

**GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH
LOCAL GOVERNMENT ENGINEERING DEPARTMENT
NINE BRIDGE CONSTRUCTION PROJECT IN BRAHMANBARIA DISTRICT
(NBCPB)**

**TERMS OF REFERENCE (TOR)
For
SENIOR SUPERVISION ENGINEER**

1.0 BACKGROUND

The Government of Bangladesh (GOB) has taken initiative for constructing 9 bridges in Brahmanbaria district which will be implemented by the Local Government Engineering Department (LGED) under Local Government Division (LGD), the Ministry of Local Government, Rural Development and Co-operatives (MLGRD&C). The bridges will be constructed on the road: Nasirnagar R&H-Bholakot bazar-Chatalpara GC-Arail. These bridges will help to enhance rural transport network and improve the livelihood of the people ensuring uninterrupted access to growth centers, community health clinics, educational and other service providing institutions. Now LGED is implementing an IDA funded project called "Second Rural Transport Improvement Project (RTIP-II)" with a view to improving and maintaining the rural transport related infrastructure in 26 districts, mainly eastern parts of Bangladesh (excluding Chittagong Hill Tracts). The proposed project will be implemented by the Project Management Unit (PMU) of RTIP-II.

2.0 OBJECTIVE OF CONSULTANCY SERVICES

The objective of the consultancy service is to supervise and monitor the ongoing physical works under the project to ascertain that those are constructed as per standard design, drawing and specification within the stipulated timeline.

3.0 SCOPE OF CONSULTING SERVICES

The Senior Supervision Engineer will work under the guidance of the concerned Project Director. He is responsible and accountable for his all activities to the Project Director and concerned Executive Engineer. He also should have close connection and co-ordination with concern Upazila Engineer for implementing the schemes under this project. The responsibilities of the Senior Supervision Engineer would be, but not limited to, the following:

- Review of all relevant project documents including the hydrological and morphological study report, topographical survey report, level survey, sub-soil investigation report, detailed design and drawings, specifications etc. and suggest modifications and changes as necessary.
- Provide physical layout of important road, bridges as per design and drawing.
- Monitor the work progress in comparison to the work plan submitted by the contractor and inform PD about the activities to be addressed to maintain progress or overcome delays when needed.

- Prepare overall supervision plan including step-by-step construction flow chart, supervision & monitoring method of each item of works, approval system, measurement methods, variation approval systems etc.
- Collect random samples of construction materials from the Contractor's stack yard and carryout necessary tests to ensure that materials collected by the contractor conform to the specification.
- Advise the contractor about approach road alignment; fixing deck elevation and pier positions considering navigational requirement in respect of vertical and horizontal clearance etc. as per BIWTA requirement. Check Bench Mark elevation with respect to PWD/SOB in case of bridge construction works and also have to provide layout of road construction including all other works to be implemented under this project.
- Check sub-soil conditions during boring and casting of the cast-in-situ piles and compare with the design sub-soil report. In case of major deviation, he has to report to LGED/Designers for modification of designs.
- Monitor the Pile Service Load Test (Static & Dynamic) as carried out by the contractor, check settlements and report deviations if any.
- Supervise reinforcement fabrication, formworks, scaffolding and concrete casting works maintaining quality of works.
- Supervise the post-tensioning and girder shifting works, advice as necessary based on the actual ground condition (if any).
- He shall have to attend important RCC casting and ensure quality as per drawing, design & specification.
- Assist for timely implementation of the project with effective guidance, supervision, and quality control.
- Assist for the identification of implementation problems and provide solutions, coordination, review project progress and reporting to Project Director.
- Assist the Project Director in contract administration, monitor progress with respect to the work plan submitted by the contractor, issue notices in case of major deviations; time extension requirement of the bid security, performance security etc. as needed.
- Check requirements for day to day works if reported by the Contractor, ensure proper recording of day works with assistance of the LGED representative. Check all variation claims, propose rates if necessary showing detailed breakdown of rates prior for execution of variation orders;
- Keep records of all modifications and variations, including meeting minutes for settlement of claims in future; review and modify the As-Built Drawings as submitted by the contractor; submit an electronic version of the as-built drawing to PD for record.
- The consultant shall advice the Project Director on contractual matters in settling contractor's claims. He shall attend adjudication and arbitration sittings if necessary along with LGED representative in connection with the settlement of disputes.
- Check measurements of works done and submitted by the contractor and certify the same for payments.
- Prepare monthly progress report (if required quarterly) for the project including completion report (approved format).
- Hold meetings at the site office as necessary; prepare minutes of meeting and circulate to all concerned.

4.0 REPORTING REQUIREMENT

Monthly Progress Report: The consultant shall submit a monthly progress report in brief and concise form using the approved format. The report will describe progress of activities planned for previous month along with plan for the next month. The report also state problems encountered, or problems anticipated together with steps taken or recommendations for their correction. The consultant will submit the report to the concerned UE and XEN & PD, LGED.

5.0 DATA, LOCAL SERVICE AND FACILITIES TO BE PROVIDED BY THE CLIENT

LGED will provide the Consultant with all available data as and when required.

- All relevant studies so far done related to the project.
- Topographical survey map & sub-soil investigation report of proposed Bridge.
- Contract documents including design, drawing, price BOQ, technical specification etc.
- Maps of the country and location of the schemes.
- Cost data on recent construction projects; and
- Any other report as available in LGED.

6.0 WORKING STATION, WORKING HOUR & DURATION

The working Station of the consultant will be at the office of the Executive Engineer of concerned district. He will be act a residential consultant. The working hour of the consultant will be same as the Govt. office. The consultant may need to spend extra hours beyond the govt. office working hour to meet the urgent deadlines. The expected duration of the assignment is about **08 months** (Duration may be increased if Project period extended).

7.0 QUALIFICATION, EXPERIENCE & SUITABILITY

a) **Educational Qualification:**

- B.Sc in Civil Engineering from any reputed University.

b) **Experience & adequacy for the assignment:**

- At least 20 years of overall experiences and 15 years relevant experience in Construction and Supervision of PC/RCC/Arch bridge construction.

c) **Suitability:**

- Computer skill (MS word, Excel, PowerPoint etc.),
- Training in relevant areas etc.