

## Terms of Reference

### Open Net Log-In Georgia Project

#### *Title*

#### **Engineer Consultancy Services for Civil Works Phase 4 of Fiber Optic infrastructure rollout**

## **A. INTRODUCTION**

The Government of Georgia has *received* financing from the World Bank toward the cost of implementation of Log-In Georgia Project (“Project”). Open Net is in implementing entity of this Project. In the capacity of Employer, Open Net seeks services of a Consultant (legal body) to undertake **Engineer Consultancy Services for Civil Works of Fiber Optic infrastructure rollout for the Phase 4 construction under the Log-In Georgia Project.**

The Project consists of the following key components and subcomponents:

**Component 1:** Increasing access to broadband – this Component will help expand access to broadband internet in rural settlements across Georgia and improve the enabling environment for digital development.

- a) Subcomponent 1.1: Supporting the Open Net Program – the Open Net Program will develop a national infrastructure to offer open access, wholesale, and broadband telecommunications services.
- b) Subcomponent 1.2: Improving the enabling environment for digital infrastructure – this subcomponent will support activities to improve the enabling environment for digital infrastructure development in Georgia. This will support the development of legal, policy, and regulatory instruments, and design of investment attraction measures included in the national broadband development strategy (adopted in 2020).

**Component 2:** Promoting the use of broadband-enabled digital services – this Component will support the development of Georgia’s digital economy through a strengthened enabling environment, promoting digital use-cases of broadband, and addressing barriers to the participation of individuals in the digital economy.

- c) Subcomponent 2.1: Enabling environment for digital economy development – this subcomponent will support activities to improve the enabling environment for digital economy development in Georgia.
- d) Subcomponent 2.2: Promoting use-cases – the subcomponent will promote specific use-cases of improved broadband connectivity in targeted rural settlements.
- e) Subcomponent 2.3: Increasing digital inclusion – this subcomponent will finance targeted interventions to boost the use of the internet and digital services by women, social minorities, and persons with disabilities in targeted settlements.

**Component 3:** Project implementation support – this component will support the management and implementation of the Project and associated activities.

## **B. Objectives of Services**

The objectives of this Consultant assignment are to supervise civil works for the construction of fiber optic infrastructure to ensure that the works are executed within contractual time and budget and comply with the approved design, specifications, environmental and social requirements, and

sound engineering practices.

The Consultant shall ensure coordinated supervision of four separate Works Contracts under one Engineering assignment, while maintaining separate administration, records, reporting, certification and contractual decision-making for each Works Contract, namely:

- Fiber Optic (passive) Infrastructure Deployment: Phase 4 (Tsalka-Akhalkalaki-Akhaltzikhe) DEP250000046; <https://tenders.procurement.gov.ge/public/?go=656903&lang=en>
- Fiber Optic (passive) Infrastructure Deployment: Phase 4 (Tbilisi-Marneuli-Tsalka)- DEP250000053; <https://tenders.procurement.gov.ge/public/?go=663674&lang=en>
- Fiber Optic (passive) Infrastructure Deployment: Phase 4 (Kvemo Kartli) DEP260000010; <https://tenders.procurement.gov.ge/public/?go=673811&lang=en>
- Fiber Optic (passive) Infrastructure Deployment: Phase 4 (Kakheti-Tianeti) DEP260000016; <https://tenders.procurement.gov.ge/public/?go=679824&lang=en>

## D. Scope of Services

### D.1. Tasks during the Design Stage

To review the detailed design submitted by the Contractor and make sure it is in accordance with Annexes N3, N4, and N5 of the Specifications of the abovementioned Works Contracts, and provide his remarks and suggestions to the Employer.

### D.2. Tasks during the Construction Stage

#### D.2.1 Tasks provided by the Consultant

In order to fulfill the above objectives, the Consultant shall at all times take necessary measures and provide appropriate advice to the Employer to enable each Works Contract to be completed in a timely and cost-effective manner, in conformity with each corresponding Works Contract conditions and specifications.

