Awaran (146 Km)

A Pre-Proposal Meeting was held in NHA Auditorium at 1100 hours on 24<sup>th</sup> September, 2020 to discuss the Request for Proposal (RFP) for subject Services in the presence of NHA officials and prospective consultant. During the said meeting the prospective consultant submitted queries. The clarifications/ replies are summarized below for information of all prospective bidders:

Sr. No.	Queries	Reply
1'.	As per clause 3.3.2 (Page 59) of TOR, substantial services of Environmentalist are required. However, input of the same has neither been kept in design review nor in construction supervision phase.	Request not acceded to.
2.	Refer Clause 3.4, (Page 59) of TOR, revised PC-1 is to be prepared, but there is no provision for Economist. Consultant feel that this position may be included in TOR and 1 man-month may be added,	Request not acceded to.
4.	Refer Clause 5.1.1 (Page 69) of TOR, responsibilities of design review consultant are extensive, but the time allowed for such an important job is just one month. Consultant suggests that time for team should be increased for 3 months. However, the input of Drainage Engineer & Geotechnical Engineer is 0.4 months each and traffic / Pavement Analyst and draftsman is 0.5 months each which should be increased to at least 1,5 months each.  Under Clause 5.1,2: Staffing Requirements of TOR, position of Quantity Surveyors are mentioned under Key Personnel but under Summary Evaluation sheet, no marks are allocated for these positions. Please clarify, Position of QS of as is key position or	Quantity Surveyor (QS) is a non-key personnel and shall not be considered for evaluation.
5.	non-key position.  Under Clause 5.6 of TOR, qualification criteria of position of Hydraulic & Drainage Engineer is given but under Clause 5.1.1 of TOR this position is not mentioned under Table given. Please clarify.	Under Clause 5.6 "Qualification and Experience Requirement of Personnel", Sr. No. 6 at page 074 of the RFP, criteria for Position of Hydraulic and Drainage Engineer is considered deleted.
6.	One month input of Computer operator should also be included for preparation of design review reports.	Request not acceded to.
7.	Since the project located in difficult area with respect to security, clarification from NHA is	Security arrangement will be made by the consultant from their own resources.

Design Review & Construction Supervision of Hoshab-Awaran-Khuzdar Section of M-8 Project Package I Hoshad-Awaran (146 Km)
Page 1 of 2

Sr. No.	Queries	Reply
	required whether the client will provide security to the topographic and traffic survey teams, design staff and construction supervision staff or this has to be arranged by the consultant.  There is no cost allocated for additional testing (if	Request not acceded to.
8.	required) during design review stage. Therefore, Consultant assumes that either this cost will be borne by contactor of the respective section or a provisional sum may be allocated by NHA for additional testing / Studies.	·
9.	Reference to the TOR, Chapter 5 Section 5.6: Qualification and Experience Requirement of Personnel, the criteria for the position of "Drainage Engineer/ Hydrologist" are mentioned twice, once at Serial No.3 and again at Serial No. 6, which are different.	Qualification and Experience Requirement of Personnel Chapter 5, Section 5.6, the criteria for the position of "Drainage Engineer/ Hydrologist" at Serial No.3 shall be considered and serial No.6 shall be considered as deleted.
10.	The requirements for the position of "Material	Qualification and Experience Requirement of Personnel Chapter 5, Section 5,6, the criteria for the position of "Material Engineer" at Serial No.9 shall be considered and Serial No.13 shall be considered as deleted.

000 0 000 ...

# **National Highway Authority**



# **REQUEST FOR PROPOSAL**

FOR

# FOR DESIGN REVIEW AND CONSTRUCTION SUPERVISION OF HOSHAB – AWARAN – KHUZDAR SECTION OF M-8 PROJECT, PACKAGE-1: HOSHAB – AWARAN (146 KM)

**Tender No. 6(511)** 

(Page 1 to 143)

SEPTEMBER, 2020

# **Table of Contents**

Sr. #	Description	Page No.
1.	Letter of Invitation (LOI)	01
2.	Attachments	02
3.	Instructions to Consultants	03
4.	Data Sheet	12
5.	Technical Proposal Forms	22
6.	Financial Proposal Forms	41
7.	Appendix A (Terms of Reference)	52
8.	Appendix B (List of Supporting Documents)	88
9.	Appendix C (Person-Months and Activity Schedule)	89
10.	Appendix D (Client's Requirements from the Consultants)	90
11.	Appendix E (Personnel, Equipment, Facilities, and other services to be provided by the Client)	91
12.	Appendix F (Copy of Model Agreement)	92



GOVERNMENT OF PAKISTAN NATIONAL HIGHWAY AUTHORITY 28-Mauve Area, G-9/1, Post Box No. 1205, ISLAMABAD

Dated the	
Ref No.	

### LETTER OF INVITATION

To,

All consultants

Gentlemen!

We extend warm welcome to you and invite you to participate in this project. We hope that you will live up to your reputation and provide us accurate information so that the evaluation is carried out "just and transparent". Please understand that the contents of this RFP, where applicable, shall be deemed part of the contract agreement. An example to this affect can be the contents of your work plan and methodology which you shall be submitting in your Technical Proposal. Since that is the basis of the selection, therefore, it shall become part of the contract agreement subject to approval/revisions of the same by NHA during the negotiations. Similarly, all other services and the content contributing to services shall be deemed part of the contract agreement unless it is specifically mentioned for any particular item up-front in your Technical Proposal which obviously will make your Proposal a conditional proposal whereby, authorizing NHA to may or may not consider to evaluate your Proposal. Please understand that if no such mention appears up-front (i.e. on front page of Technical Proposal) then it shall be deemed that the consultant is in 100% agreement to the above. You are also advised to kindly read the RFP thoroughly as it can drastically affect the price structure for various services which may not be appearing directly in the terms of reference. In the end, we appreciate your participation and hope that you will feed a good proposal to merit consideration by NHA.

Your attention is particularly drawn towards paragraph 1.10, 3.1.1, subparagraph 3.1.2 (d), paragraphs 3.1.3, 3.1.5, 5.2.1 and 6.5 of Instructions to Consultants as well as subparagraphs 1.7 (v), 1.7 (vii), 1.7 (viii), 1.8 (a) and 1.8 (b) in Data Sheet and other instructions provided in the RFP to avoid the risks of Disqualification/Rejection/loosing marks/Penalty.

However, the Client at its own discretion reserves the right to EITHER seek clarification on non-compliance of the Instructions and rectify or not the shortcomings only in Technical Proposals (under similar treatment to each consultant), OR not, prior to opening of Financial Proposals (which shall be kept unopened till complete evaluation of Technical Proposals). No alteration in Financial Proposals shall be made except during the negotiations subject to Procurement of Consultancy Services Regulations 2010 as notified by Public Procurement Regulatory Authority.



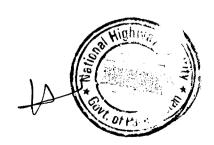
General Manager (P&CA)

Telephone: +92-51-9032727, Fax: +92-51-9260419

E-mail: gmpca.nha@gmail.com, Website: www.nha.gov.pk

### **ATTACHMENTS**

- 1. Instructions to Consultants
- 2. Data Sheet
- 3. Technical Proposal Forms
- 4. Financial Proposal Forms
- 5. Appendix A (Terms of Reference)
- 6. Appendix B (List of Supporting Documents)
- 7. Appendix C (Person-Months and Activity Schedule)
- 8. Appendix D (Client's Requirements from the Consultants)
- Appendix E (Personnel, Equipment, Facilities and other services to be provided by the Client).
- 10. Appendix F (Copy of Model Agreement)



### INSTRUCTIONS TO CONSULTANTS

### 1. **GENERAL**

- 1.1 Desiring consultants are invited to submit a technical and a financial proposal for consulting services required for the assignment named in the attached Data Sheet (Annex B). The proposals could form the basis for future negotiations and ultimately a Contract between the selected Consultant and the Client named in the Data Sheet.
- 1.2 A brief description of the assignment and its objectives are given in the Data Sheet which are elaborated in Appendix A (Terms of Reference) to this RFP.
- 1.3 The assignment shall be implemented in accordance with the phasing indicated in the Data Sheet. (When the assignment includes several phases, continuation of services for the next phase shall be subject to satisfactory performance of the previous phase, as determined by the Client).
- 1.4 The Client (NHA) has been entrusted the duty to implement the Project as Executing Agency by GOP and funds for the project have been approved and provided in the budget for utilization towards the cost of the assignment, and the Client intends to apply part of the funds to eligible payments under the Contract for which this LOI is issued.
- 1.5 To obtain first-hand information on the assignment and on the local conditions, you are encouraged to pay a visit to the Client before submitting a proposal and attend a preproposal conference if specified in the Data Sheet. Your representative shall meet the official named in the Data Sheet. Please ensure that the official is advised of the visit in advance to allow adequate time for him to make appropriate arrangements. You must fully inform yourself of local conditions and take them into account in preparing your proposal.
- 1.6 The Client shall provide the inputs specified in the Data Sheet, assist the Consultants in obtaining licenses and permits needed to carry out the services, and make available relevant project data and reports.

### 1.7 It is notified that:

- i. The cost of preparing the proposal and of negotiating the Contract, including visit to the Client, are not reimbursable as a direct cost of the Assignment, and
- ii. The Client is not bound to accept any or all of the proposals submitted.
- 1.8 An invitation to submit proposals has been sent to the firms as listed/stated Sheet.

### 1.9 Conflict of Interest

The Consultant is required to provide professional, objective, and impartial attimes holding the Client's interest's paramount, strictly avoiding conflicts with other assignments or its own corporate interests, and acting without any consideration for future work

The Consultant has an obligation to disclose to the Client any situation of actual or potential conflict that impacts its capacity to serve the best interest of its Client. Failure to disclose such situations may lead to the disqualification of the Consultant or the termination of its Contract and/ or debarring by the Client.

Without limitation on the generality of the foregoing, and unless stated otherwise in the **Data** Sheet, the Consultant shall not be hired under the circumstances set forth below:

### a. Conflicting activities

Conflict between consulting activities and procurement of goods, works or non-consulting services: a firm that has been engaged by the Client to provide goods, works, or non-consulting services for a project, or any of its Affiliates, shall be disqualified from providing consulting services resulting from or directly related to those goods, works, or non-consulting services. Conversely, a firm hired to provide consulting services for the preparation or implementation of a project, or any of its Affiliates, shall be disqualified from subsequently providing goods or works or non-consulting services resulting from or directly related to the consulting services for such preparation or implementation.

### b. Conflicting assignments

<u>Conflict among consulting assignments:</u> A Consultant (including its Experts and Specialist 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 for the Client

### c. Conflicting relationships

Relationship with the Client's staff: a Consultant (including its Experts and Specialist Sub-consultants) that has a close business or family relationship with a professional staff of the Client, who are directly or indirectly involved in any part of (i) the preparation of the Terms of Reference for the assignment, (ii) the selection process for the Contract, or (iii) the supervision of the Contract, may not be awarded a Contract, unless the conflict stemming from this relationship has been resolved in a manner acceptable to the Client throughout the selection process and the execution of the Contract.

- d. Any other types of conflicting relationships as indicated in the **Data Sheet**.
- 1.10 A firm may submit its proposal for the Assignment either as an independent Consultant or as a Member of a JV Consultants but participation of a firm occurring in more than one proposal for the Assignment is not allowed. In case a firm participates in more than one proposal, all such proposals shall be **disqualified and rejector** this condition does not apply for individual Specialist Sub-consultant(s).

### 2. DOCUMENTS

- 2.1 To prepare a proposal, please use the attached Forms/Documents listed in the Data Sheet.
- 2.2 Consultants requiring a clarification of the Documents must notify the Client, in writing, not later than Fourteen (14) days before the proposal submission date. Any request for clarification in writing, or by cable, telex or tele-fax shall be sent to the Client's address indicated in the Data Sheet. The Client shall respond by cable, telex or telefax to such requests and copies of the response shall be sent to all invited consultants.
- 2.3 At any time before the submission of proposals, the Client may, for any reason, whether at its own initiative or in response to a clarification requested by an invited consulting firm, modify the Documents by amendment. The amendment shall be sent in writing or by cable, telex or telefax to all invited consulting firms and will be binding on them. The Client may at its discretion extend the deadlines for the submission of proposals.

### 3. PREPARATION OF PROPOSAL

Desiring consultants will submit a Technical and a Financial Proposal. The proposals shall be written in English language.

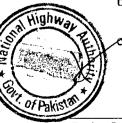
### 3.1 Technical Proposal

3.1.1 The Technical Proposal should be submitted using the format specified and shall include duly signed and stamped forms appended with the RFP. This is a mandatory requirement for evaluation of proposals and needs to be filled up carefully.

The proposals should be bound in the hard book binding form to deny the possibility of removal or addition of page(s). All the pages of proposals must be signed and stamped in original by authorized representative of the firm/JV. All the pages must be numbered starting from first page to last. Any proposal found not adhering to these requirements may be **rejected**.

- 3.1.2 In the Technical Proposal, the general approach and methodology shall be proposed for carrying out the services covered in the Term of Reference, including such detailed information as deemed relevant together with consultant's appreciation of the Project from provided details and
  - a. A detailed overall work programme to be provided with timing of the assignment of each Key Personnel or other staff member assigned to the Project.
  - b. An estimate of the total number of person-months and Project duration required.

Clear description of the responsibilities of each Key Personnel within the overall work programme.



- d. The Curriculum Vitae of all Key Personnel and an Affidavit on stamp paper duly attested by Oath Commissioner to the effect that the proposed personnel shall be available for the assignment in the project duration and their present place of duty must also be mentioned. Failure to provide the Affidavit may result in to no further evaluation of the proposal. The consultants are advised to suggest such names that shall be available for the Assignment.
- e. The Technical Proposal shall include duly filled in forms provided in this RFP: the name, background, and professional experience of each Key Personnel to be assigned to the Project, with particular reference to his experience of work of a nature similar to that of the proposed assignment.
- f. The Technical Proposal shall include duly filled in forms provided in this RFP: the name, background, and professional experience of each Key Personnel to be assigned to the Project, with particular reference to his experience of work of a nature similar to that of the proposed assignment.
- g. Current commitments and past performance are the basic criteria in evaluation of Technical Proposal. Consultants are required to provide the details of present commitments/ongoing jobs as referred in the Form A-9 of Technical Proposal. Further, the basis for considering the past performance is the report from Design Section and Construction Wing of NHA.
- 3.1.3 While preparing the Technical Proposal, consultants are expected to examine all terms and instructions included in the RFP. Failure to provide all requested information shall be at consultant's risk and may result adversely in the scoring of the proposal. The proposal should be prepared as per RFP and any suggestion or review of staff etc. should be clearly spelt out in Form A-4. This will be discussed at the time of negotiation meeting as and when called.

Penalty against non-compliance with the maximum page requirement based in the 'CHECKLIST OF REQUIRED FORMS' provided in the Section of Technical Proposal Forms will be one (01) score point per excess page to be deducted from the total technical score. The consultants are instructed to submit the CVs of Key Personnel by truly following the format attached at Form A-5. The CV's submitted on format in deviation to that specified are susceptible of scoring low.

3.1.4 During preparation of the Technical Proposal, consultants must give particular attention to the following:



Consultant may utilize the services of expatriate experts but only to the extent for which the requisite expertise is not available with any Pakistani firm. In case of JV, the proposal should state clearly partners will be "Jointly and Severally" responsible for performance under the Contract and One (Representative) partner will be solely responsible for all dealings with the Client on behalf of the JV. Its Power of Attorney on this account is to be enclosed. The Representative partner

shall retain the responsibility for the performance of obligations and satisfactory completion of the consultancy services. PEC registers a foreign consulting firm for issuing license to provide consultancy services in Pakistan, which is based on formation of JV with the condition that the foreign consulting firm shall provide only that share of consultancy services by the JV for which expertise is not available with Pakistani consulting firms. A copy of JV agreement to be provided at the time of finalizing the contract documents with specific responsibilities and assignments to be looked after by each partner.

