

**REQUEST FOR PROPOSAL  
DOCUMENT**

**FOR**

**SELECTION OF CONSULTANTS**

**FOR**

**ARCHITECTURAL & ENGINEERING DESIGN, CONSTRUCTION  
AND SUPERVISION SERVICES**

**FOR**

**EHFPRO BUILDING IN KARACHI CANTONMENT, NEAR CANTT.  
RAILWAY STATION, KARACHI**

**Quality & Cost Based Selection (QCBS) Method**

**June 2020**

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## **Section 1. Letter of Invitation (LOI)**

No. \_\_\_\_\_

Date: \_\_\_\_\_

Dear Mr. ....,

1. EHFPRO (Pvt) Limited (hereinafter called “Client”) invites proposals from ELIGIBALE Engineering / Consulting Firms to provide the consulting services (hereinafter called “Services”): ‘**Consulting services for Master Planning, Architectural & Engineering Design and Construction Supervision of EHFPRO Building in Karachi Cantonment near Cantt. Railway Station Karachi under Quality and Cost Based Selection (QCBS) method.** More details on the Services are provided in the Terms of Reference.
2. The Proposal invited is a **Full Technical Proposal (FTP)** as described in this RFP.
3. The RFP includes the following documents:

- Section 1 - Letter of Invitation
- Section 2 - Instructions to Consultants and Data Sheet
- Section 3 – Eligibility and Evaluation Criteria
- Section 4 - Technical Proposal – FTP Standard Forms
- Section 5 - Financial Proposal - Standard Forms
- Section 6 - Terms of Reference
- Annexures

**Yours sincerely,**

**Name:** \_\_\_\_\_

**Designation:** \_\_\_\_\_

**Telephone:** \_\_\_\_\_

**Fax:** \_\_\_\_\_

**Email:** \_\_\_\_\_

## **Section 2. Instructions to Consultants and Data Sheet**

### **A. General Provisions**

#### **1. Definitions**

- (a) “Affiliate(s)” means an individual or an entity that directly or indirectly controls, is controlled by, or is under common control with the Consultant.
- (b) “Applicable Law” means the laws enforce in the Client’s country or as may be amended and enforce from time to time.
- (c) “Client” means the **EHFPRO** that signs the Contract for the Services with the selected Consultant.
- (d) “Consultant” means a legally-established professional consulting firm or an entity that may provide or provides the Services to the Client under the Contract.
- (e) “Contract” means a legally binding written agreement signed between the Client and the Consultant.
- (f) “Day” means a calendar day.
- (g) “Experts” means, collectively, Key Experts, Non-Key Experts, or any other personnel of the Consultant, Sub-consultant or Joint Venture member(s).
- (h) “Government” means the government of the Client’s country.
- (i) “Joint Venture (JV)” means an association with or without a legal personality distinct from that of its members, of more than one Consultant where one member has the authority to conduct all business for and on behalf of any and all the members of the JV, and where the members of the JV are jointly and severally liable to the Client for the performance of the Contract.
- (j) “Key Expert(s)” means an individual professional whose skills, qualifications, knowledge and experience are critical to the performance of the Services under the Contract and whose CV is taken into account in the technical evaluation of the Consultant’s proposal.
- (k) “ITC” means the Instructions to Consultants that provides the shortlisted Consultants with all information needed to prepare their Proposals.
- (l) “LOI” means the Letter of Invitation being sent by the Client to the shortlisted Consultants.

- (m) “Non-Key Expert(s)” means an individual professional provided by the Consultant or its Sub-consultant and who is assigned to perform the Services or any part thereof under the Contract and whose CVs are not evaluated individually.
- (n) “Proposal” means the Technical Proposal and the Financial Proposal of the Consultant.
- (o) “RFP” means the Request for Proposals, prepared by the Client for the selection of Consultants
- (p) “Services” means the work to be performed by the Consultant pursuant to the Contract.
- (q) “Sub-consultant” means an entity to whom the Consultant intends to subcontract any part of the Services related to consultant work while remaining responsible to the Client during the performance of the Contract.
- (r) “Sub-contractor” means an entity to whom the Consultant intends to subcontract any part of the Services related to work other than consultant work while remaining responsible to the Client during the performance of the Contract.
- (s) “TORs” means the Terms of Reference that explain the objectives, scope of work, activities, and tasks to be performed, respective responsibilities of the Client and the Consultant, and expected results and deliverables of the assignment.

## **2. Introduction**

- 2.1 The Client named in the **Data Sheet** intends to select a Consultant, in accordance with the method of selection specified in the **Data Sheet**.
- 2.2 The Consultants are invited to submit a Technical Proposal and a Financial Proposal for consulting services required for the assignment named in the Data Sheet. The Proposal shall be the basis for signing the Contract with the successful Consultant.
- 2.3 The Consultants should familiarize themselves with the local conditions and take them into account in preparing their Proposals, including attending a pre-proposal conference if one is specified in the Data Sheet. Attending any such pre-proposal conference/pre-Bid Meetings is optional and is at the Consultants’ expense.
- 2.4 The Client shall timely provide, at no cost to the Consultants, the inputs, relevant project data, and reports required for the preparation of the Consultant’s Proposal as specified in the Data Sheet.

**3. Conflict of Interest**

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

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

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

**a. Conflicting Activities**

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

**b. Conflicting Assignments**

(ii) Conflict among consulting assignments: a Consultant (including its Experts and Sub-consultants) or any of its Affiliates shall not be hired for any assignment that, by its nature, may be in conflict with another assignment of the Consultant for the same or for another Client.

**c. Conflicting Relationships**

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

(iv) Any other types of conflicting relationships if indicated in the **Data Sheet**.

- 4. Unfair Competitive Advantage**
- 4.1 Fairness and transparency in the selection process require that the Consultants or their Affiliates competing for a specific assignment do not derive a competitive advantage from having provided consulting services related to the assignment in question. To that end, the Client shall indicate in the **Data Sheet** and make available to all shortlisted Consultants together with this RFP all information that would in that respect give such Consultant any unfair competitive advantage over competing Consultants.

## **B. Preparation of Proposals**

- 5. General Considerations**
- 5.1 In preparing the Proposal, the Consultant is expected to examine the RFP in detail. Material deficiencies in providing the information requested in the RFP may result in rejection of the Proposal.
- 6. Cost of Preparation of Proposal**
- 6.1 The Consultant shall bear all costs associated with the preparation and submission of its Proposal, and the Client shall not be responsible or liable for those costs, regardless of the conduct or outcome of the selection process. The Client is not bound to accept any proposal, and reserves the right to annul the selection process at any time prior to Contract award, without thereby incurring any liability to the Consultant.
- 7. Language**
- 7.1 The Proposal, as well as all correspondence and documents relating to the Proposal exchanged between the Consultant and the Client shall be written in the language(s) specified in the Data Sheet.
- 8. Documents Comprising the Proposal**
- 8.1 The Proposal shall comprise the documents and forms listed in the Data Sheet.
- 8.2 If specified in the Data Sheet, the Consultant shall include a statement of an undertaking of the Consultant to observe, in competing for and executing a contract, the Client country's laws against fraud and corruption (including bribery).
- 8.3 The Consultant shall furnish information on commission's gratuities and fees, if any, paid or to be paid to agents or any other party relating to this Proposal and, if awarded, Contract execution, as requested in the Financial Proposal submission form (Section 4).

- 9. Only One Proposal** 9.1 The Consultant (including the individual members of any Joint Venture) shall submit only one Proposal, either in its own name or as part of a Joint Venture in another Proposal. If a Consultant, including any Joint Venture member, submits or participates in more than one proposal, all such proposals shall be disqualified and rejected. This does not, however, preclude a Sub-consultant, or the Consultant's staff from participating as Key Experts and Non-Key Experts in more than one Proposal when circumstances justify and if stated in the Data Sheet.
- 10. Proposal Validity** 10.1 The Data Sheet indicates the period during which the Consultant's Proposal must remain valid after the Proposal submission deadline.
- 10.2 During this period, the Consultant shall maintain its original Proposal without any change, including the availability of the Key Experts, the proposed rates and the total price.
- 10.3 If it is established that any Key Expert nominated in the Consultant's Proposal was not available at the time of Proposal submission or was included in the Proposal without his/her confirmation, such Proposal shall be disqualified and rejected for further evaluation.
- a. Extension of Validity Period** 10.4 The Client shall make its best effort to complete the negotiations within the proposal's validity period. However, should the need arise, the Client may request, in writing, all Consultants who submitted Proposals prior to the submission deadline to extend the Proposals' validity.
- 10.5 If the Consultant agrees to extend the validity of its Proposal, it shall be done without any change in the original Proposal and with the confirmation of the availability of the Key Experts.
- b. Substitution of Key Experts at Validity Extension** 10.6 If any of the Key Experts become unavailable for the extended validity period, the Consultant shall provide a written adequate justification and evidence satisfactory to the Client together with the substitution request. In such case, a replacement Key Expert shall have equal or better qualifications and experience than those of the originally proposed Key Expert. The technical evaluation score, however, shall remain to be based on the evaluation of the CV of the original Key Expert.
- c. Sub-Contracting** 10.7 The Consultant shall not subcontract the Services.



- 11. Clarification and Amendment of RFP**
- 11.1 The Consultant may request a clarification of any part of the RFP during the period indicated in the Data Sheet before the Proposals' submission deadline. Any request for clarification must be sent in writing, or by standard electronic means, to the Client's address indicated in the Data Sheet. The Client shall respond in writing, or by standard electronic means, and shall send written copies of the response (including an explanation of the query but without identifying its source) to all shortlisted Consultants. Should the Client deem it necessary to amend the RFP as a result of a clarification, it shall do so following the procedure described below:
- 11.1.1 At any time before the proposal submission deadline, the Client may amend the RFP by issuing an amendment in writing or by standard electronic means. The amendment shall be sent to all short listed Consultants and shall be binding on them.
- 11.1.2 If the amendment is substantial, the Client may extend the proposal submission deadline to give the Consultants reasonable time to take an amendment into account in their Proposals.
- 12. Preparation of Proposals – Specific Considerations**
- 12.1 While preparing the Proposal, the Consultant must give particular attention to the RFP and DATA SHEET.
- 13. Technical Proposal Format and Content**
- 13.1 The Technical Proposal shall not include any financial information. A Technical Proposal containing material financial information shall be declared non-responsive.
- 13.1.1 Consultant shall not propose alternative Key Experts. Only one CV shall be submitted for each Key Expert position. Failure to comply with this requirement shall make the Proposal non-responsive.
- 13.2 Depending on the nature of the assignment, the Consultant is required to submit a Full Technical Proposal (FTP) as indicated in the **Data Sheet** and using the Standard Forms provided in Section 3 of the RFP.
- 14. Financial Proposal**
- 14.1 The Financial Proposal shall be prepared using the Standard Forms provided in Section 4 of the RFP.
- a. Taxes**
- 14.2 The Consultant is responsible for meeting all Income & Sales taxes liabilities arising out of the Contracts as per applicable federal and provincial taxes.
- b. Currency of Proposal**
- 14.3 The Consultant may express the price for its Services in the currency or currencies as stated in the Data Sheet.

