

Terms of Reference for supervision of the Additional consolidation works of Rwinkwavu marshland and Maintenance works in Ruterana marshland.

Background

The Government of Rwanda (GoR) is pursuing a comprehensive Poverty Reduction Program which includes implementation of various sustainable development projects.

The Rural Community Support Project (RCSP) is one of the development initiatives designed under Rwanda Agriculture and Animal Resources Development Board (RAB) and is funded by KOICA and GoR in order to tackle the issues related to food insecurity and rural communities' livelihoods income.

The project aims at revitalizing the rural economy and improving the quality of life of the rural poor through increased transfer of technical and financial resources for sustainable rural development. The emphasis of RCSP is on broadening and deepening the support provided to accelerate the pace of intensification and commercialization of agricultural production.

It is in this regard that the Project is investing in lining irrigation canal to increase water conveyance efficiency from Kageyo water reservoir and construction of offtake structures to maximize the productivity of Rwinkwavu lower marshland located in Kayonza District. The work also includes the rehabilitation of intake, washout valve chamber and construction of new air vent in Ruterana site Muhanga District Rongi and Kiyumba Sectors to increase pipe conveyance efficiency.

Objective(s) of the Assignment

The present terms of reference are intended to provide services for supervision of additional consolidation works of Rwinkwavu and maintenance works of Ruterana. (I) by lining Leftside irrigation canal (650m) from Kageyo road dyke with masonry structure 0.2m thick in Rwinkwavu marshland, Rehabilitation of intake structure of pipe line, rehabilitation of washout chamber and construction of new air vent in Ruterana site.

The work is to be undertaken in Rwinkwavu lower marshland, Kayonza District and Ruterana site in Muhanga District.

The works are expected to last 3 Months.

3. Scope and duration of Services

The supervision service includes the general contract management and technical administration of works, the quality control during execution of the works and technical assistance to the project during construction. The service is expected to take a total of **3 months** for the construction period including the preparation of provisional reception of works and the final report.

3.1 General contract management.

The duties of the resident engineer related to General Contract management shall include, for each lot, but not limited to, the following:

- a) Issuance of written Order to Commence
- b) Approval of the contractor's authorized representative and key personnel on site and monitoring of their performance
- c) Review, for conformance with the specifications, the Contractors' proposed site layout, site mobilization facilities and temporary works.
- d) Review and approve the manufacturer's designs, specifications, civil design loads and analysis...etc for all mechanical works
- e) Critical review, corrections and approval of Method Statements to be submitted by the Contractor for the construction activities.
- f) Check and establish that the Contractor mobilizes and supplies to the site, all materials, equipment and machinery that have been committed in its bid, and ensure that all such items remain on site until their release has been authorized. Ensure that the Contractor properly records all equipment, materials and labor which have been supplied under the works contract, and keep and regularly update lists of the Contractor's equipment (and its condition) and personnel on site.
- g) Handle day to day work at the site

- h) Propose the client on needed modification of the plan before the start of works
- i) Chair the weekly site meetings, write reports and submit them to the contracting authority
- j) Examination of the Contractors' Monthly Statements and preparation and issuance of Payment Certificates.
- k) Follow up on materials testing from filed to the labs and ensure the use of tested materials
- l) Prepare monthly and periodic reports for all activities
- m) Prepare eventual amendments and submit them to the contracting authority;
- n) Suggest the halting of works in case of serious malfunctions from the contractor's side;
- o) Ensure a good collaboration among different stakeholders;
- p) Work as the mediator (in case of disagreement) between the contractor and the contracting authorities;
- q) Upon completion of the works, carry out the necessary inspection, specify and supervise any remedial works to be carried out and, upon completion of remedial works, propose to RCSP a date for a joint inspection, prior to the issuance of the Certificate of Completion/ Taking-Over Certificate. Issuance of the Taking-Over Certificate upon satisfactory completion of all tests and taking-over of the works by RCSP.
- r) Approval of the removal of Contractors' Equipment, Temporary Works and Materials;
- s) Preparation of a limited number of general record drawings for use in the Project Completion Report to supplement the As-built drawings prepared by the Contractor and approved by the Engineer.
- t) Preparation and participation in provisional reception of works.

