# Terms of reference for execution works of upgrading two pipe culverts to box culvert and raise of one bridge and road in Mushishito marshland located in Kibirizi and Uwinkingi sectors, Nyamagabe district, Southern province.

| | |
|---|---|
| **Project Name** | **Climate-Smart Agriculture and Market Development for Enhancing Livelihoods of Refugees and their Host Communities in Rwanda (CSA)** |
| **Project Donor** | **DENMARK through the partnership with United Nations High Commissioner for Refugees (UNHCR)** |
| **Implementing partner** | **DUHAMIC-ADRI** |
| **Intervention Area** | **NYAMAGABE and Gatsibo Districts** |
| **Project Lifespan** | **July 2023 – December 2026** |

**Kigali, May 16,2025**

## I. Background of the consultancy work

### 1.1 Brief description of DUHAMIC-ADRI

DUHAMIC-ADRI is a Non-Governmental Organization legally granted by Rwandan law legally recognized by the Ministerial Order No. 943 of July 12, 1985 as a Local Non-Government Organization and its statutes were amended and accepted by the Ministerial Order No. 025/11 of 21th March 2005 and it has fulfilled all requirements for compliance with the new law number 04/2012 of 17/02/2012 governing the organization and the functioning of national non-governmental organization.

As the local Non-Governmental Organization, DUHAMIC-ADRI has General Meeting Assembly, Board of Directors, Audit Committee, Conflict resolution committee and Senior Management (SMT). The SMT is formed by the personnel of organizations in different administrative and Program units.

Currently, DUHAMIC-ADRI operates in 28 Districts of Rwanda with the vision "a rural world responsible for its self-socio-economic development" and the mission of supporting integrated development through the initiatives of the rural population in their struggle for self-development.

### 1.2 Brief description of climate-smart agriculture Project

Since July 2024, DUHAMIC-ADRI has partnered with the United Nations High Commissioner for Refugees (UNHCR) through a signed Partnership Framework Agreement (PFA) to implement Phase II of the Climate-Smart Agriculture and Market Development for Enhancing Livelihoods of Refugees and their Host Communities in Rwanda.

The Climate-Smart Agriculture initiative aims to improve food security and self-reliance for 2,036 beneficiaries (732 refugee and 1,304 host community households, including 1,091 women and 945 men). By 2026, this project will benefit over 7,851 family members through climate-smart agricultural practices and a market development approach.

Specifically, the partnership focuses on contributing to achieving the following outcomes of the project: Outcome 1: Increased Agricultural Productivity and Outcome 2: Increased Household Income

As part of the project implementation work, DUHAMIC-ADRI would like to hire a construction firm accredited to perform works related to upgrading two pipe culverts to box culvert, one bridge and road raising. This intervention is one of the measures proposed from a recently conducted study as one of identified potential causes of Mushishito marshland flooding during rainy season.

## II. Objective of the tender

The overall objective is the "**Execution of upgrading two pipe culverts to box culvert and raise of one bridge and road in Mushishito marshland located in Kibirizi and Uwinkingi sectors, Nyamagabe district, Southern province".**

The contracting company is expected to implement the following activities:

1. Upgrading two existing pipe culverts to reinforced concrete box culverts.
2. Constructing a raised bridge with reinforced top slab concrete to facilitate safe and efficient transportation.
3. Raising the road level to mitigate the impact of seasonal flooding and enhance accessibility.

## III. Scope of Work

The contractor will be responsible for

### A. Project review for the studies conducted at Mushishito Marshland

1. Geotechnical Investigations
2. Structural Analysis & Design
3. Material Selection & Specifications
4. Detailed Construction Plans & Drawings
5. Traffic & Safety Considerations
6. Cost Estimates & Bill of Quantities
7. Construction Methodology & Work Plan

### B. Site Preparation and Mobilization

1. Conducting site clearance and preliminary surveys.
2. Mobilizing necessary equipment, materials, and workforce.
3. Ensuring environmental and social safeguards are adhered to.
4. Collaborate with DUHAMIC-ADRI in raising awareness of the works to be done and role of community.

### C. Upgrading Pipe Culverts to Box Culverts

1. River deviation during the execution works
2. Demolition and removal of existing pipe culverts.
3. Excavation and preparation of foundation.
4. Construction of reinforced concrete box culverts with appropriate dimensions.
5. Backfilling and compaction.

### D. Bridge Construction

1. Excavation and foundation work.
2. Construction of reinforced concrete abutments and piers.
3. Installation of bridge deck and reinforcement structures.
4. Finishing works, including guardrails and road connections.

**E. Road Raising and Drainage Works**

1. Earthworks to elevate the road to the required level (distance of 60 meters).
2. Construction of drainage structures to ensure proper water flow.
3. Compaction and grading of the road surface.
4. Installation of erosion control measures.

## IV. Expected Deliverables

The contractor is expected to deliver:

1. **Detailed Work Plan**: Outlining timelines, resource allocation, and key milestones.
2. **Construction of Two Box Culverts**: Fully functional and tested structures.
3. **Completed Bridge**: Safe and durable bridge in accordance with technical specifications.
4. **Raised Road Section**: Properly compacted and graded to withstand flooding.
5. **Final Report**: Documenting completed works (as built plans), challenges encountered, and recommendations to community, DUHAMIC and local authorities.

## V. General Specifications and performance Requirements

### 5.1 General considerations

From the technical viewpoint and before any execution,

The Contractor in charge of the implementation of the works in the present project should have full knowledge of all the specific parts of the work specified in the whole of document that form in all a homogeneous and complete work. This implies that all work and supplies must be completed in a perfect and timely manner.

In a way to avoid other contention the contractor shall inform the client representative or supervision firm, in a separate note to his/her Bid, all mistakes, omission or contradictions sighted in the document during studies. In the case of omissions in the description of certain particular works, the contractor shall in all cases execute all necessary work to perfect completion.

The contractor should take care to minimize the disturbances on the environment because of work, she/he should consider gender balance and right of beneficiaries in the execution of works and ordinary workers should be selected from the execution of works area. Lastly, at the request of the Client, the contractor shall manage the changes considering the realities of the terrain and by adhering to the code of practice.

### 5.2 The unit prices of the Contractor

Prices for the replacement of damaged materials and/or equipment must always include dismantling and the evacuation of materials and /or the equipment including the repair of the works damaged during the dismantling of work and other surroundings.

The descriptive bills of quantities in the technical clauses do not alone make up contractual statements. The contractor shall not signal any alterations in the present document, be it in the different sections or plans or other documents relating to this tender document.

The contractor should be conscious and verify all quantities during the time of Bid preparation. If he finds out that some quantities indicated in the descriptive and quantitative clauses are improper or missing the contractor shall correct them in a separate note joined to his/her Bid and shall not in any way, ask for any price modifications.

### 5.3 Implementation plans and drawings

The plans and drawings the Contractor shall be responsible to produce are:

- The topographical surveys which include:
  - Detailed Topographic surveys of the structures to be upgraded and raised.
  - Periodic surveys of the borrow pit zone if any and general surveys necessary for the determination of the quantities of work (by plans or profiles carried out every month);
  - Complementary surveys made necessary by the execution of the works
- Site layout drawings
- Drawings of the scaffoldings and hangers
- Plans of formwork layout, reinforcements and reinforcement schedules of the works accompanied by their design of calculations.

All these documents shall be approved by the Engineers in charge before execution. The Contractor shall have the obligation to inform in writing the Engineer, before any execution of the work or a part of the works, the errors, omissions or contradictions which the plans and drawings of design could comprise. She/He shall explicitly justify any modification compared to the plans of project. The responsibility of the contractor remains whole even after the approval of the Engineer which could make him modify the work carried out according to a plan that the contractor shall propose to him.

### 5.4 Standardization

The design and the calculations of the reinforced concrete works and the steel structures shall be in conformity with the technical regulations in force and applicable technical standards in Rwanda (**especially Rwanda Transport Development Agency (RTDA) construction guidelines for culverts, bridges, and roadworks**.)

The supply of materials and execution of works shall be carried out in strict accordance with the applicable national and international engineering standards, as well as environmental and safety regulations currently in force.

### 5.5 Setting out

In accordance with the supplied plans, the Contractor shall carry out:

- Establishment of the general axes.
- Setting out of the work.
- Staking necessary to the execution of the works according to the specification's hereafter:
  - ✓ Site reconnaissance in the presence of the Engineer.
  - ✓ identifying in the field, of the basic terminals and reference marks which were used for the execution of the topographical surveys.
  - ✓ staking of the works with stakes out of wooden or steel in the following way (where applicable):
    - ➢ straight lines.

- stake at each angle.
- stake with each entry and exit of curve.
- in the curves.
- with each intersection.
- with each work of civil engineering.

The Contractor shall be responsible for the care of the terminals; he/she shall restore them or replace them with his expenses, if the progress of the work does not make it possible to preserve them and give to the Engineer the co-ordinates of the new terminals as well as the plan of location and fastening. The Contractor shall be solely responsible for the setting out notwithstanding the possible checks of the Engineer.

The tolerances setting out shall be:

- X and y: tolerances taken in a horizontal plane, according to the axis of layout, and in the perpendicular direction
- Z: tolerance in altitude

Table 1: Setting out – Tolerances

| Works | Tolerance in x (mm) | Tolerance in y (mm) | Tolerance in z (mm) |
|---|---|---|---|
| Bridge(axis) | □ 100 mm | □ 50 mm | □ 20 mm |
| Works | □ 50 mm | □ 50 mm | □ 20 mm |
| Track (axis) | □ 100 mm | □ 100 mm | □ 30 mm |

### 5.6 Laying out the site perimeter by the Contractor

The Contractor shall submit to the Engineer within 2 weeks starting from the date of order to begin work, his/her project of layout of the site. She/ He shall include the overall plans and details as well as the implementation plan of works requested here before.