- b. Subcontracting part of the assignment to the other consultants is discouraged and only individual Specialist Sub-Consultants (having unique expertise which is not available with others) may be included.
- c. The Key Personnel proposed shall preferably be permanent employees of the firm unless otherwise indicated in the Data Sheet.
- d. The estimated number of Key Personnel person-months required for the Assignment is stated in the Data Sheet. The proposal should be based on a number of Key Personnel person-months substantially in accordance with the above number. However, consultants may propose changes in the light of their experience through particular comments on the TOR.
- e. Proposed personnel should have experience preferably under conditions similar to those prevailing in the area of the Assignment. The minimum required experience of proposed Key Personnel shall be as listed in the Data Sheet.
- f. No alternative to Key Personnel may be proposed, and only one curriculum vitae (CV) may be submitted for each position.
- g. If the Data Sheet specifies training as a major component of the Assignment, a detailed description of the proposed methodology, staffing, budget, and monitoring is to be provided.
- 3.1.5 The Technical Proposal shall not include any financial information. The Consultant's comments, if any, on the data, services, and facilities to be provided by the Client and indicated in the TOR shall be included in the Technical Proposal. A Technical Proposal containing any financial information will be treated as non-responsive resulting into rejection of the proposal.

### 3.2 Financial Proposal

The Financial Proposal should be submitted using the format specified and enclosed with this RFP. This is a mandatory requirement for evaluation of proposals and needs to be filled up carefully. The total cost is to be mentioned in the Form A-17 and accordingly in Form A-11 too.

Design Review and Construction Supervision of Hoshab – Awaran – Khuzdar Section of M-8 Project, Package-1: Hoshab – Awaran (146 KM)

- 3.2.2 The Financial Proposal should list the costs associated with the Assignment. These normally cover remuneration for staff in the field and at headquarters, per diem, housing, transportation for mobilization and demobilization, services and equipment (vehicles, office, equipment, furniture, and supplies), printing of documents, surveys, and investigations. These costs should be broken into foreign (if applicable) and local costs. The Financial Proposal should be prepared using the formats attached as Forms A-11 to A-17.
- 3.2.3 The Financial Proposal shall also take into account the professional liability as provided under the relevant PEC Bye-Laws and cost of insurances specified in the Data Sheet.
- 3.2.4 Costs may be expressed in currency (s) listed in the Data Sheet.

### 4. SUBMISSION OF PROPOSALS

- 4.1 Consultants shall submit one original Technical Proposal and one original Financial Proposal and the number of copies of each indicated in the Data Sheet. Each proposal shall be in a separate envelope indicating original or copy, as appropriate. All Technical Proposals shall be placed in an envelope clearly marked "Technical Proposal" and the Financial Proposals in the one marked "Financial Proposal". These two envelopes, in turn, shall be sealed in an outer envelope bearing the address and information indicated in the Data Sheet. The envelope shall be clearly marked, "DO NOT OPEN, EXCEPT IN PRESENCE OF THE EVALUATION COMMITTEE."
- 4.2 In the event of any discrepancy between the copies of the proposal, the original shall govern. The original and each copy of the Technical and Financial Proposals shall be prepared in indelible ink and shall be signed by the authorized representative of the consultant. The representative's authorization shall be confirmed by a written power of attorney accompanying the proposals. All pages of the Technical and Financial Proposals shall be signed by the person or persons signing the proposal.
- 4.3 The proposal shall contain no interlineations or overwriting except as necessary to correct errors made by the consultants themselves. Any such corrections shall be initialed by the person or persons signing the proposal.
- 4.4 The completed Technical and Financial Proposals shall be delivered on or before the time and date stated in the Data Sheet. The location for the submission of proposals is indicated in the Data Sheet.
- 4.5 The proposals shall be valid for the number of days stated in the Data Sheet from the date of its submission. During this period, consultants shall keep available the Key Personnel proposed for the Assignment. The Client shall make its best effort period.

### 5. PROPOSAL EVALUATION

### 5.1 Evaluation Procedure and Criteria

- 5.1.1 A quality cum cost-based procedure shall be adopted in ranking of the proposals. The technical evaluation shall be carried out first, followed by the financial evaluation. Firms shall be ranked using a combined technical/financial score.
- The evaluation committee will correct any computational errors in Financial Proposals. 5.1.2 When correcting computational errors, in case of discrepancy (i) between a partial (subtotal) amount and the total amount, or (ii) between the amounts derived by multiplying unit price with quantity and the total price or (iii) between words and figures, the formers will prevail. However, items described in the Technical Proposals but not priced, in the Financial Proposals shall be assumed to be included in the prices of other activities or items and no corrections are made to the Financial Proposal. In case an activity or item is quantified in the Financial Proposal differently from the Technical Proposal, the evaluation committee shall correct the quantification indicated in the Financial Proposal so as to make it consistent with that indicated in the Technical Proposal for further correction by applying the unit price included in the Financial Proposal to the consistent/ corrected quantity. However, the proposals that quote higher than the required input of person-months as per this RFP will not be adjusted. Whereas the proposals quoting lesser than the required input of person-months as per this RFP shall be adjusted as follows. If unit price for the subject person-month is available, the same shall be applied; and if the unit price for the subject person-months is not available, highest unit price for an activity or item of the same category [international or national (Key Personnel or other Personnel)] as provided in the Financial Proposals shall be applied. The Reimbursable direct cost shall not be adjusted and the same shall be capped for the Assignment.

### 5.2 Technical Proposal

5.2.1 The evaluation committee appointed by the Client shall carry out its evaluation for the project(s) as listed in Para 1.1, applying the evaluation criteria and point system specified in the Data Sheet. Each responsive proposal shall be attributed a technical score (St). Firms scoring less than seventy (70) percent points shall be rejected and their financial proposals returned un-opened..

### 5.3 Financial Proposal

5.3.1 The Financial Proposals of the three top-ranking qualifying consulting firms on the basis of evaluation of Technical Proposals shall be opened in the presence of the representatives of these firms, who shall be invited for the occasion and who care to attend. The Client shall inform the date, time and address for opening of Financial Proposals as indicated in the Data Sheet. The total price and major components of each proposal shall be publicly announced to the attending representatives of the firms.

5.3.2 The evaluation committee shall determine whether the Financial Proposals are complete and without computational errors; all errors/discrepancies and deviations from respective Technical Proposals as well as RFP shall be dealt with for subsequent scoring in accordance with procedure and criteria given in Para 5.1.2 herein above. The lowest Financial Proposal (Fm) among all shall be given a financial score (Sf) of 1000 points. The financial scores of the proposals shall be computed as follows:

$$Sf = (1000 \text{ x Fm})/F$$
  
(F = amount of specific Financial Proposal)

5.3.3 Proposals, in the quality cum cost based selection shall finally be ranked according to their combined technical (St) and financial (S<sub>f</sub>) scores using the weights (T = the weight given to the Technical Proposal, P = the weight given to the Financial Proposal; and T+P=1) indicated in the Data Sheet:

$$S = St \times T \% + Sf \times P\%$$

### 6. NEGOTIATION

- 6.1 Prior to the expiration of proposal validity, the Client shall notify the successful consultant that submitted the highest ranking proposal in writing, by registered letter, cable telex or facsimile and invite it to negotiate the Contract. The proposed Chief Resident Engineer/Resident Engineer shall also be invited to attend the negotiations.
- 6.2 Negotiations normally take from two to five days. The aim is to reach agreement on all points and initial a draft contract by the conclusion of negotiations.
- 6.3 Negotiations shall commence with a discussion of consultant's Technical Proposal including proposed methodology, work plan, staffing and any suggestions which may have been made to improve the TOR. Agreement shall then be reached on the final TOR, the staffing, and the bar charts, which shall indicate activities, staff, periods in the field and in the home office, staff months, logistics and reporting.
- 6.4 Changes agreed upon shall then be reflected in the Financial Proposal, using proposed unit prices (no negotiation of the person-month rates).
- Having selected Consultant on the basis of, among other things, an evaluation of proposed Key Personnel, the Client expects to negotiate a contract on the basis of the staff named in the proposal. Prior to contract negotiations, the Client shall require assurances that the personnel will be actually available. The Client shall not consider substitutions of Key Personnel except in cases of un-expected delays in the starting date or incapacity of Key Personnel for reasons of health. Failure to assure the availability of Key Personnel or substitution (equal or better) as exception only may result in rejection of Consultant's proposal.

The negotiations shall be concluded with a review of the draft form of the contract. The Client and the Consultant shall finalize the contract to conclude negotiations. If negotiations fail, the Client shall invite the consultant that received the second highest score in ranking to Contract negotiations. The procedure will continue with the third in case the negotiation process is not successful with the second ranked consultant (and so on).

### 7. AWARD OF CONTRACT

- 7.1 The Contract shall be awarded after successful negotiations with the selected Consultant and approved by the competent authority. Upon successful completion of negotiations/ initialing of the draft contract, the Client shall promptly inform the other consultants that their proposals have not been selected.
- 7.2 The selected Consultant is expected to commence the Assignment on the date and at the location specified in the Data Sheet.



### **DATA SHEET**

LOI Clause #

1.1 The name of the Assignment is:

"Consultancy Services for Design Review and Construction Supervision of Hoshab – Awaran – Khuzdar Section of M-8 Project, Package-1: Hoshab – Awaran (146 KM)".

The name of the Client is:

### National Highway Authority (NHA)

1.2 The description and the objectives of the assignment are:

As per TOR

1.3 Phasing of the Assignment (if any):

- Nil -

1.5 Pre-Proposal Conferences:

Yes √

No

Pre-proposal conference will be held on:

24<sup>th</sup> September, 2020 at 1100 Hours in NHA Auditorium, National Highway Authority, 28 Mauve Area, G-9/1, Islamabad.

Name of the official is:

Muhammad Tanweer Ishaq (General Manager P&CA) E-mail: gmpca.nha@gmail.com

1.6 The Client shall provide the following inputs:

As per TOR and Appendix D

1.7 Following sub-clauses are added:

iii. The supervision of the project shall commence upon undertaking of the

construction works by the contractor and shall be notified through issuance of commencement notice to the selected consultant by NHA. Any inordinate delay or cancellation of the construction work for any reason including non-availability of funds shall not entitle the consultants to any financial or legal claims. However, when the project shall commence the supervisory consultants shall maintain the right subject to availability of proposed Key Personnel (professional staff) based on which the consultant was selected or if the delay is beyond six months then equally competent Key Personnel with equal or higher qualification and experience shall be pre-requisite for consideration of issuance of commencement notice by NHA. In case the work is delayed or abandoned for



any reason whatsoever, the consultant shall not have any legal recourse.

iv. The consultant shall be responsible to have the whole construction work completed in all aspects through the contractor in a professional manner so that all items of construction work are completed from one end to the other including paying attention to site clearance of debris or any other leftover material. All signs of construction work dispensed with. To achieve this objective consultant may include the price for such incidental or ancillary service which will lead to the final completion of the assignment in the price quoted by the consultant who

shall remain liable for making final measurements of the Works and to issue Final Payment Certificate of the Contractor. No separate costs are payable as extra costs for this service. All such costs shall be included in these rates submitted by the consultant in its financial proposal. The consultant has to basically ensure that contractor has completed entire construction work as per

Works Contract with particular reference to site clearance before taking over the

project on completion.

The consultants may better not to propose names of Key Personnel already v.(a) proposed in other proposals which are being evaluated by NHA or contract(s) awarded recently. This will affect adversely marking of these Personnel in evaluation of the technical proposal. Their secured points are liable to be reduced by 50% if their names appear in more than one previous proposal in which they are ranked No.1. Further the existing load of work with a firm shall be considered as one of the factors for the consideration in the award of the contract. No CV of any alternate Personnel shall be accepted during evaluation.

Availability of the Key Personnel is the responsibility of the Consultancy firm/ v. (b) JV for the job. However, physical appearance be checked at the time of Contract Negotiation along with the affidavit from individual key personnel for being available for the job.

> Form A-4 is meant for comments on provisions contained in RFP and TOR and unless the observations are noted in this particular Form, anything written elsewhere on this account including financial implications, if any, shall be considered of no consequence in the evaluation process and award of the contract.

> Consultants may form a Joint Venture (JV) to qualify for the Assignment in which case the contract will be signed between the Client and all members of the JV on the prescribed Form included in Appendix F (copy of Model Agreement) subject to the ranking and successful negotiations. A JV may include at the most four members. To promote the consultancy industry in the country, 50 marks (out of 1000 for Evaluation) are allocated for Transfer of Knowledge in the form of JV with a new / less experienced firm by sharing at least 20% of Assignment with them.

The term associates, if used in the proposal or otherwise shall not be considered

vii.

vi.



viii.

as an alternative of JV member. Any personnel proposed for the Assignment but belonging to the so called associates shall not be marked in evaluation of technical proposal like in case of Sub-consultants (except individual Specialist Sub-consultants having unique expertise which is rarely available OR an expatriate Personnel) who are not supposed to contribute in qualification of their main consultants.

ix.

Consultant's Head Office Support will be mandatory during Supervision; the firm shall be bound to provide design input required on the Site or advice on contractual matters; the cost for the same must be built in the financial proposal. Responsibility for the team in field will be backed by the Consultant's Head Office; the Head Office will assume full responsibility for the team in field. Any key position that remains vacant for more than one month that was required to be filled for that period, a compensation equivalent to the charge rate of that individual will be imposed. For clarification, the invoice will not include the charge rate of the missing individual and additionally, the charge rate of one month for that individual will be deducted from the invoice. This will be replicated for all missing key personnel. For the 2nd month, the compensation payment will be doubled. For the 3<sup>rd</sup> month, an additional warning will be issued. If the issue persists in the fourth month, the firm can be penalized by invoking conditions of contract and even to the extent of consideration for blacklisting.

- 1.8 The Invited Consultants / Eligible Consultants are: Any firm meeting the following requirements:
  - (a) Valid Registration Certificate of Pakistan Engineering Council with relevant Project Profile Codes. Foreign consulting firms shall make JV in accordance with Byelaw 6(2) and Byelaw 9 of the Pakistan Engineering Council (Conduct and Practice of Consulting Engineers) Bye-Laws 1986. Failure to provide valid Registration Certificate (license) of the firm (each member in case of JV) by the PEC will entitle the Client to reject the proposal.
  - (b) In case of JV members, Letter of Intent to form on firm's letter head (original is required, scanned copy is not acceptable). The specimen is attached at <u>Annexure-A</u>
  - (c) TECHNICAL PROPOSAL FORMS A-1 to A-10 duly completed as per Instructions to Consultants/ Data Sheet and requirements of TOR (To be attached with Technical Proposal except Form A-4, which can be submitted with or without comments)



(d) At the time of proposal submission/ opening, page numbering, signing and stamping of proposals will be checked by Committee Members. If any minor discrepancy is found then same shall be asked by the Committee members to the Authorized Representative of firms to correct it in front of all committee members. In the absence of authorized representative, the

concerned firm will be announced dis-qualified.

- (e) Lists of facilities available with the Consultant to perform their functions effectively (software, hardware, etc.). In case of JV, the same will be provided by the lead firm only.
- (f) FINANCIAL PROPOSAL FORMS A-11 to A-17 duly completed as per Instructions to Consultants/ Data Sheet and requirements of TOR (To be attached with Financial Proposal).
- (g) Audit Reports of the firm (s) for last three years duly certified by Chartered Accountant (To be attached with Financial Proposal).

### 2.1 The Documents are:

- (i) Letter of Invitation,
- (ii) Instructions to Consultants,
- (iii) Data Sheet,
- (iv) Technical Proposal Forms,
- (v) Financial Proposal Forms,
- (vi) Appendix A: TOR and Background Information.
- (vii) Appendix B: List of Supporting Documents
- (viii) Appendix C: Man-Months and Activity Schedule
- (ix) Appendix D: Client's Requirements from the Consultant.
- (x) Appendix E: Personnel Equipment, Facilities and Other Services to be provided by the Client.
- (xi) Appendix F: Copy of Model Agreement/ Draft Form of Contract & Appendices etc.
- (xii) Form of Contract (For Consultants to perform services as a Joint Venture)
- 2.2 The words "Fourteen (14)" is deleted in its entirety and replaced with "Five (05)". The information will be shared through email or courier. The address for seeking clarification is:

### General Manager (P&CA)

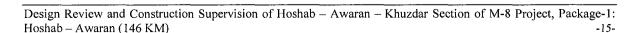
National Highway Authority 28 Mauve Area, G-9/1, Islamabad.