- c. **Currency of Payment**      14.4      Payment under the Contract shall be made in the PKR

### **C. Submission, Opening and Evaluation**

- 15. Submission, Sealing, and Marking of Proposals**
- 17.1      The Consultant shall submit a signed and complete Proposal comprising the documents and forms provided in the RFP.
- 17.2      An authorized representative of the Consultant shall sign the original submission letters for both the Technical Proposal and the Financial Proposals and shall initial all pages of both. The authorization shall be in the form of a written power of attorney attached to the Technical Proposal.
- 17.2.1      A Proposal submitted by a Joint Venture shall be signed by all members so as to be legally binding on all members, or by an authorized representative who has a written power of attorney signed by each member's authorized representative. The consultant is bound to submit a copy of joint venture agreement on stamp paper duly registered with concerned agency.
- 17.3      Any modifications, revisions, interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Proposal.
- 17.4      The signed Proposal shall be marked "ORIGINAL", and its copies marked "COPY" as appropriate. The number of copies is indicated in the **Data Sheet**. All copies shall be made from the signed original. If there are discrepancies between the original and the copies, the original shall prevail.
- 17.5      The original and all the copies of the Technical Proposal shall be placed inside of a sealed envelope clearly marked "**TECHNICAL PROPOSAL**", "**[Name of the Assignment]**", reference number, name and address of the Consultant, and with a warning "**DO NOT OPEN UNTIL [INSERT THE DATE AND THE TIME OF THE TECHNICAL PROPOSAL SUBMISSION DEADLINE].**"
- 17.6      Similarly, the original Financial Proposal shall be placed inside of a sealed envelope clearly marked "**FINANCIAL PROPOSAL**" followed by the name of the assignment, reference number, name and address of the Consultant, and with a warning "**DO NOT OPEN WITH THE TECHNICAL PROPOSAL.**"

- 17.7 The sealed envelopes containing the Technical and Financial Proposals shall be placed into one outer envelope and sealed. This outer envelope shall bear the submission address, the name of the assignment, Consultant's name and the address, and shall be clearly marked "**DO NOT OPEN BEFORE**[insert the time and date of the submission deadline indicated in the Data Sheet]
- 17.8 If the envelopes and packages with the Proposal are not sealed and marked as required, the Client shall assume no responsibility for the misplacement, loss, or premature opening of the Proposal.
- 17.9 The Proposal must be sent to the address indicated in the **Data Sheet** and received by the Client not later than the deadline indicated in the **Data Sheet**, or any extension to this deadline. Any Proposal received by the Client after the deadline shall be declared late and rejected, and promptly returned unopened.

**16. Confidentiality**

- 18.1 From the time the Proposals are opened to the time the Contract is awarded, the Consultant should not contact the Client on any matter related to its Technical and/or Financial Proposal. Information relating to the evaluation of Proposals and award recommendations shall not be disclosed to the Consultants who submitted the Proposals or to any other party not officially concerned with the process, until the publication of the Contract award information.
- 18.2 Any attempt by Consultant or anyone on behalf of the Consultant to influence improperly the Client in the evaluation of the Proposals or Contract award decisions may result in the rejection of its Proposal, and may be subject to the application of prevailing Bank's sanctions procedures.

**17. Opening of  
Technical  
Proposals**

- 19.1 The Client's evaluation committee shall conduct the opening of the Technical Proposals in the presence of the Consultants' authorized representatives who choose to attend in person. The opening date, time and the address are stated in the **Data Sheet**. The envelopes with the Financial Proposal shall remain sealed and shall be securely stored until they are opened.
- 19.2 At the opening of the Technical Proposals the following shall be read out: (i) the name and the country of the Consultant or, in case of a Joint Venture, the name of the Joint Venture, the name of the lead member and the names and the countries of all members; (ii) the presence or absence of a duly sealed envelope with the Financial Proposal; (iii) any modifications to the Proposal submitted prior to proposal submission deadline; and

- (iv) any other information deemed appropriate or as indicated in the **Data Sheet**.
- 18. Proposals Evaluation**
- 20.1 The evaluators of the Technical Proposals shall have no access to the Financial Proposals until the technical evaluation is concluded.
- 20.2 The Consultant is not permitted to alter or modify its Proposal in any way after the proposal submission deadline and the Client shall conduct the evaluation solely on the basis of the submitted Technical and Financial Proposals.
- 19. Evaluation of Technical Proposals**
- 21.1 The Client's evaluation committee shall evaluate the Technical Proposals on the basis of their responsiveness to the eligibility / evaluation criteria and terms & conditions (as specified in data sheet) of the RFP. Each responsive Proposal shall be given a technical score. A Proposal shall be rejected at this stage if it does not respond to important aspects of the RFP or if it fails to achieve the minimum technical score indicated in the **Data Sheet**.
- 20. Financial Proposals**
- 20.1 The Financial Proposals shall be opened only for technically successful bidders. The unsuccessful technical proposals shall be returned after the process is completed.
- 21. Public Opening of Financial Proposals (for QCBS, FBS, and LCS methods)**
- 21.1 After the technical evaluation is complete, the client shall notify and call the successful bidders for the opening of financial bidders.
- 21.2 The Financial Proposals shall be opened by the Client's evaluation committee in the presence of the representatives of those Consultants whose proposals have passed the minimum technical score. At the opening, the names of the Consultants, and the overall technical scores shall be read aloud. The Financial Proposals shall then be inspected to confirm that they have remained sealed and unopened. These Financial Proposals shall be then opened, and the total prices read aloud and recorded. Copies of the record shall be sent to all Consultants who submitted Proposals and to the Bank.
- 22. Correction of Errors**
- 22.1 Activities and items described in the Technical Proposal but not priced in the Financial Proposal, shall be assumed to be included in the prices of other activities or items, and no corrections are made to the Financial Proposal.
- a. Time-Based Contracts**
- Not applicable

- b. Lump-Sum Contracts** Not applicable
- 23. Taxes** The Client's evaluation of the Consultant's Financial Proposal shall include all income & Sales taxes (Federal & Provincial) and duties in the Client's country in accordance with the instructions in the **Data Sheet**.
- 24. Combined Quality and Cost Evaluation**
- a. Quality- and Cost-Based Selection (QCBS)** 24.1 In the case of QCBS, the total score is calculated by weighting the technical and financial scores and adding them as per the formula and instructions in the **Data Sheet**.
- b. Fixed-Budget Selection (FBS)** Not applicable
- c. Least-Cost Selection** Not applicable

#### **D. Negotiations and Award**

- 25. Negotiations** 24.2 The negotiations shall be held at the date and address indicated in the Data Sheet with the Consultant's representative(s) who must have written power of attorney to negotiate and sign a Contract on behalf of the Consultant.
- 24.3 The Client shall prepare minutes of negotiations that are signed by the Client and the Consultant's authorized representative.
- a. Availability of Key Experts** 24.4 The invited Consultant shall confirm the availability of all Key Experts included in the Proposal as a pre-requisite to the negotiations. Failure to confirm the Key Experts' availability may result in the rejection of the Consultant's Proposal and the Client proceeding to negotiate the Contract with the next-ranked Consultant.
- 24.5 Notwithstanding the above, the substitution of Key Experts at the negotiations may be considered if due solely to circumstances outside the reasonable control of and not foreseeable by the Consultant, including but not limited to death or medical incapacity. In such case, the Consultant shall offer a substitute Key Expert within the period of time specified in the letter of invitation to negotiate the Contract, who shall have equivalent or better qualifications and experience than the original candidate.

- b. Technical negotiations**
- 24.6 The negotiations include discussions of the Terms of Reference (TORs), the proposed methodology, the Client’s inputs, the special conditions of the Contract, and finalizing the “Description of Services” part of the Contract. These discussions shall not substantially alter the original scope of services under the TOR or the terms of the contract, lest the quality of the final product, its price, or the relevance of the initial evaluation be affected.
- c. Financial negotiations**
- 24.7 The negotiations include the clarification of the Consultant’s tax liability in the Client’s country and how it should be reflected in the Contract.
- 24.8 If the selection method included cost as a factor in the evaluation, the total price stated in the Financial Proposal for a Lump-Sum contract shall not be negotiated.
- 24.9 In the case of a Time-Based contract, unit rates negotiations shall not take place, except when the offered Key Experts and Non-Key Experts’ remuneration rates are much higher than the typically charged rates by consultants in similar contracts. In such case, the Client may ask for clarifications and, if the fees are very high, ask to change the rates after consultation with the Bank.
- 26. Conclusion of Negotiations**
- 24.10 The negotiations are concluded with a review of the finalized draft Contract, which then shall be initialled by the Client and the Consultant’s authorized representative.
- 24.11 If the negotiations fail, the Client shall inform the Consultant in writing of all pending issues and disagreements and provide a final opportunity to the Consultant to respond. If disagreement persists, the Client shall terminate the negotiations informing the Consultant of the reasons for doing so and shall invite the next-ranked Consultant to negotiate a Contract. Once the Client commences negotiations with the next-ranked Consultant, the Client shall not reopen the earlier negotiations.
- 27. Award of Contract**
- 24.12 After completing the selection process, the Client shall sign the Contract.
- 24.13 The Consultant is expected to commence the assignment on the date and at the location specified in the Data Sheet.

## Instructions to Consultants

### Data Sheet

A. General	
<b>ITC Clause Reference</b>	
<b>2.1</b>	<b>Name of the Client:</b> EHFPRO Pvt Limited, ISLAMABAD
<b>2.2</b>	<b>Financial Proposal to be submitted together with Technical Proposal:</b> Yes  <b>The name of the assignment is:</b> Consulting Services for Master Planning, Architectural & Engineering Design and Construction Supervision of EHFPRO Building in Karachi Cantonment, near Cantt. Railway Station, Karachi
<b>2.3</b>	A pre-bid meeting shall be held if the consultants / client desire.
<b>2.4</b>	The Client shall arrange visits of the site for the interested consultants at their own cost in order to facilitate them for preparation of the proposal.