The Consultant shall supervise the construction of the network on the site. During monitoring, the Consultant shall not only observe that the built infrastructure is done in a manner that is required by the corresponding Works Contract between the Employer and Contractor, and in accordance with environmental and social requirements, but also to notify the Employer and/or Contractor of any irregularities and/or faults in comparison to the requirements of each separate Works Contract.

The Consultant shall perform the following tasks for **each Works Contract separately**, unless expressly stated otherwise. The Consultant shall ensure that supervision, contract administration, records, reporting, certification, testing, claims/variation review and taking-over processes are maintained separately for each Works Contract.

During the construction period, the Consultant shall:

1. Acquaint itself as thoroughly as possible to the nature and scope of the works, of all information available and of documents and materials to be used by the contractor in executing the works, so as to enable itself to perform its duties satisfactorily;
2. Study and check all documents associated with the project, foresee possible problems and advise the Employer appropriately during the construction works;
3. Set up and establish the system of managerial control for the works of the Works Contract with provision of assistance to the Employer maintaining control over estimated works quantities and Works Contract outcome costs, in monitoring the progress of the works, the

- disbursements and technical records;
4. Supervise the construction works with due diligence and efficiency and in accordance with sound technical, administrative, financial, economic, environmental and social practice. The Consultant shall perform all duties associated with such tasks to ensure that the final product is in all respects equal to, or better than that specified, and is carried out in full compliance with the Works Contract terms and conditions and technical requirements defined in the governing specifications;
  5. Assist the Employer in the acceptance and/or approval, as appropriate, of submissions required from the Contractor, including, but not limited to insurance, guarantees, licenses, programs, method statements, traffic management plans, safety measures, suppliers, and materials for incorporation in the works, quality assurance and control plans, execution of the testing program, subcontractors, equipment and environmental and social management plan;
  6. Oversee the adherence of the Contractor to the national environmental and social legislation, Environmental and Social Management Framework(ESMF), Resettlement Policy Framework (RPF) of Log-In Georgia Project, Employer's Environmental and Social Management Plans (ESMPs) and Contractor's own ESMPs, including due application of mitigation measures prescribed for community health and safety, workers' occupation health and safety, and pollution and waste management. Help the Contractor with updating C-ESMP to the satisfaction of the Consultant and the Employer. Provide identified point of contact for the ESMF purposes;
  7. Ensure adherence of the Contractor to the Employer's Labor Management Procedures (LMP) and Contractor's own Code of Conduct to prevent discrimination, child labor, forced labor, and gender-based violence at worksites and as well as adherence to the National Labor Law and international conventions under World Labor Organization that Georgia is a party to;
  8. Make sure that all material that is required to have been tested by competent entities in accordance with the specifications has corresponding certificate/datasheet/technical specifications/lab test results accompanying them. For all the other materials that have been described in the specifications and don't come with the certificate/datasheet/technical specifications/lab test results, do testing or sample testing as appropriate. A system of formal testing procedures must be set up covering the frequency of testing, the type of test to be carried out, and the method and format of reporting the result. The Consultant shall prepare a program of testing;
  9. Ensure the monitoring of fiber-optic cable/core measurements specified in the Employer's specifications of the Works Contract and the veracity of its conduct and results, which in turn should be confirmed by relevant acts, which will clearly show the accuracy of cable installation work and compliance with Employer's specifications methodology;
  10. Supervise the conduction of necessary tests by the Contractor in accordance with the Works Contract specifications;
  11. To confirm the training materials developed by the Contractor are based on the provisions provided in the environmental and social documentation of the Project (ESMF, ESMP, LMP, RPF, Stakeholder Engagement Plan) and that the Contractor conducts training sessions for its staff;
  12. Keep updated all records including daily logs, works diaries, correspondence, instructions given to the Contractor, test records, measurement and quantity calculations, and all other relevant documents pertaining to the works operations and supervision contract;
  13. Prepare control charts of main activities and a project master schedule, indicating both past

performance and forecasts for completion including time involved in each case. The methodology shall involve development of a hierarchy of programs, including a summary program for overall control, Contractors' mobilization, construction activities including key dates, completion, and commissioning. It shall also cover document review and formal Works Contract documentation. Representation of progress on individual elements shall depend on the nature of the works. The progress of each major operation shall be reported individually, and marked-up diagrams used to show the comparison of work actually completed with programmed completion. This clear diagram presentation supplements the activity progress information given in the tabular schedule reports and bar charts;