Phone: +92-51-9032727 Fax: +92-51-93260419

E-mail:gmpca.nha@gmail.com

### 2.3 Add following clause:

"The information will be shared through email or courier".



3.1.1 Add following:

The proposals should be bound in the hard book binding form to deny the possibility of removal or addition of page(s). All the pages of proposal must be signed and stamped in original by authorized representative of the firm/JV. All the pages must be numbered starting from first page to last. At the time of proposal submission/ opening, page numbering, signing and stamping of proposals will be checked by Committee Members, if any minor discrepancy will be found then same shall be asked by the Committee members to the Authorized Representative of firms to correct it in front of all committee members. In the absence of authorized representative, the concerned firm(s) will be announced dis-qualified.

3	1	4

c.

Proposed key staff shall preferably be permanent employees who are employed with the consultants at least six months prior to submission of Proposal.

Yes	$\checkmark$	No	

d. The minimum number of person-months of Key Personnel is:

Total Expatriates: Person-Months (Not used)

Total Local Key-Experts: 443.3 Person-Months

Total Local Non Key-Personnel: 1,686.5 Person-Months

e. The minimum required experience of proposed Key Personnel is mentioned in the Appendix-A: Terms of Reference (TOR).

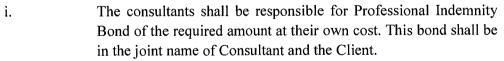
Note: The Consultants are advised to submit updated CV's strictly in compliance with the format of CVs given in Technical Proposal Form A-5. CVs submitted without regard to the said format may score low.

g. Training is an important feature of this Assignment:



If Yes, details of training are given in TOR

3.2.3 Professional liability, insurances (description or reference to appropriate documentation):





ii. The consultants are required to insure their Employees and Professionals for Hospitalization/ Medical, Travel and Accident Cover for the duration of the Contract.

iii. Other details provided in Para 3.5 of Special Conditions of Contract in Model Agreement (Appendix F).

Say No to Corruption Data Sheet

3.2.4 Consultants shall quote the rates of remuneration for local personnel as well as expatriate personnel.

4.1 The number of copies of the Proposal required is:

### **TECHNICAL PROPOSAL:**

ONE ORIGINAL AND FOUR COPIES WITH CD (SOFT FORM OF COMPLETE TECHNICAL PROPOSAL IN PDF FORM) IN SEALED ENVELOPE

### FINANCIAL PROPOSAL:

ONE ORIGINAL WITH CD (SOFT FORM OF COMPLETE FINANCIAL PROPOSAL IN PDF AS WELL AS MS WORD/EXCEL FORMS) IN SEALED ENVELOPE

The address for writing on the proposal is:

### General Manager (P&CA)

National Highway Authority 28, Mauve Area G-9/1 Islamabad Telephone: +92-51-9032727 Facsimile: +92-51-9260419

Email: gmpca.nha@gmail.com

4.4 The date and time of proposal submission is:

1130 hours on 9th October, 2020

The location for submission of proposal is:

National Highway Authority Auditorium 2<sup>nd</sup> Floor, 27 Mauve Area, G-9/1, Islamabad

4.5 Validity period of the proposal is:

180 days

The bid shall remain valid upto:

7th April, 2021

Location for Negotiation is:



National Highway Authority Auditorium 2<sup>nd</sup> Floor, 27 Mauve Area, G-9/1, Islamabad

5.2.1 The evaluation of Technical Proposal shall be based on following criteria:



	Description/ Items	Points
1 <b>-</b> a.	General Experience in road Transport Sector	<u>(25)</u>
1-b.	Specific Experience related to Assignment*	<u>(75)</u>
2.	Approach & Methodology	250
2-a	Appreciation of the Project	<u>(70)</u>
(i).	Evidence of Site Visit with Photographs	(30)
(ii).	Clarity of appreciation	(20)
(iii).	Comprehensiveness of appreciation	(20)
2 <b>-</b> b	Problem Statement/ Understanding of Objectives	<u>(50)</u>
(i).	Identification of Problems/ Objectives	(30)

(ii).	Components of Proposed Services	(20)
2-c	Methodology	<u>(80)</u>
(i).	Proposed Solutions for this Project	(30)
(ii).	Quality of Methodology	(20)
(iii).	Conciseness, clarity and completeness of proposal**	(30)
2-d	Suggested changes for improvement in TOR	<u>(10)</u>
2-е	Work Program	<u>(20)</u>
2-f	Staffing Schedule	<u>(20)</u>
3.	Key Personnel***	450
4.	Performance Certificate from clients****	100
5.	Present Commitments (current engagement and available strength – justification)	50
6.	Transfer of Knowledge (Methodology/ Plans)*****	50
		1000
	Total Points:	1000

\* Performance Certificate/ Assignment Completion Certificate (All completed projects mentioned under TECHNICAL PROPOSAL FORM-A2 CONSULTANT'S EXPERIENCE/ CLIENT'S REFERENCE).

Note: Any project mentioned completed under Form TECH-2 (Part-B) will not be considered for evaluation unless Performance Certificate/ Assignment Completion Certificate with satisfactory remarks by the client's representative is not attached. The Client NHA reserves the right to verify the Performance/ Assignment Completion Certificates.

\*\* Conciseness and clarity contains 10 marks and 20 marks will be for the completeness of the proposals which includes but not limited to hard binding, sequential page numbering, signing and stamping of each page of proposal.

(At the time of proposal submission/ opening, page numbering, signing and stamping of proposals will be checked by Committee Members, if any minor discrepancy will be found then same shall be asked by the Committee members to the Authorized Representative of firms to correct it in front of all committee members. In the absence of authorized representative, the concerned firm(s) will be announced Dis-Qualified.)

- \*\*\* Firm affidavit for presence of personnel caries 25 marks out of 450 marks (complete in all respect as per specimen annexed at **Annex-C** placed in Technical Proposal Forms).
- \*\*\*\* 25 out of 100 marks will be allocated for provision of affidavit on stamp paper duly attested by the Oath Commissioner to the effect that the firm has neither been blacklisted nor any contract rescinded in the past for non-fulfillment of contractual obligations (complete in all respect as per specimen annexed at Annex-B placed in Technical Proposal Forms).

Transfer of knowledge would be in the form of joint venture with new/ less experienced firm(s) by sharing at least 20% of Assignment with them for promoting the consultancy industry in the country. Criteria for New firm are the one which has carried out maximum 3 projects in 6 years.

The percentage distribution of weightage earmarked for evaluation sub-criteria for suitability of Key Personnel are:



### (a) <u>Design Review Team:</u>

	Description/ Items	Percentage
i.	Academic and General Qualifications	30%
ii.	Professional experience related to the Project	60%
iii.	Status with the firm (Permanent & duration with Firm)	10%

### (b) Construction Supervision Team:

	Description/ Items	Percentage
i.	Academic and General Qualifications	30%
ii.	Professional experience related to the Project	65%
iii.	Status with the firm (Permanent & duration with Firm)	05%

Form of Summary Evaluation and Personnel Evaluation Sheets for Technical Proposal (QCBS) is attached at the end of Data Sheet.

5.3.1 The words "three top-ranking qualifying consulting firms" is deleted in its entirety and replaced with the words "qualifying consultants".

The date, time and address of the Financial Proposal opening are:

After evaluation and approval of Technical Proposals (to be informed later).

5.3.3 The weightages given to the Technical and Financial Proposals are:

Technical: 80% Financial: 20%

6.3 Add following at the end of this Para:

The final person-months of each personnel, if required, are subject to adjustment at the stage of contract negotiation in line with demonstrated approach & methodology and need basis.

6.5 Add following at the end of this Para:

The Consultant is bound to replace all the Key Personnel proposed who scored less than 70% marks in the Personnel Evaluation, if the Client so requests. If the Consultant refuses to replace such Key Personnel, the Client reserves the right to reject its proposal and invite the Consultant that received the second highest score in ranking to Contract negotiations.

7.2 The Assignment is expected to commence in:

November, 2020



SUMMARY EVALUATION SHEET FOR FULL TECHNICAL PROPOSALS (OCBS)

VALUATION CRITERIA	Max.	Firm 1		Firm 2	
VADUATION CALIENIA	Weightage		Score	Rating	Score
Firms Experience	100				
1-a. General Experience in road Transport Sector	25				
1-b. Specific Experience related to particular Assignment	75				
. Approach and Methodology	250				1
2-a. Appreciation of the Project	70				
(i) Evidence of Site Visit with Photographs	(30)				
(ii) Clarity of appreciation	(20)				
(iii) Comprehensiveness of appreciation	(20)				
2-b. Problem Statement/ understanding of objectives	50				
(i) Identification of Problems/ Objectives	(30)				
(ii) Components of Proposed Services	(20)				
2-c. Methodology	80				
(i) Proposed Solutions for this Project	(30)				
(ii) Quality of Methodology	(20)				
(iii) Conciseness, clarity and completeness of proposal*	(30)				
2-d. Suggested Changes for Improvement in TOR	<u>10</u>				
2-e. Work Program	<u>20</u>				
2-f. Staffing Schedule	<u>20</u>				
. Key Personnel**	450				
Design Review Team:					
a) Highway Design Engineer	10				
b) Structure Engineer	05				
c) Drainage Engineer/ Hydrologist	05				
d) Traffic/ Pavement Analyst	05				
e) Geotechnical/ Soil & Material Engineer	05				
Construction Supervision Team:					
f) Chief Resident Engineer	60				
g) Resident Engineer-I & II	2 x 40				
h) Material Engineer-I & II	2 x 35				
i) Contract Specialist	45				
j) ARE (Highways) Engineer-I & II	2 x 35				ighw
k) ARE Structure/ Highway Engineer-I & II	2 x 35				<b>&gt;</b> /
. Performance Certification from clients***	100				1-0
5. Present Commitments (current engagement and available strength – justification)	50			1 6	
6. Transfer of Knowledge (Methodology/ Plans)****	50			1/2	FYY
TOTAL:	1000				Cort. D

Excellent - 100% Very Good - 90-99% Above Average - 80-89% Average - 70-79% Below Average - 1-69% Non-complying - 0% Score: Maximum Weightage x rating / 100. Minimum qualifying score is 70% or 700 marks.

<sup>\*</sup>Conciseness and clarity contains 10 marks and 20 marks will be for the completeness of the proposals which includes but not limited to hard binding, sequential page numbering, signing and stamping of each page of proposal.

<sup>\*\*</sup>Firm affidavit for presence of personnel caries 25 marks out of 450 marks (complete in all respect as per specimen annexed at Annex-Cplaced in Technical Proposal Forms).

<sup>\*\*\*25</sup> out of 100 marks will be allocated for provision of affidavit on stamp paper duly attested by the Oath Commissioner to the effect that the firm has neither been blacklisted nor any contract rescinded in the past for non-fulfillment of contractual obligations (complete in all respect as per specimen annexed at Annex-B placed in Technical Proposal Forms).

<sup>\*\*\*\*</sup>Criteria for New firm is the one which has carried out maximum 3 projects in 6 years.

### PERSONNEL EVALUATION SHEET

POSITION / AREA OF EXPERTISE	Name	Academic and General Qualification* Weightage 30%		Project related Experience Weightage 60% for Design Review and 65% for Construction Supervision		Status with the Firm** 10% for Design Review and 05% for Construction Supervision		OVERALL RATING (Sum of Weighted Ratings)	
(Show all experts to be evaluated)		Percentage Rating	Weighted Rating (A)	Percentage Rating	Weighted Rating (B)	Percentage Rating	Weighted Rating (C)	(A+B+C)	
Design Review Team:									
(a) Highway Design Engineer									
(b) Structure Engineer									
(c) Drainage Engineer/ Hydrologist									
(d) Traffic/ Pavement Analyst									
(e) Geotechnical/ Soil & Material Engineer									
Construction Supervision Team:									
(f) Chief Resident Engineer									
(g) Resident Engineer-I & II									
(h) Material Engineer-I & II									
(i) Contract Specialist									
(j) ARE (Highways) Engineer-I & II									
(k) ARE Structure/ Highway Engineer-I & II									

Rating: - Excellent - 100% Very good - 90-99% Non-complying - 0%

Above Average - 80-89%

Average - 70-79%

Below Average - 1-69%

Score: Maximum Weightage X rating / 100.

\* For Qualification of above Key Personnel, refer to Clause 5.6 of TOR.

\*\* 6 months' older employee - 100%; Less than 6 months or associates- 0%



**Technical Proposal Forms** 

Say No to Corruption

# **TECHNICAL PROPOSAL FORMS**



### **Technical Proposal – Forms**

{Notes to Consultant shown in brackets throughout this Section provides guidance to the Consultant to prepare the Technical Proposal; they should not appear on the Proposals to be submitted.}

### Checklist of Required Forms (subparagraph 3.1.3 of ITC)

Required, $()$	FORM	DESCRIPTION	Page Limit
1	A-1	Technical Proposal Submission Form	
√ A-1 Attachment  "√" If applicable  A-1 Attachment		Proof of legal status and eligibility	
		If the Proposal is submitted by a joint venture, attach a letter of intent.	
"√" If applicable	A-1 Attachment Power of Attorney	Power of attorney for the authorized representative of the led firm as per instructions given in specimen of letter of intent (Annexure-B).	
		Consultant's Organization and Experience.	As given below
ı		A. Consultant's Organization	3
$\sqrt{}$	A-2	B. Consultant's Experience/ Client's Reference	20
		C. Client's satisfaction Certificates along with their details	9
√	A-3	Approach Paper on Methodology proposed for Performing the Assignment	50
		Comments/ Suggestions of Consultant	[See footnote] <sup>1</sup>
$\checkmark$	A-4	A. On the Terms of Reference	n/a
		B. On the Counterpart Staff and Facilities	2
V	A-5	Format of Curriculum Vitae (CV) for proposed Key Personnel	8 pages each CV
7	A-6	Completion and Submission of Reports as per TOR	n/a
V	A-7	Composition of the Team Personnel and the Tasks to be Assigned to each Team Member	n/a
V	A-8	Work Plan /Activity Schedule	n/a
1	A-9	Work Plan and Time Schedule for Key Personnel (Man-months of staff and Project Duration as per TOR.)	n/a
√ ·	A-10	Current Commitments of the Firm	n/a

Note: Failure to provide required attachments with Form A-1 will entitle the Client to reject the proposal

Design Review and Construction Supervis Hoshab – Awaran (146 KM) waran - Khuzdar Section of M-8 Project, Package-1:

<sup>&</sup>lt;sup>1</sup> The total number of pages for combined forms A-3 and A-4 should not exceed 50. A page is defined as one printed side of A4 or letter-size paper with font size of 10 or more.

Form A-1

### TECHNICAL PROPOSAL SUBMISSION FORM

(To be required from lead firm only)

{Location, Date}

To: [Name and address of Client]

Dear Sirs:

We, the undersigned, offer to provide the ... [NAME OF THE PROJECT]....in accordance with your Request for Proposals. We are hereby submitting our Proposal, which includes this Technical Proposal and a Financial Proposal sealed in a separate envelope.

(If the Consultant is a joint venture, insert the following):

We are submitting our Proposal in a joint venture with: (Insert a list with full name and the legal address of each member, and indicate the lead member). We have attached a copy of our letter of intent to form a joint venture, which details the likely legal structure of and the confirmation of joint and severable liability of the members of the said joint venture.

OR

(If the Consultant's Proposal includes Sub-consultants, insert the following): We are submitting our Proposal with the following firm(s) as Sub-consultants: (Insert a list with full name and country of each Sub-consultant.)

We hereby declare that:

- (a) All the information and statements made in this Proposal are true and we accept that any misinterpretation or misrepresentation contained in this Proposal may lead to our disqualification and/or imposition of any sanction by the client.
- (b) Our Proposal shall be valid and remain binding upon us for the period of time period of time the Data Sheet, Clause 4.5.
- (c) We have no conflict of interest in accordance with ITC Clause 1.9.
- (d) We meet the eligibility requirements as stated in Data Sheet Clause 1.8.
- (e) Neither we, nor our JV Partner(s)/sub-consultant(s) or any of the proposed experts prepared the TOR for this consulting assignment.
- (f) Within the time limit stated in the Data Sheet, Clause 4.5, we undertake to negotiate a Contract on the basis of the proposed Key Personnel. We accept that the substitution of Key Personnel for reasons other than those stated in ITC, Clause 6.5 may lead to the termination of Contract negotiations.
- (g) Our Proposal and any modifications resulting from the Contract negotiations are binding upon us.