<b>B. Preparation of Proposals</b>	
<b>7.</b>	<p><b>This RFP has been issued in the English language.</b></p> <p><b>Proposals shall be submitted in the English language.</b></p> <p><b>All correspondence exchange shall be in the English language.</b></p>
<b>8.1</b>	<p><b>The Proposal shall comprise the following:</b></p> <p><b>a.</b> Proposals (Technical &amp; Financial) should be accompanied by a Bid Security of Rs. 2.00 Million (Two Million Rupees) in the shape of deposit at call (Pay order) in favor of EHFPRO (Pvt.) Ltd.</p> <p><b>b. 1<sup>st</sup> Inner Envelope with the Technical Proposal.</b></p> <p>(1) Power of Attorney to sign the Proposal  (2) TECH-1 Technical Proposal Submission Form  (3) TECH-2 Consultant's Organization And Experience  (4) TECH-3 Comments &amp; Suggestions of the Consultant  (5) TECH-4 Description of Approach, Methodology &amp; Work Plan  (6) TECH-5 Work / Activity Schedule  (7) TECH-6 Team Composition &amp; Task Assignments  (8) TECH-7 Curriculum Vitae of Proposed Professionals  (9) TECH-8 Time Schedule for Professional Staff</p> <p><b>c. 2<sup>nd</sup> Inner Envelope with the Financial Proposal .</b></p> <p>(1) FIN-1 Financial Proposal Submission Form  (2) FIN-2 Summary of Costs  (3) FIN-3 Breakdown Of Cost By Activity  (4) FIN-4 Breakdown of Remuneration</p> <p><b>d. Outer Envelope Technical Proposal + Financial Proposal</b></p>
<b>9.1</b>	<p><b>Participation of Sub-consultants, Key Experts and Non-Key Experts in more than one Proposal is not allowed.</b></p>
<b>10.1</b>	<p><b>Proposals must remain valid for 120 calendar days after the proposal submission deadline</b></p>
<b>11.1</b>	<p><b>Clarifications may be requested no later than 7 days prior to the submission deadline.</b></p> <p>The contact information for requesting clarifications is:  Name : <u>Muhammad Musaddaq Khawaja</u>  Designation: <u>Project Director</u>  Tel : <u>051-2323887</u>  Fax : _____  Email : <u>ehfprolifestyle@gmail.com</u></p>



<b>12.1.2</b>	<p><b>Estimated input of Key Experts time-input:</b></p> <p>(a) Design Activity: 1 month for Phase 1 &amp; 3 months for phase 2  (b) Construction Activity: 30 months for Phase 1 &amp; 30 months for phase 2  (c) DLP for 12 months: 2 inspectors only (1 civil &amp; 1 electrical)</p>
<b>13.2</b>	<p>The format of the Technical Proposal to be submitted is: FTP</p> <p>Submission of the Technical Proposal in a wrong format may lead to the Proposal being deemed non-responsive to the RFP requirements.</p>
<b>13.3</b>	<p>Proposed Key Personnel shall be permanent employees who are employed with the consultants at least one Year prior to submission of Proposal.</p>
<b>14.1</b>	<p>The consultancy charges for Master Planning, Architectural &amp; Engineering (Concept) Design, Building Plans for the Approvals of the concerned authority, detailed architectural design, detailed structural design, detailed MEP design, preparation of estimates, preparation of Tender Documents comprising of conditions of contract, specifications, BOQ, Tender Drawings, submission of bid evaluation report and award of work shall be paid on lump sum basis. In Supervision fee for the supervision during construction period shall be paid on the basis of percentage of project work done of each month. The consultant shall employ experienced and adequately qualified staff for supervision of work at the project site.</p> <p>For evaluation, The Project Cost is ascertained as PKR 4,000.00 million (PKR 2,000 million in phase 1 and PKR 2,000 million in phase 2).</p>
<b>14.3</b>	<p><b>The Financial Proposal shall be stated in PKR</b></p>
<b>C. Submission, Opening and Evaluation</b>	
<b>15.4</b>	<p><b>The Consultant must submit:</b></p> <p>(a) <b>Technical Proposal:</b> one (1) original and One (1) copy;  (b) <b>Financial Proposal:</b> one (1) original and One (1) copy.</p>
<b>15.7 and 15.9</b>	<p><b>The Proposals must be submitted on July 14, 2020 at 11:00 am, which shall be opened at 11:30 am as per notice of advertisement.</b></p> <hr/> <p><b>The Proposal submission address is:</b></p> <p>Name: Muhammad Musaddaq Khawaja  Designation Project Director  Tel : 051 2323887  Email: ehfprolifestyle@gmail.com</p>
<b>24.1</b>	<p><b>Method of selection:</b>  Quality and Cost Based Selection (QCBS)</p>

	<p><b>Weightage::</b> Technical:     <b>80%</b> Financial     <b>20%</b></p> <p>Detailed Evaluation Criteria is provided in Section-3</p>
<b>27.2</b>	<p><b>Expected date for the commencement of the Services:</b> <b>Date: <u>Will be communicated later</u></b></p>

## **Section 3. Evaluation Criteria**

### **1. Eligibility Criteria**

The Consultant (Firm/ Joint Venture) fulfilling the following basic eligibility criteria shall only be considered for further evaluation. In case of Joint Venture Lead JV member must meet eligibility criteria (relevant documents to be attached):

- i. Registration of firm/company with Pakistan Engineering Council (PEC).  
**Must have 1201, 1203, 1204, 1205 codes of practice.**
- ii. Valid PCATP Registration of at least one Master Planner (having over 25 years experience) and two Architects (each having over 18 years experience)
- iii. Full and functional Office at Karachi having design capacity of all disciplines in one roof.
- iv. Valid legal entity of the firm e.g. Certificate of registration from Securities & Exchange Commission of Pakistan (SECP) or Registrar of Firms or any other Statuary Body.
- v. Certificate of registration with Income Tax and Sales Tax under relevant Authority (as applicable).
- vi. Must have average annual turnover of PKR 600.00 million or above during last 03 years
- vii. Affidavit on non-judicial stamp paper that non-performance of a contract did not occur within the last ten years and no litigation is pending between the Consultant and a government department, body or agency.
- viii. Judicial Affidavit declaring “Neither the firms nor its Directors, Stakeholders, as a whole or as a part of the firm have ever been blacklisted/ defaulted by any government agency/ department/organization”.
- ix. Provide separate undertaking that the information supplied by the firm is correct.

### **2. Qualification Criteria**

Qualification shall be based on Consultant’s meeting the following financial qualification criteria, experience record and quality of its personnel capabilities and other relevant information as demonstrated by the Consultant’s response to this RFP.

Qualification criteria as mentioned below is applicable for applicants:

<b>Category</b>	<b>Marks</b>
Firm’s Profile	10
Experience Record	35
Approach & Methodology	10
Personnel Capabilities	45

S. No	Description	Marks
<b>1</b>	<b>Firm's Profile</b>	<b>10</b>
	1.1 Establishment of the Firm (attached evidence)	05 Marks
	<ul style="list-style-type: none"> <li>• 30+ years 05 Marks</li> <li>• 21 to 29 years 03 Marks</li> <li>• 10 to 20 years 02 Marks</li> <li>• Less than 10 years 01 Mark</li> </ul>	
	1.2 Number of Employees with the Firm (attached CPR-IT as evidence)	05 Marks
	<ul style="list-style-type: none"> <li>• 250+ 05 Marks</li> <li>• 175 to 200 04 Marks</li> <li>• 100 to 150 03 Marks</li> <li>• 75 to 100 02 Marks</li> <li>• Less than 50 No Mark</li> </ul>	
<b>2</b>	<b>Experience Record</b>	<b>35</b>
	2.1 Similar Experience, Completed projects (Architecture, Structure, MEP and Allied Works Design for at least G+08 level buildings during last 10 Years (attach copy of completion certificate / Copy of Agreement)	
	2.1.1 Have completed 02 projects each having a project cost not less than PKR 800.00 million (Planning, Design and Construction Supervision). Each project shall score 10 Marks	20
	2.1.2 Have completed Planning & Design of 01 project cost not less than PKR 1,000.00 million or above	05
	2.2 Experience of General Consultancy during last 10 Years having a project cost not less than PKR 2,000.00 million (attach copy of completion certificate / Copy of Agreement) each project shall score 1.00 Marks	05
	2.3 Building projects in hand (Architecture, Structure, MEP and Allied Works) having a project cost not less than PKR 2,000 million (attach copy of award letter or contract agreement) each project shall score 2.50 Marks	05
<b>3.</b>	<b>Approach, Methodology &amp; Work Plan for the Assignment</b>	<b>10</b>
	Approach & Methodology	05
	Work Plan (Text)	01
	Organization & Staffing (Text)	01
	Work Schedule	02
	Staffing Schedule	01
<b>4</b>	<b>Personnel Capabilities</b>	<b>45</b>
	10% Marks assigned for Regional Experience and language	
	<b>4.1 Planning &amp; Design activity</b>	
	i. Team Leader M.Sc. / ME Civil with 20 years of relevant experience OR B.Sc. / BE Civil with 30 years of relevant experience	6.00
	ii. Principal Architect M. Arch with 10 years of relevant experience OR B. Arch with 15 years of relevant experience	5.00
	iii. Principal Structure Engineer Ph. D Civil with 10 years of relevant experience OR M.Sc. / ME Civil with 15 years of relevant experience	5.00

iv.	Principal Electrical Engineer M.Sc. / ME Electrical with 20 years of relevant experience OR B.Sc. / BE Electrical with 30 years of relevant experience	4.00
v.	Principal Mechanical Engineer M.Sc./ ME Mechanical with 20 years of relevant experience OR B.Sc./BE Mechanical with 30 years of relevant experience	4.00
vi.	Procurement / Contract Engineer M.Sc. / ME Civil with 10 years of relevant experience OR B.Sc. / BE Civil with 15 years of relevant experience	3.00
vii.	Architect M. Arch with 10 years of relevant experience OR B. Arch with 15 years of relevant experience	2.00
viii.	Structure Engineer M.Sc. / ME Civil with 10 years of relevant experience OR B.Sc. / BE Civil with 15 years of relevant experience	2.00
ix.	Design Engineer (PHE) M.Sc. / ME Civil with 15 years of relevant experience OR B.Sc. / BE Civil with 20 years of relevant experience	2.00
x.	Design Engineer Electrical M.Sc. / ME Civil with 15 years of relevant experience OR B.Sc. / BE Civil with 20 years of relevant experience	2.00
xi.	Design Engineer HVAC M.Sc. / ME Mechanical with 15 years of relevant experience OR B.Sc./BE Mechanical with 20 years of relevant experience	2.00
xii.	Quantity Surveyor DAE Civil with 15 years of relevant experience	0.50
<b>4.2</b>	<b><i>Construction Supervision activity</i></b>	
xvi.	Resident Engineer B.Sc./BE Civil with 20 years of relevant experience	2.00
xvii.	Assistant Resident Engineer (Civil) B.Sc./BE Civil with 20 years of relevant experience	1.00
	Assistant Resident Engineer (Electrical) B.Sc./BE Electrical with 20 years of relevant experience	1:00
xviii.	Inspector (Civil) DAE Civil with 8 years of relevant experience	0.50
xix.	Inspector (Electrical) DAE Electrical with 8 years of relevant experience	0.50
xx.	Inspector (MEP) DAE MEP with 8 years of relevant experience	0.50
xxi.	Material Engineer BE (civil) / M.Sc. Geology with 15 years of relevant experience	1.00
xxii.	Quantity Surveyor DAE Civil with 15 years of relevant experience	1.00

Minimum Qualifying Marks 70%.

**(>70%-Pass, <70%-Fail)**

The Consultant having achieved 70% marks or more shall be considered "Pass" and only such cases shall be processed / considered for next stage i.e. financial bids opening.

(i) Financial Proposal Evaluation Criteria

$$\begin{aligned} \text{Lowest bid} &= 100 \text{ score} \\ \text{Score of evaluated bid} &= \frac{\text{Lowest bid Amount} \times 100}{\text{Evaluated bid Amount of Proposal under consideration}} \end{aligned}$$

(ii) Final Evaluation Results

The final results of the evaluation process will be determined by adding together the results of the technical and financial evaluations to determine the final ranking of each proposal.

$$\text{Combined evaluation} = \text{technical score} \times 0.8 + \frac{[\text{Lowest Bid}] \times 0.2}{\text{Evaluated bid}}$$

## Section 4. Technical Proposal – Standard Forms

### FORM TECH-1

#### TECHNICAL PROPOSAL SUBMISSION FORM

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{Location, Date}

To: [Name and address of Client]

Dear Sirs:

We, the undersigned, offer to provide the consulting services for [Insert title of assignment] in accordance with your Request for Proposals dated [Insert Date] and our Proposal. 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 association/as a consortium/as a joint venture with: {Insert a list with full name and the legal address of each member, and indicate the lead member}. We have attached a copy {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.