14. Assessment of works satisfactorily carried out as required by the payment schedule and certify interim (milestones) and final payment certificates for consideration by the Employer. Interim payment certificates to be submitted to the Employer for payment purposes shall include the total cost of the works due as per the Works Contract. Payment amount will be determined by establishing the value of work done using rates and prices given in the Bill of Quantities (BoQ). Additional payments to the Contractor arising from variations, claims or other additional work will also be included when the Contractor has a right to such payment under the Works Contract;
15. Preparing Interim Payment Certificates, Final Payment Certificates, Taking Over Certificates, and Performance Certificates, to the timing of, and as required by, the contract, and advising the Employer on the release of all Contractors' securities and retentions;
16. Foresee possible problems and advise the Employer appropriately during the construction;
17. Detection of inconsistencies and defects during the construction works, making visual capturing of any such defects/inconsistencies and informing the Employer;
18. Monitoring the performance of hidden works and certifying relevant acts (acts of hidden works);
19. Record, examine and evaluate all claims submitted by the Contractor and submit timely recommendations thereof for Employer;
20. If necessary, submit substantiated proposals to the Employer on the expediency and necessity of making changes in the project and the cost estimate of the works to be performed at the initiative of the Consultant and / or the Contractor;
21. Review Variation Orders, determine its reasonability and recommend to Employer on their implementation;
22. Maintain a site diary (log) on a daily basis with the contents and format to be agreed with the Employer. Site diaries shall record all events pertaining to administration of Works Contract, instructions issued to the Contractor, pertinent requests from the Contractor and any other information which will be of assistance in resolving any dispute or claims. The site diary shall include the daily diary sheets from members of the supervision staff, and instructions and observations made by the representative of the Employer during any of his site visits;
23. Assist the Employer in the approval process of the final construction report, as-built drawings and maintenance manuals;  
Seek prior written approval from the Employer before taking action under the following Sub-Clauses of the Particular Conditions governing the Works Contract:
  - (a) Sub-Clause 2.1: Deviations from the recommended route,
  - (b) Sub-Clause 3.4: Delegation by the Engineer,
  - (c) Sub-Clause 5.1: Subcontractors,
  - (d) Sub-Clause 4.12: agreeing or determining an extension of time and/or additional cost,

- (e) Sub-Clause 4.26: defining the periods for milestones,
- (f) Sub-Clause 8.5: Extension of Time for Completion,
- (g) Sub-Clause 8.9: Employer’s Suspension,
- (h) Sub-Clause 13.1: Right to vary - instructing a variation, except:
  - (i) in an emergency situation as determined by the Engineer; or
  - (ii) if such a Variation would increase the Accepted (Works) Contract Amount by less than the percentage specified in the Works Contract Data.
- (i) Sub-Clause 13.2 (Value Engineering): stating consent or otherwise to a value engineering proposal submitted by the Contractor in accordance with Sub- Clause 13.2.
- (j) Sub-Clause 13.3: approving a proposal for variation submitted by the Contractor in accordance with Sub-Clause 13.1 or 13.2.

Notwithstanding the obligation, as set out above, to obtain consent in writing, if, in the opinion of the Consultant, an emergency occurs affecting the safety of life or of the Works or of adjoining property, it may, without relieving the Contractor of any of his duties and responsibility under the Works Contract, instruct the Contractor to execute all such work or to do all such things as may, in the opinion of the Engineer, be necessary to abate or reduce the risk. The Contractor shall forthwith comply, despite the absence of consent of the Employer, with any such instruction of the Engineer. The Engineer shall determine an addition to the Works Contract price, in respect of such instruction, and Extension of Time (EOT) if any, in accordance with Clause 13 of FIDIC Red Book<sup>1</sup> and shall notify the Contractor accordingly, with a copy to the Employer.