(h). Our firm/ each member of our JV is not participating in any other proposal for this Project.

We undertake, if our Proposal is accepted and the Contract is signed, to initiate the Services related to the Project not later than the date mentioned in Data Sheet 4.5 (or the date extended with the written consent of Consultant in case of delay in procurement process)

We understand that the Client reserves the right to reject all proposals as per PPRA Rules.

We remain,	
Yours sincerely,	
Signature of Authorized Represent	ative* of the Lead Firm:
{In full}	_ {and initial}
Name and Title of Signatory:	
Name of Consultant (Firm's name	or JV's name):
In the capacity of:	
Address:	
Contact information (phone and e-r	mail):



<sup>\*</sup> The above signatory or his authorized representative should attend the proposal submission and opening with authority to sign and stamp any missing pages of proposal in line with instructions given in clause 1.8 of the Data Sheet. The specimen of authorization for submission is given at Annexure-D.

### CLIENT'S REFERENCE

- ➤ A. Detail about consultant(s) Organization.
  - o Hierarchy/ organizational chart, Office address, Employees details, etc.,
- > B. Relevant Services (as per RFP notice) Carried Out in the Last Ten Years Which Best Illustrate Qualifications
  - o General experience in road Transport Sector
  - o Specific experience related to particular assignment should be given on following format:

Using in the format below, provide information on each reference assignment for which your firm, either individually as a corporate entity or as one of the major companies within a consortium, was largely contracted.

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 US\$/Rs.)				
Name of Associated 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 Proje	et					
Description of Actual Services Provided by Your Staff						

_		- (Day Carry and Day arts) for the last
	C. The project details of Client's Satisfaction Certificate three assignment should also be given on above format.  onsultants' Name:	es (Performance Reports) for the last
		i. III Fair

Form A-3

# APPROACH PAPER ON METHODOLOGY PROPOSED FOR PERFORMING THE ASSIGNMENT



## Form A-4 (A and B)

#### **COMMENTS/SUGGESTIONS OF CONSULTANT**

[Provide here comments and suggestions on the Terms of Reference that could improve the quality/ effectiveness of the Assignment; and on requirements for counterpart staff and facilities, which are provided by the Client, including: administrative support, office space, local transportation, equipment, data, etc., separately under Forms Form-4A and Form-4B respectively.]

A. On the Terms of Reference (TOR)

1.

2. Etc.,

**B.** On the data, services and facilities to be provided by the Client specified in the TOR.

1.

2. Etc.

#### Note:

- 1. The Consultant may propose a team of experts to best achieve the scope of service and activities and to deliver outputs as required in TOR. Proposed changes in position/individual inputs should be indicated and reasoned in the Technical Proposal but incorporated only in the Financial Proposals (showing excess/saving, in datum Price as worked out with the person months indicated in the RFP, which must be clearly bifurcated and marked red at each place for acceptance or otherwise by the Client at its prerogative during negotiations).
  - (i) The Proposal may assign person-month inputs differently from TOR. However, Key Personnel input totals in the Proposal should not be less than the minimum totals of person-months inputs mentioned in Data Sheet Sub-Clause-3.1.4 respectively.
  - (ii) The Proposal may include additional expert position/s. However, additional expert will be considered Non Key Personnel for the purpose of proposal evaluation.
  - (iii) If the Proposal drops or replaces a Key Personnel position with a different one, the original position will receive zero score in the technical evaluation and the new position added in the Proposal will be considered Non Key and will not be evaluated.
  - (iv) DO NOT INCLUDE EXCESS/SAVING INFORMATION IN TECHNICAL PROPOSAL. If Technical Proposal includes financial information, the Proposal will be rejected under Clause-3.1.5 of ITC.
- 2. When the Consultant suggests a change in scope of service, activities or output, the Consultant must describe the details in Form-4A and the change should not be incorporated in the Proposal. Enumerate each suggestion in Form-4A with incremental cost as a separate attachment to Financial Proposal indicating breakdown into individual remuneration and expenses for each suggestion. Forms A-11 to 17 should be prepared without incorporating the changes.
  - (i) If Financial Proposal provides no separate attachment about incremental cost to a suggestion, the suggestion will be considered at no additional cost to the Client and no negotiations for an incremental cost shall be done;
  - (ii) DO NOT INCLUDE INCREMENTAL COST INFORMATION IN TECHNICAL PROPOSAL. If Technical Proposal includes financial information, the Proposal will be rejected under Clause-3.1.5 of ITC.

Design Review and Construction Superv Hoshab – Awaran (146 KM) waran - Khuzdar Section of M-8 Project, Package-1:

## FORMAT OF CURRICULUM VITAE (CV) FOR PROPOSED KEY STAFF

1.	Proposed Position:
2.	Name of Firm:
3.	Name of Staff:
4.	Profession:
5.	Date of Birth:
6.	Years with Firm:
7.	Nationality:
8.	N.I.C Number:
9.	Cell Number:
10.	Membership in Professional Societies:  (Membership Certificate of PEC/ relevant council is Mandatory for Engineers. Copy of online updated PEC/relevant council details, as per Membership Number will be attached)
11.	Detailed Tasks Assigned on the Project:

### ♦ Key Qualifications:

[Give an outline of staff member's experience and training most pertinent to tasks on assignment. Describe degree of responsibility held by staff member on relevant previous assignments and give dates and locations. Use up to one page].

#### ♦ Education

[Summarize college/university and other specialized education of staff member, giving names of institutions, dates attended and degrees obtained].

#### ♦ Employment Record

[Starting with present position, list in reverse order every employment held. List all positions held by staff member since graduation, giving dates, names of employing organizations, title of positions held and location of assignments. For experience, also give types of activities performed and Client references, where appropriate].

#### ◆ Languages

[Indicate proficiency in speaking, reading and writing of each language: excellent, good, fair, or poor].

#### ♦ Certification

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

- (i) This CV correctly describes my qualifications and experience.
- (ii) I am not a current employee of the Executing or the Implementing Agency.
- (iii) In the absence of medical incapacity, I will undertake this assignment for the duration and in terms of the inputs specified for me in Form A-9 provided team mobilization takes place within the validity of this proposal.
- (iv) I was not part of the team who wrote the terms of reference for this consulting services assignment
- (v) I am not currently debarred by any department/organization/ (semi-autonomous/ autonomous) bodies or such like institutions in Pakistan.
- (vi) I certify that I have been informed by the firm that it is including my CV in the Proposal for the {name of project and contract}. I confirm that I will be available to carry out the assignment for which my CV has been submitted in accordance with the implementation arrangements and schedule set out in the Proposal.

If CV is signed by the firm's authorized representative:

- (vii) I, as the authorized representative of the firm submitting this Proposal for the {name of project and contract}, certify that I have obtained the consent of the named expert to submit his/her CV, and that s/he will be available to carry out the assignment in accordance with the implementation arrangements and schedule set out in the Proposal, and confirm his/her compliance with paras (i) to (v) above.
- (viii) Latest colored attested photograph stapled attached with the CV.

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

Signature of authorized representative of the	Date:
Lead firm	Day/Month/Year

Note: copy or scanned signatures are not allowed



## COMPLETION AND SUBMISSION OF REPORTS AS PER TOR

	Reports	Date
1.		
2.		
3.	-	
4.		
5.		
6.		
7.		
8.		
9.		



## COMPOSITION OF THE TEAM PERSONNEL AND THE TASKS TO BE ASSIGNED TO EACH TEAM MEMBER

1. Key Personnel (and Specialist Sub-consultant, if any)\*

N	Position	Task	Present location	Details of Current Commitments  Name of assignment involved and clients names at present						
Name		Assignment		Name of assignment	Name of client	Date of engagement <sup>3</sup>	Expected date of relieving <sup>4</sup>			

<sup>\*</sup> Refer to ITC, Data Sheet, Sub-Clause 1.7 v (b).

## 2. Other Personnel



Name	Positi	ion	Task Assignment

<sup>&</sup>lt;sup>3</sup>Substantiate with documentary evidence

<sup>&</sup>lt;sup>4</sup>Substantiate with documentary evidence

## WORK PLAN/ ACTIVITY SCHEDULE

Items of Work/Activities	Mont	hly Pro	ogram	from da	ate of c	ommer	icing A	ssignm	ent (in	the fo	rm of a	Bar C	hart)		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
														_	



Form A-9

## WORK PLAN AND TIME SCHEDULE FOR KEY PERSONNEL (AND SPECIALIST SUB-CONSULTANT, IF ANY)

	Months (in the form of a Bar Chart)												Number of Months				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
<u> </u>	 				ļ												
		•						~									
	Position	Position	Position 1	Position 1 2	Position 1 2 3												

Intermittent:	Activities Duration
	Yours faithfully,
	Signature
	(Authorized Representative)
Highway &	Full Name
	Designation
	Address

# CURRENT COMMITMENTS OF THE FIRM [OF EACH MEMBER IN CASE OF JV AND THE SPECIALIST SUB-CONSULTANT, IF ANY]

## List must be comprehensive including project from clients other than NHA as well

Name of project	Single or JV	Task assignment	Start date of the project	Expected date of completion



Annex-A

# Specimen (On Firm(s) letterhead)

### **LETTER OF INTENTION**

Subject: Technical and Financial Proposals for Consultancy Services for <u>(Name of Project)</u>

This Joint Venture (JV) is made an	nong following parties;
1) M/s	as Lead Firm having% share.
2) M/s	as JV Partner having% share.
3) M/s	as JV Partner having% share.
4) M/s	as JV Partner having % share.

The above firms are jointly and severally liable to the Client for preparation of Technical and Financial Proposals for Consultancy Services for "[NAME OF THE PROJECT]" (hereinafter called "The Project").

The Firm hereto confirms the understanding as follows:

#### 1. Objective

It is hereby agreed to form a Joint Venture for preparation of Technical and Financial Proposals for Consultancy Services for "The Project" to be submitted to National Highway Authority, Islamabad (hereinafter called "The Client").

The Parties intend to do the following:

- a. Prepare and submit a mutually agreed Technical and Financial Proposals for the Project;
- b. Agree to propose suitable staffing with high level of competence to form a competitive team for the Project.
- c. Enter into the mutually agreed Consultancy Contract Agreement with the Client, if the project is awarded.
- d. Perform all the services to be undertaken for the Project under the Consultancy Contract Agreement if signed.
- 2. The authorized representative of JV shall be M/s..... for the future official correspondence with the client on behalf of JV.

Design Review and Construction Supervision of Hoshab – Awaran – Khurar Seet m of M-8 Project, Package1: Hoshab – Awaran (146 KM)

3. The original letter of intention(s) of the JV member(s) on their letterhead is/are attached at...

For and on behalf of	
Sign & Seal of the Lead Firm	
(Authorized Representative* of the Firm)	•••••

- \* Authorized Representative to sign the Letter of Intention can be;
  - o For Sole Proprietor firm; Owner of the Firm, otherwise Owner may authorize any person. (provided Authorization Letter be submitted)
  - o For Partnership firm; Director of the Firm; otherwise, authorized personnel (provided Authorization Letter be submitted).
  - o For Private Limited firm; Director of the Firm, otherwise, authorized personnel (provided Authorization Letter be submitted).
  - o For Public Private Limited firm; Director of the Firm, otherwise, authorized personnel (provided Authorization Letter be submitted).



Annex-B

## <u>AFFIDAVIT</u> (Regarding Blacklisting)

Subject: [NAME OF THE PROJECT]

Subject. <u>[NAME OF THE PROJECT]</u>		
I, the undersigned, do solemnly blacklisted nor any contract roobligations.	<del>.</del>	
Signature of Authorized Representative of the firm(s)	Date:	Day/Month/Year
	(Seal)	



Attested by the Oath Commissioner

#### Note:

- The Affidavit is to be submitted on Stamp Paper of minimum Rs. 30/- duly attested by the Oath Commissioner.
- In case of Single Entity, to be provided by the firm.
- In case of JV, to be provided by all the JV members

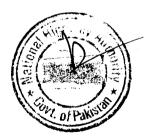
### Annex-C

## <u>UNDERTAKING</u> (Regarding Personnel Availability)

Subject: [NAME OF THE PROJECT]

I, the undersigned, do solemnly declare that the proposed personnel shall be available for the subject assignment in the project duration as per the terms and condition specified in the Request for Proposal (RFP).

Signature of Authorized	Date:
Representative of the Lead firm	Day/Month/Year
(Seal)	



Attested by the Oath Commissioner

**Note:** The Affidavit, on Stamp Paper of minimum Rs. 30/- duly attested by the Oath Commissioner, is to be submitted by the Lead firm only.

### Annex-D

General Manager (P&CA)
National Highway Authority,
Islamabad, Pakistan

## <u>Power of Attorney</u> (Regarding submission of proposal)

Signature and initial of Authorized Representative



## FINANCIAL PROPOSAL FORMS



## FINANCIAL PROPOSAL SUBMISSION FORM

{Location, Date}

To: [Name and address of Client]

Dear Sirs:

We, the undersigned, offer to provide the consulting services for [Insert the Project Name] in accordance with your Request for Proposal dated [Insert Date] and our Technical Proposal.

Our attached Financial Proposal is for the amount of {Insert amount in words and figures}, including all Federal, Provincial & local taxes applicable as per law of the land. {Please note that all amounts shall be the same as in Financial Proposal Form A-17}.

Our Financial Proposal shall be binding upon us subject to the modifications resulting from Contract negotiations, up to expiration of the validity period of the Proposal, i.e. before the date indicated in Clause 4.5 of the Data Sheet.

We confirm that we have no condition to state that may have financial implications over and above the amount quoted above.

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

We remain,

Yours sincerely,

Authorized Signature\* {In full} \_\_\_\_\_\_ {and initial}\_\_\_\_\_\_

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

Name of Consultant (Firm's name or JV's name): \_\_\_\_\_\_\_

In the capacity of: \_\_\_\_\_\_\_

Address: \_\_\_\_\_\_\_

Contact information (phone and e-mail): \_\_\_\_\_\_\_\_

\* The above signatory or his authorized representative should attend the proposal submission and opening with authority to sign and stamp any missing pages of proposal in line with instructions given in clause 1.8 of the Data Sheet.

#### BREAKDOWN OF RATES FOR CONSULTANCY CONTRACT

Project: Firm:

Name	Position	Basic Salary Per Cal. Month	Social Charges (%age of	Overhead (%age of 1+2)	Sub- Total (1+2+3)	Fee (%age of 4)	Rate per Month for project Office	Field Allow. (%age of 1)	Rate per Month for Field Work
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

#### **Notes:**

- Item No. 1 Basic salary shall include actual gross salary before deduction of income tax.

  The highest ranked Consultant shall provide payroll sheet for each proposed personnel at the time of contract negotiations.
- Item No. 2 Social charges shall include Client's contribution to social security, paid vacation, average sick leave and other standard benefits paid by the firm to the employee. Breakdown of proposed percentage charges should be submitted and supported {see Form A-13}.
- Item No. 3 Overhead shall include general administration cost, rent, clerical staff and business getting expenses, corporate tax and insurances, etc. Breakdown of proposed percentage charges for overhead should be submitted and supported {see Form A-14}.
- Item No. 5 Fee shall include firm's profit and share of salary of partners and directors {if not billed individually for the project} or indicated in overhead costs of the firm.
- Item No. 7 Normally payable only in case of field work under hard and arduous conditions.
  - Note 1 The minimum percentage of item (1) should be preferably 50% of (8).
  - Note 2 The Consultant is to provide appointment letter and affidavit/undertaking duly signed by each of the individual Personnel showing salary rates as above. Further during execution each invoice will also be provided showing that the Personnel have been paid their salaries as per basic rates mentioned therein; failing to which, NHA will take punitive action against the Consultant and shall deduct the deficient amount from its monthly invoice. Moreover, it will be considered as a negative mark on the Consultant's performance that will be considered for future projects.