OR

If the Consultant’s Proposal includes Sub-consultants, insert the following:

We are submitting our Proposal with the following firms as Sub-consultants: {Insert a list with full name and address of each Sub-consultant. }

We hereby declare that:

- (a) All the information and statements made in this Proposal are true and we accept that any misinterpretation or misrepresentation contained in this Proposal may lead to our disqualification by the Client.
- (b) Our Proposal shall be valid and remain binding upon us for the period of time specified in the Data Sheet, Clause 10.1.
- (c) In competing for (and, if the award is made to us, in executing) the Contract, we undertake to observe the prevailing laws against fraud and corruption.
- (f) Our Proposal is binding upon us and subject to any modifications resulting from the Contract negotiations.

We undertake, if our Proposal is accepted and the Contract is signed, to initiate the Services related to the assignment no later than the date indicated in Clause 27.2 of the Data Sheet.

We understand that the Client is not bound to accept any Proposal that the Client receives.

We remain,

Yours sincerely,

Authorized Signature {In full and initials}: \_

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

**FORM TECH-2**

**Consultant's Organization and Experience**

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Form TECH-2: a brief description of the Consultant's organization and an outline of the recent experience of the Consultant that is most relevant to the assignment. In the case of a joint venture, information on similar assignments shall be provided for each partner. For each assignment, the outline should indicate the names of the Consultant's Key Experts and Sub-consultants who participated, the duration of the assignment, the contract amount (total and, if it was done in a form of a joint venture or a sub-consultancy, the amount paid to the Consultant), and the Consultant's role/involvement.

**A - Consultant's Organization**

[1. Provide here a brief description of the background and organization of your company (maximum 2 pages) and – in case of a joint venture – of each member for this assignment.]



**B - Consultant's Experience**

**RELEVANT SERVICES CARRIED OUT IN THE LAST FIFTEEN YEARS WHICH  
BEST ILLUSTRATE QUALIFICATIONS**

<b>Assignment Name:</b>	Photograph (if any)	
<b>Country:</b>		
<b>Location within Country:</b>		
<b>Name of Client:</b>		
<b>Address:</b>	<b>Duration of Assignment:</b>	
<b>Total No. of Person- Months of the</b>	<b>Start Date (Month/Year):</b>	<b>Completion Date (Month/Year):</b>
<b>Approx. Value of the Contract:</b>	<b>Approx. Value of the Services provided by the Firm</b>	
<b>Name of Joint Venture Partner or Sub-Consultants, if any:</b>	<b>No. of Professional Person-Months provided by the Joint Venture Partners or the Sub- Consultants:</b>	
<b>Name of Senior Regular full time employees of the Firm involved and functions performed:</b>		
<b>Narrative Description of Project:</b>		
<b>Description of Actual Services Provided in the Assignment:</b>		

### **FORM TECH-3**

#### **COMMENTS AND SUGGESTIONS ON THE TERMS OF REFERENCE, COUNTERPART STAFF, AND FACILITIES TO BE PROVIDED BY THE CLIENT**

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Form TECH-3: 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.

#### **A - On the Terms of Reference**

{Describe proposed modifications or improvement to the Terms of Reference (such as deleting some activity you consider unnecessary, or adding another, or proposing a different phasing of the activities). Such suggestions should be concise and to the point, and incorporated in your Proposal.}

#### **B - On Counterpart Staff and Facilities**

{Include comments on counterpart staff and facilities to be provided by the Client. For example, administrative support, office space, local transportation, equipment, data, background reports, etc.}

## FORM TECH-4

### DESCRIPTION OF APPROACH, METHODOLOGY, AND WORK PLAN IN RESPONDING TO THE TERMS OF REFERENCE

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Form TECH-4: a description of the approach, methodology and work plan for performing the assignment, including a detailed description of the approach and methodology proposed for the assignment.

{Suggested structure of your Technical Proposal):

- a) Technical Approach and Methodology
  - b) Work Plan
  - c) Organization and Staffing }
- 
- a) **Technical Approach and Methodology.** {Please explain your understanding of the objectives of the assignment as outlined in the Terms of Reference (TORs), the technical approach, and the methodology you would adopt for implementing the tasks to deliver the expected output(s), and the degree of detail of such output. Please do not repeat/copy the TORs in here.
  
  - b) **Work Plan.** {Please outline the plan for the implementation of the main activities/tasks of the assignment, their content and duration, phasing and interrelations, milestones and tentative delivery dates of the reports. The proposed work plan should be consistent with the technical approach and methodology, showing your understanding of the TOR and ability to translate them into a feasible working plan. A list of the final documents (including reports) to be delivered as final output(s) should be included.
  
  - c) **Organization and Staffing.** {Please describe the structure and composition of your team, including the list of the Key Experts, Non-Key Experts and relevant technical and administrative support staff. }

**FORM TECH-5**

**Work / Activity Schedule**  
(Bar Chart Form)

No.	Activity	Months											
		1	2	3	4	5	6	7	8	9	10	11	12

**FORM TECH-6**

**Team Composition and Assignment**

<b>No.</b>	<b>Position</b>	<b>Name</b>	<b>Tasks</b>

**FORM TECH-7**

**CURRICULUM VITAE (CV)**

1. Proposed Position
2. Name of Firm
3. Name of Staff
4. Date of Birth
5. Years with Firm
6. Nationality
7. Membership in Professional Societies
8. Detailed Task Assigned
9. Education:
10. Employment Record
11. Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience, and I am available to undertake the assignment in case of an award. I understand that any misstatement or misrepresentation described herein may lead to my disqualification or dismissal by the Client.

\_\_\_\_\_  
Signature of Expert **OR** authorized  
Representative of the Consultant  
(the same who signs the Proposal)

Date: \_\_\_\_\_  
(Day / Month / Year)

**FORM TECH-8**

**Time Schedule for Professional Staff**

Name	Position	Month									Total
		1	2	3	4	5	6	7	8	9	

## **Section 4. Financial Proposal - Standard Forms**

{*Notes to Consultant* shown in brackets { } provide guidance to the Consultant to prepare the Financial Proposals; they should not appear on the Financial Proposals to be submitted.}

Financial Proposal Standard Forms shall be used for the preparation of the Financial Proposal according to the instructions provided in Section 2.

- FIN-1      Financial Proposal Submission Form
- FIN-2      Summary of Costs
- FIN-3      Breakdown of Cost by Activity
- FIN-4      Breakdown of Remuneration
- FIN-5      Direct (Non Salary) Costs
- FIN-6      Breakdown of Charge Rates



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

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{Location, Date}

To: [Name and address of Client]

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Dear Sirs:

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

We are hereby submitting our attached Financial Proposal in accordance with the format provided in the RFP that includes all prevailing income & Sales taxes as per federal and provincial applicable taxes.

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 10.1 of the Data Sheet.

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

We remain,

Yours sincerely,

Authorized Signature {In full and initials}: \_\_\_\_\_

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

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

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

E-mail: \_\_\_\_\_

**FORM FIN-2 SUMMARY OF COSTS**

<b>Sr. No.</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Quoted Rate</b>	
				<b>In figures</b>	<b>In words</b>
1	Design Fee	Complete Job	1		
2	Detailed Construction Supervision Fee				
<b>TOTAL</b>					

**Note:**

- Rate should be quoted as Lump Sum Cost for Design Activity and on percentage basis of Project Cost Estimate for Detailed Construction Supervision Activity.
- Quoted Rate should be inclusive of all applicable income & sales taxes in accordance with both federal and provincial laws.

**FORM FIN-4 BREAKDOWN OF REMUNERATION**

<b>Sr. No .</b>	<b>Name</b>	<b>Position</b>	<b>No.</b>	<b>Man- Month</b>	<b>Staff Month Rate (PKR)</b>	<b>Amount</b>
<b>CONSTRUCTION SUPERVISION SERVICES</b>						
<b>Professional Staff</b>						
1						
2						
3						
4						
<b>Sub-Professional / Support Staff</b>						
1						
2						
3						
4						

**FORM FIN-5 DIRECT (NON SALARY) COSTS**

SR. NO.	NOMENCLATURE	UNIT	QUANTITY	RATE (PKR)	AMOUNT
<b>CONSTRUCTION SUPERVISION SERVICES</b>					
1					
2					
3					
4					

LIST ALL DIRECT COSTS ASSOCIATED WITH THE ASSIGNMENT

**FORM FIN-6 BREAKDOWN OF CHARGE RATES  
FOR  
SUPERVISION STAFF**

<b>Sr. No.</b>	<b>Name</b>	<b>Position</b>	<b>Basic Salary per Month</b>	<b>Social Charges (___%age of 1)</b>	<b>Overheads (___%age of 1)</b>	<b>Sub-Total (1+2+3)</b>	<b>Fee (___% of 4)</b>	<b>Away from Headquarter Allowance</b>	<b>Proposed Fixed Rate per Working Month</b>

**ATTACH EVIDENCE OF OVERHEAD AND SOCIAL CHARGES COSTS**

## **Section 5. Terms of Reference**

### **5.1 INTRODUCTION**

EHFPRO (Pvt) Limited is an entity formed as a Private Public Partnership with Federal Government Employees Housing Foundation it is solely made for the Construction of various housing schemes across Pakistan. EHFPRO (Pvt) Limited now intends to construct a mix use development located in the Karachi Cantonment Area near Cantt. Railway Station.

Commercial cum Residential High-end Development shall be designed on 1.478 Acres comprising of 2 Bed and 3 Bed Apartments with Drawing Room and Servant Quarter. The estimated built-up area of the project is **1,000,000 square feet** approximately (500,000 square feet for phase 1 & 500,000 square feet for phase 2).

Commercial component should be designed as per site context. Design should ensure maximum utility of FAR. FAR shall be 1:5.5. Footprint 50%

Sufficient parking as per applicable bylaws limited to maximum 2 basements and or above grade as deemed appropriate. The scheme should maximize residential component and limit commercial development suitable for location. The design should ensure appropriate utility and placements of A/C outer units, laundry, fridge, gas geysers etc. while planning appropriate layouts.

### **5.2 PROJECT OBJECTIVE**

Objectives of the Project reflect the vision and expectations of the Client. Selected Consultant shall be responsible to achieve these objectives in its entirety and true spirit.

5.2.1 To prepare the architectural building design through detailed assessment.

5.2.3 To prepare the structural, MEP, landscape, infrastructure, BMS and ancillary engineering design.

5.2.4 To confirm that the incorporation of state of the art Building Management System (BMS), life cycle economy and increased safety and security levels.

5.2.6 To confirm delivery of project design in compliance with all applicable standards, regulatory and statutory requirements.

5.2.7 To confirm that the project is within stated scope, time and quality constraints.

### **5.3 SCOPE OF SERVICES**

#### **5.3.1 General**

The Consultant shall provide Professional and technical Personnel and also all the equipment necessary for the proper execution of the Services as requested in the Scope of Services outlined below. The Consultant's Team shall liaise and coordinate with all concerned Authorities and shall be familiar with all local government laws and regulations.

