

## TERMS OF REFERENCE

### ENGAGEMENT OF ENGINEERING CONSULTING FIRM FOR RESIDENT SUPERVISION OF CIVIL WORK & ALLIED ITEMS

### “ESTABLISHMENT OF FISHERIES INFORMATION / EXTENSION SERVICE CENTRE AND OFFICES AT LAHORE”

The Government of Punjab is committed to provide the facilities to Fisheries department regarding establishment of fisheries information / extension service centre and offices at Lahore. The amount of Rs. 198.571 (M) has been approved by the Govt. of the Punjab. Physical & Financial Progress of the scheme is as under:

- Physical Progress is about 10%
- Financial Progress is about 8%

The scheme cited as subject was administratively approved for Rs. 195.571 (M) by Secretary of Government of the Punjab Forestry, Wildlife & Fisheries Department, Lahore vide letter No. SOF(B&P) 5-16/2014 dated 19-09-2014. To accelerate the progress of work splitting into 4 groups of the scheme was approved by Chief Engineer, Punjab Buildings Department (N.Z) Lahore vide No. W-28/469/D Dated 24-01-2015 as mention below.

Group No	Description	Amount
1	Basement, Ground floor, First floor, Second floor, Third floor (Mumty), Third floor (Lift room), Tube well & Generator Chamber, Additional items, Power wiring, 0.50 Cusec Turbine Pump i/c Boring, Over Head Reservoir and External Development.	Rs.130677415/-
2	Provision of HVAC system i/c cost taxes and duties.	Rs.52785000/-
3	Supply & Installation of 100 KVA Diesel Generator Set & ATS Panel.	Rs.3545000/-

4	Prevision of Transformer 630 KVA, WAPDA charges and Service Connection charges for external Sui Gas.	Rs.6264000/-
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In accordance with Government of the Punjab P&D Department instructions issued vide letter No. (24) R.O (Cons) P&D/97-Vol-III, Dated 15th September, 2008 the engagement of the consultant for Resident Supervision of Development Works of 100.00 (M) and above is mandatory. So the approval of terms of reference in respect of engagement of Engineering Consulting firms for resident supervision from the competent authority has been prepared.

### Description of Services.

The main objective of the consultancy services are described as under:

#### 1. Services for Main Building Supervision of Civil Work:-

The duties and responsibilities of the Consulting Firm will include but not limited to the following

- The Consultant will be responsible for Third party validation and evaluation of the work already executed at site by the contractor as per design, drawings, standard specifications, technical sanction estimate and within the provisions of contract agreements.
- The consultant shall certify work executed by the contractor according to specification and recommending interim certificates for progressive payments based on approved/tendered rates.
- The Architectural drawings and structural design have been prepared by the Punjab Architecture Deptt: as well as P&D Directorate, Punjab Buildings Deptt: (North Zone) Lahore.

#### 1. The brief scope of work is as under:-

##### (Main Building)

i.	Basement	11162	Sft
ii.	Ground Floor	9912	Sft
iii.	First Floor	9912	Sft
iv.	Second Floor	9912	Sft
v.	Mumty & Lift Room	1080	Sft
vi.	Tube well Chamber	1	Job

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vii.	Transformer 630 KVA.	1	Set
viii.	1/2 Cusec Turbine Pump	1	Job
ix.	External service connection Electric , Sui Gas , and Development Charges		

2. The consultant's staff i/c Civil Engineer, shall assist in interpretation of all construction drawings required and apply checks on quality of works, materials and workmanship for completion with specifications and agreement documents with due diligences, efficiency and its accordance with the best Engineering profession and consulting standards for construction of all components as mentioned in Article-1 (Objective and Scope of Work). As well as any other related construction item emerging during construction.
3. The Consultant will be responsible for Third party validation and evaluation of the work already executed at site by the contractor as per design, drawings, standard specifications, technical sanction estimate and within the provisions of contract agreements.
4. The Consultant will be responsible for **civil work** for the work by a Qualified Graduate Engineer in the respective discipline with sufficient experience, for all components as mentioned at Sr. # (i) Article-I (Objective & Scope of Work).
5. The consultant shall take measurement and keep appropriate measurement records as the Consultants shall be 100% responsible regarding quality of work and exact calculations of the measured quantities.
6. The consultant shall certify that the construction schedule provided in the contract agreement is strictly followed by the contractor.
7. The consultant shall certify that the construction material brought by the contractors at site for use in the construction works is in accordance with the specification and got tested as per standard practices laid down in specifications. And ensure the quality control of work to be executed, through laboratory tests and at the expense of the contractor and submit these reports to the Client Department.
8. The consultant shall advise the Executive Engineer as well as the Project Director on any problem arising in construction work during the execution of work and suggest remedial measures.
9. The consultant shall submit inspection report to the concerned Executive Engineer with copies to Superintending Engineer and Chief Engineer, clearly pointing out the deficiencies (if any) in the work and suggest its remedial measures.

