



**THE UNITED REPUBLIC OF TANZANIA  
MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY  
MZUMBE UNIVERSITY**

**TANZANIA HIGHER EDUCATION FOR ECONOMIC TRANSFORMATION (HEET)  
PROJECT (P166415)**

**TERMS OF REFERENCE (ToR)**

**FOR**

**PROVISION OF CONSULTANCY SERVICES FOR DESIGN, PREPARATION OF  
BIDDING DOCUMENTS, COST ESTIMATES AND SUPERVISION OF  
CONSTRUCTION OF NEW INFRASTRUCTURES FOR MZUMBE UNIVERSITY –  
TANGA CAMPUS**

**CLIENT:**  
MZUMBE UNIVERSITY  
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# **PROVISION OF CONSULTANCY SERVICES FOR DESIGN, PREPARATION OF BIDDING DOCUMENTS, COST ESTIMATES AND SUPERVISION OF CONSTRUCTION OF NEW INFRASTRUCTURES FOR MZUMBE UNIVERSITY – TANGA CAMPUS**

## **1.0. BACKGROUND**

The Government of United Republic of Tanzania has received funds from the World Bank under the Tanzania Higher Education for Economic Transformation (HEET) Project. The main objective of the HEET Project is strengthening the learning environments and labour market orientation of programmes in priority disciplines. Accordingly, one of the core components of the project is on Construction or Rehabilitation of infrastructures.

Mzumbe University is one of the government institutions benefiting from the project. In line with Mzumbe University's Master Plans, Long Term Corporate Strategic Plan (2021/22 – 2045/46) and Short Term Corporate Strategic Plan 2021/22 – 2025/26 the University has planned to spend part of the project funds on construction of seven (7) infrastructure development projects namely:

- i. Academic Block with 35 offices for 65 staff, Mini library for 80 students, 6 classrooms for 360 students, One (1) training lab for 80 students and One (1) lecture theatre for 300 students,
- ii. Two (2) Students' Hostels each to accommodate 180 students,
- iii. One (1) Cafeteria with a seating capacity of 450 people,
- iv. Dispensary building,
- v. Four (4) Staff Houses each with approximately built up area of 190m<sup>2</sup>
- vi. Construction of a Wastewater Treatment System with the following scope; Site Clearance and grubbing within the limits of permanent works 1,345m<sup>2</sup>, Pipe laying from end users to the ponds/conveyance system including excavation and backfill 4,000m, oxidation ponds and other necessary associated works and, Solid Waste Dumping Site (425m<sup>2</sup>)
- vii. Construction of Reservoir Tank with a capacity of 400,000Litres

It is intended that part of the funds will be used to cover eligible payments for procuring consultancy services for designing and supervision of construction of the seven (7) infrastructure projects as listed above.

## **1.2 OBJECTIVE OF THE ASSIGNMENT**

### **1.2.1 General Objective**

The general objective of the assignment is to carry out design and supervision of construction of seven (7) infrastructure projects which are, Academic Block with Staff offices and Mini library, Two (2) Students' Hostels, One (1) Cafeteria, Dispensary, Four (4) Staff Houses, Wastewater Treatment System and Solid waste dumping site and Construction of reservoir tank. Implementation of all these projects will invariably increase enrollment capacity in degree programs in priority disciplines.

### **1.2.2 Specific Objectives**

#### **1.2.2.1 Review Available Documents Related to the Project as Provided by the Client**

The consultant shall make reference to the Mzumbe University Master Plan, Tanga Campus and Environmental and Social Impact Assessment report in order to incorporate their recommendations to a newly proposed design of the buildings. In addition, Long Term Corporate Strategic Plan (2021/22 – 2045/46), Short Term Corporate Strategic Plan 2021/22 – 2025/26 and TCU Guidelines and Standards in designing and supervising the projects will be provided.

#### **1.2.2.2 Design and preparation of tender documents**

The consultant shall conduct, Geotechnical investigation, design the projects and provide approved detailed drawings (Architectural, Structural, electrical, plumbing, firefighting infrastructure, ICT and security System). Specific reports and documents such as Masterplan, ESIA report and any other related project document to be used in the concept formulation and environmental considerations during design stage. The consultant shall prepare confidential cost estimates, Bills of Quantities, Specifications and Tender documents.

### **1.2.2.3 Supervision of Construction**

The Consultant shall be fully responsible for supervision of the construction works from beginning (inception) to the successful completion of the works (practical completion) including and thereafter the defect liability period (final completion) as specified in the contract.

## **1.3. NATURE AND SCOPE OF SERVICES**

The overall scope of the assignment is to provide consultancy services for design and supervision of HEET project at Mzumbe University, Tanga campus as tabulated hereunder.

The selected firm shall carry out, among other things, a feasibility study before the preparation of architectural and engineering (structural and services) drawings pertinent to the employer's requirements; Cost Estimates and Bill of Quantities (BOQ). Also, prepare tender documents, provide material specifications and method statements for work and provide other relevant documents of the assignments mentioned above leading to acceptable standards. In addition to provide an overall project and contract management at all time of operation on-site including its defined defect liability period.

The service requires an eligible multi-disciplinary firm or a consortium with a team of Architects, Civil/Structural Engineers, Service (Electrical, Mechanical Plumbing; Firefighting Infrastructure, and Data; ICT and Security System) Engineers and Quantity Surveyors, adequate to meet the objective and demands of the Employer's requirement. Services of a land surveyor and geotechnical engineer may also be needed.

### **1.3.1 Academic Building**

The building will have 35 offices for 65 staff, Mini library for 80 students, 6 classrooms for 360 students, One (1) training lab for 80 students and One (1) lecture theatre for 300 students.

(Two Storeys)

Item No.	Room Type	Area in m <sup>2</sup>	Total area
1	Main Entrance area	152 m <sup>2</sup>	152 m <sup>2</sup>
2	Staircase	61m <sup>2</sup> per floor	61m <sup>2</sup>
3	Passage	484 m <sup>2</sup> per floor	968 m <sup>2</sup>
4	Toilets	162 m <sup>2</sup> per floor	324 m <sup>2</sup>
6	Thirty five offices for 65 staff @ office two staff	13 m <sup>2</sup> per unit	445 m <sup>2</sup>
7	Raised sitting Lecture Theatre each to accommodate 300 students	450m <sup>2</sup>	450m <sup>2</sup>
8	Pantry	11m <sup>2</sup> per unit	22m <sup>2</sup>
9	Two (2) laboratories	180 m <sup>2</sup> per unit	360 m <sup>2</sup>
10	Lactation room/private space (for breastfeeding)	16m <sup>2</sup>	16m <sup>2</sup>
11	Special education resource center/mini library	92m <sup>2</sup> per unit	92m <sup>2</sup>
12	One (1) Executive office complete with secretary's office and toilet	87 m <sup>2</sup>	87 m <sup>2</sup>
13	Six classrooms @ 60 students	92 m <sup>2</sup> per classroom	552 m <sup>2</sup>
16	ICT cum Server room	42 m <sup>2</sup>	42 m <sup>2</sup>
17	Storage rooms	49 m <sup>2</sup>	49 m <sup>2</sup>
	<b>Total Net Floor Area</b>		<b>3,556 m<sup>2</sup></b>

**1.3.2 Two (2) Students' Hostels** each with capacity to accommodate 180 students

(Three Storeys)

Item No.	Room Type	Area in m <sup>2</sup>
1	Main Entrance	20
2	Staircase	45
4	Hostel Management Office	15
5	Warden office	15
6	Cleaners room	8
7	Common room	60
8	Corridor	474
9	Toilet	129
10	Laundry	45
11	Hostel Rooms	720
	<b>Total Net Floor Area for One (1) Hostel</b>	<b>1531</b>