Consultant should consider the fact that the design of building shall be such for which reasonable construction capability is available within Pakistan. Only specialized services such as piling, kitchen etc. can be allowed as exception. The design should be such that it allows completion of the Project within the completion period. Design should not result in hampering building function, loss of space or expenses of unnecessary nature.

Consultant should demonstrate that the locally available materials such as cement, crush, sand and steel etc. shall be used for the building. If not then Consultant to suggest what are the suitable alternatives? Same shall apply to other materials such as glass, aluminium, wood, cables, MCCs, power generators, HVAC, bathroom fittings, floor tiles, paints etc.

Consultants should familiarize themselves with in vogue practices in Pakistan in construction industry i.e. gensets / turbines, waste recovery boilers, absorption chillers (co-generation), water management, motion sensors to conserve electricity, pollution control during construction, QA/QC /HSE during entire Project Duration etc. Consultants are advised not to waste space, time, money etc. and not design something that shall be hit by lack of construction expertise in Pakistan.

The scope of Services to be performed by the Consultant to the full satisfaction of the Client and in accordance with the Contract and shall include but not limited to the activities and stages as described below:

**Assist in obtaining requisite approvals / NOCs**

The Consultant shall prepare all required documents for submission to the relevant departments for obtaining NOCs. The fees and other expenses for obtaining NOCs will be borne by the Client.

**Activity I:**

- a) Stage 1: Data Collection, Survey, Analysis, and Project Brief
- b) Stage 2: Concept Design
- c) Stage 3: Preliminary/ Schematic Design
- d) Stage 4: Detailed Design / Working Drawings and Draft Tender Documents
- e) Stage 5: Final Design and Tender Documents
- f) Stage 6: Services during Tendering

**Activity II**

Pre-construction Services

**Activity III:**

- a) Stage 1: Construction Management
- b) Stage 2: Construction Supervision
- c) Stage 3: Defect Liability Period (DLP)

**5.3.2 Activity – I, Architectural & Engineering Design**

**5.3.2.1 Stage 1: Data Collection, Survey, Analysis and Project Brief**

The Consultant shall collect relevant data and ascertain, in conjunction with the Client, other Consultants and any other third

parties, the Project requirements. These shall include but not limited to the following:

- a. Client's Project brief, and site data supplied by the Client, data collected by the Consultant from Authorities having jurisdiction.
- b. Project execution strategy.
- c. Budget and time schedule limitations.
- d. Site Information, such as:
  - Drawings of existing structures, features and utilities, if any.
  - Climatic and environmental data.
  - Boundary limits.
  - Wind data and any other requirements as appropriate.
  - Location of nearby utilities structures (major).
  - Statement on fundamental general and specific codes, building regulations and zoning requirements.
  - Any available data on the subsoil conditions in adjacent plots.
  - Extent of infrastructure.
  - Site constraints

The Consultant shall contact appropriate Public Agencies, utility and service providers having jurisdiction in Karachi, to obtain relevant data related to the Project and Project site, and to determine the location and capacity of public facilities and services.

### **Project Design Brief**

The Consultant shall develop a Design Brief and report for the Project and established standards for space requirements, in consultation with the client, in compliance with planning regulations. The Consultant may recommend variations to the planning regulations which are justified and add value to the planning for the project. Such variations would be subject to Client's approval.

The Consultant shall, in close collaboration with the Client, finalize the Project Design Brief with the objective of developing the Site and to include but not limited to:

- a) Review of local municipality rules and regulations applying to the site and their application
- b) All Spaces allocations.
- c) Operational requirements, in collaboration with the Client.
- d) Facilities requirements.
- e) Special relations between facilities
- f) Interfaces with existing or proposed facilities
- g) Special equipment and systems
- h) Extent of the infrastructure, landscape and external works
- i) Survey of existing and projected pedestrian and vehicular traffic, and emergency and services routes within the plot boundaries.



- j) Client's building management organization chart clearly showing organizational framework and hierarchy.
- k) Principal users of the facility
- l) Environmental Report and study
- m) Review of all applicable local authorities regulatory requirements.
- n) Review of all applicable cost of financial data.

The Consultant shall issue a report describing the Project Design Brief and include but not limited to the following for Client's review and approval.

(I) Proposed staff organization chart for all design stages. Details of staff shall be submitted for the Client's approval.

(II) **Analysis:** At the end of the data collection, the Consultant shall submit a Data Collection and Analysis Report for the Client's review and approval. This report shall include, but not limited to the following:

- An analysis of the collected information, i.e. regulatory, physical financial, environmental, traffic, parking, utility and demographic opportunities and constraints and their effects upon the design process and intent.
- An analysis of the purpose for each element of the Project, including a clear statement of goals and more specific objectives.
- All plans, charts graphs, matrices, sketches and similar graphic material necessary to provide a clear understanding of the above analysis.
- Project Deliver approach / implementation strategy with recommendations on the most effective means for organization and timely delivery of the Project.

During this stage and in parallel with, the Consultant is required to produce and present to the Client, samples of advanced Architectural design sketches and design proposals indicating design principles options for the Client's review, comments and selection.

#### **5.3.2.2 Stage 2: Concept Design / Concept Engineering**

- a. The Consultant shall develop the Concept Design and Concept Engineering Design. All designs shall be subject to review and approval by the Client. This shall be deemed to include all relevant aspects of master planning, architectural, and structural, MEP and specialist services.
- b. In addition to developing the basic Architectural Concept, this stage shall include but not limited to:
  - I. Structural Conceptual Design(s)
  - II. Long Lead Procurement Items
  - III. Finishes, MEP, External Works Conceptual Designs

IV. Design of FF&E, as may be applicable

- c. The Engineering Concept Design Report shall be submitted to the Client for review and approval. Necessary feedback/liaison with the Client, other Consultants and/or third parties and other relevant authorities shall be maintained by the Consultant during this Stage.
- d. It is the responsibility of the Consultant to obtain all pertinent information and other data as shall be necessary and to carry out all surveys needed to perform the Services.
- e. The Consultant shall manage the program for the delivery of this stage taking into full consideration the Services to be provided by all other Consultants.
- f. Following submission of the Engineering Concept Design Report, the Consultant shall make a full presentation of the Project Concept to the Client. The deliverables based on the approved Project Design Brief, under the scope of work of this Stage shall consist but not limited of the following:

**Architectural Concept Design  
Architectural Drawings**

- a. Site plan illustrating the proposed utilization of the site in terms of sitting in relationship with any existing and projected construction, building access points and internal vehicular and pedestrian communication routes.
- b. Area analysis diagrams.
- c. Concept floor plans showing the basic space accommodation layout within the building(s) including horizontal and vertical mechanical transportation systems as well as mechanical and electrical equipment rooms and service shafts.
- d. Fire zoning floor plans and evacuation floor plans.
- e. Concept building sections and elevations to define the overall massing for the project components and the architectural character.
- f. Indicative space utilization plans for the purposes of electromechanical service distribution.
- g. Concept layouts for the proposed indoor furniture and landscape scheme including planting, decorative fountains, recreational facilities and water features.
- h. Presentation material, as appropriate, to give a clear understanding of the design intent of the Project. Mounted architectural colored drawings and perspectives to a suitable scale, shall be included.
- i. Indications of the need for any phasing and interface with existing facilities and site security.
- j. Car park and traffic flow preliminary circulation / allocation drawings in basement and ground.

- k. Car park study showing the required car park spaces as per the local codes requirements, international regulations and best practices.

**Vertical Circulation Preliminaries**

- a. Floor plans showing the location of elevators, escalators, etc and machine rooms.
- b. Vertical circulation calculations report.

**Landscaping and External Works**

- a. Concept layouts and 3D visualizing for:
  - (1) Hard landscaping
  - (2) Soft landscaping
  - (3) Landscaping external furniture
  - (4) External Lighting

**Engineering Concept Design**

The Consultant at all times during this stage shall liaise and coordinate with the Client, other Consultants and any other third parties as may be necessary to ensure that a fully coordinated Engineering and Architectural Concept Design is developed.

**Structural**

The structural section shall cover mainly the structural systems and alternatives which may be adopted for the different components of the Project. It shall also include the structural design criteria and basic international standard and codes of practice that shall be applicable in the design.

**Mechanical**

The mechanical section shall cover, but not limited to the following elements:

- a. General description of the proposed systems and equipment
- b. Basic design criteria
- c. Codes and Regulations
- d. Domestic water estimated demand
- e. HVAC approximate load estimate
- f. Firefighting systems (detection and protection as per NFPA).
- g. Simulated smoke model
- h. Pumping systems estimated load
- i. Ventilation systems estimated loads.
- j. Energy conservation and energy efficient aspects

**Electrical**

The electrical section shall cover the following elements:

- a. General description of the proposed systems and equipment
- b. Basic design criteria including estimated number of transformers to be used
- c. Codes and regulations
- d. Estimates for normal and emergency loads based on load density values (VA/m<sup>2</sup>) associated with the space requirements program.

- e. Energy audit
- f. Medium and Low Voltage Systems
- g. ELV Systems

**Vertical and Horizontal Transportation Analysis**

- a. General description of the proposed systems and equipment's
- b. Basic design criteria
- c. Codes and regulations
- d. Passenger traffic study

**Infrastructure and Utilities**

Section shall cover the following elements pertaining to transport systems, roads, water, firefighting, sewerage, surface drainage, power, low current distribution, sample collection and garbage:

- a. General description of the proposed systems
- b. Basic design criteria
- c. Codes and regulations
- d. Sizing of the various components.
- e. Various system alternatives along with comparative studies between alternatives

**Lighting Design (Internal and External)**

The lighting design section shall describe the lighting concept design and shall include:

- a. Project's brief
- b. Basic design criteria
- c. General description of the proposed system and equipment
- d. Concept drawings and layouts showing the lighting design intent of the building(s)
- e. Concept building sections and elevations to define the Project components and the lighting design character.
- f. Presentation material, as appropriate, to give a clear understanding of the design intent of the project. Mounted interior design colored drawings and perspectives, to a suitable scale, shall be included.
- g. 3D visualizing

**Special System Drawings including Structural Cabling Systems (SCS) and Waste Handlings Systems:**

- a. Conceptual Drawings and preliminary diagrams for the proposed systems.
- b. Proposed SCS Space allocation and containment systems.
- c. Basic Design criteria.

**Infrastructure, Landscape and Utilities Drawings**

- a. Conceptual drawings and preliminary diagrams for the proposed system pertaining to:
  - i. Domestic Water Supply
  - ii. Firefighting water supply
  - iii. Sewerage drainage
  - iv. Surface drainage
  - v. Power and low current distribution and street lighting
  - vi. Security System

vii. SCS

- b) Information System (Networking Design):  
Layout schematic designs of infra networking system
- c) BMS/RMS: The system should cover the following :  
BMS should be integrated with Electromechanical Design.  
Design should include:
- i. Scalable BMS software and Hardware specifications
  - ii. Interfaces / controllers to the system / sub systems
  - iii. Monitoring and control of processors, controllers, Remote Terminal Units and Programmable Logic Controllers
  - iv. Operator Man Machine Interface
  - v. Video Display Integration
  - vi. Data Collection
  - vii. Alarm management, attending and reporting

The BMS design (Software and Integration) shall cover automation to the following systems:-

- HVAC
- Fire Protection System
- Surveillance and Security
- Electrical System
- Water Supply System

The Consultant shall coordinate with the Client and other Consultants nominated by the Client through meetings and workshops and shall not proceed with the Preliminary Design unless the Architectural and Engineering Concepts are approved by the Client.

