

NATIONAL HIGHWAY AUTHORITY

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

No. 6(427)/GM (P&CA)/NHA/17/439

ÍĹ. **7** March, 2017

Director General

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

Subject: ANNOUCNEMENT OF EVALUATION REPORT (PPRA Rule-35): Consultancy Services for Construction Supervision of 6-Lane Highway from Kala Shah Kaku to Lahore Ring Road (Lahore Eastern Bypass)

Reference: PPRA Rule-35

Kindly find attached the duly filled and signed Evaluation Report along with Bid Evaluation Criteria (Annex-I) pertaining to the procurement of subject services in view of above referred PPRA Rule-35 for uploading on PPRA website at the earliest, please.

(Muhammad Azam) Director (P&CA)

Encl: Evaluation Report along with Annex-I

Copy for kind information to:

- Member (Planning), NHA
- Member (Engineering-Coord), NHA
- General Manager (P&CA), NHA
- S.O (Tech.) to Chairman, NHA

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 Envelop Procedure
3.	Title of Procurement:	Consultancy Services for Construction Supervision of 6- Lane Highway From Kala Shah Kaku to Lahore Ring Road (Lahore Eastern Bypass).
4.	Tender Inquiry No.:	6(427)
5.	PPRA Ref. No. (TSE):	TS298921E
6.	Date & Time of Bid Closing:	3 rd January, 2017 at 1130 hours local time
7.	Date & Time of Bid Opening:	3 rd January, 2017 at 1200 hours local time
8.	No of Bids Received:	Eight (08) 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

٩

¢

	Ma	rks		Rule/Regulation/SBD*/Poli	
Name of Bidder	Technical (if applicable)	Financial (if applicable)	Evaluated Cost (PKR)	cy/ Basis for Rejection / Acceptance as per Rule 35 of PP Rules, 2004.	
1) M/s Zeeruk International (Pvt.) Ltd.	593	179	31,567,432	Top scoring firm in combined evaluation (PPRA Rule 36(b) (ix))	
2) M/s Republic Engineering Consultants in JV with M/s PEAS (Pvt.) Ltd.	568	200	28,280,877	2 nd	
3) M/s National Engineering Services Pakistan NESPAK (Pvt.) Ltd.	603	145	39,034,016	3 rd	
4) M/s Engineering General Consultants (Pvt.) Ltd. in JV with M/s Techno Consult International (Pvt.) Ltd.	601	122	46,200,686	4 th	
5) M/s Associated Consulting Engineers – ACE (Pvt.) Ltd. in JV with M/s Prime Engineering and Testing Consultants(Pvt.) Ltd.	590	124	45,521,917	5 th	
6) M/s Asif Ali & Associates in JV with M/s AA. Associates (Pvt.) Ltd. and M/s Engineering Consultancy Services Punjab (Pvt.) Ltd.	590	105	54,001,423	6 th	
7) M/s EA Consulting (Pvt.) Ltd.	564	117	48,251,360	7 th	
8) M/s LOYA Associates	428	-	-	PPRA Rule 36(b) (v)	

Top Ranked Bidder: M/s Zeeruk International (Pvt.) Ltd.

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.

R

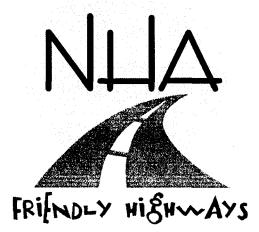
Official Stamp:

Signature:

*Standard Bidding Documents (SBD).

National Highway Authority

٠.



Annex-I

Criteria

FOR

Bid Evaluation

Consultancy Services for Construction Supervision of 6-Lane Highway From Kala Shah Kaku to Lahore Ring Road (Lahore Eastern Bypass).

March, 2017



NATIONAL HIGHWAY AUTHORITY

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

Ref: 6(427)/GM (P&CA)/NHA/16/2014

26th December, 2016

All Prospective Consultants

- Subject: <u>Minutes of Pre-Proposal Conference for:</u> <u>Consultancy Services for Construction Supervision of 6-Lane</u> <u>Highway from Kala Shah Kaku to Lahore Ring Road (Lahore</u> <u>Eastern Bypass)</u>
- Reference: Request for Proposal Notice for subject Services appeared in daily newspapers on 9th December, 2016

The Minutes of Pre-Proposal Conference held in NHA Auditorium (HQ) on 15th December, 2016 for subject Services being integral part of the Request for Proposal, are enclosed herewith, for necessary action, please.

(Muhammad Azam) Director (P&CA)

Enclosure:

Minutes of Pre-Proposal Conference (03 Pages)

Copy for kind information to:

- Member (Engineering Coordination), NHA, Islamabad;
- General Manager (P&CA), NHA, Islamabad;
- Office Copy.

MINUTES OF PRE-PROPOSAL MEETING HELD ON 15th December 2016

<u>Consultancy Services for Construction Supervision of 6-Lane Highway from Kala Shah Kaku to</u> <u>Lahore Ring Road (Lahore Eastern Bypass)</u>

A Pre-Proposal Meeting was held in NHA Auditorium at 1100 hours on 15th December, 2016 to discuss the Request for Proposal (RFP) for subject Services. Following NHA officers and representatives of prospective consultants attended the meeting:

. . .

. . .

...

General Manager (Planning)

Deputy Director (P&CA) - II

M/s EA Consulting (Pvt.) Ltd.

M/S MM Pakistan (Pvt.) Ltd.

A 6

General Manager (Design)

Director (P&CA) - III

M/s REC (Pvt.) Ltd.

National Highway Authority

- Mr. Arbab Ali
- Mr. Asim Amin
- Mr. Muhammad Azam
- Mr. Dawood Khan
- Consultants
- Mr. Haris Aqil
- Mr. Tanveer Ahmad
- Mr. Muhammad Abdul Hameed

2. The queries submitted during the above mentioned pre-proposal meeting and their clarifications/ replies are summarized below for information of all prospective bidders:

Sr. No.	Queries	Reply
1.	Refer to page-58 for Key Personnel, we think that ARE (Highways) should also be provided to assist Team Leader/ Resident Engineer for supervision of Highway/ Motorway and Ramps of Interchanges, Bridges and Flyovers including allied activities.	We find it adequate; however, the consultants may utilize the provision under Foot Note under Tech-4 "Comments/ Suggestions of Consultant" of Request for Proposal.
2.	Refer Clause 4.4 "Time of Construction" on page 59 of the RFP, which indicates 15 months only which is contradictory to Time Period mentioned as 30 Months under article 2.4 "Time Period" given on page 49. Please clarify.	The three Person Months are intermittent, for periodic inspection and finalization of bill, spread over [the Defect Liability Period (DLP) and three more months] fifteen months.
3.	Refer Article 4.1.2 "Staff Requirements" on page 58 of the RFP .In table of Key Personnel, the position of "Contract Specialist/ Engineer" is missing for resolving issues of Variation, Claims and Time Extension cases; if required.	The Engineer and Resident Engineer shall fulfill this responsibility.
4.	Under Article 4.6 on page 60, the position of "The Engineer" is not shown in the Table of Key Personnel Table as well the period of services in the form of Man-Months. Please clarify.	The Engineer shall be provided by the consultant as complementary service and no person month shall be paid by NHA. However, NHA reserves the right to replace the Engineer as per COC signed with the Contractor.
5.	The desirable qualification for "The Engineer", "Team Leader/ Resident Engineer" and "Bridge Engineer" mentioned on page 60 & 61 of the	Not acceded to, proceed as per RFP, please.