### 5.7 Site equipment

All the plans necessary for the successful completion of the works and the smooth operation of the general installations shall be provided by the Contractor. This equipment shall be used, kept and maintained in operating state by the Contractor who will also ensure the supply of the consumables, maintenance and spare parts necessary for his operation throughout the execution period.

The list of the equipment that form part of the offer of the Contractor shall not be regarded as restrictive and the Contractor shall not raise any complaint, nor to claim for a prolongation of the completion period, if, during work, modification or supplements to his equipment is sought to fulfil his obligations.

The state of the equipment presents on the site, whether owned by the Contractor, rented or placed at his disposal by the Client or his representative, shall be checked daily by the Contractor and shall be presented to the Engineer on weekly basis.

The equipment supplied to the site shall be regarded as intended exclusively for the works. The Contractor shall not have the right to withdraw it (except for interior displacements to the site) without the written assent of the Engineer. The Engineer shall not refuse its authorization without valid reason.

### 5.8 Transport of the equipment, materials and supplies

The Contractor shall conform to the local legislation regarding the means of routing on the site as well as their use on the public highways that access to the site.

### 5.9 Circulation on the construction site

The Contractor shall make provisions to ensure, during the execution of the works, the maintenance of the pedestrian and traffic on the normal ways crossing the construction zones which make the object of this tender. All the site and roads are to be permanently watered (wetted) to avoid dust.

The contractor shall execute temporary work and deviations necessary; he shall ensure the instructions during the day and night as well as maintaining security guards imposed by the regulation in force.

### 5.10 Re-transforming the site

At completion of the works, all the areas having been placed at the disposal of the Contractor shall be returned clean to the Client. Not even unusable material shall remain there.

During the execution period, the Contractor shall maintain the access roads to the site made dysfunctional by his machines and trucks.

### 5.11 Force majeure

The Contractor shall be responsible for any damage undergone by the foundations, the works, the installations on the site and the materials, caused by water either because of heavy rainfall, or in consequence of a rupture or of an unspecified insufficiency of the temporary works. All possible repairs shall be at his cost.

The cases where the force majeure is likely to release the Contractor of his responsibility correspond to an exceptional rise of the water level of the principal tributary, to the outbreak of war or earthquake. In the case of force majeure, the damage caused to the works, the installations at site, the materials shall not be ascribable to the Contractor. He shall ensure repairs and receives for that remuneration calculated by application of the price in the bill of quantities and possibly of the price of the contract by forced account, made deductions of the percentages for benefit, unforeseen and others. This remuneration shall be, however, paid after deduction of the benefit and the percentage for risks and unforeseen (see sub-detail of the prices).

The contractor shall take the information necessary regarding the hydrological trends of the principal tributary and the side tributaries of the marshland, the water level reached by the exceptional rises and their period of occurrence.

### 5.12 Bad weather

Following bad weather preventing the continuation of the work, and at the written request of the Contractor, the Engineer can authorize stoppage of the works. The suspension of work in a period of heavy rain shall relate only to the earthworks. In this period, the Contractor can carry out the concrete works (prefabricated works and works cast in-situ) located in dry places. At the stoppage or suspension

of the works, the Contractor shall then make note to the Engineer the impossibility in which it is to continue his activities. Recommencement of the work shall also be by written notice to the Engineer.

## VI. QUALITY AND THE PREPARATION OF THE MATERIALS

### 6.1 General provisions

The supply and the storage of all materials necessary for the works shall be the responsibility of the Contractor and shall be carried out under his sole responsibility. The materials shall satisfy the standards set by the present particular specifications. However, the products corresponding to other current standards of qualities equal or higher than those of the standards required could also be accepted. These products and standards shall undergo a preliminary approval by the Engineer.

### 6.2 ORIGIN OF THE MATERIALS

The orientation as for the utilization of the materials is limited in accordance with the list below:

#### 6.2.1. EMBANKMENT

The embankments materials may originate from the excavations or may be borrowed from borrow pits proposed, approved by the Engineer.

**The following materials are to be excluded:**

a) Silt, the peaty soils, marls and the so-called “black cotton soil”

b) Organic matters: plants or other remnants

c) Arable soils, except when it is used as a superficial layer on the slopes, the berms and the shoulders to be treated with sodding or planting.

**The following products are accepted:**

a) Sandy soils, gravels, the lime-sands,

b) Homogeneous mixture composed of soils and stony materials, the soils such as clayey sands, limes and clays with stony elements representing at least 2/3 by weight of the mixture,

c) Schist as core in the mass of the embankment.

In this case, the platform is immediately covered with a layer of 50 cm thick of the materials enumerated in the paragraph a) above.

**Characteristics of embankment materials:**

- Rate of compaction: 95% of the OMP
- Optimum water content: ± 3% of the OMP
- CBR index at 4 days of soaking: > 10
- Plasticity index: < 20
- Liquid limit: < 50

- Dimension of the largest particles: 75 mm

- Linear swelling: < 1%

### 6.2.2. WEARING COURSE

The materials for the wearing course may originate from the deposits and quarries or from the sites proposed by Contractor and approved by the Engineer representing the Client.

### 6.2.3. NORMS AND TESTS

Except with the contrary indications, the BS and tests in force at the date of publication of the tender shall be applicable.

#### 6.2.3.1. Execution of the tests

They shall ensure, with the frequencies indicated in these TS, the control of the production within the course of the advancement of the site.

The quality control shall be done under the supervision of the Engineer, and all the quality control tests shall be submitted timely to the Engineer for approval.

Primarily, a set of tests should permit to fix the modalities of setting in application of the materials.

This preparatory basis shall be accomplished at the expenses of the Contractor.

The Engineer may prescribe execution by a laboratory of his choice, any test for which he judges indispensable to verify the good quality of works, in accordance with the norms of the L.C.P.C. (Paris). The engineer is allowed to use all the equipment of the site laboratory for the control of site works. Reference tests shall be done in the National laboratory.

He / She shall have the power to increase the frequencies and the number of the tests at any time that it shall be proven necessary without any complaints or contestation of the Contractor.

The expenses brought about by the sampling, tests and analyses of all sorts shall be at the expenses of the Contractor, in the limit of the number of tests fixed in these TS.

All tests whose results shall not be in conformity with the terms of these TS, that it was about the tests whose number is fixed in the present TS or tests eventually prescribed by the administration above the figures fixed by the Service Agreement shall also oversee the Contractor.

All laboratory tests should be conducted in the national laboratory of the public works.

However, the Contractor may propose recourse in an external laboratory under reserve that this laboratory shall be accepted by the administration and provided that no delays shall result out of the execution of the tests.

**Frequency of tests**

The control tests for the materials shall be conducted every time the Engineer judges it necessary.

The following tests shall be conducted with the frequencies indicated.

- For each embankment layer:

| **Designation of the test** | **Minimum frequency of the tests** |
|---|---|
| 1. Atterberg Limits | 1 Complete identification test to |
| 2. Modified Proctor | The borrow materials. |
| 3. Los Angeles | |

### 6.2.3.2. Procedure to request for a test and approval

The request for approval shall be made in writing.

The attention of the Contractor shall be paid to the time duration for conducting certain tests and he must take account of this in his planning of execution, to achieve the frequencies prescribed by the TS.

The periods of realization of the tests are counted from the day of the presentation of the samples by the Contractor or the sampling by the Engineer.

- OMP : 2 days
- CBR : 5 days
- HRB Classification : 2 days
- Sieve analysis : 2 days
- Insitu density and Mc (Swiss plate): immediately depending on the progress of works
- Compressive strength of concrete : 30 days
- Los Angeles : 3 days
- Traction & Compression test :

It oversees the Contractor to verify the quality of the materials extracted from the deposit every time that they shall appear to evolve by their granulometry, their plasticity or their very nature.

## 6.3 CLEANNESS OF THE MATERIALS

The materials for the bridge works should be free of plant elements, such as roots, branches, humus, and the larger elements such as stones, etc.

## 6.4. DRAINAGE WORKS

### 6.4.1 Ditch (Refer to cyclopean masonry)

#### 6.4.1.1. Concretes and mortars

**a. *Classes of concrete***

The concrete and mortars to be used in the different works of the Service Agreement shall be classified as follows:

| Class | Cement content<br>(kg/m³) | Maximum dimension of the aggregate<br>(mm) | Average compressive strength<br>(kg/cm²)/cylindre | |
|---|---|---|---|---|
| | | | à 7 jours | à 28 jours |
| C1 | 150 | 30 | 50 | 100 |
| C2 | 250 | 25 | 125 | 180 |
| C3 | 350 | 20 | 200 | 270 |
| | 400 | 2 | 120 | 180 |

The concretes and the mortars above shall be used in the following works:

**C1 Concrete for the blinding layer**:

For pouring under the footings, under the engulfment and the culvert headwalls, under the pavement layer of the bottom of excavations.

**C2 Cyclopean or reinforced concrete:**

To be poured into areas and places destined for signs, to the raft foundation of engulfment and the works on headwalls, for the laying of ditches, to the prefabricated elements for the ditches, mitre drains, etc.

**C3 Cyclopean or reinforced concrete:**

To be poured into areas and places destined for cover for channels, to the concrete culverts, to the slabs, etc.

**M1 Cement mortar:**

To be poured in the case of jointing the masonries or of filling of the sealing holes.

The cement contents are given as indicative figures and only represent the minimum values.

The real contents shall be defined by nature and the grading of the aggregates.

The Contractor shall propose the exact composition of every type of concrete and mortar. The consistence of fresh concrete, measured following the cone method of the ASTM, shall such that the settling of the concrete shall be contained between 4 and 8 cm, except the Engineer in view of the results of the tests approve derogation.