**1.3.3 One (1) cafeteria** with a seating capacity of 450 people constructed

(Single Storey)

Item No.	Functional Space Required	Required Area in m <sup>2</sup>
1	Cooking area	56
2	Food preparation area	72
3	Washing area (Utensils)	28
4	Selling Counter	39
5	Dining hall	540
6	Food Store (Cold & Dry)	32



7	General store	23
8	Wash rooms	29
9	Changing rooms	23
10	Cashiers' office	25
11	Corridor/Circulation	113
	<b>Total Net Floor Area</b>	<b>980 m<sup>2</sup></b>

### 1.3.4 Dispensary building

*(Single Storey)*

Item No.	Room Type	Area in m <sup>2</sup>
1	Main Entrance	22
2	Waiting, Triage and circulation area	88
3	Reception & Records	12
4	Pharmacy & store	23
5	Administrative office	15
6	Consultation rooms	32
7	Pantry	6
8	Pharmacy, phlebotomy & store	27
9	Injection	8
10	Dressing	8
11	Female Staff Toilet & changing room	7
12	Male Staff Toilet & changing room	7
13	Male Toilet	10
14	Female Toilet	12
15	Disabled toilet	3
16	Ablution area	8
17	MCH	20
18	Female ward	22

19	Male ward	22
20	corridor	135
	<b>Total Net Floor Area</b>	<b>487</b>

### 1.3.5 Four (4) Staff Houses

(Single Storey)

Item No.	Room Type	Area in m <sup>2</sup>
1	Main Entrance	25
2	Foyer	10
3	Lounge	22
4	Dinning	18
5	Kitchen	21
6	Kitchen Verandah	15
7	Store	10
8	Corridor	7
9	Public Toilet	6
10	M/bedroom & en-suit	20
11	Bedroom 01	18
12	Bedroom 02	18
	<i>Total Net Floor Area for One (1) Staff House</i>	<i>190 x 4</i>
	<b>Total Net Floor Area for four (4) staff houses</b>	<b>760</b>

**1.3.6 Wastewater Treatment System and Solid Waste Dumping Site** to be designed and constructed as per MU Master Plan, Tanga Campus

Item	Description	Unit	Qty Estimates
1	Design of Conveyance system and Wastewater Treatment Plant/Oxidation Ponds - One complete Unit	LS	1

2	Solid waste dumping site to be designed and constructed as per MU Master Plan, Tanga Campus (More Specifications based on physical inspection and master plan)	m <sup>2</sup>	425
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### 1.3.7 Reservoir Tank with capacity of 400,000Litres

Item No.	Description	No. of Units
1.	Designing and Construction of one (1) Reservoir tank with capacity of 400,000Litres.  (More Specifications based on physical inspection and master plan)	1 No.

The consultant shall prepare two (2) spatial organization concepts and their three-dimensional CAD-generated models for the new infrastructure accompanied by approximate cost estimates. The Client shall choose one of them for subsequent proceedings.

### 1.4 Employer's General Requirements

In addition to the space matrices specified above, the Consultant shall adhere to the following Employer's General Requirements.

#### Employers General Requirements Compliance Matrix

Requirements to be Submitted in Technical Proposal	
Number of Units	As specified for each proposed project
Number of storeys should be in compliance with Mzumbe University Master Plan	The proposed number of floors are as indicated in each proposed building
Unit Gross floor area	As specified for each proposed project
Other social amenities must be provided, but not limited to;	<ul style="list-style-type: none"> <li>⊙ Parking spaces to include motor vehicle, bicycle and motorbike parking</li> <li>⊙ Soft and hard landscape</li> <li>⊙ Vehicular access (Internal road network)</li> </ul>

	<ul style="list-style-type: none"> <li>⊙ Pedestrian pathways</li> <li>⊙ Refuse collection points</li> <li>⊙ Guard houses</li> <li>⊙ Generator and generator house</li> <li>⊙ Water pump, firefighting pump provided with house facility</li> <li>⊙ Lift Facilities as per statutory requirements</li> <li>⊙ The drawings should consider energy saving and provide the use of solar power as an alternative source</li> <li>⊙ Rain water harvesting facilities</li> <li>⊙ Access control and security system through electronic technologies.</li> </ul>
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### 1.5. Tasks/Activities of the Consulting Assignment

The main tasks shall include but not limited to:-

- a) Conduct Geotechnical investigation
- b) Conduct detailed topographical and physical survey of project areas including existing infrastructure and other features where necessary;
- c) Review all the environment, social, health and safety risks and impacts management documents for the HEET project such as ESMF, ESIA, SEP and other documents and ensure that relevant mitigations stipulated in those documents are considered during designs;
- d)
- e) Prepare preliminary design (State of art, environmental friendly and energy saving design) of the proposed design works which includes drawings (architectural, engineering, electrical, all mechanical works including plumbing and firefighting infrastructure, ICT and security System), technical specifications, bills of quantities and initial cost estimates in accordance with the acceptable professional standards.
- f) Preparation of confidential cost estimates based on the detailed design/drawings of the Projects; (Design, Specifications and schedule of works) to have a true reflection of the project cost. This will form a base for drawing up a realistic procurement plan;
- g) Preparation of the detailed design drawings of the project, specifications and schedule of works;

- h) Carry out Supervision of construction works from inception (site handover) to completion of site works (practical completion) and to the end of defect liability period (final completion); and
- i) Prepare both Maintenance Plan and Maintenance Cost for maintaining the functions and forms of the built facilities. As well as review of as built drawings.

## **2.0 DETAILED SCOPE OF SERVICES OF DESIGN, CONSTRUCTION SUPERVISION AND MANAGEMENT**

The general assignment shall comprise consulting services in Architectural, Engineering and Quantity Survey disciplines. The works involved include to carry out design and supervision of construction of Seven (7) infrastructure projects which are, Academic Block with Staff offices and Mini library, Two (2) Students' Hostels, One (1) Cafeteria, Dispensary, Four (4) Staff Houses, Wastewater Treatment System and Solid waste dumping site and Construction of reservoir tank so as to increase enrollment capacity in degree programs in priority disciplines.

The Consultant shall make reference to the Mzumbe University's Master Plan Tanga Campus, Long Term Corporate Strategic Plan (2021/22 – 2045/46) and Short Term Corporate Strategic Plan 2021/22 – 2025/26, Design, Produce Bills of quantities, Specifications, schedule of works and tender Document) and supervise the construction works.

### **2.1 Preparation of the Design Works**

The Consultant will in this regard provide detailed architectural and Structural designs of the buildings to be constructed and this will include the following:

- i) Review all the environment, social, health and safety risks and impacts management documents for the HEET project such as ESMF, ESIA, SEP and other documents and ensure that relevant mitigations stipulated in those documents are taken into account during designs;
- ii) Prepare designs that comply with applicable Tanzania environmental laws and regulations, and site-specific Environmental and Social Management Plan (ESMP). The client will arrange for the ESIA report to be available and thereof recommendations to be incorporated in the project brief and final detailed design;
- iii) Preparation and submission of a project brief. Develop and submit for approval two (2) alternatives conceptual design and parametric cost

estimates. Thereafter prepare a preliminary design and their preliminary costs estimates and submit for approval of one design.