**Concept Design Report**

Consultant shall prepare the Concept Design Report which shall include the basic structural and Building Services (MEP), engineering studies and design and appropriate site plans which take into account the Data Analysis gathered in Activity-I, Stage 1. The studies shall form the basis for a Concept Design Report for the project. The report shall include but not limited to the following elements:-

- Organization plans in the form of spatial relationship diagrams.
- Conceptual site and landscape plans.
- Conceptual traffic plan, to include vehicular, pedestrian, public safety and parking arrangement (per municipal standards).
- Conceptual buildings structural design plans, single line drawings with all areas labeled.
- Conceptual buildings engineering system (MEP), vertical transportation, initial location of services rooms, access and egress to the buildings and in connection with the

parking, design plans, single line drawings with all areas labeled, graphic and written form conceptual sections.

- Space analysis (net to gross ratios etc). Outline specifications for the Project including all special systems / materials / equipment and Value Engineering work shops.
- Cost Estimate(s).

The Consultant must develop a submission to the Client, along with the deliverables of the concept design stage, a Cost Estimate and Cash Flow based on the concept designs. The Consultant shall ensure that the cost shall not, under any circumstances, exceed that of the Project budget. the Consultant may be requested, at no extra cost, to redesign and amend the concept designs so that the construction cost is within the project budget.

### **5.3.2.3 Stage 3: Preliminary Design**

This stage shall commence immediately after the Client's written approval of the Concept Design. The Consultant shall, based upon the approved Concept Design, prepare a Preliminary Design that shall define the building(s) in terms of final space layout, construction materials, interior and exterior finishes and built in furniture, equipment and specialist's equipment. The Consultant shall:-

- a) Commence the Preliminary Design following receipt of the Client's approved Concept Design Documentation.
- b) Manage the program for the delivery of this stage taking into full consideration the Services to be provided by other Consultants.
- c) Hold initial meetings to review the Design Development documentation.
- d) Develop the approved exterior and interior designs, taking into account the Client's design review comments and recommendations, including Authorities requirements.
- e) Hold discussions with relevant statutory authorities and departments.
- f) Carry out Geotechnical Investigation through an approved specialist investigation company, site geotechnical soil investigations and analyze report prepared by specialist Investigation Company.
- g) Prepare general arrangement drawings and preliminary IT, architectural, structural, mechanical, electrical, and plumbing, infrastructure, landscape plan, sections and elevations covering all areas of design.
- h) Evaluate various structural, ELV, security, \mechanical, electrical, plumbing, medical gases, vertical transportation, and infrastructure landscape systems and make recommendations on the proposed options and develop preliminary design accordingly.
- i) Establish the basis of and coordinate the detailed architectural, structural and MEP services design, interior

- design etc. and operation of the building in conjunction with the Client, sub-Consultants and other Consultants.
- j) Carry out the acoustic modeling for specific areas of the development as required and prepare acoustic studies report.
  - k) Prepare fire, life safety and loss prevention report.
  - l) Conduct vertical and horizontal transportation analysis and recommendations.
  - m) Estimate loads and formulate concept/preliminary design philosophy for infrastructure including HV distribution.
  - n) Provide bulk MEP loads for those spaces.
  - o) Identify plant room space and bulk MEP requirements for landscape storage areas, water features and irrigation.
- Make preliminary submissions of all available information to the relevant authorities.

The Consultant shall also, at his own expense, seek expert advice of a lighting specialist Consultant for the internal and external facades design for the lighting. The Consultant shall provide lighting calculations and three dimensional rendering of lighting effects in selected areas, lighting dimming and control schedules with values of preset scenes and power loading.

The Consultant shall accommodate in the preliminary design any environmental considerations that may be required.

The Consultant shall update the Cost Estimate for the Project.

At the conclusion of this stage, the Consultant shall prepare a Preliminary Design Report that shall summarize all of the work undertaken during this Stage. The Preliminary Design Report shall be submitted to the Client for review and approval. Liaison with the Client and other relevant authorities shall be maintained during this period. The deliverables under the scope of work of this stage shall consist of, but not limited to, the following:

#### **Architectural drawings**

The Preliminary Design drawings to appropriate scales shall include the following:

- a) Code analysis with drawings showing means of egress and fire rescue.
- b) Site plan showing access routes, parking areas, floor elevations, existing and proposed contours, plantings areas, buildings location and Project limit lines.
- c) Floor Plans showing each department.
  - i) Space allocation and furniture layouts
  - ii) Cores and shaft
  - iii) Wall thickness
  - iv) Fixed equipment
  - v) Horizontal and vertical mechanical transportation system applicable.
  - vi) General dimensions and openings.
  - vii) Fire zoning and partition type and fire rating

- viii) Reflected ceiling plans
- d) Roof plans showing preliminary drainage layout and equipment locations (if any).
- e) Large scale partial floor plans of complex areas of important building components.
- f) Longitudinal and transverse building sections showing floor to floor heights, ceiling heights and overall heights.
- g) Building elevations showing exterior finishes openings and floor levels.
- h) Colored interior and exterior perspectives to show the main areas and relations.
- i) Technical schedules.
- j) Proposed suppliers list
- k) Schedule of alternatives (with recommendations) for building materials, interior and exterior finishes, methods of construction, maintenance and services systems, etc.
- l) A physical model of the whole project at an appropriate scale to the Client's approval.

### **Structural Drawings**

Structural drawings and proposals of systems and shall include Value Engineering, exercises of alternative materials and design solutions. Preliminary design drawings shall include but not limited to:

- a) Standard details
- b) Raft or Piles general arrangement plan and details
- c) Typical plans
- d) Typical sections
- e) Typical stairwells
- f) Column and beam schedules
- g) Shear wall details
- h) Shear wall elevations

### **Mechanical, Electrical, Fire, Water supply and Plumbing Drawings**

Mechanical, Electrical, Fire, Water Supply and Plumbing drawings and proposals of systems including Value Engineering exercises of alternative materials and design solutions:

- a) Air conditioning and ventilation preliminary drawings
- b) Water services preliminary drawings
- c) LPG and fuel oil preliminary drawings
- d) Sprinkler, hose reels, hydrants preliminary drawings
- e) Public health preliminary drawings
- f) Electrical preliminary drawings
- g) Earthing preliminary drawings
- h) Fire Detection / PAVA preliminary drawings
- i) ELV preliminary drawings
- j) BMS/RMS drawings
- k) General arrangement plans-air conditioning and ventilation
- l) General arrangement plans-public health
- m) General arrangement plans-sprinkles / hose reels / hydrants
- n) General arrangement plans-water and LPG service



- o) General arrangement plans-power and ancillaries
- p) General arrangement plans-lighting
- q) General arrangement plans-data, IT voice, CCTV, security, access control etc.
- r) General arrangement plans- fire policy
- s) Key plans-air conditioning
- t) Primary plant room drawings and sections
- u) BMS/RMS points schedule
- v) Standards details
- w) Technical schedules
- x) Proposed suppliers list

### **Vertical and Horizontal Transportation Drawings**

Vertical and Horizontal Transportation drawings, transportation analysis report and proposals of systems including Value Engineering exercises of alternative materials and design solutions.

### **Special Systems**

Studies and drawings of special systems including Value Engineering exercises of alternative materials and design solutions shall be provided.

### **Infrastructure and Utilities**

Preliminary design and drawings for infrastructure and utilities including Value Engineering exercises of alternative materials and design solutions of the following systems:

- a) Site development, site survey and existing conditions
- b) General Arrangement and layout drawings
- c) Horizontal and vertical alignment, setting out details
- d) Water supply system
- e) Firefighting system
- f) Sewerage system
- g) Surface drainage system
- h) Power and low current distribution networks
- i) Roads, accesses, pathways and pedestrian bridges etc.
- j) BMS/RMS/Data Centre System
- k) Storm water network
- l) Main irrigation system
- m) Roads
- n) Roads lighting system
- o) Central plants and related system
- p) Gate and access
- q) Any other drawings and systems as viewed necessary.
- r) Initial load and distribution calculations
- s) Solid waste system

### **Landscape including Water Features, Lighting etc.**

- a) Layout drawings (placement, massing, grouping and pattern) and plants
- b) Initial details of planting system (planting soil type and composition, planting pits and terrain sheets, etc)

- c) Preliminary detailed irrigation systems and layout drawings showing preliminary network distribution, zones and mainline routing, and control.
- d) Layout of sidewalks, etc.
- e) Jointing, patterns, edging, finishes and materials
- f) Proposed lighting philosophy
- g) Proposed list of suppliers

### **Outline Specifications**

The Consultant shall submit outline/draft specifications for all components of the Project. These shall include materials and medical equipment specifications as well as performance specifications for custom manufactured and assembled system. The outline specifications shall be submitted with the preliminary design report in a separate bound document.

The Consultant shall propose, for Client's approval, a standardized format for the presentation of performance specifications. The Consultant shall submit one complete performance specifications section with the outline specifications, to demonstrate to the Client the format to be adopted.

### **Permits and Authorities Approvals**

The Consultant shall prepare all requisite documents necessary to obtain all approvals and permits and shall submit the same to all Governmental Authorities having jurisdiction over the Project. The Consultant shall follow up with the various Authorities to review technical matters and shall obtain all approvals and permits with the assistance of the Client. The cost of any permits and fees for approval shall be borne by the Client.

### **Preliminary Design Report**

The preliminary design report shall include, but not limited to, the following sections, including the above sections and requirements as listed:

- a) Executive Summary to include areas of concern, scope changes, major decisions taken during this stage etc.
- b) Updated managerial reports
- c) Updated space program to completion
- d) Updated cost estimate along with supporting material such as rate analysis of BOQ items and cash flow to completion.
- e) Updated area gross floor calculations and net area schedules
- f) Car parking calculations
- g) Energy audit
- h) Review and update of all design disciplines for the project
- i) Alternative design solutions together with a summary of the results of Value Engineering exercise and recommendations for the implementation of alternatives.
- j) Summary of preliminary design cost estimate, together with reconciliation with approved budget.
- k) Project procurement and execution strategies
- l) Updated design and construction activity risk registers.

- m) Structure design models
- n) 3D model of the final design complete in all respect.

**5.3.2.4 Stage 4: Detailed Design / Working Drawings and Draft Tender Documents**

Upon the approval of the preliminary design by the Client, the Consultant shall immediately proceed with the preparation of the detail design and tender documents of the project, which shall initially be submitted in draft form.

The sizes, layouts and routes of all services, structures and spaces shall be finalized, coordinated and submitted as part of the Detail Design drawings and documents.