- 24. Upon completion of the work, to present the Employer with high quality final photographs of all manholes, access and aggregation points and ducts attached to the bridges with wide-view and corresponding coordinates (latitude / longitude);
- 25. Obtain the as built designs from the Contractor, Review, and approve them in accordance with the Annex 5 “Design Specifications”, and hand them over to the Employer.

#### **D.2.2 Examinations performed by the LEPL Levan Samkharauli National Forensic Bureau**

- 1. The Engineer, together with each Construction Milestone Certificate, shall submit to the Client a conclusion on the examination of the hidden works of the respective milestone issued by LEPL Levan Samkharauli National Forensic Bureau. For this purpose, the Engineer shall enter into a contract with the LEPL Levan Samkharauli National Forensic Bureau for the performance of such examinations.
- 2. The Employer shall reimburse the Engineer for the cost of the examination by the LEPL Levan Samkharauli National Forensic Bureau of the hidden works for each milestone (including the issuance of the corresponding conclusions).

This reimbursement shall be limited to *one* complete, *one-time* examination per milestone. Any additional or repeated examination(s), required due to the Contractor’s or Engineer’s non-conformance with the technical specifications of the Works Contract, shall not be reimbursed by the Employer and shall be entirely at the Engineer’s expense.

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<sup>1</sup> FIDIC® Conditions of Contract for CONSTRUCTION FOR BUILDING AND ENGINEERING WORKS DESIGNED BY THE EMPLOYER; Second Edition 2017, ISBN 978-2-88432-084-9, Reprinted 2022 with amendments

3. The Consultant should maintain separate examination records and reimbursement documentation per Works Contract and per milestone.

#### **E. Supervising test work**

The Consultant shall, according to the provisions of the laws and regulations regarding the control of the quality of the works:

1. Review and approve the program of testing the quality of the executed works, as prepared by the Contractor, and be present and supervise performance for those tests;
2. Randomly conduct measurements to verify that the results of the Contractor's tests on fiber optic (FO) cable meet the technical requirements of the Employer;
3. In case of necessity to perform the measurements requested by the Employer;
4. Issue reports regarding the observed quality of the executed works and recommend actions to be taken in the case of unsatisfactory result.

The FO cable measurements to be performed by the Consultant shall be conducted by using their own equipment.

#### **F. DATA, SERVICES AND FACILITIES TO BE PROVIDED BY EMPLOYER**

The Employer will provide the Consultant with all four (4) Works Contracts along with corresponding designs, drawings, specifications, etc.

The Employer will assist the Consultant to:

- (i) Obtain entry and working visas for the members of the supervision team;

#### **G. REPORTING REQUIREMENTS**

The Consultant shall prepare and submit reports described in this section. All reports shall be prepared in English, with executive summaries in both English and Georgian. In addition, electronic version of each report, in an open format ready for editing, shall be submitted.

All reports shall clearly distinguish between the four Works Contracts. Consolidated reporting may be used, provided that the status, risks, decisions, correspondence, certificates, claims, variations, testing and personnel allocation for each Works Contract are presented separately and are traceable to the relevant Works Contract

##### **G.1. Inception Report**

Inception Report shall include the Consultant's proposed multi-contract supervision methodology, organization chart, communication lines, contract-specific teams, initial allocation of flexible personnel, records-management approach, and reporting format for the four Works Contracts. This Report shall outline how the Consultant intends to implement the project, clearly differentiating between the activities for supervision of each of the construction contracts. The Inception Report must be submitted within two weeks from the approval of the corresponding project Design by the Consultant and based on the work plan of the Contractor.