The compaction of the concrete shall be consisted between 0,81 and 0,85. The water content of the batching water, determined on dry materials, should correspond to the ratio of weight of cement to the weight of water comprised between 1,6 and 1,8. Among the laboratory tests, the compressive strength determined for the 7 and 28 days should at least be equal to those indicated in the table above.

**b. *Composition of concretes***

**The aggregates**

The aggregates for concrete are the crushed stone gravels and the sand.

The quality and the grading should be submitted to the Engineer for approval.

This approval shall be finally granted after that the compressive strength on concrete cubes cast with the proposed aggregates shall have proven to be satisfactory.

In any case, the aggregates shall respond to the prescriptions below:

The sand should have and sand equivalence higher than 75%.

It shall not contain the following elements: gypsum materials or organic matters, oxides, pyrites or silts.

The Engineer may, if he judges it useful, prescribe the washing of the sand.

Apart from the sand, the granules for reinforced concrete are designated by their specific measurements D (maximum dimension) and d (minimum dimension).

The final grading is defined in the course of the concrete tests.

On no account shall the weight of the materials retained on the D sieve exceed 10% of the weight submitted to the sieving. In the same way, 10% or more of the total of the granules may pass the sieve of d diameter.

Besides, the weight retained on the sieve of diameter (D + d)/2 shall consist between 1/3 and 2/3 of the total weight.

The gravel should be strictly clean. Their cleanness shall be such that less than 2% of the granules pass the sieve of 2mm during the eventual washing.

They should be made up of hard stones. Their Los Angeles value should be lower than 30. The Engineer may, if he judges it useful, prescribe the washing of the gravels.

The granules of different categories or distinct granular classes should be stocked in separated lots, in such a way that they shall neither mix, nor be contaminated.

**The reinforcements**

Steels chosen by the Contractor for the execution of the Service Agreement shall be submitted to the Engineer for the prior approval.

A memo comprising all the justifications in the following shall support the request for acceptance of steel:

- The nature of steel, in particular their composition and their source

- The geometric features of the reinforcements with their tolerances

- the properties of adhesion

- The recommendations of usage as regards the bending, in particular the minimum diameters of the mandrels to adopt for the stirrups and frames, the anchorages and the elbows

- The recommendations of usage as regards the eventual welding of the reinforcement.

The reinforcements of high adhesion to be used shall be selected among those defined by the French Norms in CHAPTER III Titre I of section 4 of the Notebook of the Common Prescriptions and that is the subject of an identification card or equivalent.

The high adhesion shall be guaranteed by ribs in protrusion on the body of the reinforcement or by torsion of a non-circular profile section or by both processes at the same time.

The ribs shall be longitudinal or transverse or both combined.

However, in the case of the combined ribs, the transverse ribs should not join the longitudinal ribs.

In calculations, the characteristics of these reinforcements shall be the following:

- Apparent minimum elastic limit (< Ø20 mm): 4200 kg/cm²
- Apparent minimum elastic limit (> Ø20 mm): 4000 kg/cm²
- Forced rupture by pulling: 5000 kg/cm²
- Elongation at rupture: 14%

The round smooth reinforcements shall have the hue of FeE 22 as defined by the French Norms in CHAPTER II Title I of section 4 of the Notebook of the Common Prescriptions.

The characteristics of these reinforcements are as follows:

- normal elastic limit: 2200 kg/cm²
- forced rupture by pulling: 3400 kg/cm²
- elongation at rupture: 25%

**The cement**

The hydraulic binders included in the category of concretes should be Portland Cements without secondary ingredients, class CPA 35 (325 according to the old norms) and originating from a supplier accepted by the Engineer.

The quality of these cements should respond to the stipulations of the following French norms:

- NF P 15-300: Clauses and general conditions

- NF P 15-302: Portland cement.

The regular and the eventual tests, which shall be conducted in view of the quality control of the cements, shall conform to the following French Norms.

At instructions, the French Norms above may be substituted with the equivalent norms of which the Contractor has a duty to justify. The Contractor shall hand to the Engineer the duplicates of the order forms addressed to the production factories.

These order forms should indicate the supply conditions and tests, which the ordered binders should satisfy.

At the time of supply on site and 10 days before the application to work, a sampling of cement shall be done on every lot of about 25 tons, to determine the compressive strength, the consistency and the deformation in cold and hot weather.

The confection of the withdrawals and their transportation are to load of the Contractor.

If a test comes to give a non-satisfactory result, the share of cement having given the deficient sample shall be rebuffed and should be removed within 24 hours.

In case of doubt about the quality of the supplied cements, the other tests, subject of the norms referred to above, shall be executed on instruction by the Engineer. The Engineer reserves the right to exercise or to have exercised, the control in the factory of manufacture, the conservation and the expedition of the cement that shall be supplied for works.

The cements shall be stocked in watertight stores and to the sea spray.

In the case where there would be cements of several qualities or several origins, the different supplies should be separately stocked

## 6.5. PROTECTION WORKS

### 6.5.1 Gabions

The stones for gabions should be sound, without cracks or gangue and responding to the following conditions:

- minimum dimensions : 0,20 m

- volumetric weight: > 2.3 t/m³

- Deval coefficient: > 6

The gabions should be constituted of galvanized iron wires of at least 3,8 mm diameter for the leading-wires and at least 3 mm diameter for the mesh and the ties.

The wires for the ligature should be galvanized wires of at least 2,4 mm diameter.

Before the execution, The Contractor shall submit the fabrication specifications to the Engineer for approval.

### 6.5.2. Cyclopean masonry

The cyclopean masonry stones should respond to the following conditions:

- Minimum dimensions: 0,20 m
- Volumetric weight: > 2.3 t/m³
- Deval coefficient: > 6
- Maximum thickness of the mortar joints: 1.5 cm

### 6.5.3 Blocks for stone pitching

Stones for stone pitching, used for the protection of the foot of the embankment, watercourses, shall conform to the following specifications:

- Minimum/maximum dimensions: 0,30 m/0,80 m
- Weight: 30 à 60 kg
- Volumetric weight: > 2.3 t/m³
- Deval coefficient: > 6

### 6.6. WATER

The water for sprinkling the wearing course, for batching the mortars and concrete and washing the aggregates for these concretes shall be soft water free of the earth and the organic materials.

## VII. MODALITY OF EXECUTION OF THE WORKS

## 7.1 PRELIMINARY TOPOGRAPHIC WORKS

Before any commencement of the works, the Contractor should fix, in the presence of the Engineer, the pegging defining the detail of works based on the data provided by the Engineer, reference marks, etc.

The Topographer Engineer of the MOD shall fix the final implantation of the Engineer works, abutments, signposts, etc., after the works of site preparation.

### 7.1.1. SITE PREPARATION

### 7.1.1.1 CLEANING

All the drainage works: ditches, culverts, manholes, should be cleaned.

The bridge access road should not present materials which may not be included in the structure of the new driveway.

#### 7.1.1.1. Site clearance

After the preliminary pegging of the limit of the works, the Engineer shall indicate the limits of site clearance.

During the prescribed operations above, the Contractor should look into the conservation of the boundary-marks of the implantation. He is the only person responsible for any damages and accidents that may occur.

#### 7.1.1.2 Stump removal

All the stumps under the formation layer and within the road limits should be removed.

#### 7.1.1.3. Carting to the deposit of the debris, etc.

All the products of site clearance, stump removal and demolitions should be evacuated and should be carted to the final deposit in the zones indicated by the Engineer, in accordance with the distance prescribed in the definitions of the prices.

#### 7.1.1.4. Temporary access to local population

The Contractor should avoid blocking the circulation during works.

He should not therefore close the traffic without the Engineer's prior authorization and without having proposed the temporary deviation bridge.

The expenses ensuing of the necessary works to assure the circulation are to the expenses of the Contractor. The expenses related to the temporary access work will be covered by this agreement.

The Contractor should also always assure, an appropriate system for the diurnal and nocturnal signaling, according to the needs of the site.

### 7.1.2 CLEARING OF TOPSOIL

The bridge road access limits should be cleared of natural soil by a thickness of 20 to 30 cm at average. This clearance is destined to remove the shrubs, plant remnants, and humus, plastic soils that could be found there. When the slope of the terrain exceeds 20%, steps of about 2m-widths are adopted.

In order not to hinder the out-flow of the rainwater, all products of the clearance and shrub removal shall be carted to a deposit outside of the bridge access road limits in a zone proposed by the Contractor and accepted by the Client Engineer.

## 7.2. EARTHWORKS

### 7.2.1 GENERAL

During the execution of works, the establishment and the maintenance of the water evacuation system inside and outside of the site area shall be at the Contractor ’s expenses.

The Contractor is wholly responsible for the damages (silting up of the drainage ditches, flooding, etc.) caused to third parties by its disposal.

The Contractor should look into the immediate evacuation of the water from the bridge and the road connecting the bridge.

### 7.2.2 CLEANING-OUT

After clearing of topsoil, when the thickness of the embankment to base on the construction of the platform is lower than 15 cm, two cases shall be considered:

- If the natural ground has a CBR > 10, it shall be scarified to a depth of 20 cm, embanked and compacted to 95% of the OMP.

- If the natural ground has a CBR < 10, it shall then be subjected to cleaning-out by deepening the clearance of topsoil.

The cleaning-out works consist of removing unsuitable soil to a thickness to be approved by the Engineer and to replace it by the materials corresponding to the specifications required for the constitution of the platform.

The sections where the clearing-out work is to be conducted shall be defined by the Engineer during work and shall be registered in the notebook of the attachments.

The cleaning-outs exceeding 20 m³ by case shall be remunerated as actual earthworks. The removal shall be considered as the excavation put to the final spoil deposit, and the replacement as the embankment originating from borrow pits or as the excavation used in the embankment.

In the event where, after clearing of topsoil for embankment, the base of the embankment always presents unsuitable soil for its foundation, cleaning-out or the execution of an anti - contaminant layer or drain shall be envisaged.