Minutes of Pre-proposal Meeting for Consultancy Services for Construction Supervision of 6-Lane Highway from Kala Shah Kaku to Lahore Ring Road (Lahore Eastern Bypass)

Sr. No.	Queries	Reply
	RFP may please be relaxed to minimum B.Sc. (Civil Engineer) for construction supervision activity.	
6.	We understand that the Design Review of the 6- Lane Highway from Kala Shah Kaku to Lahore Ring Road (Lahore Eastern bypass) will not be the responsibility of the construction supervision consultant. However, in case of any ambiguity in design the issue will be referred to the Design consultant through the Client (NHA).	Agreed.
7.	Mitigation of encroachments within the ROW of the project will be the responsibility of the Client in addition to interfacing with the concerned agencies for relocation of existing utilities; if identified any at Site.	Client is well aware of its obligations regardin Project implementation.
8.	Land acquisition issues wherever for the construction of the project within its limits, will be resolved by the Client under their responsibility. Please clarify.	Same as above
9.	We anticipate that the Client will provide secondary data along with all reports including design calculations and drawings to render the consultancy services in professional manner.	Yes, the Client will provide whatever desig documents relevant to the subject project will be available with the Client.
10.	Refer Clause 3.1.4 (iii) of the Data Sheet on page 12 of RFP the condition of permanency of proposed Key Personnel with the firm for construction supervision who are employed with the consultants at least six months prior to submission of proposal may please be waived off	Not acceded to, proceed as per RFP, please.
11.	Please refer Clause 4.4 of the "Data Sheet" of RFP; wherein date and time for submission of proposal is mentioned as 11:30 hours on 3^{rd} January, 2017 which may be enhanced for at least another two (02) weeks for preparing a sound proposal and to form proper JV with another suitable consultancy firm.	Not acceded to, proceed as per RFP, please.
12.	Please refer to Clause 4.1.2., staff requirements. The man months of the subject project are much lesser as compared to the other projects of similar size e.g. Packages of Yarak Hakla Motorway. The subject project is also around 16 Billion in two (02) Packages. We are of the opinion that the staff mentioned in RFP is not adequate for supervision of these two packages of the subject project. Consequently, following staff should be added in addition to proposed staff already mentioned in TOR:	We find it adequate; however, the consultants ma utilize the provision under Foot Note under Tech- "Comments/ Suggestions of Consultant" of Request for Proposal.
	 One Resident Engineer Two Assistant Resident Engineers One Bridge Engineer 	

4

`

Minutes of Pre-proposal Meeting for Consultancy Services for Construction Supervision of 6-Lane Highway from Kala Shah Kaku to Lahore Ring Road (Lahore Eastern Bypass)



Sr. No.	Queries	Reply
	One Material EngineerOne Quantity Surveyor	
	Additional non key staff in the same proportion	
13.	Please refer to Clause 2.4, Time Period of TOR. The time allocated for the subject project is Thirty months (30) whereas as per clause 4.1, time for construction is 15 months followed by a defect liability period of 12 months. Please clarify.	Refer to clarification given at Sr. No.2, please.
14.	Please refer to Clause 3.2.3 of TOR. It is mentioned that consultant will assist NHA for establishment of the basic overall project construction schedule, budget and cash disbursement schedule. In view of the said tasks, Man Months of Planning Engineer may also be added to TOR.	Refer to clarifications given at Sr. No.1 and 12, please.
15.	Please refer to Clause 4.1.1 of TOR. Three months for Resident Engineer are added to finalize the contract. However, no man months have been added for Resident Engineer required on intermittent basis in the period between completion of work to the end of Defect Liability Period. Please clarify	Refer to clarification given at Sr. No.2, please.
16.	Please refer to Clause 4.1.1 of TOR. 3 months are added for Office Boy as a special extension after completion of works but no months are added in Staff requirements, 4.1.2, for the same.	Agreed, the total Person Months of Office Boys shall be 48 in lieu of 45. Please incorporate accordingly in Financial Proposals.
17.	Refer to Clause 4.5, Revision of PC-I. Tasks of Revised PC-I and PC-IV (Completion Report) are added in the tasks of Construction Supervision Consultants but no provisional sum is provided in Direct/ Non Salary Costs, Fin-6, under Financial Proposal Forms.	Please read the line item under FIN-6 Direct/Non-Salary Costs at Sr. No.4 i.e. "Others not covered above to comply with TOR requirements" and the corresponding footnote that may help.

... 000 0 000 ...

S

C:

Minutes of Pre-proposal Meeting for Consultancy Services for Construction Supervision of 6-Lane Highway from Kala Shah Kaku to Lahore Ring Road (Lahore Eastern Bypass)

FINAY.

tan

National Highway Authority



REQUEST FOR PROPOSAL

Consultancy Services for

Construction Supervision of 6-Lane Highway from Kala Shah Kaku to Lahore Ring Road (Lahore Eastern Bypass)

(Page 1 to 118)

DECEMBER, 2016

Table of Contents

Sr. #	Description	Page No.
1.	Letter of Invitation (LOI)	01
2.	Instructions to Consultants (Annex A)	03
3.	Data Sheet (Annex B)	10
4.	Technical Proposal Forms	18
5.	Financial Proposal Forms	34
6.	Appendix A (Terms of Reference)	44
7.	Appendix B (Person-Months and Activity Schedule)	67
8.	Appendix C (Client's Requirements from the Consultants)	68
9.	Appendix D (Personnel, Equipment, Facilities and other services to be provided by the Client)	69
10.	Appendix E (Copy of Model Agreement)	70

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 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 (Annex A) as well as subparagraphs 1.7 (v), 1.7 (vii), 1.7 (viii), 1.8 (a) and 1.8 (b) in Data Sheet (Annex B) and Note under the Table for check list of Required Forms (in Technical Proposal) 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 noncompliance 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: <u>gmpca.nha@gmail.com</u>, Website: www.nha.gov.pk

ATTACHMENTS

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



INSTRUCITONS 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 in the Data Sheet.
- 1.9 In order to avoid conflicts of interest:



Any firm providing goods, works, or services with which the consultant is affiliated or associated is not eligible to participate in bidding for any goods, works, or services (other than the Services and any continuation thereof) resulting from or associated with the project of which this assignment forms a part; and ii. Any previous or ongoing participation in relation with the project by the consultant (including partners in case of JV), its Key Personnel (professional staff), its affiliates or associates under a contract may result in rejection of the proposal. Any situation in that respect must be clarified with the Client before preparing the proposal.

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** at the time opening.

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 detailed overall work programme to be provided with timing of the assignment of each Key Personnel or other staff member assigned to the Project.

An estimate of the total number of person-months and Project duration required.

- c. Clear description of the responsibilities of each Key Personnel within the overall work programme.
- d. The Curriculum Vitaes 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 may also be mentioned. Failure to provide the Affidavit may result in to <u>no</u> <u>further evaluation</u> 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. 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 TECH-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 TECH-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 two (02) score points 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 TECH-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:
 - i. 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.

- ii. 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.
- iii. The Key Personnel proposed shall preferably be permanent employees of the firm unless otherwise indicated in the Data Sheet.
- iv. 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.
- v. 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.
- vi. No alternative to Key Personnel may be proposed, and only one curriculum vitae (CV) may be submitted for each position.
- vii. 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 <u>non responsive resulting in to rejection of the proposal.</u>

3.2 Financial Proposal

- 3.2.1 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 FIN-7 and accordingly in Form FIN-1 too.
- 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 FIN- 1 to FIN- 7.
- 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 to complete negotiations at the location stated in the Data Sheet within this 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.
- 5.1.2 The evaluation committee will correct any computational errors in Financial Proposals. When correcting computational errors, in case of discrepancy (i) between a partial (subtotal) amount and the total amount, or (ii) between the amount 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



7

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:

 $S_f = (1000 \text{ x Fm})/F$ (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_f) 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:

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

6. **NEGOTIATION**

Istan

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).
- 6.5 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 <u>may result in rejection of Consultant's proposal.</u>
- 6.6 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:

Construction Supervision of 6-Lane Highway from Kala Shah Kaku to Lahore Ring Road (Lahore Eastern Bypass)

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 √

Pre-proposal conference will be held on:

15th December, 2016 at 1100 Hours in NHA Auditorium, National Highway Authority, 28 Mauve Area, G-9/1, Islamabad.

No

Name of the official is:

Imtiaz Ahmed Khokhar (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 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. The trees/shrubs prone to landscape and earth work slopes grassed in ROW. 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.

- v. The consultants may better not to propose names of Key Personnel already 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. <u>Their secured points are liable to be reduced by 50%</u> if their names appear in more than 1 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.
- vi. Form TECH-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.
- vii. 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 E (copy of Model Agreement) subject to the ranking and successful negotiations. <u>A JV may include at the most four members.</u>
- viii. The term associates, if used in the proposal or otherwise shall not be considered as an alternative of JV member. <u>Any personnel proposed for the Assignment but belonging to the so called associates shall not be marked in evaluation of technical proposal</u> 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.
- 1.8 The invited firms 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 Bye-Law 6(2) and Bye-Law 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) Affidavit in original bearing the subject with project name 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 nonfulfillment of contractual obligations (By all partner firms in case of JV). Non submission of the affidavit may be treated as <u>disqualification</u> resulting in to no further evaluation of the proposal.



- (c) Facilities available with the consultant to perform their functions effectively (proper office premises, software, hardware, record keeping etc.)
- (d) Client's satisfaction certificates (Performance Reports) for the last three relevant assignments from the respective Clients. Moreover any adverse report regarding performance of consultant on NHA projects received from NHA's any relevant quarter may become basis for its disqualification from the Assignment above named in clause 1.1.
- (e) Person-months of staff and Project Duration as per TOR.