- iv) Preparation of the architectural design of the building following acceptable modern professional standards. The initial sketch designs will have to be approved by the Client before embarking on the production of full working drawings. Such drawings will include plans, sections, and elevations and associated details as appropriate. The architectural details should also cover hard (pavements) and soft (grass) landscaping as this is also an important aspect of the project. Paying attention to the Architectural /engineering soundness of detailed drawings and documents is imperative. The design shall take into consideration green design, energy saving and environmentally friendly architecture
- v) Develop and plan scope of geotechnical Investigation studies adequate to collect all necessary information for the proposed design requirement (the scope should be clearly presented and approved by the Client).
- vi) Prepare a complete set of all necessary engineering structural designs and detailing of the structure and services required. This will involve electrical installation, telephone services, provision for internet network infrastructure, Closed Circuit Television systems (CCTV), Alarm systems, Fire Fitting systems, Sewerage systems, Solid waste disposal systems, Storm water Drainage systems, Water supply systems and other water reticulation systems. The Consultant will provide necessary drawings for trucking and ducting that will accommodate the centralized Information Technology system on the buildings across the roads and at all necessary external surroundings. The appropriate specifications and Bills of Quantities for all these services will be prepared by the Consultant.
- vii) Ensure that design assumptions, design calculations and specifications to ensure their compliance with the applicable codes and regulations.
  - viii) Designing and preparation of a schedule of furniture and fittings required in the building and associated cost estimate and seeking University approval.
  - ix) Designing alternative power source preferably solar power energy to the buildings including its cost estimate;

- x) Designing of landscaping and other external works including parking and access roads;
- xi) Design and Review appropriateness of selection of material specification from design alternatives.
- xii) The Consultant will in liaison with the Client submit to the relevant local authorities all the relevant designs, calculations and drawings to enable the local authorities issue the required building permits, way in advance of the commencement of the construction's activities on site; and he/she will supervise the actual construction works.
- xiii) Consultant will propose a solution to enable the access to buildings for physically challenged persons. The Consultant will consider the best practice and positive legal regulations in Tanzania regarding the rights of the disabled persons.
- xiv) Design and Review construct-ability of the project, construction means, method and techniques employed.
- xv)
  - xvi) Prepare preliminary cost estimates for proposed construction of the all buildings at Mzumbe University, Tanga campus. The cost of the project should be within the Client's budget and forecast Contractors' possibility for meeting the overall project costs including advices for possible cost overrun aspects. The estimate should be approved by the Client;
  - xvii) Preparation of the detailed design/drawings of the project, specifications and schedule of works, furniture and fittings layout for all buildings at Tanga campus.
  - xviii) Prepare technical specifications, bills of quantities and preliminary cost estimates meeting acceptable professional standards for new construction and renovation works.
  - xix) To incorporate the recommendations from the environment social impact assessment (ESIA) and other environment safe guard required by World Bank and NEMC for the proposed construction and renovation works.

- xx) Prepare detailed cost estimates based on the approved detailed design/drawings of the Projects thereby pricing the entire components of the project and prepare confidential cost estimate of the same. In order to make a fair and reasonable estimate of the cost of project, the consultant shall prepare a unit price analysis of each item using basic cost elements (labor, materials, equipment, tools, overheads, on-site costs, profit, etc.), and showing separately the cost of all taxes (direct or indirect, duties, levies and fees). The estimated financial cost resulting from this analysis shall be accurate to within +10% and presented in Tanzanian Shilling (TZS). The cost estimates shall also include the costs for implementation of Environmental and Social Management Plan (ESMP), and Health Services Management and Policy (HSMP) programme;
- xxi) Prepare complete Tender documents and assist in the appointment of the Main Contractor of the Project (if requested). Using the prepared tender documents consultant must assist the process of the main Contractor while appointing various sub-Contractors of the Project (if any);
- xxii) The consultant shall prepare and review Tender documents using the most recent Standard Procurement Documents in accordance with the World Bank "Procurement Regulations for IPF Borrowers", Procurement in Investment Project Financing Goods, Works, Non-Consulting and Consulting Services, July 2016 and revised in December 2019, or whichever World standard procurement approach is applicable at the time the tender documents are prepared. The tender documents need to fully reflect the Environmental, Social, Health and Safety requirements, which include but are not limited to Occupational Health and Safety, Labor Influx, HIV/AIDS, Gender-Based Violence (GBV) and Violence against Children;
- xxiii) Tender documents shall be prepared to comprise Instructions to bidders, Bid Data Sheet, Bidding Forms of Tender, General Conditions of Contract, Particular Condition of Contract, Contract Forms, Section Preambles, Buildings bills (bills of quantities) divided into several elements, External works, Prime Cost and provisional sums, Day works, General Summary, Schedule of Basic List of Materials and Schedule of Drawings. The bidding



documents will be prepared in accordance with World Bank procurement regulations and will take into considerations all the environmental and social aspects of the project. The number of copies of a set of the document should suffice all applying contractors. If e-tendering is involved the Tender documents should be available in standard soft copy format, adequately and well organized to cover the project;

- xxiv) Prepare Contract(s) for Contractors and Sub-contractors (if any).; and
- xxv) Perform any other duties related to the Project as shall be agreed with and assigned by the employer during the design phase.

## **2.2 Preparation of documents**

The Consultant shall prepare plans, sections, elevations, and detailed drawings for the buildings covering architectural, structural, civil and other services. This will be followed by preparation of specifications of materials which are mostly available on the Local market and bills of quantities.

The Consultant will also prepare the costs based on the design in the form of Bills of Quantities by considering the prevailing market rates around the project location. The estimates shall be treated with high confidentiality and submitted to the Client accordingly.

## **2.3 Construction Quantities**

The calculated quantities for the items of construction shall be based on the final design drawings. The quantities of Works shall be derived from calculations based on the field cross-sections and dimensions of structural members with acceptable standard methods of measurements that shall be agreed with the Client. A detailed bill of quantities shall be prepared under the following sections; preliminary and general; clearing and earthworks; protection works; building and other structures; ancillary works and schedule of day works etc.

During preparation of the working drawings, elemental, cost plan will be drawn in order to ensure cost control and fairly balanced costing and its elements. The Consultant shall prepare complete Tender documents using the most recent Standard Procurement Documents in accordance with the World Bank “Procurement Regulations for IPF Borrowers”, Procurement in Investment Project Financing Goods,

Works, Non-Consulting and Consulting Services, July 2016 and revised in December 2019, or whichever World standard procurement approach is applicable at the time the tender documents are prepared. The tender documents need to fully reflect the Environmental, Social, Health and Safety requirements, which include but are not limited to Occupational Health and Safety, Labour Influx, HIV/AIDS, Gender-based Violence and Violence against Children.

Bidding Documents shall be prepared to comprise of the following; Instructions to bidders, Bid Data Sheet, Bidding Forms of Tender, General Conditions of Contract, Particular Condition of Contract, Contract Forms, Section Preambles, Buildings bills (bills of quantities) divided into several elements, External works, Prime Cost and provisional sums, Day works, General Summary, Schedule of Basic List of Materials and Schedule of Drawings. The bidding documents will be prepared in accordance with World Bank procurement regulations and will take into considerations all the environmental and social aspects of the project

#### **2.4 Work Plan**

The Consultant shall prepare a detailed work plan for undertaking this assignment. The Detailed work plan/implementation Program for this Assignment shall be one month for design review of drawings, 18 Months for constructions and 12 Months for Defect Liability Period. The Team is expected to commence work the same day of signing the contract.