### 7.2.3 EARTH MOVEMENTS

At least 20 days before the commencement of the earthworks, the Contractor shall submit for the approval of the Engineer a proposal for the earth movements.

This outline should show evidence of the relationship between:

- The excavations and the embankments or the deposits.

- The embankments and the excavations or the borrow materials.

The proposal of the earth movement shall indicate:

a) The materials to cart to the final spoil deposit.

- The arable soil.

- Soils do not present the minimum qualities.

- The excess soil.

b) The excavations to be applied in normal embankments.

c) The embankment materials that must originate from borrow pits.

Carting to the final spoil deposits of the arable soil, soils not presenting the minimum qualities, excess soils, shall not be affected without the Engineer's approval.

The Contractor shall proceed to clarify the earth's movements in accordance with the results obtained on the sites whenever the Engineer shall demand for it.

### 7.2.4. EMBANKMENTS

#### 7.2.4.1. PLACING AND NORMAL COMPACTION

After the preparation of the base, achieved as specified above, the embankments shall be executed by means of earth materials originating from the actual excavations on site and the borrow pits.

The materials shall be spread in successive layers of at most 30 cm to guarantee a proper homogeneity for water content and for compaction.

They shall cover the whole range of the platform.

The regulation shall be conducted so that the embankment profile shall always be convex at any stage of advancement to permit the permanent drainage of the mass of the embankments.

To execute the compaction of too humid or too dry soils in optimal conditions, the Contractor shall be charged to water the too dry soils, and to wait for the drying of the too humid soils. He shall, if need be, facilitate the drying of the too humid soils by their sacrifice. The compaction shall be assured with any machine, either towed or self-propelled with sheep's foot or pneumatic tyres.

The types of machines, their weight, their agility and their movement speeds shall be determined by the Contractor and shall be submitted to the Engineer for approval.

In any case and at any point of the embankment, the regulating of the materials, the watering or the drying and the compaction led to the dry density corresponding to 95% of the OMP, with a tolerance of water content equal to ±3% of the O M.P.

It is clearly specified that the earthworks shall only be pursued when the underlying layer shall have attained the degree of compaction of 95% of the OMP.

The Contractor shall be charged to wait for the results of the laboratory tests; otherwise, he shall proceed at his own risk and peril.

## 7.3. EARTH MOVING

### 7.3.1 General

The excavations consist of the extraction, the loading, the transportation, the discharge and, if the case arises, the carting to temporary or final deposit.

They also comprise the works and supplies necessary for the good execution and to the security of the site, particularly the execution of steps according to the across sections required. The regulation of the slopes is always done by cutting and not by addition of materials of materials, except regarding the application of a finishing layer of garden soil.

In the case of the use of explosives, Contractor is responsible for the damages caused to the works, as well as to the properties of the third party.

### 7.3.2. Borrow materials and deposits

Apart from the materials for embankment originating the excavations, the Contractor may be allowed to use acceptable materials originating from borrow pits.

The arable soil from the quarries should be stocked, to be reused for the restoration of the borrow zones after work.

At the latest 20 days before the commencement of the corresponding works, the Contractor should submit for the Engineer' approval the choice of the borrow areas that he intends to use. In the case where the acquisition of these areas requires some expropriations, these should be submitted to the Engineer for approval and the expenses shall oversee the Contractor who shall apply the respective official prices.

The Contractor is therefore charged to include these expenses in his cost for site installation. The deposits should be chosen in the function of an optimum preservation of the environment and a minimal destruction of nature. They shall, in no account, be chosen in zones where they may affect the good condition of bridge.

### 7.3.3 Excavations

The removal of shrubs and the clearing of the 30 cm depth of soil in the excavation zones and the embankments shall be remunerated separately. The bottom of excavation shall be compacted before shaping to the profile prescribed for the project as far as obtaining the in situ dry density higher or equal to 95% OMP and the same has a depth of at least 20 cm.

The material that does not possess at this density, a CBR higher than or equal to 10 shall be replaced, unless the structure of the access road is not calculated in place for the CBR of the material.

In the event the Contractor, because of an excessive excavation, would be asked to return some materials to decrease in the cost, this operation shall be affected without any remuneration.

### 7.3.4 Excavations to be carted to the deposit

To be taken to the deposit

- The unsuitable excavations for embankments

- The excess excavations

The Contractor shall, with the Engineer's authorization, use these excavations to ease the grades of the cut slopes of embankments. The rest should be taken to approve deposits.

In a particular case that could arise, the Contractor shall solicit the Engineer's approval before any carting of materials to the deposit.

## 7.4 WEARING COURSE

### 7.4.1 UNTREATED WEARING COURSE

The Contractor shall construct 20 meters at both sides of the bridge, as access roads. The thickness of their wearing course shall be 20 cm. The embankment and the untreated wearing course shall be achieved in stony masonry or gravel.

### 7.4.2 EXECUTION

The materials are deposited on the platform to achieve the thickness required after compaction. Deflections must remain lower to 100.

All shortfalls noted following the control of the surface should be corrected by the Contractor, and at his own expenses. The corrections shall be made by scarification and the eventual and bringing in supplementary materials. In no account, shall the supplementary material form superficial crust.

## 7.5 DRAINAGE WORKS

### 7.5.1 GENERAL PRESCRIPTIONS ON CONCRETE WORKS

#### 7.5.1.1 Fabrication and transportation of concrete

The material chosen by the Contractor, much as for the manufacture as for the transportation of concrete, shall be beforehand accepted by the Engineer. The Engineer may low to vary, in the case of need, the contents of the constituent elements.

The apparatus for assuring the content of the batching water should possess an appropriate security system, prohibiting any possibility of addition of water to a batch after tipping the prescribed mix.

The Engineer reserves the right to demand at any time, for the accounting documents from the Contractor related to the tonnages cement received on the site.

The administration reserves the right to do the verification of the batching balance, whenever it judges it useful, but in principle before the commencement of the item of concrete, except in case of emergency, and with that, without the Contractor having the right to any indemnity.

In the case where these verifications would indicate that the prescribed mixes are not respected, within the tolerances fixed by the previous tests, the Contractor shall be held to proceed with the conduction of the necessary regulating measures without the right to claim for any indemnity.

The concrete shall be transported from the place manufacture to the area of usage in special trucks, in a manner as to avoid any washing out by the, any segregation of the elements or any commencement to set before or during the employment in the works.

### 7.5.1.2 Employment of concrete in the works

The concrete should be immediately employed in the works after its manufacture. The concrete that would not be in place in the time fixed by the Engineer, or that would have dried up or that would have begun to set, shall be rejected.

The processes of putting the concrete in place shall be submitted by the Contractor to the Engineer for approval. The process is conceived to avoid any segregation of the elements and to ensure a regular filling of the formwork.

The concrete should not fall freely at a height greater than 1,5 m without the Engineer's authorization. The pouring shall be affected with vibration. The vibration equipment shall be submitted for the Engineer's approval; their power and their radius of action in the concrete shall be specified. Their efficiency shall be controlled by tests on the site.

They should possess dimensions such as that they are able to attain, with their radiation, all the parts of the concrete to vibrate. On the resumption, it is necessary to first clean the existing part and to make it rough to improve the adhesion with the next part to be poured. The superposition of a fresh concrete layer to a layer already put in place shall not be considered as resumption if the underlying concrete can be vibrated.

Before every casting, the Contractor must obtain a written authorization from the Engineer.

### 7.5.1.3 Curing of concretes

The cure of the concretes shall be assured by humidification. The concrete, as well as the impervious formworks, shall be maintained in the humid state during 10 days after the setting of the concrete. The means to be used shall be canvases; mats or doormats constantly kept wet, or a light and permanent watering of the surfaces. The irregular watering is forbidden.

It is prohibited to have concrete support any loads, particularly any circulation or erection of facilities on it before the Engineer judges the strength of the concrete to be sufficient. The approval that may be given by the Engineer to this respect shall not relieve in any case the Contractor of his responsibilities.

The Contractor shall be held responsible for any deterioration caused to the works, either by use of the concrete, which has not yet attained the prescribed strength, or by the presence and the layout of his installations.

### 7.5.1.4 Admixture for the manufacture of concretes and mortars

The use of admixture for the manufacture of mortars and concretes are prescribed for the concrete of the water outfalls and manholes and should be submitted for the Engineer's prior approval.

As support to his demand aimed at the use of admixture, the Contractor shall annex the results of the results of test analyses to which he shall have already proceeded in the laboratories accepted by the Engineer.

### 7.5.1.5 Reinforcing bars

The bars are cut and bent to cold.

Their bending should be done on mandrels by a mechanical bender.

The radii of curvature should not be lower than the values appearing in the most recent approval cards. Only the smooth rounds may be unbent.

The straightening of the high adhesion bars is forbidden.

The proposed reinforcement bars should be without traces of rust, without earth or cement.

They should be in the exact location prescribed by the drawings should be carefully tied by means of metallic ligatures and wedged by means of concrete spacer blocks of quality comparable to the concrete of the works or special pieces in synthetic matter. Their minimum cover should be 25 mm.

**7.5.1.6. Formwork for the prefabricated elements**

The formwork, which should be obligatorily in steel, should present interior faces that are well smoothed, without any identified irregularities.

**7.5.1.7. Manufacture of mortars**

The manual mixing is forbidden. The mixing is normally done in concrete mixers of a minimum capacity of 150 liters. The product obtained should be homogeneous and should present granules perfectly coated with binder.

## VIII. EXECUTION OF WORKS

### 8.1 General.

The necessary earthworks for the construction of lined ditches, mitre drains, the culverts, the slab crossings and in general all the accessories described in these TSs, the assessment of the soils and wastes, are consisted in the unit prices prescribed in the measurements for their supply and their application in the works.