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 Terms of Reference (including Background information),
- (vii) Appendix-B: Person-Months and Activity Schedule,
- (viii) Appendix-C: Client's Requirements from the Consultants,
- (ix) Appendix-D: Personnel, Equipment, Facilities and Other Services to be provided by the Client, and
- (x) Appendix-E Copy of Model Agreement (Draft Form of Contract & Appendices etc.)
- 2.2 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

3.1.4

iii. Proposed Key Personnel for Construction Supervision will preferably be permanent employees who are employed with the consultants at least six months prior to submission of Proposal.

Yes ___√____ No _____

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

Total Expatriates: ____ Person-Months (Not used)

Total Local Experts: 67 Person-Months

- v. The minimum required qualification and experience of proposed Key Personnel is given in Appendix – A "Terms of Reference"
- vii. Training is a major component of this Assignment:



Yes _____

No ____√

- 3.2.3 Professional liability, insurances (description or reference to appropriate documentation):
 - i. The consultants shall be responsible for Professional Indemnity Bond of the required amount at their own cost. This bond shall be in the joint name of Consultant and the Client.
 - 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 E).
- 3.2.4 Consultants shall quote the rates of remuneration for local personnel in Pak. Rupees, whereas only the rates of remuneration for expatriate personnel shall be quoted in US dollar currency. The payment however, to the Consultant for both the local as well as the expatriate personnel will be made in Pak Rupees by converting US\$ into Pak. Rupees by applying USD TT/ OD Selling Rate of National Bank of Pakistan on the prevailing date (i.e. the Date of Payment) as per TT/OD Selling Rate from website: http://www.forex.com.pk/ for Inter Bank Rates.

For comparison of the Financial Proposals of consultants the US dollar's component of Financial Proposals will be converted to Pak Rupees as per following exchange rates:

The official source of the Selling (exchange) Rate is: National Bank of Pakistan as per TT/OD Selling Rate from the website: http://www.forex.com.pk/ for Inter Bank Rates.

The date of the exchange rate is: The date of submission of proposals.

4.1 The number of copies of the Proposal required is:

Technical Proposal:

One Original and Three 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 Authority28,Mauve Area G-9/1 IslamabadTelephone:+92-51-9032727Facsimile:+92-51-9260419Email:gmpca.nha@gmail.com

4.4 The date and time of proposal submission is:

1130 hours on 3rd January, 2017

The location for submission of proposal is:

National Highway Authority Auditorium



2nd Floor, 27 Mauve Area, G-9/1, Islamabad

4.5 Validity period of the proposal is:

180 days

The bid shall remain valid upto:

2nd July, 2017

Location for Negotiation is:

National Highway Authority Auditorium 2nd 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
i.	Experience of the Firm	150
a)	General Experience	(25)
b)	Specific Experience	(125)
ii.	Approach & Methodology	120
	Understanding of Objectives	(16)
	Quality of Methodology	(22)
	Innovativeness/Comments on TOR	(12)
	Work Program	(32)
	Staffing Schedule	(22)
	Conciseness, clarity and	
	completeness in proposal	(16)
	presentation	
iii.	Qualification and Competence (in	
	Areas of Expertise) of the Key	580
	Personnel	
iv.	Present commitments of the Firm	50
v.	Past performance of the Firm	100
	Total Points:	1000
C	Minimum qualifying technical score	70%
	The percentage distribution of weightage earmarked	
	for evaluation sub-criteria for suitability of Key	
	Personnel are:	
	Description/ Items	Percentage
i.	Academic and General Qualifications	30%
ii.	Professional experience related to the	(50/
	Project	65%
iii.	Status with the firm (Permanent &	7 0 (
	duration with Firm)	5%
	AV S	ARVAN
	telan * 1	<i>r</i>

14

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 weights 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 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:

March, 2017



SUMMARY EVALUATION SHEET FOR TECHNICAL PROPOSAL (QCBS)

	EVALUATION CRITERIA			Firm 1		Firm 2	
	Weight*	Rating	Score	Rating	Score		
I. Firms Experience			150				
•	General Experience		25				
	Specific Experience		125				
II. Approach and Methodo	logy		120				
	ertise) (Qualification and Competence of Ke	y Personnel)	580				
	a) Team Leader/ Resident Engineer		180				
	b) Bridge Engineer		150				
	c) Material Engineer	*	150	>			
	d) Quantity Surveyor		100				
IV. Present Commitment of	the Firm		50				
V. Past Performance of the Firm (As per the submission under Data Sheet clause 1.8 (d) and NHA's internal information)							
The Joint Venture (JV)							
one unit.	Ç						
	TOTAL	Server C S S	1000				

Excellent - 100% Very Good – 90 to 99% Above Average – 80 to 89% Average – 70 to 79% Below Average – 1 to 69% Non-complying – 0% Score: Maximum Weight X rating / 100.

Minimum qualifying score is 70% or 700 marks.

٩,



16

PERSONNEL EVALUATION SHEET

POSITION / AREA OF EXPERTISE	Name	Academic and General Qualification Weight 30%		Project related Experience Weight 65%		Status with the Firm* 5%		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)
a) Team Leader/ Resident Engineer								
b) Bridge Engineer								
c) Material Engineer					02			
d) Quantity Surveyor								

Rating: -Excellent - 100%Very good - 90-99%Above Average - 80-89%Average - 70-79%Below Average - 1-69%Non-complying - 0%0

Score = Maximum Weight X rating /100

* These marks for status with the firm shall apply for evaluation of Key Personnel proposed as per following proportion:

an thr

Regular employee - 100% First time for this assignment - 0%



TECHNICAL PROPOSAL FORMS

`.



Technical Proposal – Forms

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

Required, (√)	FORM	DESCRIPTION	Page Limit
\checkmark	TECH-1	Technical Proposal Submission Form	
V	TECH-1 Attachment	Proof of legal status and eligibility	
"√" If applicable	TECH-1 Attachment	If the Proposal is submitted by a joint venture, attach a letter of intent or a copy of an existing agreement.	
" $$ " If applicable TECH-1 Power of Attorney		No pre-set format/form, In the case of a Joint Venture, several are required: a power of attorney for the authorized representative of each JV member and a Special power of attorney for the representative of the lead member to represent all JV members.	
	TECH-2	Consultant's Organization and Experience.	As given below
\sim	TECH-2A	A. Consultant's Organization	3
V	TECH-2B	Ba Consultant's Experience/ Client's Reference	20
	TECH-3	Approach Paper on Methodology proposed for Performing the Assignment	50
V	TECH-4	Comments/ Suggestions of Consultant	[See footnote] ¹
	TECH-4A	A. On the Terms of Reference	n/a
ν	TECH-4B	B. On the Counterpart Staff and Facilities	2
V	TECH-5	Format of Curriculum Vitae (CV) for proposed Key Personnel	5 pages each CV
V Cater	TECH-6	Composition of the Team Personnel and the Tasks to be Assigned to each Team Member	n/a
V	TECH-7	Work Plan / Activity Schedule	n/a
ν	TECH-8	Work Plan and Time Schedule for Key Personnel	n/a
	TECH-9	Current Commitments of the Firm	n/a

Checklist of Required Forms (subparagraph 3.1.3 of ITC)

Note: Failure to provide required attachments with Form TECH-twill entitle the Client to reject the proposal.

¹ The total number of pages for combined forms TECH-3 and TECH-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.

CHECKLIST OF OTHER DOCUMENTS

- 1. Valid Registration Certificate(s) of PEC [subparagraph 1.8(a) of Data Sheet].
- 2. Affidavit in accordance with subparagraph 1.8(b) of Data Sheet.
- 3. Page numbered, signed, stamped and duly bound proposal (paragraph 3.1.1 of ITC).
- 4. Affidavit in accordance with subparagraph 3.1.2(d) of ITC.
- 5. Technical proposal not to include any financial information (paragraph 3.1.5 of ITC).
- 6. Letter of Intent/ JV Agreement (Form TECH 1)?
- 7. Integrity Pact [subparagraph (h) of Form TECH -1].



TECH-1

TECHNICAL 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 Proposals dated [Insert Date]. 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 comprising: {Insert a list with full name and the legal address of each member, and indicate the lead member}. We have attached a copy {insert: "of our letter of intent to form a joint venture" or, if a JV is already formed, "of the JV agreement"} signed by every participating member, which details the likely legal structure of and the confirmation of joint and severable liability of the members of the said joint venture.}]

[AND

{If the Consultant's Proposal includes individual Specialist Sub-consultant, insert the following:

Our Proposal includes: {Insert full name and country of the individual Specialist Subconsultant}]

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 may be sanctioned by the Client in compliance of Rule 19 of the Public Procurement Rules, 2004.
- (b) Our Proposal shall be valid and remain binding upon us for the period of time specified in 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.