During this stage:

- a) The Consultant shall prepare detail design documentation comprising location, assembly and component drawings, schedules, specifications and bills of quantities.
- b) The Consultant shall prepare comprehensive particular specifications covering all aspects of the work, noting requirements of Client.
- c) All drawings shall be fully coordinated across the disciplines, including all other Consultants and shall be signed and checked accordingly by the Consultant.
- d) The Consultant shall obtain, at completion of this stage, all required permits including the main building permit and shall consult with all services authorities, relevant governmental departments, and secure approval certificates and no objection certificates as required.
- e) The Consultant shall prepare and submit weekly progress report of design activities, comprising actual and planned status of completion.
- f) The Consultant shall prepare comprehensive conditions of particular applications for the construction contract keeping requirements of Client in view.
- g) The Consultant shall review the cost plan prepared at stages 1 and 2 and revise in line with the Detail Design drawings and specifications incorporating approximate quantities. The Consultant shall ensure that project budget is not exceeded.

The Detail Design shall comprise detailed and fully coordinated Tender Drawings, Specifications and other Documents including but not limited to the following:

**Detail Design Drawings**

The drawings that shall be to appropriate scales shall include the under mentioned:

**Architectural drawings**

- (a) Site plan and details, including external works and site development

- (b) Floor plans
- (c) Fire zoning plans
- (d) Sections and elevations
- (e) Floor partitions in main areas, if any
- (f) Windows / wall sections
- (g) Core and stair details
- (h) Vertical and horizontal mechanical transportation system
- (i) Large scale interior and exterior details
- (j) Reflected ceiling / floor patterns plans
- (k) Partition types and general details
- (l) Casement works types and general details
- (m) Wood work types and general details
- (n) Metal work types and general details
- (o) Door schedule and general details
- (p) Finishes schedule and details
- (q) Miscellaneous details to cover the entire project
- (r) Signs and signage
- (s) Windows/Openings schedule and general details
- (t) Ironmongery schedule
- (u) Location of service ducts, waste handling chute, Pneumatic Tube system etc.

#### **Structural Drawings**

- (a) Foundation layout plans and details
- (b) Floor framing plans and details
- (c) Roof framing plans and details
- (d) Reinforcement details for all reinforced concrete works
- (e) Details of expansion joints, water stops, special openings in slabs and beams, etc.
- (f) Stairs and miscellaneous structures details
- (g) Details of tanking/waterproofing and roof water-proofing

#### **Mechanical – Water Supply and Plumbing Systems**

- (a) Floor plans for all system including sanitary drainage, rain water drainage with drain fittings, water supply with water treatment units and pressurizing pumps, hot water distribution network with hot water generators and circulating pumps specials and firefighting systems.
- (b) Preliminary and riser diagrams for all above-mentioned systems.
- (c) Miscellaneous standard details
- (d) Miscellaneous special details
- (e) Control diagrams
- (f) Equipment performance schedule
- (g) Internal and external windows/openings and structure and washing / cleaning system preliminary detail
- (h) Schedule of sanitary ware
- (i) Plant room details
- (j) Major builder's work details
- (k) Schedule of miscellaneous sanitary fittings, towel rails, mirrors, toilet roll holders and the like.
- (l) All equipment layouts

## **Mechanical – HVAC**

Central cooling and heating system equipment plans and sections, air handling units plan and sections.

- a) Floor plan including ductwork and piping
- b) Machine room plans and sections
- c) Preliminary and riser diagrams for piping and ductwork systems including chilled water or refrigerant piping etc.
- d) Typical sections
- e) Miscellaneous standard details
- f) Miscellaneous special details
- g) Motor control center schedules
- h) Building management system
- i) Equipment performance schedules

## **Electrical, Fire and ELV Drawings**

- (a) Floor plans showing lighting installations layout, call bells etc. and details (normal and emergency)
- (b) Floor plans showing electrical and convenience power outlets installation layout and power supply to electrically operated mechanical equipment
- (c) Floor plans showing low current systems installations layout (telephone, fire alarm and emergency lighting, master antenna, card access, CCTV, BMS, RMS etc.)
- (d) Floor plans showing containment system
- (e) Main distribution boards, feeders and panel boards schedules
- (f) Power and low current systems preliminary diagrams
- (g) Transformers and generator room equipment layouts and details
- (h) Lighting protection and earthing system installations of details
- (i) Legend, general notes and miscellaneous installation details
- (j) Interface with building management system
- (k) Protection relay coordination report
- (l) List of recommended manufacturers for major/critical equipment
- (m) Illumination study drawings.

## **Vertical and Horizontal Systems Drawings**

- (a) Floor plans showing locations of elevators, escalators and travelators.
- (b) Machine room details
- (c) Interface with Building Management System

## **Special Systems**

Appropriate and necessary plans and all details as required.

## **Infrastructure and Utilities Drawings**

The final design of the various infrastructure and utilities shall be produced to include the following drawings:

- (a) Plans and details for the water system
- (b) Plans, sections and details for firefighting water system
- (c) Plans and details for surface drainage system

- (d) Details of connections to public utilities and off site utilities
- (e) Plans and details for power and low current distribution networks
- (f) Decorative features and details
- (g) Plans and details of external signage
- (h) Appropriate and necessary plans and details as required

### **Landscape Drawings**

Prepare a final coordinated detail design drawings and documentation package consisting of the following:-

- (a) Plans, sections and elevations of the site
- (b) Special pavement materials (type and location)
- (c) All planting materials and sizes
- (d) Landscaping lighting
- (e) Retaining walls, steps and ramps
- (f) Special water features and the likes
- (g) Grading plans
- (h) Planting plans
- (i) Irrigation drawings, including final calculations of irrigation demand and storage requirements.
- (j) Lighting layout plans
- (k) Fences
- (l) Street Furniture

### **Draft Final Specifications**

The Consultant shall prepare and submit, in previously approved formats, specifications for all project components. These shall include quality control /assurance requirements, product detail, technical specifications and execution and workmanship requirements. The project specifications shall also include performance specifications for custom manufactured and assembled systems.

All specifications of materials, equipment, furniture and finishes etc. shall be with proven performance and shall ensure high performance and the capability of withstanding repetitive abuse by users. Specifications of materials shall also be based on being “maintenance friendly” and also include a schedule of spares.

### **Draft Final Bills of Quantities**

The Consultant shall prepare and submit in previously approved formats and in accordance with previously approved method of measurement, Bills of Quantities for the Construction Contract.

### **Draft Tender and Contract Conditions**

The Consultant shall advise the Client and review when requested, the following draft Tender and Contract Documents. These documents include but are not necessarily limited to:

- Instructions to Tenders
- Form of Tender and Appendices to Tender
- Conditions of Contract
- Any other documents

### **Confidential Final Cost Estimate(s)**

The Consultant shall prepare and submit a confidential Final Cost Estimate for the project, supported by fully priced Bills of Quantities. If the Final Cost Estimate exceeds the approved budget of the project, the Client shall have the right to instruct the Consultant to amend, without any additional fees, the Final Design to ensure that the Final Design Cost Estimate does not exceed the Approved Budget, **since** Consultant having continuously updated the cost estimates throughout the previous Design Stages. Detail total cost analysis shall include following:-

- Construction cost including Civil and MEP works, HVAC, Information System
- Land development cost to include external preliminary services and open car parking.
- Authority having jurisdiction costs to include permitting and review.
- Inflation cost to be catered for duration of the project.
- Project Contingency.
- Consultant's additional cost in case of delay in construction of the project from original envisaged program.

The Consultant shall carry out a review of the specifications and drawings prepared to confirm or otherwise conformance with the materials and products on which the Approved Budget is based. The Consultant shall also advise the Client of any non-conformance together with the estimated cost effect.

### **Area Calculations**

The Consultant shall update and complete the project Gross and Net area calculations.

#### **5.3.2.5 Stage 5: Final Design and Tender Documents**

Following the approval of the Detailed Design, the Consultant shall prepare and submit the Final Design and Tender Documents incorporating the Client's review/comments of the previous stage and the final Bills of Quantities.

The Consultant shall manage his efforts as they relate to the Master Time Schedule for the delivery of this stage taking into full consideration the services to be provided by other Consultants.

The Consultant shall allow for early enabling works tender packages, based on his finalized design and that the Client may request to accelerate the construction work program.

### **Final Design and Tender Documents**

Final Design and Tender Documents shall comprise:

### **Final Design Report**

On completion of the Final Design and Tender Document Stage, the Consultant shall submit a Final Design Report summarizing all stages of the design.

### **Tender Documents**

#### **Volume 1 – Conditions of Contract**

- a) Instructions to Tenders
- b) Form of Agreement
- c) Form of Tender Bond
- d) Form of Performance Bond
- e) Form of Tender and Appendix to Tender
- f) Conditions of Contract comprising:
  - g) Part I - General Conditions of Contract
  - h) Part II - Conditions of Particular Application

The foregoing shall be bound by the Consultant into one document and provided with a printed cover.

The desired number of copies of tender documents comprising of all volumes shall be provided by the consultant for sale of tender and for the client official use.

#### **Volume 2 – Specifications**

These documents (if more than one volume) shall be prepared by the Consultant; each shall be bound and provided with a printed cover.

#### **Volume 3 – Bills of Quantities**

This document shall be prepared by the Consultant, bound and provided with a printed cover by the Consultant.

#### **Volume 4 – Drawings**

Final drawings shall be prepared by the Consultant to appropriate size and listing.

### **5.3.2.6 Stage 6: Tendering and Pre-Construction Activities**

#### **Prequalification of Contractors**

The Consultant shall make recommendations and assist the Client in selecting the preliminary list of contractors (for the various packages) to submit an expression of interest in tendering for the project. The Consultant shall prepare draft proposals for pre-qualification criteria and procedures, to be submitted, discussed and approved by the Client.

The Consultant shall undertake the pre-qualification of the contractors (for the various construction packages). The Consultant shall submit a comprehensive report to the Client recommending a short list of contractors to tender for the Project. The short listing of contractors shall be based on pre-determined



criteria which shall be fully discussed and agreed in advance with the Client.

### **Tender Services**

- a. **Tender Clarifications.** The Consultant shall review all Tenderers' queries and prepare appropriate responses in consultation with the Client (who shall review any commercial queries) in a timely manner so as not to delay the programme, for the Client's approval before issue to Tenderers. All addenda and bulletins shall only be issued with the Client's approval. All correspondence with Tenderers shall be copied to the Client.
- b. **Tender Addenda.** The Consultant shall, subject to the approval of the Client, prepare any addendum to the Tender Documents if and when required. The addendum shall be issued to all Tenderers for incorporation into their Tender Offer in a timely manner so as not to delay the programme.
- c. **Tenders Evaluation:**
  - i) The Consultant shall attend tenders openings.
  - ii) The Consultant shall evaluate Tenderers' technical / financial offers and shall prepare a Tender Report with analysis and recommendations.
- d. **Award of Construction Contract**

The Consultant shall:

  - i.) Assist the CLIENT in the discussions and negotiations with the bidders throughout the process till Contract Award.
  - ii.) Prepare the required number of "Approved for Construction" drawings and other contract documents for the construction contract. The AFC drawings shall incorporate all revisions and addenda issued since issue of the tender.