#### **2.5 Cost Estimates**

A detailed Cost Estimate and summary of the project shall be submitted showing total infrastructure requirement. As a result of physical survey and other factors, the cost estimate for the building may vary from the allocated budget. In order to make a fair and reasonable estimate of the cost of project, the Consultant shall prepare a unit price analysis of each item using basic cost elements (labour, materials, equipment, tools, overheads, on-site costs, profit, etc.), and showing separately the cost of all taxes (direct or indirect, duties, levies and fees).

The estimated financial cost resulting from this analysis shall be accurate to within +10% and presented in Tanzanian Shilling (TZS). The cost estimates shall also include the costs for implementation of Environmental and Social Management Plan (ESMP), and Health Services Management and Policy (HSMP) programme.

## **2.6 Supervision of the Works**

The consultant shall act as the employer's representative for the works contract as specified in the general conditions of contract and adapted in by Mzumbe University. Consultant shall supervise all construction. Consultant shall ensure that the construction activities are undertaken in compliance with the standard requirements specified in the general conditions of contract and pertinent legislation.

The Consultant shall provide all site and backup staff and exercise all necessary architectural, engineering, surveying, quantity surveying, quality and financial control of the construction works in accordance with the approved designs, specifications and contract documents including the following: -

- i) Contract administration of the approved design from commencement (site handover) to completion of works (practical completion/project handover) including defects liability period;
- ii) Approve Contractor's proposed designs/drawings for temporary works. Examine and approve various plans and programs submitted by the Contractor including review bonds validity;
- iii) To examine and approve various plans/ programs and bonds submitted by the Contractor.
- iv) Ensure that the works are carried out by the Contractor in a professionally acceptable manner and in accordance with the requirements of the relevant regulatory authorities.
- v) Control the contractor's and sub-contractors' site personnel at all grades for suitability for the construction of the works;
- vi) Check and approve the site installations, equipment plants that are to be used by the contractor for execute the works and safety;

- vii) Check and approve the materials testing laboratories that will be used during the construction;
- viii) Check materials and equipment for conformity with the tender specifications by physical inspection and by gathering the manufacturer's and suppliers' certificates of conformance;
- ix) Verify the contractor's purchasing schedules so that materials and equipment necessary for the swift advancement of the works are available when needed, thus ensuring the work keeps to the establishment programme.
- x) Provide day to day supervision of the works in terms of quality and quantity and arrange for monthly progress reports. Ensuring that there is a resident engineer to supervise execution of works at site daily. Weekly reports to be submitted every Monday during the project. Daily reports must be documented, compiled, and submitted to the client along the weekly report for schedule and scope management. This will enhance quality control in line with documented quality assurance from methodologies provided;
- xi) Specify when all the necessary material tests will be conducted before they are incorporated into the works. Monitor the process of materials testing by the contractor.
- xii) Provide continuous liaison with the Client on all possible changes on the designated scope and budget of works.
- xiii) Inspect at regular intervals the Contractor's plant and facilities, for both construction production work and workers accommodation, to ensure that they conform with to both the conditions of contract and all government regulations;
- xiv) Inspect the entire Contractor's safety measures, including labour welfare, notify immediately both the Employer and the Contractor of any infringement or violation;

- xv) Liaise and coordinate with relevant authorities to remove all obstacles and encumbrances from the project site, including utility relocation and tree cutting as required;
- xvi) Record all contractual claims and submit recommendations to the Client for review and ultimate settlement, if justifiable;
- xvii) Prepare project physical and financial progress reports;
- xviii) Quality control of materials, and workmanship on site. Allow for inspection and approval of materials delivered to site. Coordinate and approve all the necessary material tests before they are incorporated into the works; such tests must be done by approved competent entities at the contractor's cost. Review, examine and advise on techniques and workmanship and submit to client results of such tests whether on or off site;
- xix) Inspect the setting out of the works to make sure that construction conforms to the standard practice, plumbing, wastewater, drainage works and leveling as per the designs;
- xx) Check measured or estimated quantities of work completed and certify payment certificates for interim payment to be effected by the Client;
- xxi) Provide continuous liaison with the Client on all possible changes on the designated scope of works;
- xxii) Keep all records updated including reports, site diaries, correspondence, instructions given to Contractor, test records, measurement and quantity calculations, payment records and all other relevant documents pertaining to the supervision of the works;
- xxvi) Record all claims and submit recommendations to the Client for review and ultimate settlement, if justifiable;
- xxvii) Valuate contractor's application of payment, prepare valuations by checking measured or estimated quantities of work completed. Advise the client and issue interim certificates of payments in accordance to the conditions of Contract;

- xxviii) Measure authorized changes and agreed quantities and cost with Contractors/Sub-Contractors. Estimate the cost effect of proposed changes before issuing instructions. These changes must be communicated to the client for approval and a change order must be issued
- xxix) Advise the parties under the Works Contract on any dispute arising under the Contract to ensure that disputes are resolved amicably as soon as possible without affecting the project;
- xxx) Ensure that the Contractor strictly adheres to the contract, drawings, specifications and bills of quantities in the execution of the works and advise the Client on the appropriate actions to be taken whenever there is a breach of contract or misconduct by the Contractor.
- xxxi) Ensure that the Contractor strictly adheres to the Environmental and Social Commitment Plan (ESCP).
- xxxii) Prepare monthly/periodic project reports as per formats approved by the Client and the World Bank. Detailed quarterly reports, to be submitted within 14 days of the end of each quarter. Quarterly reports should include description of project activities illustrated by progress/completion photographs, status of any delays and contractual claims and details of all latest financial projections, an electronic copy and 4 copies to be submitted to the Project Coordinator;
- xxxiii) Schedule monthly site meetings to be attended by all concerned parties and/or any other management meeting as may be deemed necessary. A summary/ draft of minutes in bullet form or description and action format must be presented in two (2) days' time after the meeting. Final minutes in approved format should be circulated within five (5).
- xxxiv) Coordinate with relevant government authorities to ensure that construction works are inspected periodically (at each stage), documented and approved to enable proper project records and authentic issuance of certificate of occupancy after practical completion.
- xxxv) A detailed Contract Completion Report of which, an electronic copy and 5 copies to be submitted to the Project Coordinator;

- xxxvi) A Quality Assurance Manual, detailing all QA/QC procedures, to be submitted within ten (10) days of commencement of services, 6 copies to be submitted to the Project Coordinator;
- xxxvii) Review and approve As-built drawings, operation & maintenance manuals where applicable and submit documents in hard and electronic copies to the Employer;
- xxxviii) Upon practical completion, the consultant shall be responsible to undertake final inspection prior to issuing of the practical completion certificate and a penultimate certificate.
- xxxix) Monitoring the completed works after completion up to defects liability period. Issuance of certificate of making good defects, final completion and final payment certificate.
- xl) Strictly prevent circumstances which may lead to variations; when based on the contract variation appears to be inevitable, the Consultant shall prepare variation orders and submit them to the Client for approval before giving relevant instructions to the Contractor.
- xli) Facilitate the project handing over upon successful completion of the project.
- xl ii) Prepare Project Final Accounts. one (1) month after practical completion of the project. A draft copy of final account must be distributed to authorized parties within fourteen (14) days after practical completion.
- xl iii) Prepare and submit to the Client the final payment certificate for the completed works;
- xl iv) Prepare the maintenance schedule and for the building at the completion of the rehabilitation works.
- xl v) Prepare a final report for the works. The report in addition to all aspects of the project should include lesson learned as a reference to future project execution and management.
- xl vi) To approve return of bonds to the contractor after practical completion.
- xl vii) Perform Regular inspection of the works during defect Liability Period.

xlvi) Upon practical completion of construction ensure the Contractor acquires certificate of occupancy from relevant authority;

### **2.6.1 Environmental and Social Health and Safety (ESHS)**

For Environmental and Social Health and Safety (ESHS), the scope of services of the consultant should be based on the following:

Ensure that the Contractor's ESHS performance is in accordance with good international industry practice and delivers the Contractor's ESHS obligations.