Autonal Aline (e)

Neither we, nor our JV member or any of the proposed individual Specialist Subconsultant 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 is binding upon us and subject to any modifications resulting from the Contract negotiations.
- (h) In compliance (and, if the award is made to us, in execution) of Contract, we undertake to obey the Integrity Pact (attached herewith duly signed by authorized representative and stamped).

We undertake, if our Proposal is accepted and the Contract is signed, to initiate the Services related to the Assignment 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 is not bound to accept any or all Proposal(s) that the Client receives.

We remain,

Yours sincerely,

Authorized Signature {In full and initials}: _____ 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):

{For a joint venture, either all members shall sign or only the lead member, in which case the power of attorney to sign on behalf of all members shall be attached}



CONSULTANT'S ORGANIZATION

- [1. Provide here a brief description of the background and organization of your Firm, and in case of a joint venture of each member for this Assignment.
- 2. Include organizational chart, a list of Board of Directors, and beneficial ownership¹.]



[¹ Beneficial ownership shows all owners and major shareholders of the company, including any person or entity who enjoys the benefit of ownership including, but not limited to power of control and influence of the business transactions, receiving dividends or profit share. This includes direct or indirect ownership of the company (e.g. ownership by close relatives).]

CONSULTANT'S EXPERIENCE/ CLIENT'S REFERENCE

Relevant Services Carried Out in the Last Ten Years (by each member in case of JV) and by Specialist Sub-consultant, if any, Which Best Illustrate Qualifications

- [1. Using the format below, provide information on each successfully completed reference assignment for which your firm, either independently or as one of the member of Joint Venture (JV), was largely contracted by indicating the share of the firm itself in the JV.
- 2. Assignments completed by the Consultant's individual Experts working privately or through other consulting firms or that of the Consultant's Specialist Sub-consultant, cannot be claimed as the relevant experience of the Consultant, but can be claimed by the Experts or the Specialist Sub-consultants themselves in their CVs. The Consultant should be prepared to substantiate the claimed experience by presenting copies of relevant documents and references if so requested by the Client.]

Assignment Name:	Country of Assignment:				
Location within Country:	Key Personnel Provided by Your Firm:				
Name of Client:	No of other personnel provided by your Firm:				
Address:	Total No of Person-Months of staff of your Firm:				
Start Date (Month/Year): Completion Date (Month/Year): (Month/Year):	Ate Approx. Value of Services (in Equivalent / Rs.) provided by staff of your Firm				
Name(s) of Member	No. of Person-Months of Key				
Firm(s), in case of JV :	Personnel Provided by member Firm(s), in case of JV				
Name of Senior Staff (Project Manager / Coordinator, Team Leader) involved and functions performed:					
Narrative Description of Project					

Description of Actual Services Provided by Staff of your Firm

Consultants' Name: _____



APPROACH PAPER ON METHODOLOGY PROPOSED FOR PERFORMING THE ASSIGNMENT

[In this part of the Technical Proposal, explain understanding of the objectives of the Assignment, approach to the services, methodology for carrying out the activities and obtaining the expected output, and the degree of the detail of such output. You should explain your methodology to complete the project within time and budget.

The approach must be indigenous project specific approach of Consultant and not a generic one or copy of the TOR.

Based on the specific approach, describe Work Plan which is consistent with inputs provided in Forms TECH -7 and TECH -8.

In case of JV, the role of each member must be clearly highlighted. Likewise role of Specialist Sub-consultant, if any, along with necessity must be highlighted.]



TECH-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 TECH-4A and TECH-4B respectively.]

А.	On the Terms of Reference (TOR)
1.	
2.	
3.	
Etc.	

B. On the Counterpart Staff and Facilities (data & services to be provided by the Client as indicated in the TOR):

Design Services

1.

2.

3.

Etc.

Laio	Note:	 The Consultant may propose a team of experts to best achieve the scope of service and activities and to deliver outputs <u>as required in TOR</u>. 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 PRPOSAL. If Technical Proposal includes financial information, the Proposal will be rejected under Clause-3.1.5 of ITC. When the Consultant suggests a change in scope of service, activities or output, 2. the Consultant must describe the details in Form TECH-4A and the change should not be incorporated in the Proposal. Enumerate each suggestion in Form TECH-4A with incremental cost as a separate attachment to Financial Proposal indicating breakdown into individual remuneration and expenses for each suggestion. Forms FIN-1 to 7 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 PRPOSAL. If Technical Proposal includes financial information, the Proposal will be rejected under Clause-3.1.5 of ITC.

New y



TECH-5

FORMAT OF CURRICULUM VITAE (CV) FOR PROPOSED KEY PERSONNEL AND SPECIALIST SUB-CONSULTANT (IF ANY)

1.	Proposed Position:
2.	Name of Firm proposing the Key Personnel:
3.	Name of Person:
4.	Profession:
5.	Date of Birth:
6.	Years with Firm:
7.	Nationality & CNIC Number:
8.	Membership in Professional Societies: (Membership of PEC is Mandatory)
9.	Detailed Tasks to be Assigned on the Project:
10.	Key Qualifications:

To. Key Quanneations.

{Give an outline of the person's experience and training most pertinent to tasks on assignment. Describe degree of responsibility held by the person on relevant previous assignments and give dates and locations. Use upto one page}.

11. Education

{Summarize college/university and other specialized education of the person, giving names of institutions, dates attended and degrees obtained}.

12. Employment Record

{Starting with present position, list in reverse order every employment held. List all positions held by the person since graduation, giving dates, names of employing organizations, title of positions held and location of assignments. For experience in last ten years, also give types of activities performed and client references, where appropriate}.

13. Languages

{Indicate proficiency in speaking, reading and writing of the language: excellent, good, fair, or poor}.



14. 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 TECH-5 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; and
- (vi) 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:

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 Key Personnel 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.]

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

Signature of Key Personnel or authorized Representative of the Firm Date: _____

Day/Month/Year

Full name of authorized Representative: _

{Note: copy or scanned signatures are not allowed}



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

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

-				· · · · · · · · · · · · · · · · · · ·	
	Name	Position	Task Assignment	Present location	Name of assignment involved and clients names at present
~					
-				Ş.	
CONFOR					
		÷			
		2. O	ther Personnel	I	
HOUINY KENIG	/				
	Name		Position		Task Assignment

TECH-7

WORK PLAN/ ACTIVITY SCHEDULE

Items of Work/Activities		Mon	thly Pr	ogram	from d	ate of o	comme	ncing A	Assignn	nent (ir	the fo	rm of a	n Bar C	hart)	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
									s, 4 (
					1										
									l.						
			1	-											
The montest * Gover	• ()														



31

TECH-8

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

Name	Position					Mor	nths	(in th	e for	m of	a Ba	r Cha	rt)				Number of Months
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
									4								
							C										
				1. J													
Continuous: Intermittent:	Act	ivities	s Du	ratio	1 _												
		N.						Y	ours	faith	fully,						
The CONT of the State							Sig (Au	natur ithori	e zed F	Repre	sentat	tive)	_				
* THE OUTRY KEN							Des	l Nan signat dress	ion								

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



FINANCIAL PROPOSAL FORMS

A Repair



{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 and Local taxes applicable as per law of the land. {Please note that all amounts shall be the same as in Financial Proposal Form FIN-7}.

As indicated and reasoned in Form TECH-4 of our Technical Proposal, in accordance with Note 2 under Form TECH-4 of the RFP, a separate attachment for incremental cost(s) is included/ not included in our Financial Proposal *[if attached, strike out "not included" and vice versa]*

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 (or the date extended with the written consent of consultant in case of delay in procurement process).

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.

Yours sincerely,

We remain.

Authorized Signature {In full and initials}:	
Name and Title of Signatory:	
In the capacity of:	
Address:	· · · · · · · · · · · · · · · · · · ·
F-mail	

{For a joint venture, either all members shall sign or only the lead member, in which case the power of attorney to sign on behalf of all members shall be attached.}



BREAKDOWN OF RATES FOR CONSULTANCY CONTRACT

Project:

Firm:

Name	Position	Basic Salary per Cal. Month	Social Charges (%age of 1)	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)
	ļ						- ve		
					·	and the second			
					<u> </u>		<u> </u>		

Notes:

- Item No. 1 Basic salary shall include actual gross salary before deduction of income tax. Payroll sheet for each proposed personnel should be submitted at the time of 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 FIN-3}.
- Item No. 3 Overhead shall include general administration cost, rent, clerical staff and business getting expenses, corporate tax including sales tax on services and insurances, etc. Breakdown of proposed percentage charges for overhead should be submitted and supported {see Form FIN-4}.
- 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.
 - Note 3 The Consultant shall provide its audited financial statements of latest three fiscal years, during negotiations, w.r.t. second paragraph under SC 6.2 (b) of the Model Agreement (APPENDIX-E).