### 8.2. Works of the head walls

The work of the headwalls are executed according to the drawings.

The rubbles originating from the opening of the excavations are taken to the final deposits or reused in embankments, depending on their quality.

The bottom of the excavations is compacted and controlled to the shapes prescribed by the execution drawings. Quarry stones and blocks for masonry must have the required qualities and must be pointed with M1 mortar.

The embankments are executed in accordance with the corresponding provisions of the backfilling of the culverts

### 8. 3 OTHER WORKS AND UNDERTAKINGS

### 8.3.1 GABIONS

The gabions are hand filled with stones at their final positions; the biggest being arranged against the walls to form pavement, the interior part may receive smaller stones.

To consolidate the gabion and to avoid that they bulge, during the filling, straps in galvanized iron wires joining the opposite walls are tied. The gabions are attached to their neighbors by wires of ligature made of galvanized iron.

### 8.3.2 QUARRY STONE MASONRY

Quarry stones are thoroughly wet before their use.

They are put in a bath of cement mortar surging on all sides and stuck some against the others as well as grouting to permit their shape. The voids between them are filled by ballasts embedded in the mortar. The joints between them are joined with cement mortar of M1. Some weep holes are provided in the masonry in accordance with the instructions of the drawings.

The quarry stones of pavement should, as much as possible, have widths double their height and a length doubles their widths. When the mortar shall have set, the masonry will be washed with a lot of water.

### 8.3.3 STONE PITCHING FOR PROTECTION

Following the Engineer's instructions, stone pitching for protection against the scouring is executed in the beds of water courses, at the outlets of ditches and culverts, as well as tat the feet of slopes for the base of the gabions.

### 8.3.4. BRIDGE SIGNS

The installation of the bridge signs is responsibility of the Contractor. The supports are fixed in the holes, perforated by plugging and then concreted.

The signs should be in conformity with the convention on the road signaling of November 8$^{th}$, 1968, in Vienna, to the accord complementing the said convention of May 01$^{st}$, 1971 in Geneva and to the protocol on the road markings additional to the previous agreement of March 01$^{st}$, 1973 in Geneva.

The signals are achieved with laminated products of the thickness prescribed in the international convention. The panels, fixed to the supports by 3 tight bolts, sealed and then welded, should be reflective on all their faces. The background colour must be white hue. The symbols and inscriptions shall be in black. For supports, tubular posts made of steel of Ø 55 mm and of 3 m in total are used. They are fixed in the ground by means of a block of concrete foundation, with a section of 40 cm by 40cm and a depth of 80 cm. The support, powed at its base, is driven in the block at a depth of 60 cm.

The signs shall be located on the shoulders at a distance of at least 1,00 m from the side of the road pavement, and to the places prescribed in the drawings annexed on these TS or at the places fixed by the Engineer during work.

## 8.4. Major environmental and social impacts

### 8.4.1. Environmental impact

The environmental and social shutter will cover, in fact,

(i) The follow-up of the implementation of environmental and social measures,

(ii) The sensitizing of the populations on the environmental stakes related to the environmental protection, on the road safety, the diseases of hydrous origin (diarrhoea, paludism), on the sexually transmitted diseases and VIH-AIDS,

(iii) Development of rules of procedure for the respect of the environment by the personnel of the company,

(iv) The protection of fauna and the flora,

(v) The implementation of measurements of accompaniment, such as the replanting of the steeply sloping slopes to fight against erosion, the plantation of trees at the entries and exits of the villages like in the zones of loan, etc.

It should be noted that the project will be carried out on an old layout of bridge access roads and already existing influences. Consequently, the project will not cause displacement of dwellings.

### 8.4.2. Principal environmental and social impacts

#### 8.4.2.1. Positive Impacts:

The principal positive impacts, coming from the realization of the project relate to the improvement of the living conditions of population of the zone through:

(i) Improvement of the communications and sanitary state of the populations.

(ii) The easy flow of the agricultural products and pastoral and the development of the agricultural, pastoral, commercial, art and tourist.

(iii) Improvement of education quality and the general culture of the bordering populations supported by the increase in the exchanges.

(iv) Increase in the number of employments to the increase in the average incomes per capita of Inhabitant; improvement.

The indirect positive impacts relate to mainly the increase in the fight against poverty, of access road for official services and organizations in charge of the environmental protection.

#### 8.4.2.2. Negative Impacts:

They relate to all the building work and maintenance and summarize themselves as follows:

- Problems of public health such as the risks of contamination of the VIH/SIDA and the various harmful effects related to the air pollution by the dust and the fumes of the earthmovers.
- The degradation of the grounds, local change of hydrological mode of the drainage ducts risks of erosion to the right of the works and accidents.

- Liquid and solid waste of the building sites involves a risk of surface and ground water pollution. This intrusion in the natural environment (contamination, pollution) also has negative consequences on the living conditions of the populations (harmful effects, diseases).

The project could have effects of an increase in population due to the migration of non-residents workers. This can cause social problems, in particular, the increase in sexually transmitted diseases and VIH-AIDS.

The environmental control will relate in particular to the quality of surface water and the maintenance of the ground water, erosion, the vegetation of compensation, the safety of the workmen and the drivers, the sensitizing of the population to the bridge safety, the diseases of hydrous origin, with STI and the VIH-AIDS, the effective rehabilitation of the zones of loan and the careers. This control will also relate to the control of the level of harmful effects assigning the residents.

## IX CONTROL OF EXECUTION

### 9.1 GENERAL

#### 9.1.1 QUALITATIVE CONTROL

All the works should be in conformity with the prescriptions and should be executed in accordance with the rules of art. At any time, the Engineer may conduct proof controls. In this case, the Contractor should avail at his disposal all necessary means. Some tests may be ordered, if necessary, at the national laboratory, at the expenses of the Contractor.

### 9.2 WORKS PRIOR TO THE EMBANKMENTS

There is not a qualitative control for the works prior to the earthworks. However, they should be in conformity with the prescriptions of these TS and must respect the rules of the art.

### 9.3 EARTHWORKS

#### 9.3.1 EXECUTION CONTROL

The control of the execution of earthworks is done at the same time as the quantitative controls. The project engineer representing the Client will assess report conformity of executed quantities done by the Contractor for approval.

#### 9.3.2 QUALITY CONTROL OF THE EXECUTION

The quality control of the execution is done by the controls of density.

In any case, the test results should all to be at least equal to the required specifications (sufficient compaction to obtain the minimum prescribed CBR values).

If tolerances (topographic and/or geotechnical) are not respected, the Contractor shall, at his expenses, affect the necessary works for the respect of these tolerances.

In the event the mechanical features of the embankment’s soils and the degree of compaction of the OMP would not be met at the time of the tests above, the Contractor shall be held, following the Engineer's instructions, either to achieve a higher compaction, or demolish the embankments and reconstruct them with materials of suitable quality.

## 9.4 PLATFORM

### 9.4.1 QUALITY CONTROL OF THE EXECUTION

The quality control of the execution of the platform shall be affected by the control of the density.

In all cases, the test results should respond to the required specifications.

## 9.5. CONCRETE WORKS

### 9.5.1 STRENGTH OF CONCRETE

To control the quality of the concrete, 6 cylinders are sampled for every casting of concrete, or for every 20 $m^3$ in case of concreting more than 20 $m^3$. Two cylinders are crushed after 7 days and the other after 28 days.

If the required prescriptions are not respected, the section of works is rejected. The Contractor demolishes and rebuilds, to his own expenses, the rejected works.

In the event the achieved works do not respect the tolerances defined above, the Contractor is held to demolish them and to achieve them at his own expense.

# X. REFUSAL OF RECEPTION, SANCTIONS

## 10.1 GENERAL

If the technical prescriptions are not respected, the section is rejected. The Contractor reconstructs the rejected works at his own expenses.

## 10.2 INSUFFICIENT THICKNESS OF THE LAYER

In case of insufficient thickness, the Engineer reserves the right to accept the works if the average thickness is lower than the required thickness, as far as no sample has a thickness lower than 4/5 the required thickness.

In this case, the Contractor incurs a reduction of price calculated by the formula:

$R = P (E - e)/ E$

Where: R represents the intended reduction of price,

P represents the unit price

E represents the required thickness

e represents the average thickness obtained

The reduction shall be affected on the section considered and on the total cost of the layers considered.

## 10.3 WORKS AND OTHER UNDERTAKINGS

If the required prescriptions are not respected, the parts of work or work are rejected. The Contractor rebuilds at his own expenses the rejected works without any claim to time extension or any other advantage.

The Engineer may accept some works or parts of the works whose characteristics are not in conformity with the required characteristics as far as they don't pose any danger to the bridge.

In this case, a dejection of 25% is done on the whole work concerned, even though the defect may be only about a part of the work.

## XI. DOCUMENTS TO BE SUBMITTED BY THE CONTARCTOR

### 11.1 PROGRAM FOR THE EXECUTION OF THE WORKS

Within 5 days from the date of commencement of the work, the Contractor must submit to the Engineer a detailed program of execution of the works.

The program should specify the materials and the methods that shall be used, as well as the strengths in terms of staff that will be employed, with the distribution of these uses and these employments in the time for the various parts of works.

Within 5 days from the date of the submission of comments by the Engineer, the Contractor should include in this general program and these documents the modifications that shall be prescribed to him by the Engineer.

The other important modifications adopted in the planning shall only be applied after the prior approval of the Administration.

The Contractor shall constantly keep up to date the planning of works, considering the progress of the site.

At the end of every month, he/it will be established, to the diligence of the Contractor and at his expenses, a graphic of the state of progress of works shall be established in accordance with a model accepted by the Engineer. Before provisional handover of the project, Contractor will provide as-built drawings to be approved by the Client.