The ESHS related services include but are not limited to:

1. Review and submit for approval by the Client the Contractor's Environment and Social Management Plan (C-ESMP), including all updates and revisions (not less than once every 6 months);
2. Review and submit for approval by the Client the ESHS provisions of method statements, implementation plans, Gender Based Violence/Sexual Exploitation and Abuse (GBV/SEA) prevention and response action plan, drawings, proposals, schedules and all relevant Contractor's documents;
3. Review and submit for approval by the Client the ESHS risks and impacts of any design change proposals and advise if there are implications for compliance with Environmental and Social Impact Assessment (ESIA), Environmental and Social Management Plan (ESMP), consent/permits and other relevant project requirements;
4. Undertake audits, supervisions and/or inspections of any sites where the Contractor is undertaking activities related to the Works, to verify the Contractor's compliance with ESHS requirements including its GBV/SEA obligations, with and without contractor and/or client relevant representatives, as necessary, but not less than once per month
5. Undertake audits, and inspections of Contractor's accident logs, community liaison records, monitoring findings and other ESHS related documentation, as necessary, to confirm the Contractor's compliance with ESHS and OSHA requirements;



6. Agree on remedial action/s and their timeframe for implementation in the event of a noncompliance with the Contractor's ESHS obligations;
7. Ensure appropriate representation at relevant meetings including site meetings, and progress meetings to discuss and agree appropriate actions to ensure compliance with ESHS obligations;
8. Check that the Contractor's actual reporting that must contain the modalities during fatality, accidents, and incidents and timeliness of reporting shall be in accordance with World Bank guidelines and procedures;
9. Review and critique, in a timely manner, the Contractor's ESHS documentation (including regular reports and incident reports) regarding the accuracy and efficacy of the documentation;
10. Undertake liaison, from time to time and as necessary, with project stakeholders to identify and discuss any actual or potential ESHS issues;
11. Establish and maintain a grievance redress mechanism including types of grievances to be recorded and how to protect confidentiality e.g of those reporting allegations of Gender Based Violence/Sexual Exploitation and Abuse (GBV/SEA). These should be included in a log issue accessible to a specified professional. Ensure any GBV/SEA instances and complaints that come to the attention of the consultant are registered in the grievance redress mechanism and subsequently sorted/resolved through proper procedures. Ensure all complainants receive the feedback timely.
12. Ensure adherence to the Contractor Environmental and Social Management Plan (C-ESMP). Therefore, the Consultant shall first ensure that the C-ESMP has been prepared by the Contractor and approve by the Client.
13. Adequate implementation of environmental and social issues of sexual abuse and exploitation, effects of labour influx on local communities and concerns relate with labour conditions.
14. Ensure resettlement, access restriction and livelihoods restoration and grievance redress mechanism are in place and functioning,

15. Ensure there is appropriate measure in place for labor management that will be mobilized.
16. Ensure that the contractor prepares and maintains a master database for recording and tracking management of all grievances;
17. Monitor, evaluate and report contractor's stake holder engagement performance including annual grievances received, speed of resolution and how they have been addressed; and the level of involvement of affected people (disaggregated by gender and vulnerable groups) in committees and joint activities and in the project itself;
18. Review and approve contractor's arrangements for compliance with the pertinent regulations and standards governing environmental quality, health and safety, protection of sensitive areas, protections of endangered species and land use control at international, national regional and local levels as identified by the ESIA report;
19. Ensure that the contractor adhere to the World Bank ESFs, which are relevant to this project including the Environmental and Social Management Framework, Resettlement Policy Framework and Stakeholder Engagement Plan in relation to the implementation of the project activities and undertakings;
20. Ensure that the contractor operates with the required capacity on the management of environmental and social issues under the project. On the social side, the consultant shall ensure that the contractor has in place arrangements for dealing with child abuse protection, SEA and GBV, the different stakeholders involved and their roles and responsibilities;
21. Ensure that the contractor engages all the project stakeholders as per the SEP prepared in accordance to ESS 10: Stakeholder Engagement and Information Disclosure for the HEET project. The consultant shall also approve implementation plan for the proposed project interventions following the recommendations of the ESIA reports and ensure implementation of the same;

22. Review and consider the ESHS risks and impacts of any design change proposals and advise if there are implications for compliance with ESIA, ESMP, consent/permits and other relevant project requirements;
23. Additionally, ensure that OSHA is involved in inspection and monitoring of respective activities as per OSHA act.

## **2.7 Testing, Commissioning and Completion**

- i) Witness any specified test done by the Contractor. (Material tests and Systems and services tests). The Consultant shall approve all the testing of materials used throughout the construction;
- ii) Conduct any independent tests necessary to confirm the results. The Consultant will recommend and supervise any remedial works that may be necessary to bring the construction to the required standard;
- iii) Prepare and issue a short summary report confirming the tests and clearly specifying any instructions to be issued to the Contractor;
- iv) Prepare a short technical report describing the Testing and commissioning. All carried out tests together with their reviewed results should be included in the consultant's monthly and quarterly reports;
- v) The Consultant shall issue a Certificate of Completion to the Contractor verifying the outstanding defects the Contractor shall rectify before operational acceptance;
- vi) Issue the Taking over Certificate to the Employer;
- vii) The Consultant shall certify that works are executed as per approved design, drawings, standard specifications, technically sanctioned and within the provisions of contract agreement;
- viii) The Contractor shall submit the certified work record and drawings of works executed;
- ix) The Consultant shall arrange the operational acceptance and handover of the completed works from the Contractor to MZUMBE upon satisfactory rectification of all the defects notified to the Contractor.

- x) The Consultant shall issue a Certificate of Completion to the Contractor verifying the outstanding defects the Contractor shall rectify before operational acceptance

## **2.8 Consulting Services to be Provided During Defects Liability Period**

The Consultant shall oversee the works during the Defects Liability Period through regular visits. The Consultant is expected to carry out site visits at regular intervals during which the Consultant shall draw attention of the Contractor to any defects if and when noticed and shall supervise such remedial works. Prior to expiry of the defects liability period, the Consultant shall inspect the works according to the Condition of Contract and issue instructions for rectifications of all defects, imperfections of faults, and supervise the remedial works. Following the Employer's acceptance, the certificate of making good defects shall be issued.

The Consultant shall assist the Employer in administrative matters related to the Works Contract. The tasks shall include but not limited to:

- i) Regular inspection of the works Contractor's remedy of defects. Advise Mzumbe of any defects found during the defects liability period and recommend action needed to correct them.
- ii) Inspect, suggest mitigation measures and supervise remedial works of all Environmental, Social, Health and Safety matters
- iii) Prepare defects report after at the end of each inspection and testing period with full details of the cost and nature of the defects and the corrections thereof.
- iv) Conduct a final inspection of the works after the correction of all defects. This inspection shall be carried out jointly with the representatives of Mzumbe.
- v) Finalize all the work and the records thereof including drawings, as- built drawings, operation and maintenance manuals and records of defect corrections during the Defects Liability Period.

- vi) Finalize evaluation all the outstanding claims from the Contractor and prepare the final payment certificate.
- vii) Prepare and issue the final payment certificate and final completion certificate.
- viii) Recommend the return of bonds and retention money.