Full Name:	
Signature:	
Title:	

FIN-3

BREAKDOWN OF SOCIAL CHARGES

Sr. No.	Detailed Description	As a %age of Basic Salary
	12797	



FIN-4

BREAKDOWN OF OVERHEAD COSTS

Sr. No.	Detailed Description	As a %age of Basic Salary and Social Charges
	4	
	annan 3	
. Sala		



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

Sr. No.	Name	Position	Person- Months	Monthly Billing Rate (US \$)	Total Estimated Amount (US \$)
А.	All Foreign Exp	atriates including Fore	eign Specialist	Sub-consultant (if a	uny)
			100 m	*.	
		LO			
		Sub-Total	•		

[Refer also to Notes under Form TECH-4]

anne a dù

aller and a second s

.



B-I ESTIMATED LOCAL CURRENCY SALARY COSTS/REMUNERATION

No.	Name	Position	Person- Months	Monthly Billing Rate (Rs.)	Total Estimated Amount (Rs.)
B-I.	All Local K	Key Personnel and Spec	ialist Sub-consult	ant (if any)	
			a and		
	. <u> </u>	Sub-Total:			
		Sub-Iotal.	<u> </u>		
		All second and s			

[Refer also to Notes under Form TECH-4]



B-II ESTIMATED LOCAL CURRENCY SALARY COSTS/ REMUNERATION

Sr. No.	Position	Person-Months	Monthly Billing Rate (Rs.)	Total Estimated Amount (Rs.)
B-II.	Non-Key and other Pers	onnel (Local)		
	Sub Total:			
	C U			
	Among and the			

[Refer also to Notes under Form TECH-4]



FIN-6

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

Sr. No.	Nomenclature	Unit	Quantity	Unit Price (Pak. Rs.)	Total Amount (Pak. Rs.)	Remarks
1.	Communication Expenses allocable to the Assignment	Months	24			Fixed Rate
2.	Printing of Reports and Drawings for the Assignment	Months	24			-do-
3.	Travel expenses of required Key Personnel between NHA Head Office and Site (as per actual)	P.S	0.	-	250,000/-	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 requirements*					
	Sub-Total for Direct Co	st				

[Refer also to Notes under Form TECH-4]

* Any additional item/ cost quoted against this line item must have provided solid/ tenable justification(s) detailed in Form TECH-4 "Comments on TOR" without indicating financial value therein. The Client's negotiation committee will deliberate on the requirement of additional item/ cost in case such Firm stands top ranked. It is also to be noted by the Consultants that the Client is not bound to agree to the reasons given in Form TECH-4.



SUMMARY OF COST OF CONSULTANT FOR DESIGN REVIEW AND SUPERVISION SERVICES

Sr. No.	Description	Amount (Pak. Rs.)	Amount (US \$)
1.	Salary Cost		- Not Applicable -
1(a).	Sales Tax @ 16% on item 1 above which shall be kept as Provisional Sum in the Contract Agreement		- Not Applicable -
2.	Direct Cost		- Not Applicable -
3.	Contingencies		- Not Applicable -
	Grand Total:		- Not Applicable -

[Refer also to Notes under Form TECH-4]

- Note: 1- The dues and salaries of staff are payable by the Consultant in time and not later than 10th 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- Any Omission or arithmetical error made by the Consultants in entering the amount against item 1(a) shall also be rectified during evaluation of the Financial Proposal.



APPENDIX - A

TERMS OF REFERENCE (Including Description of Services)



Major Contents

- Background
- Project Objectives
- Scope of Services and Expected Deliverables

- Team Composition and Qualification Requirement of Key Personnel and Specialist Sub-consultant.

. K

A Contain Highly and A Contained Pulling

CHAPTER NO. 1

INTRODUCTION

1.1 BACKGROUND

As per direction of Prime Minister of Pakistan (Refer meeting held on March 15, 2014 at camp office in DG, LDA letter dated 22-03-2014), the National Highway Authority, Ministry of Communications, Government of Pakistan (hereinafter also referred to as "NHA"), planned for construction of Lahore Eastern Bypass connecting G.T Road (Kala Shah Kaku Interchange) to Lahore Ring Road near Mehmood Booti Junction, after crossing the River Ravi.

Accordingly, NHA intends to appoint the consultant for construction supervision for "Construction 6-Lane Highway from Kala Shah Kaku to Lahore Ring Road, (also termed as Lahore Eastern Bypass), including Bridge over River Ravi".

1.2 <u>NEED ASSESSMENT</u>

The planned 6-lane bypass will largely contribute to the economic and social development of Lahore city. It will boost tourism and will bring more population into the stream of benefits, which in turn will change the social complexion of people around this area. Various industries in the area will directly benefit from an improved transportation system and the resulting uplift of economic condition of local community. It will also connect Lahore City to the proposed Lahore-Sialkot Motorway.

1.3 **PROJECT DEFINITION**

The proposed bypass is located in the North-Eastern side of Lahore City. It will start at Kala Shah Kaku Interchange on G.T. Road which links the G.T. Road with Motorway M-2. It will cross Shahdara - Kala Khatai Road before crossing the River Ravi approx. 6 Km upstream of the existing Ravi Bridge and then connect with the Lahore Ring Road approx. 10.224 Km east of the Niazi Interchange and near Mehmood Booti. Regarding this, NHA intends to engage the Consultant for construction supervision of the subject project. Other responsibilities have been desired in the other chapters of these Terms of Reference.

The Project comprises following two Packages for construction:

A) Package-I: From Lahore Ring Road to Kala Khatai Road including Bridge over River Ravi including Lakhudher Interchange:

The alignment starts at Lahore Ring Road (proposed Lakhudher interchange), 500m east of Mehmood Booti junction. It then traverses northwards through the khadir of River Ravi and crosses the river via a 765m long proposed bridge located approximately 6 Km upstream of the existing Ravi Bridge. The alignment ends short of the Kala Khatai Road (before the proposed Kala Khatai interchange) near Barrath village. The length of the Main Link (6-lane) is 11.113 Km.



B) Package-II: From Kala Khatai Road to Lahore Sialkot Motorway Including Kala Khatai Interchange:

The alignment starts at Kala Khatai Road (proposed Kala Khatai interchange), crosses the Railway Line near Kot Molchand Railway Station and joins Lahore - Silakot Motorway through the ramps of the proposed Lahore - Sialkot Motorway Interchange. The length of the Main Link (6-lane) is 4.936 Km and the length of the ramps of Lahore – Sialkot Motorway Interchange (3-lane) is 5.104 Km.

1.4 PROJECT OBJECTIVES

The Lahore Eastern Bypass will connect G.T Road (N-5) and Lahore – Islamabad Motorway (M-2) on one end to the Lahore Ring Road and the Lahore – Sialkot Motorway (LSM) on the other. It will facilitate the traffic using N-5, M-2 and LSM which is destined to the eastern Lahore and southern parts of Lahore. Thereby it will reduce the traffic load on existing Ravi Bridge and the section of N-5 between Shahdara and Kala Shah Kaku. It will also act as takeoff link for the LSM from Lahore side.

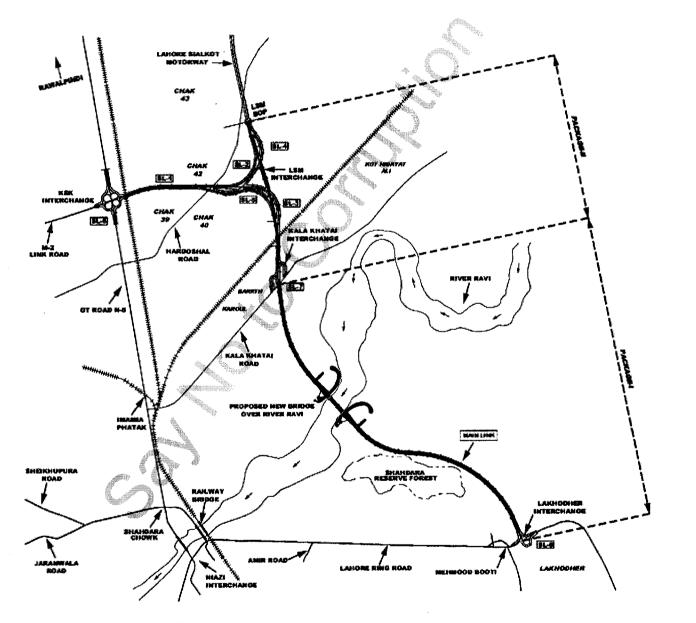


CHAPTER NO. 2

DESCRIPTION OF PROJECT

2.1 LOCATION OF PROJECT

It will start at Kala Shah Kaku Interchange on G.T. Road which links the G.T. Road with Motorway M-2. It will cross Shahdara - Kala Khatai Road before crossing the river Ravi approximately 6 Km upstream of the existing Ravi Bridge and then connect with the Lahore Ring Road approx. 10.224 Km east of the Niazi Interchange and near Mehmood Booti.