### 11.2 STUDIES OF CONCRETES AND MORTARS - MEMO ON THE TYPES OF STEEL FOR REINFORCED CONCRETE AND ON THE TYPE OF CEMENT- DETAILED PLANNING OF EXECUTION

It is thirty days before the commencement of the execution of the works.

### 11.3 WEEKLY PROGRAM OF WORKS

Every Wednesday, the Contractor should present to the Engineer a detailed program of works for the following week.

### 11.5 DAILY SUMMARY TABLE

Every day before the beginning of works, the Contractor must submit to the Engineer a daily summary table with the following information:

- Skilled staff

- Head of the team

- Labors and the manpower

- List of the equipment in working state (with all the identification details of every equipment)

- List of the equipment broken down (with all details of identification of every Equipment)

- Quantities of the materials supplied

- Works to be executed

- Controls and receipts expected

- **Content of work.**

The purpose of these technical specifications (TS) is to define the nature, quality, the technical specifications, the standards to be observed and set out and whose execution is necessary to the complete realization of the project described in the documents joined to this Working Agreement.

The general works will be **upgrading two pipe culverts to box culvert and one bridge and road raising in Mushishito marshland located in KIBIRIZI and UWINKINGI sectors, Nyamagabe district, Southern province.**

The technical specifications specifically define each type of work. It is advisable to refer to the construction standards developed in the country.

- **General Responsibility of the Contractor.**

The Contractor is particularly reminded that is the first one in charge of the:

- **Standards.**

The standards considered in this tender document are **B.S (British Standards) and AASHTO (American Association of State Highways and Transport Officials).**

- **Approval of materials and equipment**

The materials and equipment shall be controlled and approved by the Engineer before any use. The Contractor will provide, without delay, and according to the transportation and manufacturing period, the invoices pro - forma in three copies written in French or English language. These invoices will be presented to the Engineer and will have to comprise the following information:

- The name of the project

- The wording of the product, type and dimension or size

- The number of the corresponding technical specification article

- The price

If the copy of the invoice pro – forma is approved, it will be sent to the Contractor. The Contractor will also provide samples and other technical documentations from the manufacturer written exclusively in French or English.

The Engineer has absolutely the right to require, for materials or equipment, the supply of certificates of conformity to the prescribed standards.

**Possession of the site area.**

The Contractor is responsible for any complaint of the bordering owners, if he would not have been aware or has not informed early the Employer of the conflicts of property or the environmental disagreements which would have been occurred between this project and the neighbouring occupants. During all the duration of the work, the Contractor is requested to maintain the safe passage of traffic during all the period of Service Agreement on his site. For that he has:

- To maintain good drainage without damaging the neighbors and the environment,
- To provide ways and pontoon bridge of deviation to maintain circulation,
- To remove from the lanes any dangerous object and obstacles,
- To prevent the falls of objects,
- To keep the construction site clean, and so on.

**Installations, removal and cleaning of the site.**

The setting out of the site is executed within the limits of the site area, placed under the responsibility of the Contractor by the Employer. The sites setting out will be submitted to the approval of the Employer and, if necessary, of the recipients. This clause includes all work and provisional installations required to the completion of the work, in particular;

This clause also includes:

- Supply on site with all the equipment required to the realization of work,
- Supply and the installation of the personnel,

**Earthworks**

**Mechanical excavation earthworks**

The excavation earthwork will be executed with the earthwork mover to the level indicated on topographical survey. The excavated materials should be useful, in theory, except if they are bad quality materials, for the filling works compacted to a dry density of 98% MDD.

The exceeded materials, at the expenses of the Contractor, must be putted in a final spoil area suggested by the Contractor and approved by the Engineer and local authorities.

The Contractor shall take at his expenses, all suitable arrangements to stabilize the spoil area to avoid any harmful effect to the environment: display of the grounds, levelling, compaction, plantation of grass and/or shrubs, etc.

**Clearing of undergrowth**

After the preliminary staking of the construction site, the Engineer will indicate the limits of the clearing works. The Contractor will have to take care, during the execution works above, about the established staking and not to destroy them. He will alone take the whole responsibility for the damage and accidents which could occur.

**Removal of root, trees and stumps**

However, the stumps and roots undergrowth the bridge and in the site, zone must be removed.

**The disposal of the detritus and other remains.**

All the remains, stocks, branches, and so on obtained from cleaning and demolition operations must be evacuated and disposed of in a final deposit indicated and approved by the Engineer, at the distance described in the unit prices description.

**The removal of trees**

The trees removal and clearing of the undergrowth will be carried out in site vicinity, on the exact the width of the works. The trees having a trunk girth of 0.6m at 1.0m above ground will be the subject of a contradictory statement with the Engineer before their extraction.

All the vegetation products will be evacuated and disposed of at a place approved by the Engineer. Their incineration could be carried out only with the authorization of the Engineer.

**Provisional passages**

The Contractor must avoid stopping traffic circulation during work and consequently it cannot create new roads or passages without the preliminary authorization of the Administration Director Engineer and without to have proposed temporary pontoon bridge or deviations. A suitable system for diurnal and night signs will have to be assured permanently by the Contractor according to needs of the construction site.

**Clearing out**

- **in excavation work:**

If, after the cut earthwork, the level of the platform still presents roots or topsoil or unsuitable ground, it will be necessary to carry out work of clearing out.

- **embankment:**

If, after scouring, the place to be embanked presents unsuitable soil, either clearing out or the implementation of a blanket course can be considered, according to indications of the Engineer.

Clearing out operation consists of the removal of the unsuitable soils on the thickness approved by Engineer, and the replacement by materials corresponding to the recommended specifications for the

platform. The sections where the clearing up must be carried out will be indicated by the Engineer during work and will be consigned in the book of the attachments.

**Earthworks.**

**General information on earthworks**

- To avoid, during all the duration of the work, the stagnation of water in some place in order to avoid the gulling of the slopes.

- Not to deteriorate the platform of the bridge access roads by with the execution engines.

During construction work, the establishment and maintenance of the drainage system of the site are under the responsibility of the Contractor. He is entirely responsible for the damage (silting of the drainage structures, floods, and so on) caused to others by his equipment and must take care of the fast run-off of water drainage on the roadways.

**Earth's Transportation.**

The Contractor will submit to the approval of the Engineer an earth's transportation proposal at least 2 days before the beginning of work.

- Supply on site all the materials and equipment required to the realization of work,
- Supply and the installation of the personnel,

**Security of the site**

The Compensator affixes, well obviously, of the reflective panels indicating the Defense of access to the building site to the unauthorized people there to circulate, the limitation speeds, the kind of work, the ways of deviation etc.

## XII. Eligibility criteria and qualification of bidders

### 12.1 Eligible Bidders

- ✧ A bidder, and all parties constituting the bidder, may have the nationality of Rwanda. This criterion shall also apply to the determination of the nationality of proposed subcontractors.
- ✧ A bidder that is under a declaration of ineligibility by RPPA for suspension or debarment reasons in accordance with the Public Procurement Law N° 12/2007 as modified and completed to date, at the date of contract award, shall be disqualified. The list of such debarred firms is available at the address specified in the BDS**.** Likewise there shall be disqualified bidders who are not eligible in accordance with the same Law and regulations establishing public procurement.
- ✧ The list of firms debarred from participating in Rwanda Public tender published by RPPA are not allowed to participate in this tender.

### 12.2. Qualifications of the Bidder

- ❖ All bidders shall provide a letter of Acceptance, and Agreement," a preliminary description of the proposed work method and schedule, including drawings and charts, as necessary.
- ❖ Interested bidders shall include the following information and documents with their bids:
  - (a) copies of original documents defining the constitution or legal status, place of registration, and principal place of business of the bidder; written power of attorney of the signatory of the bid to commit the bidder.
  - (b) Total monetary value of construction works performed for the period described.
  - (c) Evidence of relevant experience in the execution of works of a similar nature, including the nature and value of the relevant contracts for each of the last five years, as well as works-in-hand and contractually committed.
  - (d) Major items of construction equipment proposed to carry out the contract. The descriptions must demonstrate the bidder's ability to complete the work and should include inter alia.
  - (e) The Bidder must indicate whether such equipment is owned by him, hired or used by subcontractor (s).
  - (f) Qualifications and experience of key site management and technical personnel proposed for the contract with their CVs and academic testimonials
  - (g) Evidence of adequacy of working capital for this contract (access to line(s) of credit and availability of other financial resources).
  - (h) Authority to seek references from the bidder's bankers.
  - (i) information regarding any litigation, current or during the last five years, in which the bidder was/is involved, the parties concerned, and the disputed amounts; and awards.
  - (j) Proposals for subcontracting components of the works amounting not to more than 20 percent of the contract price shall be indicated in the bid. Bidders shall be required also to indicate in their bid's names of any proposed subcontractors, but in any way a subcontract shall not be awarded to any person of the company that is suspended or debarred from participation in public procurement.
- ❖ To qualify for the award of a contract, bidders shall meet the following minimum qualifying criteria (a) An average annual financial amount of construction work over the period of five years.
  - (b) Experience as prime contractor in the construction of at least the number of works of nature and complexity equivalent to the works over the period of five years where 70% of cited tenders should be complete.
  - (c) **Proposals for the timely acquisition (own, lease, hire, etc.) of the essential equipment**:

| **No.** | **Equipment Type and Characteristics** | **Minimum Number required** |
|---|---|---|

| | | |
|---|---|---|
| 1 | propose a machinery clue to be deployed minimum but not limited to 1 excavator, wheel loader, grader for the road and Damp truck of at least capacity of 20 $m^3$ | 1 |
| 2 | Avail lab sampling tools for concrete, embankment | 1 |
| 3 | Concrete mixer should be able to mix 25cubic meters / hour | 2 |
| 4 | Surveying equipment including total Station | 1 |
| 5 | Manual vibrating compactor | 1 |

*The equipment required here is the minimum. However, bidders shall provide the appropriate equipment required to implement the project efficiently in line with the resources needed in the detailed work program in their technical proposal.*