### **3.0 CONSULTANCY FEES AND PAYMENT**

The assignment is divided into two phases: Phase 1- Design of drawings and Phase 2 - Construction Supervision and Defect Liability Period. The Consultant shall clearly submit separately each consultancy services (technical and financial) fee on review of design and supervision when submitting the financial proposals. Payment shall be effected after completion of milestone based on project activities. Milestone payment shall be effected after completion of specific tasks and submission of the associated reports during design and tendering stage.

The consultant firms to be paid in percentage of the construction work that is completed by the contractor after the contractor has submitted application of payment. The Consultant shall clearly submit separately each consultancy services (technical and financial) fee on design of drawings and construction supervision when submitting the financial proposals. Payment shall be paid monthly as per terms and conditions of time-based contracts. The Consultant shall price separately for each stage described above (Design and Supervision Phase).

The Consultant’s remuneration shall be deemed to cover his liabilities, taxes, travel costs and support of his head office staff, resident engineer and all his obligations other than additional services not covered by these terms of reference. Reimbursable expenses, which cover all out-of-pocket expenses and shall be made against contractual acceptable documentary evidence, as agreed with the Client.

**Table 1:** Description of deliverables in Phases

<b>Phases</b>	<b>Description of deliverables</b>	<b>Time</b>
Phase 1: Design, preparation of bidding	Commencement of Services	M

documents, drawings and BoQ		
	Submission of Draft Inception Report	M+0.5
	Submission of Outline proposal report	M+1.5
	Submission of Scheme Design Report	M+2.0
	Submission of /Draft Detailed Design Report and bidding documents	M+5.0
	Submission of acceptable Final Design Report and bidding documents	M+6.0
Phase 2: Construction Supervision and Defect Liability Period	<p>During this phase, all remunerations to the consultant shall be time based as per terms and conditions of time-based contracts. The professionals to be deployed on supervision works as mentioned under paragraph 5.1 of this TOR shall be allocated with their person months expected and compute their fees resulting thereof. Deliverables includes:</p> <ul style="list-style-type: none"> <li>- Monthly/ Quarterly Progress Reports</li> <li>- Testing and Commissioning Report</li> <li>- Operation and maintenance manual</li> <li>- Financial appraisal</li> <li>- Final Construction Report</li> <li>- Final account</li> <li>- Any other report as might be required by Client</li> </ul>	Monthly

#### 4.0 SITE VISIT BY THE CONSULTANT

- i) The Consultant at own costs, is advised to visit and examine the Site and obtain all information that may be necessary for preparing their proposals under this assignment;

- ii) The Consultant should ensure that the Client is advised of the site visit in adequate time to allow him/her to make appropriate arrangements;
- iii) The costs of visiting the Site shall be borne by the Consultant.

During this assignment, the Consultant is free to seek additional information/clarification on any issue relating to the earmarked Project from Mzumbe University and the same shall be provided by the Client.

## **5.0 DELIVERABLES**

The Consultant shall prepare and submit to the Client the following reports and documents here under. They shall be in English and in a format, quality and quantity approved by the Client and the World Bank.

### **5.1. Design and Tendering:**

Submission include documents/reports, detailed design, specifications, schedules, preparation of bidding documents, BOQ and Cost estimates.

The Team shall prepare and submit to MU the following reports and Documents hereunder. They shall be in English and in a format approved by the Client the World Bank. The consultant shall prepare and submit, during the intermediate presentation, specified number of hard copies of the document and One (1) softcopy in a week time for the employer's review before the intermediate presentation.

#### **5.1.1 Documents**

The Consultant shall prepare and submit four sets of proposed contract documents, comprising of drawings for building and services, Specifications, Geotechnical investigation report, and Bills of Quantities for the proposed design work in electronic soft copy in a format agreed by the client. Five (5) sets of Drawings Handbook of site layout shall also be submitted in both Soft copy formats and hard copies. For compatibility reasons with Client's equipment, the consultant shall submit soft copy drawings in AutoCAD or ArchCAD and DXF format in a hard drive. In addition, the Consultant shall submit to the Client perspective view drawings, in soft and in three (3) hard copy format each of A<sub>2</sub>, and A<sub>3</sub> hard copies.

#### **5.1.2 Reports**

The Team shall prepare and submit five (5) sets of reports; i.e. **inception report, Outline Design Proposal, Schematic Design Report, Draft final report and Final report - design and tendering** as would be appropriate.

***a) Inception report***

Inception report is designed to give the Client confidence that the assignment can be carried out as planned and as agreed upon in the contract. The report shall include but not limited to professional staff deployed and detailed involvement of staff in execution of duties. The report will also indicate the key Client's requirements including site information and its appraisal and further provide Consultant's work-plan, stating Consultant's services and general understanding of scope of those services, and frequency of reporting for approval by client. The report should also bring to its attention major problems that might affect the direction and progress of the work if any. The inception report for the design phase shall be submitted to Client in three (3) copies within 14 days of the commencement of the assignment. The Client shall review and approve the report within a period of seven (7) calendar-days. The final document will be submitted within seven (7) days after consultant has received the comment and enable the Consultant to proceed with the next stage in the assignment.

***b) Outline design proposal***

This should cover all aspects of different studies carried out by the Consultant which include but not limited to Geotechnical investigation and topographical survey, Feasibility study and other relevant reviews including all necessary advice on statutory requirements.

The consultant should submit two (2) design alternatives proposal analyzing the Client's requirement including approximate or preliminary cost estimates for preliminary Client approval.

***c) Schematic Design Report***

Considering Client approvals and comments, this document shall comprise a developed scheme design from the outline proposals taking into account amendments requested by the Client. The Scheme design report shall illustrate



the size and character of the project in sufficient detail to enable the Client to agree on special arrangements, material and appearance. Cost estimates should also be included in the report.

#### ***d) Draft final report***

Draft final reports may include an outline review of existing designs (if any) including site layouts, specifications and preliminary cost. The report will be discussed with Mzumbe University while in draft form for more inputs (if any). The Teams will use such inputs to improve the discussed draft final report.

#### ***e) Final Report-Design and Tendering***

Detailed Design Report covering all aspects of design load estimation and all necessary assumptions on the same, approved design including architectural, structural, services (mechanical, electrical and data) drawings, Bill of quantities, specifications (an approved type of construction, quality of material and standard of workmanship) and a complete set of tender documents that shall incorporate development of all necessary comments and suggestions provided by Mzumbe University (Employer) at schematic design stage.

The final report should be due on the completion of the assignment. A physical presentation in *power point* format will be part of Final Report. The report which contains final detailed design report and Tender documents for tendering purposes must be submitted in five (5) hard copies duly signed by the Team Leader. These reports shall be submitted one week after receiving Client's and/or comments (should there be any). Electronic version (in PDF format) shall be submitted to the client via agreed electronic memory disc.

## **5.2 Construction Supervision and Defects Liability Period (DLP) Phase**

### **5.2.1 Contract Management and Construction Supervision**

The consultant will undertake supervision of construction works under the Contract Management of Client and it is expected that the Supervision phase shall be done executed in stages based upon deliverable set by the client.

The Team will undertake Post-Contract/ construction supervision (Architectural, Structural/Civil Engineering, Services Engineering and Quantity surveying)

under the Contract Management of MU including approval of materials and finished. The Consultant shall arrange and coordinate all project meetings such as site meetings, technical meetings and management meetings.

### **5.2.2 Inception (Mobilization) Report**

The Consultant shall submit a mobilization report within four (4) weeks after the notification of the commencement of the Construction stage, the Consultant shall present to Mzumbe University consolidated work plan outlining methodologies, staff schedule, and a plan to ensure the quality of the services.