2.2 PROJECT WORKS

The scheme envisages the construction of a 6-lane Highway from Kala Shah Kaku to Lahore Ring Road (Lahore Eastern Bypass), including a bridge over River Ravi under this assignment. NHA intends to engage a Consultancy firm for construction supervision of Lahore Eastern Bypass which will not be limited to the responsibilities described in these Terms of Reference. The said Consultant will ensure all safety measures during construction along with other tasks as described in the following sections of the Terms of Reference.

alt

2.3 TIME OF START

The Services shall be commenced immediately after the signing of the Contract Agreement.

2.4 <u>TIME PERIOD</u>

The Services specified in the TOR shall be completed and all relevant reports submitted in the form and format acceptable to the Client, within <u>Thirty (30) months</u> from the date of signing of Contract Agreement.



CHAPTER NO.3

CONSTRUCTION SUPERVISION

3.1 <u>DETAILED SCOPE OF WORK COVERING CONSTRUCTION</u> <u>SUPERVISION FOR SUPERVISORY CONSULTANT</u>

The responsibility of top 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. 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:

- i) Make sure execution of works as per design, standards, specification and technical construction drawings.
- ii) To intimate NHA in each matter and must obtain formal approval from NHA to proceed in the matter.
- iii) Assure quality of the works during execution by using suitable and tested construction materiel.
- iv) To ensure the good quality construction survey work, levels and grade achieved during and after construction.
- v) Make sure the continuous supervision/inspection of the soils, materials construction operations and the works with regard to workmanship and compliance with the specifications.
- vi) 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.
- vii) Make sure the existing traffic management and safety plan all times in a safe and secure manner.
- viii) Monitor and appraise progress of the works for timely completion of work. Review and accept or reject Contractor's proposed work schedules.
- ix) The supervisory Consultants shall prepare the revised PC-I of the project and will be responsible to incorporate all changes upto final approval from the relevant forum.

3.2 <u>GOVERNING RESPONSIBILITIES AND DUTIES OF SUPERVISORY</u> <u>CONSULTANT</u>

3.2.1 Application of Standards, Specifications and Engineering Decisions

akistal

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 sturnish timely response to the Contractors in all matters relating to the Works.

3.2.2 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, and review and approve "as built" drawings and plans, and provide report(s) testifying to the satisfactory completion of the contract.
- ✓ Inspect the completed works during the defect liability period within the terms covering the Consultant's Agreement, prepare lists of deficiencies (if any), and carry out supervision of the remedial works, and issue the Defects Liability certificates after the rectification of notified defects by the Contractors.
- Provide any other specialist services requested by NHA under conditions to be mutually agreed.

3.2.3 Project Management

The Consultants shall establish a project management system acceptable to NHA, which will be used to monitor/track the problems. The works involved will include 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 the 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.

3.2.4 Construction Supervision

The Supervisory Consultants shall be fully responsible that the Works are executed in accordance with the plans, grade and confirm to the specifications. 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.

3.2.5 Quantity Measurement and Quality Control

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, except the following, which will be retained and exercised by the Client, generally on the advice of the Engineer:

- \checkmark Issuing the order to commence the Works;
- ✓ Approving variation orders that have financial implications;
- ✓ Approving significant variations in quantities;
- ✓ Approving subletting of any part of the Works;
- ✓ Approving extensions of time;
- ✓ Check and approve Contractor's temporary works and facilities;
- ✓ 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.

3.2.6 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.

3.2.7 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). 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.

3.2.8 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 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.

3.2.9 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 the NHA.

•	Inception Report	5 hard + 1 soft copies
•	Contract Administration Report and Construction program	5 hard + 1 soft copies
•	Annual Management Information Report at the end of each Financial Year	5 hard + 1 soft copies
•	Technical Reports	5 hard + 1 soft copies
•	Monthly Progress (Contract Administration) Report	5 hard + 1 soft copies
•	Final Project Completion Report (PC-IV)	10 hard + 1 soft copies
•	Project Documentary	5 copies
•	Updated construction program as required	5 hard $+ 1$ soft copies
•	Roughness Survey reports at substantial completion and expiry of Defect Liability Period	5 hard + 1 soft copies
•	Revised PC-1	80 hard + 1 soft copies

Inception Report



The Consultants will submit an Inception Report at the end of the first month from the Date of Commencement. This will contain full detail of the Consultants' supervisory methodology and staffing plan with supporting CVs of Personnel and projected monthly billing. The probable dates for submission of deliverables shall also be mentioned therein in line with TOR.

• Technical Report

The Consultant will produce necessary technical reports and position papers dealing with technical matters arising during the project.

• Monthly Progress (Contract Administration) Report

The Consultants will not later than the 10th of each month, prepare a narrative progress report summarizing:

- Construction progress during the month and cumulative to date for the Contract drawing specific attention to any major causes of delay (administrative, financial or technical) with details of remedial action taken or recommended to the Client.
- A comparison of actual and forecast expenditures both during the month and cumulative to date of the Contract, and a record of the status of the payments of the Contractor's monthly invoices, of all claims for cost or time extensions, and of actions required by NHA to permit unconstrained Works implementation. The Consultant will also advise on the final estimated cost for the Contract and draw attention to any major changes in the project budget including details of remedial actions taken or recommended to the Client.
- Technical appreciation of any design or quality control problems for the Contract including details of remedial action taken or recommended to the Client.
- Status of compliance with the Environmental Management Plan and Resettlement Action Plan.

• Final Project Completion Report

The Consultants will prepare a comprehensive final Completion Report within ninety (90) days after issuance of the Taking Over Certificate of the Contract. The Final Completion Report for the project shall summarize the method of construction, as built record showing the location and details of all Works carried out, all the defects and certification of the satisfactory correction of such 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 (Cassette + 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.

3.2.10 Contract Management

- ✓ Role of the Engineer and Engineer's Representative;
- ✓ Contractual issues;
- ✓ Site instructions and Variation Order, including their variations;
- ✓ Programming the Works and extensions of time including monitoring of activities on regular basis as per software based program, updated regularly;
- ✓ Monitoring and reporting on progress and Quality Control;

- ✓ Field and lab testing;
- ✓ Taking Over sections of Works.



CHAPTER NO.4

STAFFING FOR CONSTRUCTION SUPERVISION

4.1 STAFFING BY CONSULTANTS

- ✓ It is estimated that four (04) Key Personnel having 67 person- months will be required by the local resources of the Consultants for Construction Supervision with other responsibilities to be undertaken by the Consultants, to manage the project. Detail of the staff as per project's requirement is given below in section 4.1.2 of TOR.
- ✓ <u>The staff as given in section 4.1.2 of TOR has been fixed by NHA for the evaluation</u> <u>purpose</u> and the Consultants are permitted to propose alternate arrangements only as per Notes under Form TECH-4 i.e. Comments on the TOR in their technical proposals. Such suggestions will be discussed during the contract negotiations.
- ✓ The qualification and experience required of Key Personnel are detailed at the end of TOR.
- ✓ The implementation period for Contract, programmed to be executed during the project is planned to consist of a construction period of 15 months followed by a Defect Liability period of 12 months. The Team Leader (Resident Engineer) of the Consultants is expected to mobilize approximately 1 month in advance of the commencement of Works in order to assist NHA with activities leading up to mobilization of the Contractor. Site supervision team is expected to mobilize on the date of actual commencement of Works by the Contractor.
- ✓ During the Defect Liability Period, The Resident Engineer will continue on a part-time basis while the supervision team members would be mobilized on an as-required intermittent basis. After the end of the Defect Liability Period, the Resident Engineer is expected to need three months to close the Contract.
- ✓ 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.