##### **G.2. Weekly Reports**

The Consultant shall prepare progress four contract-specific weekly reports or one consolidated weekly report with four clearly separated contract sections, every week for the duration of this Contract. Each section report, shall identify progress, issues, inspections, tests, claims/variations, E&S/H&S matters, contractor resources, and Consultant personnel deployed for the relevant Works Contract. These reports should be uploaded on Monday of each week (in case it is a public

holiday in Georgia, on next working day) in the cloud drive provided by the Employer.

The format and the context of the weekly progress reports shall be provided by the Employer. They will include, but not be limited to the following:

1. Useful information regarding the implementation of the Works Contract allowing a technical and financial follow-up of the project;
2. Recording of any agreed changes on the original envisaged technical solutions;
3. Any changes of quantities compared to contracted BoQ;
4. Instruction/suggestions for resolution of any technical and other problems (a separate section will be given to cover issues, problems, and solutions) that occur and those affecting the progress of the work such as variation orders and claims to the Contractor;
5. Progress charts including percentages of completion of individual main work items and overall project/CW Contract;
6. Status of the application of environmental and social impact mitigation measures provided in the ESMPs;
7. Information on Contractor's adherence to health and safety standards and anti- corruption measures;
8. Accident numbers and severity (fatalities and serious injuries), any road safety issues identified, and steps taken to address them;
9. Annexes, including Minutes of Meetings (if any), site geotagged photos, etc.

Item (8) of the report shall identify areas of the Contractors' non-compliance and provide guiding remarks on the actions to be taken. The significance of the non-compliance should also be noted. Any areas of persistent non-compliance or negligence by the Contractors shall be compiled in the quarterly reports. If appropriate, and upon the advice of the Consultant, the Employer may introduce a sliding scale of fines to be applied for repeated poor performance assessments of the Contractors.

### **G.3. Works Completion Report**

The Consultant shall submit a Works Completion Report for each Works Contract within one month of completion of the respective Works Contract.

The report shall include a summary of the whole project, including principal difficulties encountered during construction and means employed to overcome them, changes (if any) made in the original design, modifications to specifications and conditions of the Works Contract, all variation orders, assessment of Contractor's claims, utilization of provisional sums, price variation and physical contingency sums, cumulative payments to the Contractor, by date and number of payment certificate and break down into foreign and local currencies and including a similar payment schedule for supervision services. The details of the overall project costs (construction and supervision) with justification for any significant differences with the original shall be given in the final report. All necessary approvals by the Employer shall be attached. The report shall include a separate section on the proposed future maintenance activities and related arrangements for the section supervised (i.e. maintenance manuals).

### **H. CONSULTANT'S QUALIFICATION**

In order to execute its obligations, the Consultant must have experience working as supervisor/engineer (Engineer on a project that used FIDIC Contract), on at least one contract of

civil works with a minimum value of 10,000,000 USD from January 1, 2021, till the Expression of Interest submission deadline date.

The Consultant shall provide a team adequate for simultaneous supervision and contract administration of four separate Works Contracts. The minimum required team shall include: (i) one (1) Project Manager responsible for overall coordination of the assignment; (ii) four (4) Team Leaders, one dedicated to each Works Contract; (iii) eight (8) Civil Engineering Supervisors, two dedicated to each Works Contract; (iv) two (2) additional Civil Engineering Supervisors to be allocated flexibly between the four Works Contracts based on workload; and (v) two (2) Fiber Optic Engineers to be allocated flexibly between the four Works Contracts based on technical need.

1. **Project Manager:** The Project Manager shall be the Consultant's senior representative and shall have overall responsibility for the management, coordination, quality assurance, and proper delivery of the Consultant's services under the Engineering contract.

The Project Manager shall be responsible for supervising and coordinating the work of the Team assigned to the four Works Contracts, ensuring that each Team Leader properly performs their duties and that the Consultant's services are delivered consistently across all Works Contracts. The Project Manager shall establish internal quality assurance and control procedures for the Consultant's team and shall ensure that these procedures are applied in practice.