The Mobilization report will address the following;

- (a) Methodology and Scoping,
- (b) Detailed program of work, showing time, duration and personnel as well as the inter -relationship between activities,
- (c) Proposed methodology for tracking compliance with applicable technical specifications and Tanzania environmental laws and regulations, and site-specific Environmental and social management plan (ESMP).
- d) Proposed format for weekly, monthly, quarterly report formats for approval by the client.

### **5.2.3a Daily Progress Report**

Consultant will be required to submit daily report to Client through Resident Engineer to Client on a daily basis. This report will be submitted in soft copy to Client through contract Manager.

### **5.2.3b Monthly and Quarterly progress reports**

The Consultant shall prepare and submit monthly progress reports which shall address the status of work measured as “percent completion” against the schedule approved at the onset of work. The monthly progress reports shall contain an accurate, up to date, account of all work accomplishments, work scheduled and outstanding issues of the Works Contractor. The reports shall also address the compliance of the Contractor and the works permits, ESMP, GRM/SEA/SH tracking reports as well as financial and scheduling

commitments. At the end of each report the Consultant shall append colored progress pictures for physical progress at site for the particular reporting period.

The monthly reports shall be submitted to the Employer not later than 7<sup>th</sup> day of the month following the end of the monthly period covered by each report. The quarterly reports shall be submitted to the Employer not later than 7<sup>th</sup> day of each yearly quarter (3 months) of project execution. The quarterly reports shall be submitted to the Employer no later than 7<sup>th</sup> day of each yearly quarter (3 months) of project execution.

The monthly and quarterly report shall contain physical and financial progress and implementation and monitoring of the ESMP, including health and safety and other plans such as stakeholder engagement plan. The format of the monthly progress report shall broadly consist of:

- Cover to indicate Country, Regional, District, Beneficiary, Project name and Chronological number of reports;
- Page 1 Index;
- Page 2 Location map of project site/s
- Page 3 Project details – All relevant dates of the Contract, such as the Contract signature date, site insurance expiry date, construction permit expiry date, mobilisation date, contract expiry date and other relevant dates;
- Page 4 Block diagram of Supervising Engineer's personnel with names;
- Page 5 Block diagram of Contractor's personnel with names;
- Page 6 Responsibility Assignment Matrix (who is in charge of what, names of certified laboratories or approving agencies where official tests will be performed);
- Page 7 Project Schedule to be updated monthly;
- Page 8 Percentage completion of BOQ showing drawdown;
- Page 9 Brief description (text) of construction activities carried out over the last month;

- Page 10 Description (text) of laboratory and in-situ tests carried out over the last month and a review of the results obtained. Test readings and laboratory reports should be in a separate annex.
- Page 11 CMP – 1-page description of approved Construction Management Plan in 1<sup>st</sup> progress report. (In the 2<sup>nd</sup> and successive reports, only report changes in CMP and any deviations by the contractor)
- Page 12 ESMP – Draw up matrix table for project with help from a separate ESIA report finding; include reporting requirements for environmental and social issues as per the approved environmental and social management plans, like resettlement, livelihoods, stakeholder consultation, grievances registered and resolved, labor influx issues.
- Page 13 Health and Safety plan report sheet drawn up by contractor;
- Page 14 Status of personnel and human power on site (previous month and current month);
- Page 15 Status of Plant and equipment on site (previous month and current month);
- Page 16 Status of stockpiles and materials on site in table format;
- Page 17 Daily weather diary for the month of reporting;
- Page 18 Chronological list of all official correspondence with contractor and client;
- Page 19 List of Revisions, drawings or variations (date initiated, and date approved, and date issued);
- Page 20 Status of Project grievance redress mechanism including issues to be resolved Client-Stakeholder or Client-Contractor-Sub contractors;
- Page 21 Financial draw down. Funds still available for disbursement, Interim Payment Certificate (IPC) and cumulative drawdown;
- Page 22 Supervising Engineer's comments on the progress of the works;
- Page 22 Supervising Engineer's suggestions/feedback for head office/client;
- Annex 1-Progress photos from site – Low resolution pictures, 3 to each page, total 5 or 6 pages;
- Annex 2-Attach copies of official lab results (concrete, aggregate and batching water quality, environmental readings where appropriate, etc)

#### **5.2.4 Weekly Reports**

Weekly reports to be submitted every Monday during the project implementation. Daily reports must be documented, compiled, and submitted to the client along the weekly report for schedule and scope management. This will enhance quality control in line with documented quality assurance from methodologies provided.

#### **5.2.5 Preparation of Interim Certificates**

The consultant shall prepare interim valuation and payment certificates to the interval as per contractor's applications of payment.

#### **5.2.6 Financial Appraisal**

The Consultant team shall be required to conduct financial assessment of the project as might be required by the Client. Prepare cash flow forecast, financial appraisal, project physical and financial progress reports.

#### **5.2.7 Project Handover Report upon Practical Completion (Practical Completion report and Practical Completion Certificate)**

The report should be due on completion of the construction work. The report will be discussed while it is still in draft form for Mzumbe University input if any. The Teams will use such inputs to improve the draft.

A physical presentation in Power point format will be part of Final Report. Upon completion of the project, consultant will prepare practical completion certificate and handing over to the project committee.

This Report will mark the start of the Defects Liability Period. It shall include a summary of activities and components completed and list of outstanding works and snag list. The report shall cover at least the following items:

- a) Background, objectives, and scope of the construction package
- b) The quality, conformity, consistency of construction practices.
- c) The fitness for purpose, utility and quality of constructed assets.
- d) The outstanding defects that the Contractor must rectify before operational acceptance and handover of completed works.

- e) Schedule for rectifying defects.
- f) A schedule of defects and maintenance criteria to guide assignment of liability for defects arising during the Defects Liability Period, including environmental liabilities.
- g) A schedule of inspections and testing which a Consultant have carried out during the Defects Liability Period to identify other defects that might arise during the period.
- h) A list of operation manuals (including booklets, keys, equipment and maintenance guide).

### **5.2.8 Final Completion and Handing Over Report**

The Consultant shall prepare a final report of the project, as defined, including recommendation to the Employer for final Acceptance of all the works included in the contract documents and amendments, with a quality certification, stating that evaluation parameters have been accomplished. A final completion and handover report shall be prepared upon completion of the Defects Liability Period.

### **5.2.9 Environmental and Social Health and Safety (ESHS) reporting**

- (a) The Consultant shall provide immediate notification to the Client should any incident in the following categories occur while carrying out the Services. Full details of such incidents shall be provided to the Client within the timeframe agreed with the Client.
  - (i) Confirmed or likely violation of any law or international agreement;
  - (ii) Any fatality or serious (lost time) injury;
  - (iii) Significant adverse effects or damage to private property (e.g. vehicle accident); or
  - (iv) Any allegation of gender based violence (GBV), sexual exploitation or abuse (SEA), sexual harassment or sexual misbehavior, rape, sexual assault, child abuse or defilement, or other violations involving children,

- (b) Ensure that contractor immediate notifications on ESHS aspects are shared with the Client immediately;
- (c) Immediately inform and share with the Client any immediate notification related to ESHS incidents provided to the Consultant by the Contractor, and as required of the Contractor as part of the Progress Reporting;
- (d) Share with the Client in a timely manner the Contractor's ESHS metrics, as required of the Contractor as part of the Progress Reports.
- (e) Ensure that all complaints are resolved and both contractor and complainant are immediately informed on the resolutions.

### **5.3 Additional Services**

The consultant shall provide any other additional services in the execution of works if so required by the client, at the rates under conditions applicable in the Contract.