3.2. Supervision of works

The resident engineer shall supervise the construction works, putting up civil structures and commissioning activities to ensure compliance with the contract drawings/sketches, specifications and recognized international standards. This shall include, but not be limited to, the following:

- a) Review and check the completeness of the designs and drawings, specification and the BoQ.
- b) Checking the Contractor's surveys and setting out.

- c) Inspection of construction activities, site installations and road, pipe supply line and marshland structures, management of temporary material dumps, spoil dumps, aggregate and concrete production, etc.
- d) Evaluate and determine acceptability of substitute or equal materials and equipments proposed by the Contractor.
- e) Maintaining record of visits to site and meetings held; details of equipment standing or lost time; and any other matters affecting the progress or cost of the works.
- f) Ensure that the contractor is respecting the engineering construction standards, working condition and execution techniques provided in the contract,
- g) Inform (as soon as possible) the contracting authority about any malfunctions that may affect the quality of work;
- h) Technical support in sampling, analysis and testing of materials
- i) Provide a technical support to the contractor whenever required
- j) Make sure that the contractor is in line with the time schedule (execution period)
- k) Monitor and ensure the quality of materials and equipments brought by the contractor;
- l) Advise the contracting authority in respect to necessary modifications to designs, drawings, technical specifications or methods of construction;
- m) Accept and approve the executed quantities before billing by the contractor;
- n) Repeat the surveying of structures in order to be sure of the executed quantities in case of billing;
- o) Request (to the contracting authority) for payment of quantities already verified and approved;
- p) Verify and approve the AS BUILT drawings;
- q) Monitor the respect of all environmental norms including a proper reconditioning the zones of borrow materials with tree plantation wherever necessary.
- r) Ensure health and safety regulations are complied with on site (among others gloves and masks wherever necessary)

4. QUALIFICATIONS OF RESIDENT ENGINEER

The Resident Engineer shall have the following minimum qualifications but not limited to:

- B.Sc. or above degree in Rural Engineering, Civil engineering or related fields, 10 years of relevant experience in marshland and hillside development works, at least 4 years in irrigation projects or other projects with hydraulic structures. The Resident Engineer bears full responsibility for the monitoring and keeping the construction time schedule, the construction of the works according to the relevant Specifications and standards, and communication with the Client. He/she shall be present at the site for the whole construction period and communication language is English.

5. Reporting Requirements and Time Schedule for Deliverables

5.1. All the reports, documentations, calculations and drawings produced by the Consulting Resident Engineer as part of the services under this agreement are the sole property of the Client and the Consulting Resident Engineer shall not reproduce it or give to any third party without the consent and written approval of the Client.

5.2. In performing his duties under this service the Consulting resident Engineer shall submit to the Client the following reports (and others as may be required during the course of the Project).

i) Three (3) hard copies and a one(1) soft copy of Preliminary Report, it will include but not limited to the following:

- a) Approval of the contractor's authorized representative and key personnel on site and monitoring of their performance
- b) Review schedule of site mobilizations and overall implementation plan for the contract and set the targets and indicators in the right way of achieving planned project executions period.

This report will be submitted at the 20th day of the month following end of month whose site activities are being reported.

ii) Three (3) hard copies and a one (1) soft copy of Monthly Progress Reports: The reports will include completed activities in percentages with respects to estimates in BOQ, monthly contractors' execution plans, challenges in implementing the contracts or decisions made or technical proposals raised during weekly technical meetings by the contractors.

iii) Three (3) hard copies and a soft copy of Final Completion Report with all As-built Drawings

5.3. Client shall provide written consolidated comments and/or approval within 1 week upon submission of the monthly progress reports and two weeks upon submission of the final completion report. If no written response is received from the Client concerning unacceptability of the report within the periods mentioned above from the submission date, the submitted report shall be deemed to have been accepted by the Client.

6. Client's Input and Counterpart Personnel

a) The client shall avail to the Consultant all relevant, pre-construction drawings/sketches, specifications, bill of quantities, construction contract documents and other documents related to the project.