*The mobilization schedule in the technical proposal shall indicate when the equipment will be mobilized and from where.* ***The bidder must provide proof of ownership or leasing/renting with an agreement signed by both parties.***

(d) Present some key personnel with qualifications and experience as specified below:

| **No.** | **Position** | **Total general Work Experience** | **Similar Works Experience** | **Specific projects** |
|---|---|---|---|---|
| 1 | Project Manager (1) with a Bachelor degree of Science in Civil Engineering. | 10 years | 5 years | 2 similar and relevant specific references |
| 2 | Material Engineer (1) with BSc in Geotechnical Engineering | 7 years | 4 years | 2 similar and relevant specific references |
| 3 | Two (2) Site foremen with Ordinary certificate ($A_2$) in Construction | 5 years | 3 years | 2 similar and relevant specific references |
| 4 | Surveyor (1) with Ordinary certificate ($A_2$) in Survey, Construction | 5 years | 3 years | 2 similar and relevant specific references |

*The personnel required here is the minimum. However, bidders shall provide the appropriate staff required to manage the project efficiently in line with the resources needed in the detailed work program in their technical proposal.*

***The bidder must provide the updated, signed Cvs and notified Degree / Diploma for Key Personnel.***

## XIII. General instruction to bidders (ITB)

| A. General | |
|---|---|
| **A.** | The Procuring Entity is **DUHAMIC-ADRI**<br><br>The Works consist of: **Execution Works of Upgrading Two Pipe Culverts to Box Culvert and Raise of One Bridge and Road in Mushishito Marshland Located in Kibirizi and Uwinkingi Sectors, Nyamagabe District, Southern Province.**<br><br>The name of the contract*:* **Execution Works of Upgrading Two Pipe Culverts to Box Culvert and Raise of One Bridge and Road in Mushishito Marshland Located in Kibirizi and Uwinkingi Sectors, Nyamagabe District, Southern Province** |
| **A.2** | The Intended Completion Date is: Three **(3) months (**Tentatively to start from June 10, 2025). |
| **A.3** | The Project is: **Climate-Smart Agriculture and Market Development for Enhancing Livelihoods of Refugees and their Host Communities in Rwanda (CSA)**<br><br>The Funding Agency is **DENMARK through the partnership with United Nations High Commissioner for Refugees (UNHCR)** |
| **A.4** | This tender is National Open Public tender and experienced and competent companies legally registered in Rwanda are only eligible to apply.<br><br>**Note**: The women and persons with disabilities led companies fulfilling the requirements are encouraged to apply. |
| **A.5** | The information required from bidders is as follows:<br><br>- Bid submission letter<br>- Site visit certificate signed and stamped (to be issued by DUHAMIC-ADRI) **(mandatory**)<br>- A valid Certificate of Good Standing issued by RDB **(mandatory)**<br>- A valid tax clearance issued by RRA **(mandatory**)<br>- Proof of using EBM (**mandatory)**<br>- Bid security of two million Rwandan franc (2,000,000 Rwf) issued by a legally recognized bank or insurance company in Rwanda (**mandatory**) |

| | |
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| | - Minimum 2 similar works successfully performed in recent past 10 years of least 50,000,000 Rwf each accompanied by extract of the contract and good completion certificates<br>- The bill of quantity initialized and stamped on each page<br>- Detailed CVS, degrees and letters of each key staff's availability; their position and responsibilities<br>- Detailed implementation plan and methodology for contract execution and site management<br>- **Bid performance guarantee of 10% of bidding amount will be requested to the successful bidder to be provided in maximum of three working days after notification).**<br><br>**Notes**: DUHAMIC-ADRI reserves the right to crosscheck all references to be provided by bidders and documents submitted with the concerned client or institution including RRA. |
| **A.6** | The qualification data required from bidders:<br><br>In addition to the requirements in clause A.5, bidders will provide a summary of company profile, experience, technical and financial capacities and their physical and contact addresses of the company. |
| **A.7** | The essential equipment to be made available for the contract by the successful Bidder shall be: **See the list of equipment required under Proposals for the timely acquisition (own, lease, hire, etc.) of the essential equipment** |

| | |
|---|---|
| **A.8** | The key personnel to be presented by the bidder for the execution of this tender are: **See the list of some key personnel with qualifications and experience** |
| **A.9** | The minimum amount on bank (updated bank history) /or credit facilities net of other contractual commitments of the successful Bidder shall be **promise of line of credit worth 60,000,000 Rwf. (Mandatory) to be included in the financial proposal envelope** |
| **B. Bidding Documents** | |
| **B.1** | The Procuring Entity addresses for clarification are:<br><br>**DUHAMIC-ADRI, P.O.BOX 1080,**<br><br>**Kigali – Rwanda** (Kicukiro District, Niboye Sector)<br><br>*E-mail: duhamic@duhamic.org.rw*<br><br>*Tel: 0788648421 / 0788814732* |
| **C. Preparation of Bids** | |
| **C.1** | The language of the bid is: **English** |

| | |
|---|---|
| **C.2** | The information required to be completed and submitted by the Bidders are: **See the list of requirements from the section A5** |
| **C.3** | **Site visit:**<br><br>The mandatory site visit is planned for **May 22, 2025, at Mushishito marshland (Nyamagabe district) from 11:00AM (visit details call: 0783158708)**<br><br>The site visit will allow bidders to explore and conceptualize the terrain. It will also allow the bidder to have a global picture of the work and explore existing opportunities and limitations which will allow him or her to make reasonable cost proposal based on expected quality of work and limited timeline to complete the work before four months.<br><br>All bidders have responsibilities to carry out this mandatory field visit. The costs of visiting the site shall be at the bidder's own expense. If the procuring entity decides to re-advertise the tender, it may not require the second site visit to those who had visited before unless there are reasons for the second site visit. |

| | |
|---|---|
| **C.4** | Currency: Rwandan Francs |
| **C.5** | The Bid shall be valid for: **120 days** |

| | |
|---|---|
| **C.7** | The number of copies of the Bid to be completed and returned shall be: **One original copy** |
| **D. Submission of Bids** | |
| **D.1** | **1. Submission Requirements**<br><br>Bidders are required to submit their offers in one main sealed envelope. This main envelope must contain two separate sealed envelopes:<br><br>o Envelope A: Technical Proposal<br>o Envelope B: Financial Proposal<br><br>After registration of the bid sender at DUHAMIC-ADRI reception office, the sender will be directed to a bid box for bid submission.<br><br>**Proposals (Technical and Financial) shall be submitted to DUHAMIC-ADRI head office no later than May 29, 2025, at 11:00 AM.**<br><br>**Opening of Proposal: (Only financial proposal opening will be made)**<br><br>✓ Only bidders whose technical proposals meet the required standards and are shortlisted will be invited to the opening of the financial proposals (Envelope B). |

| | |
|---|---|
| | ✓ The financial proposals of the shortlisted bidders will be opened in a separate public session. The date, time, and location of the financial proposal opening will be communicated to the shortlisted bidders.<br>✓ Bidders not shortlisted in the technical evaluation **(less than 70% mark)** will not have their financial proposals opened, and their financial proposals will be returned unopened. |
| **E. Award of Contract** | |
| **E.1** | The Standard Form of Performance Security acceptable to the Procuring Entity shall be the one delivered by the bank or insurance company pursuant to the form provided in appendix.<br><br>**That performance Guarantee shall be unconditional (on first demand) and its value shall be 10% of the contract price.** |
| **E.2** | Advance payment is not recommended for this tender or Advance payments are subject to submission of an advance guarantee from a reputable commercial bank or and a detailed work plan, **however the payment will be made in different installments.** |
| **E.3** | Settlement of disputes:<br><br>The disputes in relation to this contract shall be settled amicably.<br><br>In case of any dispute in relation to this contract between the parties, that cannot be resolved through amicable settlement, the parties shall then refer the matter to the National Courts of competent jurisdictions |

X. **Evaluation and scoring**

The **Technical offer** will be evaluated using inter alia the following criteria and percentage distribution: 7**0%** from the total score of 100 points.

| **Technical Evaluation Criteria** | **Score/70** |
|---|---|
| Company profile (Company description, Physical address, experience, Human resources, equipment) | 10 |
| Methodology (Technical understanding of the assignment; Proposed approach and supervision methodology; Quality assurance and control plan; Risk identification and mitigation measures; Realistic and logical work plan and timeline) | 10 |
| Experience of similar services (road construction/rehabilitation) | 30 |
| Proposed Team composition | 20 |
| **Financial proposal** | **Score /30** |
| Detailed financial proposal (including the credit line) | 30 |
| **Total** | **100** |

## XI. RESPONSIBILITY OF THE CLIENT

The client will:

(i) Ensure free access to the site.

(ii) Provide the contractor with any assistance as the contracting firm may be entitled to in accordance with the Terms of Reference.

(iii) Provide the contractor with all documents, information reports, data, any existing photographs and other information pertaining to the Consultants' work.

(iv) Ensure the timely payment of executed works based on terms and conditions agreed on by two parties as will be defined in the contract.

## XII. RESPONSIBILITY OF THE CONTRACTING FIRM

(1) The contracting shall carry out work in a professional manner in keeping with internationally accepted standards, using qualified and appropriate staff. They shall endeavor to implement the assignment with diligence and within the time agreed upon in the contract. In this regard the Consultant shall provide the DUHAMIC-ADRI with the full curriculum vitae of each of the members of the team it proposes for execution of the work.

(2) The contracting firm shall be responsible for providing their staff with all payments including salaries, travel and accommodation costs as they may be required. The Consultants shall replace any staff member who is unable to carry out the work or is considered by the Client to be unsuitable. As per the rules in keeping with internationally accepted standards for assignment of this nature, the replacement of any of the Consultants' staff should be by a person of equal competence at the same cost and subject to the approval of the Client.