	Highway
THE STATE OF THE S	Of Pakiston
	Of Pakisto

Full Name:	 	
Signature: _	 	
Title:		

## **BREAKDOWN OF SOCIAL CHARGES**

Sr. No.	Detailed Description	As a %age of Basic Salary



### **BREAKDOWN OF OVERHEAD COSTS**

Sr. No.	Detailed Description	As a %age of Basic Salary and Social Charges		
	• .			



Form A-15 Page 1 of 3

# A - ESTIMATED LOCAL CURRENCY SALARY/ REMUNERATION COSTS EQUIVALENT IN US DOLLARS

[Refer also to Notes under Form A-4]

Sr. No.	Name	Position	Person- Months	Monthly Billing Rate (US \$)	Total Estimated Amount (US \$)
Α.	All Foreign Ex	patriates including Foreign	Specialist S	Sub-consultant (if an	y)
	_	APPLIC		PLLS	
`					-
		Sub-Total:			



Form A-15 Page 2 of 3

## **B-I ESTIMATED LOCAL CURRENCY SALARY COSTS/REMUNERATION**

[Refer also to Notes under Form A-4]

Sr. No.	Name	Position	Person- Months	Monthly Billing Rate (Rs.)	Total Estimated Amount (Rs.)
B-I.	All Local Key	Personnel and Specialist Su	b-consultan	et (if any)	
		Sub-Total:			



Form A-15 Page 3 of 3

### B-II ESTIMATED LOCAL CURRENCY SALARY COSTS/ REMUNERATION

[Refer also to Notes under Form A-4]

Sr. No.	Position	Person-Months	Monthly Billing Rate (Rs.)	Total Estimated Amount (Rs.)
B-II. N	on-Key and other Personn	el (Local)		
	Sub Total:			

Note: The bidders are required to quote the rates of Non Key/Support Staff given in the TOR in above table. The bidder(s) may propose Non Key/ Support Staff Person-Months in addition to those given in TOR; however, in such a case tenable reasons must be given in the Technical Proposal Submission Form A-4 "Comments on TOR". The Client's negotiation committee will deliberate on the requirement of additional staff during negotiation meeting. It is also to be noted that the Client is not bound to agree to the reasons given in Form A-4.



#### DIRECT/ NON-SALARY COSTS FOR DESIGN AND SUPERVISION SERVICES

[Refer also to Notes under Form A-4]

Sr. No.	Nomenclature	Unit	Qty.	Unit Price (Pak. Rs.)	Total Amount (Pak. Rs.)	Remarks
1.	Communication Expenses allocable to the Assignment	P.M	36			Fixed Rate
2.	Printing of Reports and Drawings for the Assignment	P.M	36			-do-
3.	Travel Expenses of required Key Personnel between Head Office and Site (as per actual)	P.S	_	-	1,000,000/-	Reimbursement of actual expenditures upto a maximum limit subject to approval of Project Director for travel(s).
4.	Others not covered above to comply with TOR requirement*					
	Total					

\* Any additional item/ cost quoted against these line items must be supported by solid/ tenable justification(s) detailed in Technical Proposal Submission Form A-4 "Comments on TOR" without indicating financial value therein. The negotiation committee of the Client may negotiate this cost on the basis of justification provided in the form A-4 with the prospective successful bidder in the light of Clause ITC 6.6 of RFP. Moreover, if no justification is given or Client does not agree to the justifications, the Client in both the cases **shall not** include this cost in the total cost offered by the Consultants for this assignment, particularly in case any amount against these line items is deemed to have been covered in other pay items.

## SUMMARY OF COST OF CONSULTANT FOR DESIGN REVIEW AND SUPERVISION SERVICES

[Refer also to Notes under Form A-4]

Sr.No.	Description	Amount (Pak. Rs.)
1.	Salary Cost	
2.	Direct (Non -Salary Cost)	
3.	Sub Total:	
4.	Sales Tax @ 16% on item 3 above which shall be kept as Provisional Sum in the Contract Agreement	Not Applicable till final decision of the Court of Law (3)
5.	Contingencies	-
,	Grand Total:	

- Note: 1- The dues and salaries of staff are payable by the Consultant in time and not later than 10<sup>th</sup> of the following month positively. In case of failure to do so Client shall intervene and pay these dues and salaries of the concerned Personnel and recover from the invoice of the Consultant at actual charges paid plus 1% of the amount. This will also be accounted for adversely in making assessment of the Consultant in the next evaluation process for selection of consultants with report of such defaults.
  - 2- The grand total is inclusive of all the applicable Federal, Provincial and Local taxes. All these taxes (except the Sales Tax) are required to be built in the quoted rates and not be mentioned separately.
  - 3- Relevant documents are attached at the end of RFP.
  - 4- Consultant's Head Office Support will be mandatory during Supervision; the firm shall be bound to provide design input required on the Site or advice on contractual matters; the cost for the same is built in the financial proposal. Responsibility for the team in field will be backed by the Consultant's Head Office; the Head Office will assume full responsibility for the team in field.
  - Any key position that remains vacant for more than one month that was required to be filled for that period, a compensation equivalent to the charge

rate of that individual will be imposed. For clarification, the invoice will not include the charge rate of the missing individual and additionally, the charge rate of one month for that individual will be deducted from the invoice. This will be replicated for all missing key personnel. For the 2<sup>nd</sup> month, the compensation payment will be doubled. For the 3<sup>rd</sup> month, an additional warning will be issued. If the issue persists in the fourth month, the firm can be penalized by invoking conditions of contract and even to the extent of consideration for blacklisting.



## **APPENDIX - A**

## TERMS OF REFERENCE

(Including Description of Services)



# CHAPTER NO. 1 INTRODUCTION

### 1.1 BACKGROUND:

- Hoshab Khuzdar section of Motorway M-8 is the missing link to complete the Motorway M-8. Now government of Pakistan through NHA intends to develop the 146 km portion (Hoshab Awaran) of remaining part of Motorway M-8. Completion of remaining portion of Motorway M-8 i.e Hoshab Awaran Khuzdar section, shortest route will be developed to Gwadar port and it is anticipated that not only CPEC traffic, but also the local traffic will adopt this route for Gwadar and surrounding areas being shorter distance for Gwadar. Project road is also a strategic route and will help to improve the law and order / security issues of the project area. The project "Construction of Hoshab-Awaran Section of M-8 (146 km)" is reflected in PSDP 2020-21 with an allocation of Rs. 4000 million.
- For this purpose NHA intends to hire consultant for Design review and construction supervision of Hoshab-Awaran Section of M-8 (146 km).

### 1.2 NEED ASSESSMENT:

- In order to improve road network of Baluchistan, National Highway Authority (NHA) is continuous process of exploring new projects which may help in shortening the long distances covered through the existing road network in Baluchistan.
- The Motorway (M-8) is approx. 892 Km east-west motorway in Pakistan, connecting Sukkur- Larkana to Gwadar. Out of 892 Km, 492 Km sections i.e. Ratodero Khuzdar (242 Km) & Hoshab-Turbat- Gwadar (250 Km) have been already been constructed and operational. Hoshab Khuzdar section of Motorway M-8 is the missing link to complete the Motorway M-8. Now government of Pakistan through NHA intends to develop the 146 Km portion (Hoshab Awaran) of remaining part of Motorway M-8. Completion of remaining portion of Motorway M-8 i.e. Hoshab Awaran Khuzdar section, shortest route will be developed to Gwadar port.
- It is anticipated that not only CPEC (central route) traffic, but also the local traffic will adopt this route for Gwadar and surrounding areas being shorter distance for Gwadar.
  - Project road is also a strategic route and will help to improve the law and order / security issues of the project area. This project will extend its benefits to the area of the adjoining area by increasing their mobility and accessibility to a good quality road. This project by increasing the living standard of the people in the surrounding will also help in reducing vehicle operating cost and journey time thus boosting the economic condition of the surrounding people and the country.

TOR for Construction Supervision of Hoshab – Awaran – Khuzdar Section of M-8 Project Package 01: Hoshab – Awaran (Length: 146 km) (sm)

Page 3

### 1.3 PROJECT DEFINITION:

- The project envisages construction of two lane motorway facility from Hoshab to Awaran having standard carriageway width of 7.3m with 2.5 treated shoulder on either side. Length of project road is 146 Km. Project road starts from Hoshab and traverses through various towns i.e. Qila Darwesh, Ashal, Dandar, Sahar Kalat, Gorari, laljan, Duddar, Razai, Nurdin, Madak, Malar, Labach Dargo and finally terminates in Awaran. Project alignment also crosses various water tributaries of Kech River, which is eastern tributary of Dasht River.
- The project alignment majorly passes through plain/rolling terrain. Project involves construction of bridges / RCC box culverts as per hydrological / hydraulic need as per NHA standards. Project scope also involves drainage / protection works i.e construction of drains, retaining walls / breast walls / toe walls and embankment slope pitching etc.
- The project for execution purpose has been divided into following two packages:
  - i. Package 1: km 0 to km 73+500
  - ii. Package 2: km 73+500 to km 146+000

### Technical parameters

2 lane highway shall conform to the following specifications:

Design speed Flat/Plain Terrain 120 km/hr Road Width Carriageway Width 7.3 m

Lane Width 3.65 m (Each) Outer Shoulder 2.5 m (Treated)

0.5 m (Rounding)

**Cross Slop** Pavement 2.0%

Shoulder 4.0%

Embankment

**Parameters** 

Side Slope 2:1 (Common) Cut Slope 1:4 (Rock)

1:2 (Common) Right of Way 100 m

Maximum Super 6%

Elevation Horizontal Curves

Parameters (Radius) Flat 756 m

Rolling 252 m

Vertical Curves

Min. K (at Crest)

Flat 95 m Rolling 26 m Min. K (at Sag)

Flat 63 m Rolling 30

Gradient Ruling 2~3% Maximum 6% Minimum 0.3%

TOR for Construction Supervision of Hoshab - Awaran - Khuzdar Section of M-8 Project Package 01: Hoshab - Awaran (Length: 146 km) (sm) Page 4

### 1.4 PROJECT OBJECTIVES:

Objective of the project is to enhance the mobility from Hoshab to Awaran and plays a vital role for the development of deprived population of the Baluchistan province. The project road is an integral continuation section of Motorway M-8, which connect M-8 / N-85 at Hoshab to Awaran which will link it up no Gwadar and other southern regions for native community. Besides that, it will also reduce the travel time and enhance will improve the overall socio-economic development of country. The project provides major tangible and intangible benefits which include:

- Vehicle Operating Cost will be at its minimum.
- It will provide an efficient, time saving and congestion free access.
- Massive impact of the project on Land use will surely help in the progress of area and local people, as employment and business will be generated in vicinity by the implementation of the project.
- Gwadar is further hub of business / trade activities. Gwadar ort will play an important role in boosting up of Pakistan's economy.

Gove of Pakister

1455

TOR for Construction Supervision of Hoshab – Awaran – Khuzdar Section of M-8 Project Package 01: Hoshab – Awaran (Length: 146 km) (sm)

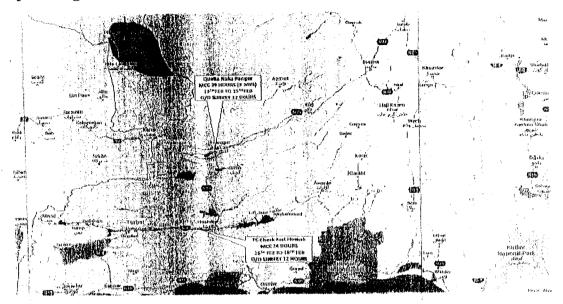
Page 5

### **CHAPTER NO.2**

### DESCRIPTION OF THE PROJECT

### 2.1 LOCATION OF PROJECT

The project is located in Awaran District in Baluchistan province. The scope of project is construction of two lane motorway from Hoshab to Awaran having carriageway width 7.3m as per NHA standards. The project length is 146 km.



### 2.2 PROJECT WORKS

The scheme envisages the Hoshab – Awaran – Khuzdar section of M-8 project package Hoshab – Awaran (Length: 146 km). The scope of work of the assignment has been defined in the TOR. However, main scope of work is given as under but not limited to the following:

- Construction supervision of the subject project.
- Design review.
- Quality control/Quality assurance.
- Traffic diversion plan.
- To ensure human life safety during execution of project.
- Preparation of revised PC-I up to approval (if required) (cost will be built in its bid).
- Preparation of PC-IV (upto approval) (cost will be built in its bid).

## 2.3 TIME OF START

The services shall commence immediately after signing of the contract agreement.

### 2.4 TIME OF COMPLETION

The period of implementation for the project is 40 months. Construction time for project is 36 months.

TOR for Construction Supervision of Hoshab – Awaran – Khuzdar Section of M-8 Project
Package 01: Hoshab – Awaran – Khuzdar Section of M-8 Project
Package 01: Hoshab – Awaran – Khuzdar Section of M-8 Project
Package 01: Hoshab – Awaran – Khuzdar Section of M-8 Project
Package 01: Hoshab – Awaran – Khuzdar Section of M-8 Project
Package 01: Hoshab – Awaran – Khuzdar Section of M-8 Project

\*\*\*\*

~~v56°

## Chapter No.3

## 3. Design Review

## 3.0 Objectives

The overall objectives of these Terms of Reference are to:

- i) Ensure that high quality construction is achieved in time within budget and that all work is carried out in full compliance with the approved engineering designs, technical specifications, agreed work schedule, and within the terms and conditions of all other contract documents and sound engineering practices;
- ii) Review in detail, the design of selected road sections and update by undertaking detailed survey
- iii) Demonstrate the efficacy of contract administration and supervision by independent external agencies; and
- iv) Promote technology transfer and the introduction of modern Contract Administration practices within NHA.
- v) Under take design review of the detailed design and tender drawings prepared by M/s NESPAK (Pvt.) Ltd.; and update the design if required. It may include carrying out fresh survey at site, at no cost to the Client

### 3.1 The Consultant

A well-reputed consulting firm, registered with Pakistan Engineering Council, will provide the Services. The consulting firm may form a JV as per instructions of the RFP. In case M/s NESPAK win the bid for this contract i.e. for Design review and construction supervision in the competitive bidding, the detailed design shall be reviewed and validated by a third party. Three well reputed firms shall be proposed by the Consultant who has already worked on NHA projects. Final decision shall be given by NHA Design section.

The consultant will provide the staffing as indicated under the heading **Staffing**, though in preparing their proposals the consultants may propose alternative arrangements that, in their opinion, will provide services of an equivalent quality. The final staffing will be adjusted to suit the actual procurement and implementation schedules.

## 3.2. General Duties and Responsibilities of the Consultant

The Consultant will be designated as the "Engineer" for all Civil and ancillary works financed under the project. The Consultant will administer the civil work's contracts, make engineering decisions, and be responsible for quality assurance, provide general guidance and furnish timely response to the Contractors in all matters relating to the civil works, and ensure that all clauses of the Contract Agreement between the civil work Contractors' and the National Highway Authority (NHA) are respected.



The Consultants will advise NHA on all matters relating to the efficient and successful execution of the civil works contracts, and will act at all time so as to protect the interests of the project and will take all reasonable steps to keep all expenses to a minimum consistent with sound economic and engineering practices; and will prepare a "Contract Administration and Construction Supervision Manuals, based on sound internationally recognized practice.

## 3.3. Scope Of Work For Design Review

The services of the Supervisory consultant shall include, but not necessarily be limited to the following:

## 3.3.1. Applicability:

The available tender drawings /design suffice for the purpose of tendering. Before the supplementary / construction drawings are formally issued to the Contractor, the supervisory Consultants shall on fast track without fail establish the traverse & level controls along the Alignment; Joint cross sections, with the Contractor, shall be observed and shall form the basis of Construction Drawings and validation of the Project estimate. The location, size and quantity of structures shall be checked and validated.

If during joint survey in field any deficiency in topography is observed, it shall be depicted, mitigated and incorporated in the design at no cost to Client in this consultancy agreement.

The design prepared by M/s NESPAK (Pvt.) Ltd. conforms to AASHTO motorway standards with a design speed of 120 kph in plain terrain. The Consultant shall review the conformance of the said design with the required AASHTO standards.