### **5.3.2 Activity III Construction Management & Construction Supervision**

- **Construction Management**

This shall include the following:

- i. Work as the Engineer or Employer's Representative within the context of the Conditions of Contract.
- ii. Study the technical specifications that are provided by PMU as a part of the contract documents, designs and drawings of various components for the canal works.
- iii. Review and recommend for approval the contractor's detailed work program, method statement for construction and commissioning, availability and ensuring the adequacy of contractors' inputs in terms of materials, equipment, construction machinery and human resources in accordance with the

- provisions contained in the work specifications / general conditions of contract / particular conditions of contract.
- iv. Assist Project Manager's representative in recording Initial ground levels taken in presence of the authorized representative of the construction contractor. The Consultant shall check and verify the governing ground levels and data relating to the site and its interface with the designs and drawings provided for implementation and give an expert opinion with regard to reaching a solution in case there are significant variations in these levels and data.
  - v. Assist Project Manager's representative in recording Initial ground levels taken in presence of the authorized representative of the construction contractor. The Consultant shall check and verify the governing ground levels and data relating to the site and its interface with the designs and drawings provided for implementation and give an expert opinion with regard to reaching a solution in case there are significant variations in these levels and data.
  - vi. Check and evaluate the contractor's mobilization on site with respect to machinery and personnel related to the project construction as per the provisions of the contract and their suitability and acceptability on site within the framework of the work and advice the Project Manager for granting permission to start the work.
  - vii. Assist Project Manager's representative to set out on the ground the alignment of the Canal, location of the Canal structures and other works as per the standard engineering practices based on the dimensions and data provided in the approved construction drawings.
  - viii. The Consultant shall supervise the works that are executed by the construction contractor on a day-to-day basis through a team of site engineers and ensure that all the works are executed as per the technical specifications and in consonance with the work program approved by the client.
  - ix. Monitor and enforce, as detailed in the Contractor's Safety Manual, the measures established to ensure safety of the workers, other project personnel, the general public and works.
  - x. Monitor compliance by the contractor of the stipulated conditions related to environment and social aspects.
  - xi. Assist the Project Manager in fulfilling his obligations as specified in the contract within the specified timeframe.
  - xii. Assist Project Manager in efficient contract management, the time control, quality control and cost control clauses of the Contract shall be scrupulously monitored. The consultant shall assist the Project Manager in periodic inspection of works.
  - xiii. Assist Project Manager's representatives to write daily site diary which shall record all events pertaining to the administration of the Contract, requests from and orders given to the Contractor, and any other information which may at a later date be of assistance in resolving queries concerning execution of the works.
  - xiv. Preparing Construction and Operation Monthly Progress Reports in agreed formats for each sub-project in suitable project

- monitoring software, including physical and financial progress, reports on variations, time-extensions, problems and issues etc.
- xv. Regularly monitoring physical and financial progress against the milestones as per the Contracts so as to ensure completion on time.
  - xvi. Basing on “Request for Inspection” made by the contractor, the consultant shall assist the Project Manager or his representative in inspecting the work.
  - xvii. Assist Project Engineer in checking all quantity measurements and calculations required for payment purposes and ensure that all measurements and calculations are carried out in a manner and at the frequencies specified in the contract documents.
  - xviii. Assist Project Manager’s representatives in evaluating and processing contractors’ requests for interim payment.
  - xix. To identify construction problems and delays and recommend to the Project Manager actions to expedite progress if the Works fall behind schedule.
  - xx. Assist Project Manager to interpret and apply various provisions of the contract documents with respect to the Contractor's conformance and compliance with his contractual obligations in general and with respect to compensation events leading to time extension, variations, additional compensation or payment of extra cost and disputes raised by the Contractor in particular and recommending appropriate decisions.
  - xxi. To prepare detailed recommendations to the Project Manager for contract change orders and addenda, as necessary, to ensure the best possible technical results are achieved with the available funds.
  - xxii. To advise the Contractor to carry out all such works or to do such things as may be necessary in his opinion to avoid or to reduce the risk of any emergency affecting the safety of life or of the works or of adjoining property.
  - xxiii. To assist the Project Manager with the execution of the Taking Over by the Employer from the Contractor of each Contract and preparing lists of deficiencies which need to be corrected.
  - xxiv. Assist Project Manager in checking the As-Built drawings of structures that are submitted by the contractor on completion of work.
  - xxv. Assist Project Manager in preparation of completion report of the work.
  - xxvi. Any other work that is needed for application of state-of-the-art technology for Construction Management and transfer of technology to PMU staff.

- **Construction Supervision**

- i. Review and recommend to the Project Manager for approval of the contractor’s detailed Quality assurance & control plan for different component of work in accordance with contract provision.
- ii. Consultant shall ensure a system for the quality assurance of the works. The system of control of quality of materials and

- completed works shall include sampling methods and acceptance criteria. The sampling methods and the acceptance criteria shall be based on the Technical Specification provided in contract documents, and the recommendations of the relevant latest BIS codes, PMU's quality manual and other relevant publications and international practices.
- iii. Review the suitability of sources of materials and their quality on the basis of inspection, test results and/or manufacturer's certificates.
  - iv. To check Contractor's field laboratory to conduct different quality control tests, calibration of equipment as per standard frequency specified in relevant BIS / specification and impart training to Contractor's personnel to conduct different tests.
  - v. The Consultant shall witness contractor's concrete mix design and ensure that cement content should be minimum possible / optimum for various grade of concrete prescribed as per IS 456-2000.
  - vi. The Consultant shall undertake random representative sample checks as instructed by the Project Manager, independently for quality control in presence of representative of contractor and Project Manager. The Consultant shall use laboratories of PMU/ Field Lab of Contractor / Lab of Engineering colleges / Govt. approved Laboratory performing desired tests which is better suited for timely quality control of work. The Consultant shall have full access to witness / supervise all the tests in contractor's laboratory during contract implementation period.
  - vii. The Consultant shall check all the records required to be maintained as per quality assurance plan of contractors periodically.
  - viii. The Consultant shall review curing arrangement to ensure profuse curing be done in accordance with construction contract specifications.
  - ix. The Consultant shall also furnish the summary of QC test results of all material of construction in each activity of work and O.K. cards as prescribed by the PMU and furnish a QC certificate (regarding quality of material, workmanship and performance) and issue no objection certificate for payment of contractor's invoices.
  - x. The Consultant shall supervise the works that are executed by the construction contractor through a team of site engineers and ensure that all the works are executed as per the specifications and in consonance with the quality assurance plan approved by the PMU.
  - xi. The Consultant shall assist Project Manager's representative in checking and approving the reinforcement bar bending schedules given by the contractor as per the designs and drawings approved by the PMU. Concreting shall be allowed only after the bar bending schedules and the resultant reinforcement placed in the structure is approved.
  - xii. If the Consultant considers any item of work is substandard or unacceptable, he shall inform the Project Manager and the

contractor for any rectification required in writing immediately with full justification thereof.

### **5.3.2 Defect Liability Period (DLP)**

During the 12-month Defects Liability Period, the tasks of Consultants comprise, but are not limited to, the following:

- a. Instruct the Contractor to rectify, and check the proper remediation of, any defects that appear during the Defects Liability Period.
- b. Scrutinize and verify all statements of completion including financial statements submitted by the Contractor during the Defects Liability Period and advise the Client on their acceptability or on rectification required.
- c. Upon completion of the Defects Liability Period and remediation and completion of all works to the satisfaction of the Client, prepare a Defects Liability Certificate for issuance to the contractor, indicating that he has satisfactorily carried out the works, and is entitled to final payments under the contract.
- d. Depending on the details of the conditions of the Construction contract, the Contractor then submits his Final Statement indicating the final values of the work constructed, and the final sums to which he is entitled. The consultant shall thus scrutinize and verify this Final Statement and, upon acceptance by the Client, prepare a Final Certificate to be issued to the contractor.
- e. Advise the Client on any outstanding claim, variation, or change order.
- f. Advise the Client on the handling of any case of arbitration and litigation subsequent to the construction contract.
- g. Review and recommend on any outstanding issue related to the Operation and Maintenance manuals for the equipment and installations, as prepared by the Contractor.
- h. Review and advise on any outstanding issue related to final As-Built drawings, as prepared by the Contractor.
- i. Prepare and submit a Final Completion Report to the Client, summarizing the important features of the works, including construction schedules, reasons for deviations from the schedules, overviews of claims and variation orders, and including inventory of documents and records prepared during the construction period, that are handed over to Client.

Vetting of Structure Design:

Vetting of structure design shall be carried out by third party promptly and their cost shall be reimbursed actual by the client through approved structure consultants.

### **5.4 DURATION OF CONSULTANCY SERVICES & STAFF INPUT**

The duration of Consultancy Services is given as under:

#### **Phase 1 (having constructed area of around 500,000 sft):**

- a) Master Planning, Architectural, Structural & MEP planning: 1 Month
- b) Submission for approval of building plans form the concerned authorities: 15 days
- c) Preparation of estimates: 10 days
- d) Preparation of Tender Documents: 10 days
- e) Tendering process: 1 month

- f) Construction Management & Supervision: 30 months
- g) DLP: 12 months

**Phase 2 (having constructed area of around 500,000 sft):**

- h) Master Planning, Architectural, Structural & MEP planning: 3 Month
- i) Submission for approval of building plans form the concerned authorities: 15 days
- j) Preparation of estimates: 10 days
- k) Preparation of Tender Documents: 10 days
- l) Tendering process: 1 month
- m) Construction Management & Supervision: 30 months
- n) DLP: 12 months

**Staff Input is as under:**

**a) Construction Management & Supervision Activity**

<b>S.#</b>	<b>Position</b>	<b>Qty.</b>
1	Resident Engineer	1
2	ARE (Civil)	1
3	ARE (Electrical)	1
4	Material Engineer	1
5	Quantity Surveyor	1
6	Inspector (Civil)	2
7	Inspector (MEP)	1
8	Inspector (Electrical)	1
9	Surveyor	1
10	Document Controller	1
11	Office Boy	1

**b) DLP**

<b>S.#</b>	<b>Position</b>	<b>Qty.</b>
1	Inspector (Civil)	1
2	Inspector (Electrical)	1

- In case of work suspended for more than 3 months only 2 civil inspector from consultant shall be deputed.
- If the contractor work done falls less than 35 million in consecutive 3 months, the consultant services shall be curtailed to 2 civil inspector.
- Curtailment of supervisory staff shall be prerogative of client.
- The Payment of supervisory payment shall be released on percentage basis of work done of each month.

## 5.5 SUBMISSION OF DOCUMENTS AND DRAWINGS

The Consultant is required to submit all project reports, drawings and documents in the format listed below.

S. NO	DESCRIPTION	NO.	SIZE	SCALE
<b>DESIGN Activity</b>				
1	Inception Report	5	As per Requirement	As per Requirement
2	Master Plan Report	5	As per Requirement	----
3	Concept Architecture Plan Report	5	As per Requirement	As per Requirement
4	Preliminary Architectural Design Report	5	As per Requirement	As per Requirement
5	Preliminary Engineering Design Report of all Components	5	As per Requirement	As per Requirement
6	Detailed Architectural & Engineering Design Report of all Components	5	As per Requirement	As per Requirement
7	Tender Documents	10	As per Requirement	As per Requirement
8	Construction Drawings	5	As per Requirement	As per Requirement
9	Tender Evaluation and Recommendation Reports	5	As per Requirement	As per Requirement
<b>CONSTRUCTION SUPERVISION Activity</b>				
1	Monthly Progress Report	5	As per Requirement	As per Requirement
2	Quarterly Progress Report	5	As per Requirement	As per Requirement
3	Yearly Progress Report	5	As per Requirement	As per Requirement
4	Completion Report	5	As per Requirement	As per Requirement