(3) The contracting firm shall be responsible for its office costs, the cost of housing and other services for his staff whilst in Rwanda and procurement and transport of all office, technical equipment, machinery and hire of vehicles needed for the marshland reclamation and development.

(4) The contracting shall be responsible for arranging and meeting the cost of all but not limited to supporting services for assessments, topography survey, soil surveying, geotechnical investigation, laboratory analysis, and for the printing of all reports (in English).

(5) The contracting firm shall work together with relevant professional technicians from Nyamagabe district and RAB (Nyamagabe station) and other institutions with experience and expertise in the domain.

(6) The contract firm shall respect all environmental and safeguarding recommendations as defined in the reports of feasibility study and technical design of Mushishito marshland.

## XIV. Contract value and payment modalities

The contract value will be for a fixed lump sum and the contracting agency will not claim any additional payments to compensate for exchange rate fluctuations or price escalation and delays in payments of not more than 90 days on the part of the Client.

The payment will be made in three installments as follows:

- **First Installment:** 40% of the contract value will be paid upon completing 50% of the assignment, as approved by DUHAMIC-ADRI's appointed supervisor

- **Second Installment:** 30% of the contract value will be paid upon completing 90% of the assignment, as approved by DUHAMIC-ADRI's appointed supervisor

- **Third installment:** 20% of the contract value will be paid at the provisional handover, subject to approval by DUHAMIC-ADRI's appointed supervisor.

- **Fourth installment:** 10% of the contract value will be paid at the final handover approval, subject to approval by DUHAMIC-ADRI's appointed supervisor.

These payments will be made after presentation of electronic generated invoice (EBM) opened in the company name with TIN Number of DUHAMIC-ADRI "100179321".

**XV. Bill of quantities and financial proposal**

Based on the scope of services and detailed scope of work, expected quality of work, complexity of the implementation and information provided in terms of reference as well as additional information to be obtained from a mandatory field visit, the cost and financial proposal shall be presented in the given template and per different items. However, the bidding company has the right to provide a detailed financial proposal and present a summary of cost estimate for different cost categories.

The detailed financial proposal shall be prepared and presented separately from the technical proposal.

The price quotations and financial proposal shall be prepared based on the following bill of quantities due to the technical specifications mentioned in the above sections:

| **TWO BOX CULVERT AND BRIDGE RAISING BILL OF QUANTITIES** | | | | | |
|---|---|---|---|---|---|
| **S/N** | **Description of Works** | **Unit** | **Qty** | **Unit Cost** | **Total cost (Rwf)** |
| **100** | **PRELIMINARY WORKS** | | | | |
| 101 | Site installation which includes construction of site office and storage area of construction materials and folding. | L.S | 1 | | |
| 102 | Technical execution study (Geotechnical, Reinforced concrete and masonry), topography before, during and after works. | L.S | 1 | | |

| | | | | | |
|---|---|---|---|---|---|
| 103 | Temporary deviation for pedestrians and motorcycle crossings | L.S | 1 | | |
| 104 | Temporary river/ spillway deviation | L.S | 1 | | |
| 105 | Decommission/ Folding of site at completion of works | L.S | 1 | | |
| 106 | Demolition of existing pipe culvert | LS | 1 | | |
| 107 | Providing AS BUILT plans (This cost remunerates the establishment of the service plans of all the put in place. To be submitted in 3 copies. | LS | 1 | | |
| | **S/Total 1** | | | | |
| **200** | **Earthworks/ Upgrading pipe culvert to box culvert** | | | | |
| 201 | Excavation and transportation of excavated material in any kind of soil to the bottom base of the box culvert in reinforced concrete and wing walls as well as access road reprofiling, whatever the nature of the soil including the use of jackhammers in case of need. | m3 | 498 | | |
| 202 | Compacted backfill upstream, downstream, around the box culvert side walls and wing walls with approved selected Material to degree of compaction greater or equal to 95% OPM. Compaction shall be done in layers not exceeding 200mm | m3 | 29.4 | | |
| 203 | Construction of Rock fills in rubble (rock fill). The rubble must meet the following minimum criteria: Coefficient Los Angeles: LA <35 Accelerated Polishing coefficient APC> 0.5. | m3 | 33.6 | | |
| | **S/Total 2** | | | | |
| 300 | **Reinforced concrete and masonry work** | | | | |
| 301 | **Mass concrete class C15 as described in:** | | | | |
| | 100mm thick Blinding Concrete laid below the wing walls footings and box culvert barrels footings. | m3 | 12.8 | | |
| 302 | **Reinforced concrete class C30 as described in:** | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | Reinforced concrete mixed at 400Kg/m3 for (column, bottom slab and beams) barrels according to the structural drawings' details | m3 | 47.7 | | |
| **303** | **WING WALLS** | | | | |
| 303.1 | Stone Masonry in Natural hard approved quarry stone walling bedded and jointed in cement sand mortar (1:3) mortar for foundation. | m3 | 18.72 | | |
| 303.2 | Stone Masonry in Natural hard approved quarry stone walling bedded and jointed in cement sand mortar (1:3) mortar for wall | m3 | 54 | | |
| | Backfill and compaction with Selected material | m3 | 18.72 | | |
| **400** | **MISCELLANEOUS WORKS** | | | | |
| 401 | Signaling beacon in reinforced concrete dosed at 350kg / m3 (diam. 150mm, Ø12 and stirrups Φ8 @ 150, H = 1.2m above the ground, painted red-white band, embedded in a concrete dosed at 400kg / m3 surrounded by rubble masonry. | Nr | 24 | | |
| **500** | **Side Ditches** | | | | |
| 501 | Trench Excavation and side trimming to roadside ditches, transportation of excavated materials to damping site | m3 | 18 | | |
| 502 | 50mm thick Blinding Concrete under the bottom of stone masonry | m3 | 2.5 | | |
| 503 | Stone Masonry in Natural hard approved quarry stone walling bedded and jointed in cement sand mortar (1:3) mortar. | m3 | 24 | | |
| 504 | 50mm thick bedding concrete | m3 | 1.3 | | |
| 505 | 50mm thick coping to the top of wall | m2 | 30 | | |
| **600** | **RIVERBANK PROTECTION (GABIONS)** | | | | |
| 601 | Trench Excavation to receive Gabions, transportation of excavated materials to damping site | m3 | 351 | | |
| 602 | Plain concrete blinding of 10cm | m3 | 20 | | |
| 603 | Construction of gabions | m3 | 468 | | |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| **700** | **ROAD RAISING** | | | | |
| 701 | Preparation, Levelling and Finishing of Platform | m2 | 360 | | |
| 702 | Filling of Granular Selected Materials (GNS) for the reprofiling of the carriageway of the access road and formation of wearing course with the selected compacted and leveled soil type murrum materials with degree of compaction must be greater or equal to 95% OPM, CBR greater than or equal to 30 after four days of imbibitions and organic matter intolerable in layers of the minimum number of layers is 3 with 300mm each. | m3 | 450 | | |
| | **S/Total 3** | | | | |
| | **G/TOTAL 1+2+3 (Including VAT)** | | | | |

**Notice:**

1. ***The bidder is allowed to provide notes on comments for the terms of reference and bill of quantities to support its financial proposal when any additional cost item is added to the given list.***

***2. The winning bidder will agree to employ local population, especially Climate-Smart Agriculture Project participant registered during participants registration and will use local materials as much as possible when they are available.***

***3. The payment modalities will be discussed and agreed on during contract negotiation***

## XVI. Final disposal

1. DUHAMIC-ADR I reserves the right to not accept any proposal with the submitted technical and financial proposals that do not meet the client's expectations.
2. All interested bidders are encouraged to carry out a mandatory site visit before putting together their technical and financial proposals.
3. DUHAMIC-ADRI has the right to negotiate with all bidders with good and acceptable technical proposals to reduce the cost for this consultancy in the limit of available budget.
4. All direct and indirect costs engaged by bidders to prepare and submit their proposals will be fully the responsibility of the bidder. DUHAMIC-ADRI will not be held responsible for any payment and compensation of any charges associated with the consultant rather than consultancy fees to be agreed on with the winning bidder after reception and acceptance of inception report.

## XVII. Safeguarding and Anti-Corruption clauses

The consultancy firm/ consultant will be responsible for observing and respecting the DUHAMIC-ADRI code of conduct, ethical, protection and safeguarding policies and will hire and retreat with dignity, transparency and equity all staff and team members in different levels including business mentors and coaches.

DUHAMIC-ADRI treat all people with dignity and respect and takes a zero tolerance on harassment, harm, sexual-abuse, exploitation, child labor, and human trafficking and any other conduct that is discriminatory or disrespectful to others. DUHAMIC-ADRI don't tolerate any form of corruption.

During the execution of the contract, the consultancy firm/ consultant and its staff will be bound by DUHAMIC-ADRI Values and approved police where among them are the following:

- DUHAMIC-ADRI Safeguarding and Child Protection policy
- DUHAMIC-ADRI Prevention of Sexual Harassment, Exploitation and Abuse at work policy.

- DUHAMIC-ADRI Gender and non-discrimination policy.

Moreover, the consultancy firm/ consultant must ensure the regular payment of its staff to avoid complaints and the negative side effects for DUHAMIC-ADRI image and its partners. DUHAMIC-ADRI will have rights and responsibilities to monitor and crosscheck if the terms and conditions for the consultancy team members are followed and mutually respected.

At any time DUHAMIC-ADRI has the right to check whether your organization complies with the safeguarding and protection procedures and take appropriate action.

| Prepared by: | Reviewed by: | Approved by: |
|---|---|---|
| RUTAYISIRE Richard | HABIMANA Theogene | MUHIGIRWA Benjamin |
| Project Coordinator | M&E Specialist | Executive Secretary |