The traffic count, projections and computation of ESAL's with appropriate damaging factors shall be re-validated. Pavement design computations shall be confirmed. Consultants is advised to keep the original Contract intact as much possible (excepting necessary mitigation) to avoid re-rating and variation orders, unless the project quality/ safety is compromised.

Consultant shall carry out independent computations of bridges, culverts and other structures. Any economy achieved shall add on to Consultants grading. Construction Drawings shall be developed and issued to the Contractor.

Review of hydrology report based on rainfall and flood record including sufface runoff and drainage area characteristics. The discharge against individual drainage structure shall be checked. Stability of road embankment against erosion shall be checked.





Road surface runoff, collection of water and disposal shall be adequately addressed.

Soil characteristic along the alignment shall be checked for any likely stability issues. Review suitability of locally available construction materials, and if necessary, locate new quarry sites if required. Borow pits as identified by the Contractor shall be checked for suitability to be used in construction.

The Consultant shall finally validate the Bid BOQ against the design review estimates. Every effort shall be made to secure the project cost within budget.

### 3.3.2 Environment

Based on the findings of EIA, Consultants will ensure that adequate measures are incorporated in design and planned & executed by the Contractor. Any adverse environment impact shall be mitigated immediately once reported or observed.

Ensure that the Bidding Documents include specific provisions to minimize disruptions I damage to the environment and local settlements during construction.

Review Environment Management Plan to address implementation monitoring of parameters listed in the EIA report during construction operation phase.

## 3.3.3 DESIGN REVIEW REPORT:

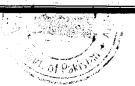
- a. The Consultant shall prepare a report where his concurrence with the designs is stated and/or modifications are proposed with drawings quality, and advice on further drawing or instructions to the contractors. He may also hold meetings with the Design Consultant as necessary to discuss reports submitted under intimation to the Client.
- b. The review report shall be forwarded to design consultant for incorporation in the detailed design or if modifications are suggested then the Design review Consultant shall hold equal responsibility for updation of Design.

### 3.4 PREPARATION OF REVISED PC-1:

Based on the design data provided, the Consultant shall prepare revised PC-1 for the project including economic analysis and Environmental Impact Assessment (EIA) on Proforma of PC-1 prescribed by Planning Commission.

### Contract administration:

 Review/update and finalize construction schedules as submitted by contractors showing the anticipated progress of works and expenditures of the contract packages. The schedules will reflect seasonal climatic effects at the





work sites and will take into account all factors pertaining to delay of the project.

• Review (if required) Bid documents for the project and assist NHA in prequalification of contractors, if required, evaluation of bids received and award of civil works contracts.

The Design Review and Supervisory Consultant shall be fully responsible for soundness and safety of the overall design of the project.

### 3.5 SCOPE OF SERVICES DURING SUPERVISION (DESIGN ASPECT)

### 1. SURVEY WORK/GEOMETRY:

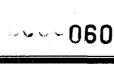
- a. Establish missing monuments if any and confirm the accuracy of horizontal and vertical controls.
- b. The supervisory consultant shall be responsible to obtain the bench marks and other information from the Design Consultant as required for commencement of construction activities.
- c. The Supervisory Consultant shall carryout and supervise the following works.
  - i. Stake the Centerline, ROW limits and relocation of roadway structure and appurtenances.
  - ii. Setting of Grade-stakes.
  - iii. Relocation of permanent monuments (survey reference points) in the construction.
- d. Without relieving the Contractors of their obligations under the Contract, review and approve the traffic management and safety plan, and ensure compliance such that the works are carried out at all times in a safe and secure manner and damage or injury to persons or property is avoided.

#### 3.5.1 SOIL

Based on the recommendations of design review consultant, additional soil testing, if agreed to by the client shall be carried out under his supervision.

### 3.5.2 CONSTRUCTION MATERIAL:

- a. Check suitability of borrow material and assess the quality and quantity of material and hauling distance.
- b. Detail Supervision, detail review of material already found along the road alignment taken at suitable intervals. Study sample to verify the calculations of construction quantities to an accuracy of 10%.





## 3.6

# **Staffing for Design Review**

## LIST OF DESIGN REVIEW STAFF

A. Salary Cost

Sr. No	Experts/Staff	No Of Persons	Months	No Of Days
1.	Highway Design Engineer	1	1	30
2.	Structure Engineer	1	1	30
3.	Drainage Engineer/Hydrologist	1	0.4	12
4.	Quantity Surveyor	1	1	30
5.	Chief Surveyor	1	1	30
6.	Traffic/Pavement Analyst	1	0.5	15
7.	Geotechnical/Soil & Material Engineer	1	0.4	12
8.	Draughtsman/CAD Operator	1	0.5	15
	Total	8		



061

#### **CHAPTER NO.4**

## CONSTRUCTION SUPERVISION

# 4.1 DETAILED SCOPE OF WORK COVERING CONSTRUCTION SUPERVISION FOR SUPERVISORY CONSULTANT

The responsibility of supervision shall rest with the Engineer who shall issue instructions in writing to the Supervisory Consultants for the supervision of works as per the Contract. As the Engineer's Representative, the Consultants' authorized representative and other staff will implement the Works Contract and ensure that the Works are constructed in accordance with its provisions. The Consultant will have all the powers defined in the FIDIC Conditions of Contract as being the Engineer / Engineer's Representative. Supervisory Consultants shall carry out a revision in the plans and specifications as required by the Engineer and prepare all change orders instantly thereto and shall further assist the Engineer in negotiations necessary for execution of the changes. Such revisions shall be encouraged which result in improved project performance, in accordance with the plans and conforming to the specifications. The Supervisory Consultants shall carry out the Construction Supervision but not limited to the following tasks:

- Make sure execution of works as per design, standards, specification and technical construction drawings.
- To intimate NHA in each matter and must obtain formal approval from NHA to proceed in the matter.
- Assure quality of the works during execution by using suitable and tested construction material.
- To ensure the good quality construction survey work, levels and grade achieved during and after construction.
- Make sure the continuous supervision/inspection of the soils, materials construction operations and the works with regard to workmanship and compliance with the specifications.
- Certify the payment bills of Contractor according to the approved procedure and also maintain the payment record maintaining consolidated project accounts and assist NHA for settlement of Audit Para's.
- Make sure the existing traffic management and safety plan all times in a safe and secure manner.
- Monitor and appraise progress of the works for timely completion of

TOR for Construction Supervision of Hoshab – Awaran – Khuzdar Section of M-8 Project Package 01: Hoshab – Awaran (Length: 146 km) (sm)

Page 7

062

work. Review and accept or reject Contractor's proposed work schedules.

• The supervisory Consultants shall prepare the revised PC-I of the project and will be responsible to incorporate all changes up to final approval from the relevant forum.

# 4.2 GOVERNING RESPONSIBILITIES AND DUTIES OF SUPERVISORY CONSULTANT

# 4.2.1 Application of Standards, Specifications and Engineering Decisions

The Supervisory Consultants will be fully responsible for the execution of work in accordance with standards and specifications and technical construction drawings. The Consultants shall supervise the Work's Contracts, make engineering decisions, be responsible for quality assurance, provide general guidance and furnish timely response to the Contractors in all matters relating to the Works.

### 4.2.2 Intimation and Approval by NHA

- ✓ The Consultant shall advise NHA on all matters relating to the efficient and successful execution of the Works Contracts, and shall act at all times so as to protect the interests of the project and shall take all reasonable steps to keep all expenses to a minimum, consistent with sound economic and engineering practices. Supervisory Consultants will intimate and will get approval of any decision from NHA regarding change in Design to initiate Variation Order, Extension of time etc.
- ✓ Advise NHA on need for effective liaison with local authorities, police, landowners, utility owners, the public and other organizations affected by the Works in order to minimize or avoid unnecessary delays or disputes.
- ✓ Shall assist for settlement of the Audit Paras and enquiries (if any) pertaining to the Project without any time restriction and remuneration to be made separately on this account. The cost to be incurred may be built in the rates.

Jointly inspect with NHA the completed Works, and assist in formal taking over review and approve "as built" drawings and plans, provide report(s) testifying to the satisfactory completion of the contract.

11.3

TOR for Construction Supervision of Hoshab - Awaran - Khuzdar Section of M-8 Project Package 01: Hoshab - Awaran (Length: 146 km) (sm)

Page 8

✓ After completion of work the consultant will prepare a list of all deficiencies (if exist) and will handover to NHA with proper remedial measures. Provide any other specialist services requested by NHA under conditions to be mutually agreed.

#### 4.2.3 **Project Management**

The Consultants shall assist NHA in all matter related to proper execution of project as per contract and NHA Standard and specification but not being limited to the following:

- ✓ Assist NHA for the establishment of the basic overall project construction schedule, budget and cash disbursement schedule.
- ✓ Assist NHA for establishment and implementation of a project management system and procedures to monitor and control the cost and time schedule to enable timely corrective measures.
- ✓ To coordinate, supervise, and support the decision making actions by NHA concerning engineering and design matters during the construction stage in order to ensure that quality control and engineering standards are consistently maintained throughout the project within cost and time constraints.
- ✓ Assist NHA for setting up of an effective reporting system of project progress and status to the management of NHA.
- ✓ Prepare realistic construction schedules, showing the anticipated progress of Works and expenditures of the contract package.
- ✓ Review and approval of proposal on variation orders and implementation schedule prepared by the Contractor.
- ✓ Issue monthly-consolidated progress reports on a format to be agreed with NHA including payment estimates and comments on the Contractors' work program, and advise NHA of any problem or potential problems which might arise and cause delay in implementation and recommend corrective action(s) to be taken.
- ✓ Monitor and control progress of Works and initiate corrective measures, if required.

#### 4.2.4 Construction Supervision

The Supervisory Consultants shall be fully responsible that the Works are executed in accordance with the plans, grade as per specifications of NHA as per contract. The Supervisory Consultants shall carry out the Construction Supervision ensuring the following items:

✓ Stake the centerline, ROW limits and relocation of roadway structure and appurtenance;

- ✓ Setting of Grade-stakes;
- ✓ Relocation of Grade-stakes;
- ✓ Soil Tests;
- ✓ Concrete Tests;
- ✓ Reinforced Bar Tests;
- ✓ Structural Steel Tests;
- ✓ Others Tests as deemed necessary;
- ✓ Inspect and evaluate Contractors' facilities especially laboratory items to ensure compliance with the specifications and terms and conditions of the Contract Agreement. Without relieving the Contractors of their obligations under the Contract, monitor the Contractors' laboratory testing, evaluate the Portland cement concrete and bituminous mixture designs prepared by the Contractors, and recommend improvements (if any), Monitor the concrete Batching and laying as per approved mix design & specifications, Asphalt Mixing and laying as per Job Mix Formula and specifications, carry out the testing of steel and High Tensile wire / cable for Stressing as per Specifications and also monitor the Stressing activity as per approved procedure and Specifications and also ensure the desired performance, and accord approval thereof;
- Assure quality of the works during construction, continuously inspect the soils and materials, construction operations and the Works with regard to workmanship and compliance with the specifications; and carry out independent testing in the field and/or in the "Engineer / Project Manager" laboratory, and approve or disapprove and certify the Works that conform with the specifications and maintain permanent records of results of all the tests made;
- Give notice to the Contractors of any defects and deficiencies, and issue instructions for the removal and substitution of the improper works, where provided under the contract. If required, order suspension of the Work(s) and/or recommend to NHA other recourse available under the Contract;
- Without relieving the Contractors of their obligations under the Contract, review and approve the traffic management and safety plan, and ensure compliance such that the Works are carried out at all times in a safe and secure manner and damage or injury to persons or property is avoided;
- ✓ Inspect quarries and borrow pits, and crushing plants and order

tests of materials and ensure adherence to specifications, and approve the sources of materials.

#### 4.2.5 Quantity Measurement and Quality Control

- Provide advance advice to NHA concerning the Schedule of handing over of sites, and possible delays due to lack of possession with a view to assure that the Contractors are given Possession of Site in accordance with the agreed work programs;
- Review and approval of proposal on variation orders and implementation schedule prepared by the Contractor.

# 4.2.6 Approval of Construction Methodology and Equipment of Contractor

- Review, evaluate and approve the planned construction methodology by the Contractor and ensuring that the Contractor has incorporated the most effective and expeditious methodology of carrying out the Works; and ensure in setting up a computerized project control system for reporting physical and financial progress by the Contractor as well as the forecasts, if included in the bids and/or if demanded later on by the NHA. Subsequently, closely monitor the construction progress on regular basis to determine whether it is proceeding in accordance with the approved work program.
- Advising on the selection of Contractor's equipment. Assess minimum construction equipment, plant and machinery requirements, by type and specification, and monitor, keep and regularly update a list of the Contractors' equipment, plant and machinery in order to keep a check on the Contractors' mobilization.

#### 4.2.7 Payment Certificates and Claims of Contractor

Verify the interim and final payment certificates submitted by the Contractor on the basis of measured work items as the case may be having regard to any contractual provision for advance payment and variation of price, certify the completion of the activities / Works or parts thereof and verify indices for Price Adjustment in costs as applicable after ascertaining ex-factory prices before recommending any amount on this account in interim payment certificates (IPCS).



TOR for Construction Supervision of Hoshab – Awaran – Khuzdar Section of M-8 Project Package 01: Hoshab – Awaran (Length: 146 km) (sm)

Page 11

<del>186</del>

Assist NHA in contractual matters with the Contractor (performance bonds, insurances, claims, advance payment guarantees etc.). Assist with interpretation of the Contract Documents, explain and or reconcile any ambiguities and or discrepancies in the Contract Documents, and apply various provisions of the contract documents; and provide NHA all relevant documentation needed for settling disputes (if any) with the Contractors, and make recommendations to NHA for resolving the Contractors' claims, contract time extensions, variation orders, subletting, quantification of claims, rate and price fixing etc.

#### 4.2.8 Maintain Project Record

- ✓ Establish a comprehensive system of maintaining site records including site correspondence, survey data, inspection records, test data, site diaries, records of meetings, financial records, progress records etc.
- ✓ Recommend any modification of complementary items to be necessary to Contractor.
- ✓ Supervising information program on STDs and HIV/AIDs which the Works Contractors are required to carry out at construction campsites.
- Consultant shall prepare movie by Drone Camera for record of all the activity on the project from the date of start to the end and hand over five copies of the same at the time of completion to the Client.

#### 4.2.9 Reporting Requirements

The Consultants shall prepare and submit each of the under mentioned reports to NHA. The format of these reports shall be mutually agreed with NHA.

	•	Inception Report	1 soft + 15 hard soft copies
		Contract Administration Report	1 soft + 15 band soft souise
		and Construction program	1 soft + 15 hard soft copies
		Annual Management	
	•	Information Report at the end	1 soft + 1 soft copies
		of each Financial Year	
1	•	Technical Reports	1 soft + 15 hard soft copies
.\\	•	Progress Reports (monthly)	1 soft + 1 5 hard soft copies
	•	Project Completion Report (PC-	1 goft + 10 band out out
		IV)	1 soft + 10 hard soft copies
	•	Project Documentary	5 copies (soft and hard) $\nu$

•	Updated construction program as required.	1 soft + 5 hard soft copies
•	Roughness Survey reports at substantial completion and expiry of defect liability period	1 soft + 5 hard copies
•	Revised PC-1	1 soft + 50 hard soft copies

#### ✓ Inception Report

The Consultants will submit an Inception Report to NHA after conducting site visit and meetings with NHA officials which indicate the possible design changes observed during design review exclusive supervision methodology, possible sites / Reaches ready to handover to contractor and any other important detail related to project.

#### √ Final Project Completion Report

The Consultants will prepare a comprehensive final Completion Report within thirty (90) days after completion of project (as described in the contract). The Final Completion Report for the project shall summarize the method of construction, as built record of executed work and certification of the satisfactory correction of defects, the construction supervision performed, and recommendations for future projects of similar nature to be undertaken by NHA. This will also include a brief on the performance of the Contractor with particular emphasis on planning and job management at site. His weak and strong points need to be emphasized with clarity.