The Project Manager shall serve as the main point of contact for the Employer for all matters related to the Consultant's performance, including technical, contractual, managerial, reporting, staffing, quality assurance, and coordination issues. In case of deficiencies, delays, inconsistencies, poor performance, inadequate supervision, incorrect certification, incomplete records, or any other issue related to the Consultant's services, the Project Manager shall be responsible for promptly addressing such matters and implementing corrective actions.

The Project Manager shall have at least a Bachelor's degree in engineering, construction management, project management, management, or another relevant field. The Project Manager shall have at least five (5) years of experience in construction project management, supervision, contract administration, or quality assurance of infrastructure works, including experience in the role of Project Manager, Team Leader, Engineer's Representative, Deputy Engineer, Quality Assurance Manager, or similar senior coordination role.

2. **Team Leader:** The Team Leader shall be the Consultant's senior technical representative for the respective Works Contract assigned to him/her. One Team Leader shall be assigned to each Works Contract and shall be responsible for the day-to-day technical supervision, coordination, and contract administration support for that specific Works Contract.

The Team Leader shall be primarily responsible for ensuring that the construction works under their assigned Works Contract are carried out in accordance with the approved design, Employer's Requirements, technical specifications, drawings, method statements, environmental and social requirements, applicable permits, and the relevant FIDIC-based Works Contract.

The Team Leader shall have at least a Bachelor's degree in civil engineering, construction engineering, telecommunications engineering, transport/infrastructure engineering, or another relevant engineering field. The Team Leader shall have at least five (5) years of

professional experience in construction supervision, site management, engineering supervision, or technical oversight of infrastructure works.

3. **Civil Engineering Supervisors**, Civil Engineering degree (at least a Bachelor’s degree or equivalent) with three (3) years of experience in the control and management of civil engineering works.
4. **Supervisors of Fiber Optic Works**: Engineer in telecommunications, electromechanics, electricity or similar field with at least 4 years of higher education with at least three (3) years’ experience in the installation, measurement, and calibration of optical (passive fiber optic) networks.

The Consultant shall organize and allocate its personnel in such a manner that no Contractor activity requiring inspection, approval, testing, measurement, certification support, or Engineer’s response is delayed due to the Consultant’s internal staffing arrangements. Any failure by the Consultant to provide timely supervision, inspection, response, certification support, or contract administration due to inadequate allocation of personnel shall be the Consultant’s responsibility.

In addition to the key personnel designated above, the Consultant shall determine the local support technical staff requirements for the assignment (engineers, structural engineers, works supervisors/inspectors, surveyors, laboratory technicians, secretarial, environmental, social, and health and safety specialist etc.) to assist with on-site supervision of the works. A maximum of 2 (two) non-key staff members can be proposed.

The above staffing is an indication of the requirements, but the consulting firm has the ultimate responsibility to staff the supervision team adequately to take full responsibility for quality of the works and timely implementation. The realism of the overall staffing proposed will be a factor in the technical evaluation of the Consultant’s proposal. The Consultant must provide Curriculum Vitae (CV) and certified copies of highest education certificates for all key staff in the proposal, including duration in man-months for which the staff will be deployed under the contract. The Consultant is not required to submit CVs of support staff within his proposal.

#### I. DURATION OF SERVICES

The supervising services shall be deemed to be started on the date of the signature of the contract and shall continue until completion of the Consultant’s obligations in respect to all Works Contracts covered by this assignment.

The estimated duration of the services is fifteen (15) months after the commencement date.

The Consultant shall provide Engineer services for the following four Works Contracts:

No.	Works Contract	Estimated Man-Months
1	Fiber Optic (passive) Infrastructure Deployment: Phase 4 (Tsalka-Akhalkalaki-Akhaltzikhe)	13
2	Fiber Optic (passive) Infrastructure Deployment: Phase 4 (Tbilisi-Marneuli-Tsalka)	11
3	Fiber Optic (passive) Infrastructure Deployment: Phase 4 (Kvemo Kartli)	15
4	Fiber Optic (passive) Infrastructure Deployment: Phase 4 (Kakheti-Tianeti)	15

The above required Man-Months are indicative and are provided for the purpose of estimating the expected duration and staffing requirements of the Engineering services.