4.1.1 Special Extension for Selected Personnel

Following staff of the Consultants shall be allowed to continue performing services for a period of three (03) months after completion of Works to finalize the accounts and other outstanding issues of Contract. This period of three (03) person-months for each of the Personnel shall be spread over the calendar months required to finalize the said activities.

S. No.	Description of Personnel	Nos.	Months	Man-months
(1)	Resident Engineer	01	03	03
(2)	Quantity Surveyor	01	03	03
(3)	Computer Operator	01	03	03
(4)	Office Boy	01	03	03



Pekistan

4.1.2 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:

S.No.	Description of Personnel	No. of Persons	Months	Person- Months
	Construction Supervision Team		· · · · · · · · · · · · · · · · · · ·	
А.	Key Personnel			
1.	Team Leader/ Resident Engineer	01	1+15+3	19
2.	Bridge Engineer	01	15	15
3.	Material Engineer	01	15	15
4.	Quantity Surveyor	01	15+3	18
		S	ub-Total (A):	67
В.	Non Key Personnel	N.S.		
5.	Site Inspectors	04	15	60
6.	Material Inspectors	02	15	30
7.	Surveyors	02	15	30
8.	Lab/ Survey Helpers	04	15	60
9.	CAD Operator	01	15	15
10.	Computer Operator-I	01	15+3	18
11.	Computer Operator-II	01	15	15
12.	Office Assistants	02	15	30
13.	Office Boys	03	15	45
		S	ub-Total (B):	303
			Total (A+B):	370

Total Key Personnel Person-Months for Const. Supervision: 67; Total Non-Key Personnel Person-Months: 303.

4.2 SERVICES AND FACILITIES TO BE PROVIDED BY THE CLIENT

Offices and utilities for the Consultants will be financed under the Works Contract. Residential accommodation of the Consultant's full time and short-term supervising Personnel shall be provided in the Works Contract. Furnished field offices, material testing laboratories, and field transportation will be provided under the Works Contracts.



Note: The Qualification and Experience requirements for the Key Personnel and Non-Key Personnel tabulated above are given in detail at the end of TOR.

4.3 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, 2010.

4.4 <u>TIME OF CONSTRUCTION</u>

Total construction time of the project is **<u>fifteen (15) months</u>**.

4.5 <u>REVISION OF PC-1</u>

It shall be the responsibility of the construction supervision Consultants 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%) will be withheld from interim (monthly) invoices and released along with the final payment of the Consultants, on completion of this job.



4.6 **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:

	The Engineer		
	General Experience:		30 Years
	Qualification:	Minimum:	B.Sc. (Civil Engineering)
		Desirable:	M.Sc. (Civil Engineering) with specialization in th field of Highway Engineering.
	Specific Experience:	Minimum:	He/she should have at least 25 years of experience of national/international civil works project including at least 15 years in a senior role of national/international highway projects. He/sh must be registered as Professional Engineer of Pakistan Engineering Council (PEC) and Member of recognized Professional Society. He/she should be fully familiar with FIDIC Conditions of Contract, Pakistan Engineering Council Standar Bidding Documents and Public Procurement Rule etc. He/she must be able to communicate fluent in English language. The cost of remuneration and TA/DA of th Engineer is presumed to be covered with Overhead cost of the Consultants but the Clief
			reserves the right to replace the Engineer as per i contract with the Contractor for Works.
onst	ruction Supervision		
ey P	ersonnel	<u> </u>	
1.	Team Leader/ Res	ident Engineer	
	General Experience:		20 Years
	Qualification:	Minimum:	B.Sc. (Civil Engineering).
		Desirable:	M.Sc. (Civil Engineering) with specialization Construction Management/ Equivalent.
	- 4980-652 v	Marking:	M.Sc. with additional relevant trainings fro recognized organizations – 100%; M.Sc. – 90% B.Sc. with additional relevant trainings fro recognized organizations – 80%; B.Sc. – 70%.
	Specific Experience:	Minimum:	Fifteen (15) years of relevant experience includin eight (08) years' experience as Resident Engine on construction supervision of Expressway/ Du Carriageway projects [dist. of marks: 100% / 80 respectively] (85.60 Marks).
	Contraction of the second seco		The Personnel is encouraged to attach at least thre (03) references of high quality workmanship du verified by the respective client(s) (10 marks).
	Cot Cakistan		Age of expert should preferably be not more the 65 years on the date of submission of proposal.

S.No	Title, Experience, Q	ualification & Re	esponsibilities
-		Desirable:	Eighteen (18) years of relevant experience including Ten (10) years' experience as Resident Engineer on construction supervision of Expressway/ Dual Carriageway projects [dist. of marks: 100% / 80% respectively] (107 Marks).
			The Personnel is encouraged to attach at least three (03) references of high quality workmanship duly verified by the respective client(s) (10 marks).
	· · · · · · · · · · · · · · · · · · ·	Responsibility:	Age of expert should preferably be not more than 65 years on the date of submission of proposal. His/her responsibilities shall include but not limited
		Responsibility.	to the following tasks:
			He/she will be responsible for quality, cost, scope, time, safety, and environmental control of the project. He/she will be responsible for approving Contractor's work program, method statements, material sources, preparing and producing reports as required, approving and/or issuing working drawings, approving the setting out of the works, and instructing the Contractor, certifying work volume and recommending interim payment certificates for progress payments, maintaining consolidated project accounts, and preparing of financial statements, ensuring minimum disruption/ damage to the environment by approval of Contractor's work statement/ methodology, including monitoring the impact of construction works on the environment and local settlements and providing information to NHA.
	Duidas Fuginasu		
<u>`</u> 2.	Bridge Engineer General Experience:		20 Years
	Qualification:	Minimum:	B.Sc. (Civil Engineering).
		Desirable:	M.Sc. (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 Experience:	Minimum:	Ten (10) years' relevant experience of supervising construction of bridge projects including seven (07) years as Bridge Engineer on Highways/ Expressways/ Motorways projects [dist. of marks: 70% / 80% / 100% respectively] (72 Marks).
	A Co		The Personnel is encouraged to attach at least three (03) references of high quality workmanship duly verified by the respective client(s) (7.50 Marks).
	Preskistan **		Age of expert should preferably be not more than 65 years on the date of submission of proposal.

.No	Title, Experience, Q	ualification & Re	esponsibilities
		Desirable:	Fifteen (15) years' relevant experience of supervising construction of bridge projects including ten (10) years as Bridge Engineer on Highways/ Expressways/ Motorways projects [dist. of marks: 70% / 80% / 100% respectively] (90 Marks).
			The Personnel is encouraged to attach at least three (03) references of high quality workman ship duly verified by the respective client(s) (7.50 Marks).
			Age of expert should preferably be not more than 65 years on the date of submission of proposal.
		Responsibility:	His/her responsibilities shall include but not limited to the following tasks:
			He/she will be responsible for satisfactory construction of all Bridges in the project from piling to the completion stage, including culverts and other structures on the project. He/she shall be responsible for supervision /execution of piling Girder (Casting, stressing and Lunching), Deck Slab (Casting & Stressing), including Fabrication and installation of expansion joints.
3.	Material Engineer		
	General		20 Years
	Experience:		
1	Qualification:	Minimum:	B.Sc. (Civil Engineering/ Geo-Technica Engineering)/ M.Sc. (Geology).
		Desirable:	M.Sc. (Civil Engineering/ Geo-Technica Engineering).
		Marking:	M.Sc. (Civil Engineering/ Geo-Technica Engineering) with additional relevant trainings from recognized organizations – 100%; M.Sc (Civil Engineering/ Geo-Technical Engineering) – 90%; B.Sc. (Civil Engineering/ Geo-Technica Engineering)/ M.Sc. (Geology) with additiona relevant trainings from recognized organizations – 80%; B.Sc. (Civil Engineering/ Geo-Technica
			Engineering)/ M.Sc. (Geology) – 70%.
	Specific Experience:	Minimum:	Ten (10) years' relevant experience as Materia Engineer on construction supervision projects o National Highways (72 Marks) including five (05 years' experience of asphalt concrete mix design in countries with hot climate and/or truck overloading problems (3 Marks).
			The Personnel is encouraged to attach at least three (03) references of high quality workmanship duly verified by the respective client(s) (4.50 Marks).
			Age of expert should preferably be not more than 65 years on the date of submission of proposal.