10. The consultant shall verify contractor's interim payment Certificates (IPC) / bills i/c price variations and final payments and certify that payments released to the contractor are for works actually carried out at site and at rate quoted in the tender and as per approved specification.
11. The consultant shall recommend to the Executive Engineer for issuance of completion certificate stating that the work has been completed as per standard specification, design, drawings, estimates and contract agreement.
12. One month prior to the expiry of the construction period of the work, the consultant shall carry out a detailed final inspection of the work and submit a report to the department pointing out the defects, short-coming and deficiencies if any in the work.
13. Consultant's fee will be based on input of actual man months. However staff of the consultant will be curtailed if desired by the Client Depending upon special circumstances of work.
14. The consultant shall perform duties of Representative of client, to supervise the construction as per Objective and Scope of work, with the best professional and consulting standards to ensure that the building is constructed satisfactorily.
15. The consultant is required to assign field personal(s) of professional caliber and in sufficient number as deemed necessary by him in consultation with the client.
16. In carrying out the assignment, the consultant shall undertake the following works:-
  - a) Issue instructions to the contractor (s) and provide supervision during execution of works.
  - b) The Consultants will attend and make measurements and computation of quantities of the completed works, or any work which is about to be covered and maintain permanent records of all such measurements as basis for progressive payments to the Contractor and keep the measurement documents and records in safe custody.
  - c) The Consultants will maintain daily record of check requests / tests performed & approval, correspondence and site diaries supported with digital photographs, record of daily inspection reports, all the tests made, to the Client on a fortnight basis in an electronic form as well as in hard copy.
  - d) Prepare monthly progress reports. Maintain estimate and comparative statement of project costs and submitting reports to the client.
  - e) Assist in liaison between the Client and Contractor.



- f) Approve the material testing and recommend special tests, where required, for materials and or complete works, require removal/substitution of unsuitable materials and or works and report deficiencies in respect of the same to Client.
  - g) Require, monitor and review the results of Tests to be carried out by the Contractor in accordance with the Construction Requirements/specification.
  - h) Verify the 'as-built' drawings for each component of the works prepared by the Contractor and require removal of deficiencies found therein.
1. The Consultant shall from its own sources; establish a site office and meet the running / operational expenses.
  2. The consultant shall supervise the contractor in all matters concerning safety and care of the work and advise the client on any problem arising in the construction work during its execution.
  3. The consultant shall check systematically the progress of work according to the construction schedule of the agreement and shall submit monthly progress report in the prescribed format of Client pointing out the deficiencies and suggest remedial measures.
  4. Consultant shall be responsible for getting all such defects rectified from the concerned contractor(s) and final payment of the contractor(s) shall be verified only after satisfactory removal of the defects.
  5. Client's authorized representative may regularly visit the site for checking resident supervision of the consultant and the quality of work executed by the contractor and issue necessary instructions to the consultant or contractor(s) for proper execution of the work at site.

#### **Additional Services.**

- 2.1. The Department will be at liberty to increase or decrease the quantum of work without assigning any reasons.

#### **Professional Liability.**

- 3.1. Professional liability as stand in the prevalent conduct and practice of Consulting Engineers prescribed by PEC and provisions mentioned Punjab Procurement Rules, 2014 issued by Punjab Procurement Regulatory Authority (PPRA).
- 3.2. If the client suffers any loss or damage as a result of proven fault, error or omission in the design/ execution of the project, the consultant shall be responsible to make good such loss or damage in accordance with provision mentioned under rules fo Punjab Government.

**Reporting Requirements.  
Time Schedule.**

**Supervision stage.  
4.1 Duration of Services.**

The time duration for the proposed consultancy is estimated to be 09-months. Resident Supervision consultancy will commence by the consultant on the advice of Client. The Client shall be at liberty to suspend the consultancy services due to short funding or suspension of Civil work without assigning any reason.

No.	Description	Time frame
Stage-I	Maintain daily record of check requests / tests performed & approval, correspondence and site diaries supported with digital photographs. Submit the record of daily inspection reports, all the tests made, to the Client in an electronic form as well as in hard copy.	Fortnightly.
Stage-II	Submission of detailed final inspection of the work, pointing out the defects, short-coming and deficiencies if any in the work.	One month prior to the expiry of the construction period of the work.

**Mode of Payment**

- 5.1. The Consultant shall be paid on basis of actual man-months input. However, staff of the consultants will be curtailed if desired by the Client depending upon special circumstances of work.
- 5.2. The Consultant's fee will linked to the Contractor's payment made on the basis of physical progress of work.
- 5.3. For each payment a certificate of satisfactory performance will be issued by the Client Department.
- 5.4. The Consultant shall be responsible to provide **supervisory services** as stated in Article-I "Objective & Scope of Work", in time as per time schedule/construction schedule and penalty maximum upto 10% of the amount of Consultancy services shall be imposed and recovered from the bills payable to the Consultant, if any delay beyond 15-days is occurred in any activity of work or a component of work due to delay in submission any design, drawing, information, guidance or clearance of bills of contractor on the part of Consultants.

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### Core Team of Experts Required

Sr. No.	List of Staff	Qualification	No. of Posts	Minimum Construction Supervision Experience	
				Years	Project Supervised
1.	Project Engineer / Team Leader / Resident Engineer.	BSc Civil Engineering.	1	10	Five major similar building / projects.
2.	Site Inspector (Civil).	D.A.E in Civil	1	5	Five major similar building / projects.
3.	Site Inspector / Quantity Surveyor (Intermittent)	D.A.E in Civil	1	5	Five major similar building / projects.
4.	Site Inspector. (Electrical) (Intermittent)	D.A.E in Electrical.	1	5	Five major similar building / projects.

Note.

The consultant fee for construction supervisory services for any consulting firm for their consultancy services should invariably be negotiated by the Employer Department /Agency on the basis of detailed assessment of the Consultant's deployment schedule. Staffing inputs and scope of consultancy deliverables for various infrastructure projects and not as a fixed percentage of the project cost.