The Consultant shall provide, as a minimum, the following personnel:

Position	Number	Indicative Assignment
Project Manager	1	Overall management, coordination, quality assurance, and Employer contact for the full Engineering services period.
Team Leaders	4	One Team Leader assigned to each Works Contract.
Civil Engineering Supervisors	8	Two Civil Engineering Supervisors assigned to each Works Contract.
Additional Civil Engineering Supervisors	2	Flexible personnel to be allocated between the four Works Contracts based on workload.
Fiber Optic Engineers	2	Flexible personnel to be allocated between the four Works Contracts based on technical need.

The Project Manager shall be assigned for the full duration of the Consultant's services, unless otherwise agreed by the Employer and the Consultant.

Each Team Leader and two (2) Civil Engineers shall be assigned to the respective Works Contract for the period indicated in the contracts' duration table above.

The two additional Civil Engineering Supervisors and two Fiber Optic Engineers shall be considered flexible personnel for the full duration of the Consultants services, unless otherwise agreed by the Employer and the Consultant. They shall be allocated by the Consultant between the four Works Contracts based on actual workload, progress, construction intensity, testing activities, technical complexity, delay risks, quality risks, and the need for additional support.

**Once three of the four Works Contracts have been completed, the Consultant shall maintain, only one additional flexible Civil Engineering Supervisor and one flexible Fiber Optic Engineer.**

**Indicative staff input:**

For the purpose of preparing the technical and financial proposal, the Consultant shall consider the following indicative staff input. The Consultant may propose adjustments to the staff-month allocation, provided that the minimum staffing structure and adequate supervision of all four Works contracts are maintained.

Position	Number of Personnel	Indicative Staff-Months per Person	Indicative Total Staff-Months
Project Manager	1	15	15
Team Leader – Works Contract 1	1	13	13
Team Leader – Works Contract 2	1	11	11
Team Leader – Works Contract 3	1	15	15
Team Leader – Works Contract 4	1	15	15
Civil Engineering Supervisors – Works Contract 1	2	13 each	26
Civil Engineering Supervisors – Works Contract 2	2	11 each	22

Civil Engineering Supervisors – Works Contract 3	2	15 each	30
Civil Engineering Supervisors – Works Contract 4	2	15 each	30
Additional Flexible Civil Engineering Supervisors	2	15 each	30
Fiber Optic Engineers	2	15 each	30

The Consultant shall submit to the Employer a monthly personnel allocation plan showing the deployment of the Project Manager, Team Leaders, Civil Engineering Supervisors, additional flexible Civil Engineering Supervisors, Fiber Optic Engineers, and any other personnel assigned to the services. The allocation plan shall clearly indicate which personnel are assigned to each Works Contract and shall explain any changes in staffing compared to the previous month.

The Consultant shall ensure that staffing levels are adequate during peak construction periods, testing activities, inspections, taking-over procedures, and periods requiring intensive review of Contractor submissions, payment certificates, claims, variations, as-built documentation, or completion records.

The Consultant shall work according to the Contractors’ work schedules, which may include work during seven (7) days a week. Night shifts may be expected as well. The Consultant shall not be entitled to any overtime payment. The Consultant shall take such working arrangements into account when preparing its staffing plan and financial proposal.

The Consultant is required to review, adapt, and rationalize the outlined staff input in his proposal, such that there will be as much continuity of employment as is practicable in the teams it proposes to assign. The Consultant should consider the prospective peaks of construction activity and ensure the adequacy of staffing levels during such periods, and, at the same time, periods with low productivity levels should not be un-economically over- staffed. The objective is that the Consultant should propose to assign a team that will be best suited to the methodology of its supervision and management systems. The Consultant should also consider the added value that will be provided by its organization.

The staffing indicated in this Terms of Reference represents the minimum structure required by the Employer. The Consultant shall remain fully responsible for proposing and maintaining a staffing arrangement sufficient to ensure proper quality, timely implementation, adequate supervision, and effective contract administration of all four Works Contracts.