S.No	Title, Experience, Q	ualification & Re	-
		Desirable:	Fifteen (15) years' relevant experience as Material Engineer on construction supervision projects of National Highways (90 Marks) including five (05) years' experience of asphalt concrete mix design in countries with hot climate and/or truck overloading problems (3 Marks).
			The Personnel is encouraged to attach at least three (03) references of high quality workman ship duly verified by the respective client(s) (4.50 Marks).
			Age of expert should preferably be not more than 65 years on the date of submission of proposal.
		Responsibility:	His/her responsibilities shall include but not limited to the following tasks:
			He/she will assist the Resident Engineer and will be responsible for quality of material used in construction by performing field and laboratory tests and certifying their acceptance based on
			recommended specifications for the materials; and will identify sources of materials, and quarry site.
4.	Quantity Surveyor		
	General Experience:		20 Years
	Qualification:	Minimum:	3 Years Diploma in Civil from the Board of Technical Education's recognized institute.
		Desirable:	B.Sc. (Civil Engineering).
		Marking:	M.Sc. – 100%; B.Sc. with additional relevan trainings from recognized organizations – 90% B.Sc. – 80%; DAE (Civil) – 70%.
	Specific Experience:	Minimum:	Fifteen (15) years' relevant experience as Quantity Surveyor on Civil Works projects including ten (10) years' on Highway construction projects (4) Marks).
			The Personnel is encouraged to attach at least three (03) references of high quality workman ship duly verified by the respective client(s) (5 Marks).
		i	Age of expert should preferably be not more than 65 years on the date of submission of proposal.
		Desirable:	Eighteen (18) years' relevant experience a Quantity Surveyor on Civil Works project including thirteen (13) years' on Highway construction projects (60 Marks).
	Highwai Phila		The Personnel is encouraged to attach at least three (03) references of high quality workman ship duly verified by the respective client(s) (5 Marks).
			Age of expert should preferably be not more than 65 years on the date of submission of proposal.

	e, Qualification & R	
	Responsibility:	His/her responsibilities shall include but not limiter to the following tasks:
		He/she will assist Resident Engineer in verificatio of payment certificates. He/she will be responsibl for verification of executed quantities.
Key Personnel		
Site Inspectors (l	Highways)	10. 11
General Experience:		12 Years
Qualification:	Minimum/ Desirable:	3 Years Diploma in Civil from the Board of Technical Education's recognized institute.
Specific Experience:	Minimum:	Eight (08) years of experience in supervision of construction of Highway projects as Site Inspector
		Age of personnel should not be more than 65 year on the date of proposal submission.
	Desirable:	Ten (10) years of experience in supervision of construction of Highway projects as Site Inspector Age of personnel should not be more than 65 year on the date of proposal submission.
	Responsibility:	His responsibilities shall include but not limited the following tasks:
		His job description and duties will be defined by the Resident Engineer and approved by the Client.
Site Inspectors (S	Structures)	
	······································	
General Experience:		12 Years
General Experience: Qualification:	Minimum/ Desirable:	
Experience:	<i>#</i> 98.	3 Years Diploma in Civil from the Board of Technical Education's recognized institute.Eight (08) years of experience in supervision of the supervisi
Experience: Qualification: Specific	Desirable:	 3 Years Diploma in Civil from the Board Technical Education's recognized institute. Eight (08) years of experience in supervision construction of Structures on Highway projects site Inspector.
Experience: Qualification: Specific	Desirable:	 3 Years Diploma in Civil from the Board of Technical Education's recognized institute. Eight (08) years of experience in supervision of construction of Structures on Highway projects a Site Inspector. Age of personnel should not be more than 65 yea on the date of proposal submission. Ten (10) years of experience in supervision of the su
Experience: Qualification: Specific	Desirable:	 3 Years Diploma in Civil from the Board of Technical Education's recognized institute. Eight (08) years of experience in supervision of construction of Structures on Highway projects a Site Inspector. Age of personnel should not be more than 65 years on the date of proposal submission. Ten (10) years of experience in supervision of Structures on Highway projects a Site Inspector.
Experience: Qualification: Specific	Desirable:	 3 Years Diploma in Civil from the Board of Technical Education's recognized institute. Eight (08) years of experience in supervision of construction of Structures on Highway projects a Site Inspector. Age of personnel should not be more than 65 years on the date of proposal submission. Ten (10) years of experience in supervision of construction of Structures on Highway projects a Site Inspector. Age of personnel should not be more than 65 years on the date of proposal submission.
Experience: Qualification: Specific	Desirable: Minimum: Desirable:	 3 Years Diploma in Civil from the Board of Technical Education's recognized institute. Eight (08) years of experience in supervision of construction of Structures on Highway projects a Site Inspector. Age of personnel should not be more than 65 year on the date of proposal submission. Ten (10) years of experience in supervision of construction of Structures on Highway projects a Site Inspector. Age of personnel should not be more than 65 year on the date of proposal submission. Ten (10) years of experience in supervision of structures on Highway projects a Site Inspector. Age of personnel should not be more than 65 year on the date of proposal submission. His responsibilities shall include but not limited the following tasks: His job description and duties will be defined by the structure of the st
Experience: Qualification: Specific	Desirable: Minimum: Desirable: Responsibility:	 3 Years Diploma in Civil from the Board of Technical Education's recognized institute. Eight (08) years of experience in supervision of construction of Structures on Highway projects a Site Inspector. Age of personnel should not be more than 65 year on the date of proposal submission. Ten (10) years of experience in supervision of construction of Structures on Highway projects a Site Inspector. Age of personnel should not be more than 65 year on the date of proposal submission. Ten (10) years of experience in supervision of construction of Structures on Highway projects a Site Inspector. Age of personnel should not be more than 65 year on the date of proposal submission. His responsibilities shall include but not limited to the supervision of the supervision of the supervision.
Experience: Qualification: Specific Experience:	Desirable: Minimum: Desirable: Responsibility:	 3 Years Diploma in Civil from the Board of Technical Education's recognized institute. Eight (08) years of experience in supervision of construction of Structures on Highway projects a Site Inspector. Age of personnel should not be more than 65 yea on the date of proposal submission. Ten (10) years of experience in supervision of construction of Structures on Highway projects a Site Inspector. Age of personnel should not be more than 65 yea on the date of proposal submission. Ten (10) years of experience in supervision of Structures on Highway projects a Site Inspector. Age of personnel should not be more than 65 yea on the date of proposal submission. His responsibilities shall include but not limited the following tasks: His job description and duties will be defined by the following tasks:

	Specific Experience:	Minimum:	Eight (08) years of relevant experience in construction of Highway projects as Materia Inspector.
			Age of personnel should not be more than 65 year on the date of proposal submission.
		Desirable:	Ten (10) years of relevant experience in construction of Highway projects as Materia Inspector.
			Age of personnel should not be more than 65 year on the date of proposal submission.
		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.
4.	Surveyors		
	General Experience:		12 Years
	Qualification:	Minimum:	DAE – Civil from the Board of Technica Education's recognized institute.
		Desirable:	B.Sc. (Civil Engineering).
	Specific Experience:	Minimum:	Eight (08) years' experience of surveying/levelin and related activities on National Highwa Projects.
		Desirable:	Ten (10) years' experience of surveying/levelin and related activities on National Highwa Projects.
		Responsibility:	His responsibilities shall include but not limited t the following tasks:
			His job description and duties will be defined b the Resident Engineer and approved by the Client.
5.	CAD Operator	<u></u>	
	General Experience:	· · · · · · · · · · · · · · · · · · ·	10 Years
	Qualification:	Minimum:	DAE – Civil from the Board of Technica Education's recognized institute. Certificate Auto CAD Software Operator.
	Specific Experience:	Minimum:	Eight (08) years' experience of draftin engineering drawings/ designs on Auto-CAI software.
		Desirable:	Ten (10) years' experience of drafting engineerin drawings/ designs on Auto-CAD software Command on latest version of software is shall b recommended.
		Responsibility:	His responsibilities shall include but not limited t the following tasks:
	Con Highwar Plan		His job description and duties will be defined b the Resident Engineer and approved by the Client.
			65

6.	Computer Operators		
	General Experience:		5 Years
	Qualification:	Minimum/ Desirable:	B.Sc. (Computer Sciences)
	Specific Experience:	Minimum:	Three (03) years' experience of office management, typing with 30 words per minute typing speed.
		Desirable:	Three (03) 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, report preparation and like activities as per demand.
7.	Office Assistants		
	General Experience:		5 Years
	Qualification:	Minimum/ Desirable:	B,A./ B.Sc.
	Specific Experience:	Minimum:	Three (03) years' experience of office management, typing with 30 words per minute typing speed.
	4820 1	Desirable:	Three (03) years' experience of office management/ training of computer software (M.S Office) and typing with 40 words per minute typing speed.
	-United States	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.

Special Note:

and

- (1) For Specific Experience the ratio of weightage for marking between Minimum & Desirable shall be 80:100 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.