#### √ Project Documentary Report (Drone movie in CD)

The Consultant has to make documentary of all major activities during constructions as well as that of completed project sections to be submitted towards the end of the project. These should also include;

- i. Laying and compaction of various pavement layers;
- ii. Operation of Asphalt and concrete Plants;
- iii. Quarry sites and laboratory activities;
- iv. Road after completion showing road furniture;
- v. Various important stages in construction of structures;
- vi. Any other major activity involved requiring specific mention.



\*\*\*\*\*\*\*\*

#### CHAPTER NO.5

# STAFFING FOR DESIGN REVIEW AND CONSTRUCTION SUPERVISION

#### 5.1 STAFFING BY CONSULTANTS

- Staff details given at 5.1.2 of TOR.
- The staff as given in section 5.1.2 of TOR has been provided for the said assignment. However, design review and key personnel's for construction supervision staff will be considered for evaluation purpose. The staff of consultant will perform duty as per contract.
- The qualification and experience required of Key Personnel's are detailed at the end of TOR.
- The construction period of project is 36 months. Mobilization of staff schedule is given as under:
  - i. Advance mobilization of Design Review personnel's = 1month.
  - ii. Supervision construction period = 36 months
  - iii. Book / account closing and handing over taking over period =3 months

### Total Duration of Assignment = 40 months

- The mobilization and de-mobilization of Key Personnel shall be with prior written consent of the Client.
- The facilities of Consultants regarding office and residential accommodation at site, site transport, project laboratory with requisite equipment & furniture etc. will be provided as admissible under Works Contract's Bill No.7

# 5.1.1 The mobilization of staff will be as per following:-

Advance Mobilization of key personnel and Design Review taken as under:-

Sr. No.	Sr. No. Description of Personnel		Months	No of days		
A.	Design Review Staff Proposed by Design Section					
1.	Highway Design Engineer	01	01	30		
2.	Structure Engineer	01	01	30		
3. Drainage Engineer/ Hydrologist		01	0.4	12		
4. Quantity Surveyor		01	01	30		
<ul><li>5. Chief Surveyor</li><li>6. Traffic / Pavement Analyst</li></ul>		01	01	30		
		01	0.5	15		
7.	Geotechnical/ Soil & Material Engineer	01	0.4	12		
8.	Draughtsman/ CAD Operator	01	0.5	15		
	Sub-Total (A):	08	6	174		

TOR for Construction Supervision of Hoshab – Awaran – Khuzdar Section of M-8 Project Package 01: Hoshab – Awaran (Length: 146 km) (sm)

Page 14

Mr. of Pal

mg

#### 5.1.2 Staff Requirements

The Services shall be provided by the local Key and Non-Key Personnel, which shall include but not be limited to the following:

Sr. No.	Description of Personnel	No. of Persons	<del></del>	Person- Months
	For Supervision (Key			
В.	Personal)			
9.	Chief Resident Engineer *	1	39	39
10.	Resident Engineer	2	36	72
11.	Material Engineer	2	36	72
12.	Contract Specialist *	1	39	39
13.	ARE (Highways) Engineer	2	36	.72
	ARE Structure / Bridge			
14.	Engineer	. 2	36	72
15.	Quantity Surveyor	2	36	72
	Sub Total (D).	10		400
C.	Sub-Total (B): Non Key Personnel	12	-	438
16.	Non Key Personner			
10.	Material Inspector	4	36	1.4.4
17.	Site Inspectors (Highways)	4	30	144
18.	Ofte inspectors (ingliways)	4	30	120
	Site Inspectors (Structures)	4	36	144
	Surveyors	6	4*30	120
19.			2*36	72
20.	CAD Operator	2	36	72
	Computer Operators *	3	2*36	72
21.			1*39	39
22.	Accountant	2	36	72
23.	Office Assistants	2	36	72
24.	Helpers	10	36	360
25.	Office Boys *	5	4*36	144
			1*39	39
26.	Trainee Engineer **	6	36	216
	Sub-Total (C):	48	-	1686
	Total (A+B+C):	68		2130

<sup>\*</sup>Staffing months given for Construction Supervision & Handing, Overtaking period.

## 5.2 SERVICES AND FACILITIES TO BE PROVIDED BY THE CLIENT

For Supervision purpose of the project Accommodation, Offices, utilities, material testing laboratories and field transportation for consultant staff will be provided under the Works Contracts.

TOR for Construction Supervision of Hoshab - Awaran - Khuzdar Section of M-8 Project Package 01: Hoshab - Awaran (Length: 146 km) (sm) Page 15



1115

<sup>\*\*</sup>Appointment of Trainee Engineer with approval of Member (Planning)

#### 5.3 INDEMNITY OF CLIENT

The Consultants will indemnify the Client against any inaccuracies / deficiencies in the Services of the team of Consultants. The Consultants will be required to obtain and maintain professional indemnity insurance at its own cost as per the latest Pakistan Engineering Council regulations, as reflected in the consultancy agreement, from the date of the appointment of the Consultants till the end of project duration also keeping in view Public Procurement Regulations.

#### 5.4 REVISION OF PC-1 & Preparation of PC-IV

It shall be the responsibility of the construction supervision Consultant to prepare the revised PC-1 of the respective project, before completion of the project, by incorporating all changes in the scope of work and prepare completion report (PC-IV) at completion of the project. To ensure compliance an amount of two per cent (02%) of construction supervision cost will be withheld from interim (monthly) invoices and released along with the final payment of the Consultants on completion of this job.

#### 5.5 TRAFFIC DIVERSION PLAN AND SAFETY MEASURE'S

The Construction Supervision Consultant will make ensure to finalize the proper traffic diversion plan of contract and to provide proper guidelines to contractor to maintain smooth traffic flow and to make ensure proper safety measures to save human life and to avoid any traffic accident during construction.

#### 5.6 QUALIFICATION AND EXPERIENCE REQUIREMENT OF PERSONNEL

The engineering services shall be provided by the local Key Personnel, who will be assisted by Non-Key Personnel. The Qualification and Experience requirements of these Personnel shall include but not be limited to the following:

S.No	Title, Experie	nce, Qualificat	ion & Responsibilities	
Design Review Staff				
1. Highway Design Engineer				
	General		10 Years	
	Experience:			
	Qualification:	Minimum:	B.Sc. (Civil Engineering).	

TOR for Construction Supervision of Hoshab - Awaran - Khuzdar Section of M-8 Project Package 01: Hoshab - Awaran (Length: 146 km) (sm)

Page 16

ms

		Desirable:	M.Sc in highway Engineering
		Marking:	M.Sc. with additional relevant trainings– 100%; M.Sc. – 90%; B.Sc. with additional relevant trainings – 80%; B.Sc. – 70%.
-	Specific Experience:	General	02 years relevant experience and related to construction activities on National Highway Projects.
		Relevant	08 years relevant experience and 8 years of experience in highway geometric and pavement design
		Responsibilities:	He/She will be responsible for detailed design involving geometric design, designs for road features and road safety/traffic control features, drainage designs, rehabilitation and repair plan, traffic plans and amenities including detailed drawings and specifications. He/she will propose if required, during construction any modification and change in design, construction method and alternate technology of construction.
2.	Structure Er	ngineer	tooling) of construction.
	General Experience:		10 Years
	Qualification:	Minimum:	B.Sc. (Civil Engineering)
		Desirable:	M.Sc (Structure Engineering).
		Marking:	M.Sc. with additional relevant trainings–100%; M.Sc. – 90%; B.Sc. with additional relevant trainings – 80%; B.Sc. – 70%.
	Specific Experience:	Relevant:	Eight (08) years' experience as Structure Design Engineer of National Highways' Bridges and other roadway structures and two (02) years' experience involved in structure design on the other Highway /road project in the country or abroad.  Age of expert should not be more than
	-		60 years on the date of proposal submission.
		General:	Two (02) years' experience as Structure Design Engineer of Highways'/ Bridges or involved in supervision of bridges and structure.
		Responsibilities:	• Inspect the site and collect the condition data for the design review and necessary changes if any.
			Provide details about existing structures, damages and assessment.

[				
			<ul> <li>Review and recommend approval and/or issuing working drawings, approval of the setting out of the works, and instruction to the contractor.</li> <li>Inspecting the works at appropriate intervals during the defects liability period and issuing the defects liability certificate.</li> </ul>	
3.	Drainage Eng	ineer / Hyd	rologist	
	General Exp	erience: 15	years	
	Qualification	Bachelor's Masters in	degree in Civil Engineering- preferably Hydrology or Drainage engineering.	
	Marking:	M.Sc. with 90%; B.Sc. B.Sc 70%	additionl relevant trainings— 100%; M.Sc. — with additional relevant trainings — 80%;	
	Specific	10 years re	levant experience and 8 years of experience	
	Experience	hydrologica	al design of roads and bridges. Minimum 3 design projects.	
	Responsibiliti		esponsibilities shall include but not	
	es	limited to t	he following tasks:	
		He/she wil	l Provide assistance to the design team	
		in designing	ng the appropriate and cost effective	
		design/des	sign review of drainage structures.	
4.	Traffic / Pave	ment Analy	st	
	General Experie			
			degree in Civil Engineering – preferably	
		Masters	in Civil Engineering / Highway	
	Qualification		g / Transportation Engineering or	
	Marking:	M.Sc. with a 90%; B.Sc. B.Sc 70%.	dditional relevant trainings— 100%; M.Sc. — with additional relevant trainings — 80%;	
		12 years'	experience in major roads or highway	
		designing	with a focus on Traffic / pavement	
	Specific	analysis.	, 1	
	Experience			
5.	Geotechnical	Soil & Mat	erial Engineer	
	General		10 Years	
	Experience:			
	Qualification:	Minimum:	B.Sc. (Civil Engineering/ Geo-Technical Engineering)/ M.Sc. (Geology).	
	C. S. L.	Desirable:	M.Sc. (Civil Engineering/ Geo-Technical Engineering).	
13	Hilliam 35	Marking: Ph.D. (Civil Engineering)/ M.S		
stion		(Geotechnical Engineering) – 100% I		
		(Civil Engineering) / B.S		
11/2/	75/1		Engineering) with additional relevant trainings from recognized organizations-	
165	of Pakislan	i	85%; M.Sc.(Civil Engineering)/B.Sc.	
100	of divi		(Geotechnical Engineering)-70%. B.Sc.	

MIS

· · · · · ·			(Civil Engineering) 600/	
	0 '.C.	D 1	(Civil Engineering)-60%.	
	Specific	Relevant:	Eight (08) years' relevant experience Geo –	
1	Experience:		Tech Engineer on construction	
	-		supervision projects of National Highways.	
		General:	two (02) years' general experience as	
			Material Engineer on construction	
			supervision projects of National Highways.	
		Responsibil	Responsible for geotechnical	
1		ities:	investigations and subsurface	
			explorations for road and structures,	
			stipulate material testing procedures and	
			specifications, identify sources of	
			materials, quarry sites and borrow areas.	
			Geotechnical Engineer will review the	
			design and if required during construction	
			any modification and change in design,	
			construction method, alternate technology	
			of construction and provide oversight	
			during the consultancy service.	
6.	Hydraulic & Drainage Engineer			
	General		18 years	
1	Experience:			
	Qualification:	Minimum:	M.Sc. (Civil Engineering) with	
			specialization in Hydrology/Hydraulic	
			Engineering.	
		Desirable:	PhD. (Civil Engineering) with	
			specialization in Hydrology/Hydraulic	
			Engineering.	
		N/1-i		
		Marking:	PhD 100%; M.Sc. with additional	
			relevant trainings from recognized	
			organizations – 90%; B.Sc. with	
			additional relevant trainings from	
			recognized organizations - 80%; B.Sc.	
			70%.	
	Specific	Minimum:	Ten (10) years' experience as	
	Experience:		Hydrology/Hydraulic Specialist on	
	_		National Highway projects. Experience	
			of designing/ design review of Bridge	
			structure will be given special	
]			consideration.	
		1	COMBIGUIAGOII.	



mg

	<u> </u>	Daginal-1-	Overlified Civil Desires - 15
		Desirable:	Qualified Civil Engineer, having 15 years total experience and 10 years specific experience. He is responsible for carrying out the Hydrological study of the area and submits the Hydraulic Report. He also has to perform Hydrologic Analysis. Hydrology and Hydraulic design of the structures are his responsibility. Draining Engineer has also make sure to take measure for the proper disposal of the water. Preparation of Detailed Design Drawing, Technical Specification B.O.Q for Hydraulic Structure work element based on the Design Drawings, Specifications and site investigations are his
			responsibility.
	Supervision (1	<del></del>	
7.	Chief Residen General	t Engineer	10 22000
	Experience:		18 years
1	Qualification:	Minimum:	B.Sc. (Civil Engineering).
	•	Desirable:	M.Sc. (Highways Engineering).
		Marking:	M.Sc. with additional relevant
			trainings- 100%; M.Sc 90%; B.Sc. with additional relevant trainings - 80%; B.Sc 70%.
	Specific	Relevant	Fifteen (15) years' experience as
	Experience:		Resident Engineer on construction supervision of National Highway projects.  The Personnel is encouraged to attach at least two (02) references of high quality workmanship duly verified by the respective client(s).  Age of expert should preferably be not more than 60 years on the date of submission of proposal.
į		General:	Three (03) years general experience of supervision or execution of construction of Highway projects in the country or abroad.
Notice of	Cont. of Palis &	Responsibilities	The CRE / Team Leader will head the Consultants' team and will work directly to manage the project and will maintain liaison with NHA.  Responsibilities of the CRE / Team Leader will include, but is not limited to the following:-  • Assist the NHA in Project

implementation.

- Assume full responsibility for the consulting team and performance of services under the consultancy contract.
- Ensure that the consulting team undertakes comprehensive review of the designs and specifications which were prepared by the design consultant.
- Ensure that the consulting team undertakes comprehensive construction supervision and contract administration of the civil works.
- Oversee the consultants activities ensuring compliance to details provided in the construction drawings and strict adherence to construction specifications.
- Oversee and supervise construction of works in accordance with details provided in the construction drawings ensuring strict adherence to construction specifications.
- Ensure preparation of detailed and quantitative progress reports to support the contractor's requests for progress payments.
- Keep the Employer informed of technical issues and progress of all works both by informal and formal meetings and correspondence and assist in any project issue which the Employer may require.
- Ensure implementation of environment and other related requirements.
- Assist the Employer in preparing responses to audit objections and queries of the financiers or other Government Authorities.
- Coordinate with all concerned Employer's organizations on project issues.

8. Resident Engineer

General
Experience:

Qualification:

Minimum:
B.Sc. (Civil Engineering).

Desirable:

M.Sc. (Civil/Transportation Engg).

TOR for Construction Supervision of Hoshab – Awaran – Khuzdar Section of M-8 Project Package 01: Hoshab – Awaran (Length: 146 km) (sm) Page 21

Mas

	Marking:	M.Sc. with additional relevant trainings
		from recognized organizations - 100%;
		M.Sc 90%; B.Sc. with additional
		relevant trainings from recognized
		organizations – 80%; B.Sc. – 70%.
Specific	Relevant	Ten(10) years of relevant experience
Experience:		including experience as a Resident
		Engineer on construction supervision
		of National Highway projects.
		The Personnel is encouraged to attach
		at least two (02) references of high
		quality workmanship duly verified by
		the respective client(s).
		Age of expert should preferably be not
		more than 60 years on the date of
		submission of proposal.
	General:	Five (05) years general experience of
		supervision or execution of
		construction of Highway projects in the
	D	country or abroad.
	Responsibility:	RE will be responsible for construction
		supervision of the road and ensuring
		that the subject project is implemented in accordance with the required
		in accordance with the required specification and approved drawings.
		He will be responsible for construction
		supervision and review and approval of
		contractor's bills. RE will assist the
		Project Coordinator in the performance
		of his tasks. The main responsibilities
		of the position will include but not
		limited to the following:-
		• Inspect the site and collect the
		condition data for the design review
		and necessary changes if any.
		• Preparation of technical details
		such as specifications and estimates.
		estimates.
		Provide details about existing
		pavement, damages and
		assessment.
		Assist the Project Coordinator and
		recommend approval of contractor's
		work program, method statements,
		material sources, etc.
Highway		Assist the Project Coordinator in
11/11/11/11		preparing and issuing reports as
13/2000		defined subsequently.
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		Review and recommend approval
No Constant		and/or issuing working drawings,
COT Pal		approval of the setting out of the
		works, and instruction to the
		<u> </u>

mos

	T	T	contractor
			contractor.
			• Taking measurements and keep measurement records.
			• Maintaining records,
		_	correspondence, and diaries.
9.	Material Engi	neer	
	General Experience:		12 Years
	Qualification:	Minimum:	B.Sc. (Civil Engineering/ Geo-Technical Engineering)/ M.Sc. (Geology).
		Desirable:	M.Sc. (Civil Engineering/ Geo- Technical Engineering).
		Marking:	M.Sc. (Civil Engineering/ Geo-Technical Engineering) with additional relevant trainings from recognized organizations – 100%; M.Sc. (Civil Engineering/ Geo-Technical Engineering) – 90%; B.Sc. (Civil Engineering/ Geo-Technical Engineering)/ M.Sc. (Geology) with additional relevant trainings from recognized organizations – 80%; B.Sc. (Civil Engineering/ Geo-Technical Engineering)/ M.Sc. (Geology) – 70%.
	Specific Experience:	Relevant	Eight (08) years' relevant experience as Material Engineer on construction supervision projects of National Highways involves asphalt concrete mix design in countries with hot climate and/or truck overloading problems including having experience to control testing at site, material testing and road pavement formation and other all related construction activities including concrete and highway embankment formation. He should have good command on internal and structure code closure e.g. AASHTO, ASTM and specification and standard of NHA alongwith field testing, concern Asphalts related all testing and mix design.  The Personnel is encouraged to attach at least three (03) references of high quality workmanship duly verified by the respective client(s).  Age of expert should preferably be not more than 55 years on the date of submission of general proposal.
Carro	Pakistail	General	Four (04) years' relevant experience as Material Engineer on construction supervision projects of National Highways.

mg

Responsibilities: He/she

He/she will assist and will be responsible for quality of materials used in construction by performing field and laboratory tests and certifying their acceptance based on recommended specifications for the material, will also identify the sources of material and query sites.

Main responsibilities of the position will include but not limited to the following:-

- Stipulate Material Testing Procedures and Specifications.
- Identify sources of materials, quarry sites and borrow areas.
- Confirm the suitability and availability of material in the borrow pits and quarries for earthwork and pavement.
- If required, identify and evaluate additional sources of materials.
- Undertake field and laboratory testing of the materials to determine their suitability for various components of the work.
- Prepare mass haul diagram for haulage purposes giving quarry charts indicating the location of selected borrow areas, quarries and the respective estimated quantities.
- Make suitable recommendations regarding making good the borrow and quarry areas after the exploitation of materials for construction of works.
- Be responsible for Material Testing and specification and certification of material quality.
- Preparation and testing of concrete mixes of different design mix grades using suitable materials (binders, aggregates, sand filler etc.) as identified during Material Investigation to conform to



			specification applicable in Pakistan.
10.	Contract Spec	cialist	
	General Experience:		12 Years
	Qualification:	Minimum:	Bachelor's degree with a major in Civil Engineering, Law, Contracts, Purchasing, or Management
		Desirable:	Master degree with a major in Civil Engineering, Law, Contracts, Purchasing, or Management
		Marking:	M.Sc. with additional relevant trainings– 100%; M.Sc. – 90%; B.Sc. with additional relevant trainings – 80%; B.Sc. – 70%.
	Specific Experience:	relevant	12 years' international experience as Contract Specialist on major road projects based on FIDIC form / conditions of contract, Experience and knowledge of ADB's procurement procedures is essential. Proven credentials in contract administration, evaluating contractor's claims and dispute resolution, preferable experience/track record of an arbitrator, mediator, adjudicator and/or dispute resolution adviser.
	Wattons of bandus	Responsibilities	<ul> <li>Assist to organize meetings for negotiating and resolving technical and contract completion issues;</li> <li>Assist Employer and TL in effect the timely distribution of reports and pertinent commercial information to and from Contractors in accordance with agreed schedule.</li> <li>Assist in schedule turnover meetings with Site Personnel, where required.</li> <li>Assist to check timesheets for contract conformance (rates, backup and extensions).</li> <li>Assist in review of Contractors' invoices and prepare Progress Payment Certificates with Cost Control.</li> <li>Assist in review of Contractors' costs, forecasts and requests for extras.</li> <li>Assist in review and issue for approval and post Substantial Performance documents.</li> <li>Participate in contract cost review meetings and regular Project progress and assist with preparation of monthly contracts and Project progress reports.</li> </ul>

11.	ARE (Highwa	ys) Engineer	
	Experience		10 Years
	Qualification	Minimum:	B.Sc. (Civil Engineering).
		Desirable:	M.Sc. (Civil/Structure/ Bridge
			Engineering).
		Marking:	M.Sc. with additional relevant trainings
			from recognized organizations – 100%; M.Sc. – 90%; B.Sc. with additional
			relevant trainings from recognized
			organizations – 80%; B.Sc. – 70%.
	Specific	Relevant	Six (06) years' relevant experience of
	Experience		supervising construction of National
			Highways projects as
			Highway/Structure/Bridge Engineer on
			National Highways projects.  The Personnel is encouraged to attach
			at least three (03) references of high
			quality workmanship duly verified by
			the respective client(s).
			Age of expert should preferably be not
			more than 55 years on the date of
		0 1	submission of proposal.
1		General	Four (04) years' general experience of construction supervising or execution
			of National Highways projects.
		Responsibility	His/her responsibilities shall
			include but not limited to the
			following tasks:
			He/she will assist the Resident
			Engineer(R.E) and will be
			responsible for quality of Road
			works. He will perform his/her
			duties as per consultant. To ensure
			quality execution and timely
			completion of project.
12.		e / Bridge Engin	T
	General Experience		10 Years
	Qualification:	Minimum:	B.Sc. (Civil Engineering).
	Quamication.	Desirable:	M.Sc. (Structure/ Bridge Engineering).
		Marking:	M.Sc. with additional relevant trainings
		1,	from recognized organizations – 100%;
			M.Sc. – 90%; B.Sc. with additional
			relevant trainings from recognized
	G 12		organizations – 80%; B.Sc. – 70%.
	Specific	Relevant:	Six (06) years' relevant experience of
Way	Experience:		supervising construction of National Highways projects as Structure/ Bridge
Markey			Engineer on National Highways
13			projects.
TAY S	1		The Personnel is encouraged to attach
			at least three (03) references of high
Pakis			quality workmanship duly verified by
			the respective client(s).

		1	Age of expert should preferably be not
			more than 55 years on the date of
			submission of proposal.
	1	General:	Four (04) years' relevant experience of
			construction supervising or execution
			of National Highways projects as
			Structure / Bridge Engineer on
			National Highways projects.
	1	Responsibility:	The AER Structure / Bridge
		•	Engineer will perform duties under
			the guidance of the Team Leader.
			He/she will assist the Team for the
			Design Review particularly the
			bridges and structures so that the
1			project is implemented in
			accordance with the required
			specifications and approved
			drawings. She/he will set up
			supervision systems, and train the
			consultant's national staff in their
			use.
13.	Material Engi	neer	
	General		12 Years
	Experience		
	Qualification:	Minimum:	B.Sc. (Civil Engineering/ Geo-Technical
			Engineering) / M.Sc. (Geology).
		Desirable:	M.Sc. (Civil Engineering/ Geo-
		3.5 1 '	Technical Engineering).
		Marking:	M.Sc. (Civil Engineering/ Geo-
			Technical Engineering) with additional
			relevant trainings from recognized
			organizations – 100%; M.Sc. (Civil Engineering/ Geo-Technical
			Engineering) – 90%; B.Sc. (Civil
			Engineering/ Geo-Technical
			Engineering) M.Sc. (Geology) with
			additional relevant trainings from
			recognized organizations – 80%; B.Sc.
			(Civil Engineering/ Geo-Technical
			Engineering)/ M.Sc. (Geology) – 70%
	Specific	Relevant:	eight (08) years' relevant experience as
	Experience:		Material Engineer on construction
	_		supervision projects of National
			Highways involves asphalt concrete mix
			design in countries with hot climate
			and/or truck overloading problems
The state of the s			including having experience to control
MORNIN			testing at site, material testing and
			road pavement formation and other all
1.3			related construction activities including
李[三]			concrete and highway embankment
1,00			formation. He should have good
3/13/			command on internal and structure
	L		code closure e.g. AASHTO, ASTM and

			specification and standard of NHA
			alongwith field testing, concern
			Asphalts related all testing and mix design.
			The Personnel is encouraged to attach
			at least three (03) references of high
			quality workmanship duly verified by
			the respective client(s).
			Age of expert should preferably be not
			more than 55 years on the date of
			submission of general proposal.
		General:	Four (04) years' general experience as
			Material Engineer on construction
			supervision projects of National
			Highways or may be involves as a
			Material Engineer for execution of road
			projects.
		Responsibility:	He/she will assist and will be
			responsible for quality of materials
			used in construction by performing
			field and laboratory tests and certifying
			their acceptance based on
			recommended specifications for the
			material, will also identify the sources
			of material and query sites.
			• Stipulate Material Testing
			Procedures and Specifications.
			Identify sources of materials, quarry sites and borrow areas.
			Confirm the suitability and availability of material in the borrow pits and quarries for earthwork and pavement.
			Undertake field and laboratory testing of the materials to determine their suitability for various components of the work.
Aug			Prepare mass haul diagram for haulage purposes giving quarry charts indicating the location of selected borrow areas, quarries and
			the respective estimated quantities.
Yakistis.			Be responsible for Material Testing and specification and certification of material quality.
			matorial quanty.
14.	Quantity Sur	veyor	
	General		10 Years
	Experience	<u></u>	
<b>I</b>	Qualification:	Desirable:	B.Sc. (Civil Engineering).

was

		1					
		Marking:	B.Sc. with additional relevant trainings				
			from recognized organizations - 100%;				
			B.Sc. – 90%; DAE (Civil) – 70%.				
	Specific	Relevant:	Eight (08) years' relevant experience as				
1	Experience:		Quantity Surveyor on Civil Works				
	•		projects on Highway construction				
			projects. Age of expert should				
			preferably be not more than 55 years				
			on the date of submission of proposal.				
			He should have the experience to				
			handle claims variation order's and				
			other quantity related issues.				
		General:	Two (2) Years' relevant experience as				
			Quantity Surveyor on Civil Works				
			projects on Highway construction				
			projects.				
		Responsibility:	His/her responsibilities shall include				
			but not limited to the following tasks:				
			He/she will assist Resident Engineer in				
			verification of payment certificates.				
			He/she will be responsible for				
			verification of executed quantities. He				
			should having good command on his				
	Non-Key Pers	onnel	working.				
15.		terial Inspectors					
13.	General		E Vocas				
			5 Years				
	Experience	7	D.G. (C) 11 D				
	Qualification:	Minimum/	B.Sc. (Civil Engineering from				
		Desirable:	recognized university of Pakistan.				
		Relevant:	Three (03) years of relevant experience				
			in construction of Highway projects as				
			Material Inspector.				
	Specific	General:	Two (02) years of General experience in				
	Experience:		construction of Highway projects as				
			Lab Technician either working for				
			contractor. Age limit is not more than				
			40 years.				
		Responsibility:	His job description and duties will be				
			defined by the Resident Engineer and				
			approved by the Client. However he has				
			experience of field testing of Highway				
			embankment an pavement structure				
			and Asphalt testing.				
16.	Site Inspector	ite Inspectors (Highways)					
	General	,	03 Years				
	Experience						
	Qualification:	Minimum/	B.Sc. (Civil Engineering from				
A STAN	2	Desirable:	recognized university of Pakistan.				
1/3/	Specific	Relevant:	Three (03) years of relevant experience				
1-3311	Experience:	itolovani.	in construction of Highway projects as				
	DAPCHEHEE.		Material Inspector.				
\[\frac{1}{2} \* \]		Responsibility:	His job description and duties will be				
1508		responsibility:	defined by the Resident Engineer and				
プサバノン。//							
W(30)			approved by the Client. However he has				

MISS

			experience of field testing of Highway embankment an pavement structure and Asphalt testing.					
17.	Site Inspectors (Structures)							
	General		03 Years					
	Experience							
	Qualification:	Minimum/ Desirable:	B.Sc. (Civil Engineering from recognized university of Pakistan.					
	Specific	Relevant:	Three (03) years of relevant experience					
	Experience:		in construction of Highway projects as Material Inspector.					
		Responsibility:	His job description and duties will be defined by the Resident Engineer and approved by the Client. However he has experience of field testing of Highway embankment an pavement structure and Asphalt testing					
18.	Surveyors							
	General		12 Years					
	Experience		,					
	Qualification:	Minimum:	DAE – Civil from the Board of Technical Education's recognized institute.					
		Desirable:	B.Sc. (Civil Engineering).					
	Specific Experience:	pecific Relevant: Eight (08) years' experience						
		General:	Four (04) years' experience of surveying/leveling and related activities on National Highway Projects. Age limit is not more than 45 years.					
		Responsibility:	His job description and duties will be defined by the Resident Engineer and approved by the Client. He is enable to hand survey related activation independently e.g ready of cross-section, Maintain survey, level book, structure layout as per drawing, to check structure layout as per drawing.					
19.	CAD Operator							
	General Experience		05 Years					
	Qualification:	Minimum:	DAE – Civil from the Board of Technical Education's recognized institute. Certificate Auto-CAD Software Operator.					
	Specific Experience:	Relevant:	Three (03) years' experience of drafting engineering drawings/ designs on Auto-CAD software.					
		General:	Two (02) years' experience of drafting engineering drawings/ designs on Auto-CAD software. Command on latest version of software is shall be recommended.					
and the same of th		Responsibility	His responsibilities shall include but					
	<u> </u>	1 1	L Dut					



			not limited to the following tasks: His job description and duties will be defined by the Resident Engineer and approved by the Client.			
20.	Computer Operators					
	General Experience		5 Years			
	Qualification:	Minimum/ Desirable:	B.A and have computer relevant certificates.			
	Specific Experience:	Relevant:	Three (03) years' experience of office management, typing with 30 words per minute typing speed.			
		General:	Two (02) years' experience of office management/ training of computer software related to office and typing with 40 words per minute typing speed.			
		Responsibility:	His responsibilities shall include but not limited to the following tasks: His job description and duties will be defined by the Resident Engineer and approved by the Client. Generally he will assist the Consultants and Client's representative in all drafting, reports preparation and like activities as per demand.			
21.	Accountant					
	General Experience		05 Years			
	Qualification:	Minimum:	B.Com from recognized institute.			
		Desirable:	Master's Degree in Accounts			
	Specific Experience:	Relevant & General:	Five (05) years of relevant experience in case of B.Com or three (03) years of relevant experience in case of Master's Degree in Accounts.			
		Responsibility:	His responsibilities shall include but not limited to the following tasks: His job description and duties will be defined by the Resident Engineer and approved by the Client. Generally he will be responsible for monitoring of the project accounts.			
22.	Office Assista	nts				
	General Experience		5 Years			
	Qualification:	Minimum/ Desirable:	B.A./ B.Sc.			
		Relevant	Three (03) years' experience of office management/ training of computer software (M.S. Office) and typing with 40 words per minute typing speed.			
		Responsibility	His responsibilities shall include but not limited to the following tasks: His job description and duties will be defined by the Resident Engineer and			

Highwa



			approved by the Client.			
23.	Trainee Engineer					
	Qualification:	,	B.Sc.	`	0 0	from
		Desirable	recognized university of Pakistan.			

#### **Special Note:**

- (1) For Specific Experience the ratio of weight age for marking between Minimum & Desirable shall be 70:100 respectively;
- (2) The number of years of Specific Experience (minimum or desirable) for evaluation purpose will be counted from the minimum specified academic qualification; the Key Personnel bearing a higher qualification in the relevant field will have Specific Experience requirement reduced as per following example formulae:

Specific Experience after Bachelor: X years Specific Experience after Masters: X-2 years Specific Experience after Ph.D.: X-4 years

(3) Final selection of the Personnel shall be made on successful interview by the Client.



nns