#### ***Assist the Client in Tender Administration***

Bidding process will be administered by the Client - Mzumbe, the Consultant shall play advisory role by providing assistance. In particular, the Consultant shall assist Client in administration of tender for accounting activities assisted/performed during bidding administration.

### **6.0 CONSULTANT TEAM**

The firm should have at least ten (10) years' experience in the building industry, and must have demonstrated capabilities of undertaking works of similar nature, value and volume.

Supporting documents of at least five (5) projects of similar nature executed by the firm within the previous ten (10) years (2012 – 2022) is vital.

Firm's ability to manage at least three (3) projects of not less than the cumulative total of TZS 12 Billion delivered within expected project parameters. The consulting firm should be registered by recognized professional boards and authorities and upon commencement of the project the consultant must be registered by recognized professional boards and authorities in Tanzania.

HEET project comprise various projects in different parts of the country. Each project will be designed (where applicable) and supervised independently, hence entailing concurrent activities. Consultant firm or teams are permitted to participate in tendering for any of HEET projects. However, it will be mandatory for each consulting firm to present sufficient qualified manpower/ professionals with supporting evidence for each project tendered since the projects will run simultaneously. Failure to demonstrate capacity in terms of assigned staff for various projects will lead to disqualification.

The staff to be provided by the Consultant shall be sufficient to cover the services under this contract. The timing and inputs of each professional staff member shall be in accordance with the agreed program for the delivery of services and appropriate to the project. The Consultant shall employ only such key staff whose curriculum vitae or certificates or professional registration have been reviewed and approved by authorizing bodies. Staff employed must be relevant to the project with intended actual participation in the project. There should be a clear breakdown of all staff members that intend to be involved in the projects in terms of man month realistically to the actual individual executing a particular task.

In the technical proposal, the Consultant must describe a system of quality assurance and how they will support experts on site with all required logistical support. Quality control of reports in terms of content (standardized) layout and quality of language is a key aspect of quality assurance.

The Consultant will be required to have a full range of specialists to cover all the technical fields included in the project and to make these services available as required during the term of the Contract.

The Consultant must be capable of providing fully competent expertise in the following disciplines on as needed basis. In preparing proposals (financial and technical), firms must provide Curriculum Vitae for all positions indicated in Table 3.

## 6.1 Experts and Their Qualifications

**Table 1: Key expert's qualifications**

	<b>Category of Consultant</b>	<b>Qualifications and Experience of key experts</b>
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1	<b>Team Leader (1)</b>	<p>The Team Leader shall be an Architect or Engineer or Quantity Surveyor with a minimum qualification of Degree or equivalent in Civil Engineering/ Project Management/ Construction Management/ Architecture/Building Economics/Quantity Surveying/ Construction Technology.</p> <p>She/he must have at least twelve (12) years cumulative experience in design and preparation of Standard Bidding and Contract documents and construction supervision of donor funded projects or similar nature projects.</p> <p>Must have served in a similar capacity in the design and implementation of three (3) projects of similar magnitude and complexity with a cumulative value of TZS 12 billion in the past ten (10) years.</p> <p>Supporting documents illustrating his/her project management abilities and actual participation in projects of similar nature is vital.</p> <p>Must demonstrate good communication and interpretation skills and working knowledge of ICT applications.</p> <p>Fluency in written and spoken English is mandatory. Registration as a professional by relevant Board is necessary.</p>
2	<b>Architect (1)</b>	<p>She/he must be a Registered Architect with a degree in Architecture or equivalent. She/he must have at least eight (8) years cumulative experience in architectural practice, planning and designs and construction supervision.</p> <p>She/he must have served in a similar position in at least three (3) projects of similar magnitude and complexity with a cumulative value of not less than TZS 8 billion in the past ten (10) years. Supporting documents/ evidence demonstrating her/his knowledge in design and construction planning to be attached.</p> <p>The Architect should have proven ability to lead the design teams in the design and supervision of construction activities. Donor funded project is an added advantage.</p>

		<p>Must be conversant with all aspects of architectural design, landscaping, interior design, and Computer Aided Designs (CAD) plus Microsoft office.</p> <p>Demonstration in continuous improvement in architectural knowledge in terms of training and short-term course in the past five years.</p> <p>Knowledge in CAD programs and Microsoft office</p> <p>Fluency in written and spoken English is mandatory.</p>
<b>3</b>	<b>Interior Designer (1)</b>	<p>The Interior designer must possess a minimum of Bachelor Degree in Architecture or Interior Designing with at least five (5) years of practical working experience in interior design of buildings, construction, and the construction industry as a whole.</p> <p>The Interior Designer should have proven ability to lead the interior design teams in the design and supervision of internal layout including furniture layout plan.</p> <p>Must be well versed with materials and finishes. Understanding of forms and buildings functionality is mandatory. Also, must be conversant with all aspects of architectural design, landscaping, interior design, and Computer Aided Designs (CAD) 3D Max, turbo, Live Homes 3D pro etc.</p> <p>Supporting documents demonstrating her/his knowledge in design and construction planning of at least two (2) projects of similar nature and complexity to be attached.</p> <p>The Interior Designer must have excellent communication skills, fluency in written and spoken English and should be registered with a recognized Professional Board.</p>
<b>4</b>	<b>Civil/ Structural Engineer (1)</b>	<p>She/he must be a Registered Civil/ Structural Engineer with a degree in the above field.</p> <p>She /he must have at least eight (8) years cumulative experience in building and civil engineering designs. Must have served in a similar capacity on at least three (3) building projects of similar magnitude and</p>

		<p>complexity with a cumulative value of not less than TZS 8 billion in the past within the last ten (10) years. Donor funded project is an added advantage.</p> <p>The Civil/ Structural Engineer must be conversant with all aspects of reinforced concrete design, design of steel structures, design of timber and steel structures, strength of materials, soil mechanics.</p> <p>Supporting documents illustrating his/her actual participation in projects of similar nature is vital.</p> <p>A clear demonstration – supporting documents of his/her value engineering solutions for project of similar magnitude in the previous 10 years is an added advantage. Must be conversant with pavement design.</p> <p>Fluency in written and spoken English is mandatory. Proficiency in professional engineering software and CAD is necessary.</p>
5	<b>Quantity Surveyor (1)</b>	<p>She/he must be a Registered Building Economics or Quantity Surveyor with a degree in Building Economics/Quantity Surveying. She/he must have at least eight (8) years cumulative experience in conducting measurement of quantities in infrastructure projects.</p> <p>She/he must have served as a Measurement/Quantity Surveyor in at least three (3) projects similar magnitude and complexity with a cumulative value of Tshs 10 billion in the past ten (10) years. Donor funded project is an added advantage.</p> <p>Evidence of experience in dealing with contractual and legal matters and managing costs to make sure that the initial budget is not exceeded is mandatory.</p>

		<p>Evidence of continuous professional improvement such as workshops, training, courses and proficiency in Quantity Surveying Professional Software.</p> <p>Fluency in written and spoken English is mandatory.</p>
6	<p><b>Services Engineer (Mechanical/plumbing) (1)</b></p>	<p>She/he must be a Registered Mechanical/ Sanitation Engineer with a degree in Mechanical/ Sanitation Engineering.</p> <p>She/he must have at least ten (10) years cumulative experience in design and mechanical installations.</p> <p>She/he must have served in similar capacity in design of mechanical installations in at least three (3) projects of similar magnitude and complexity with a cumulative value of not less than TZS 8 billion in the past ten (10) years.</p> <p>Experience in supervision of plumbing systems (cold and hot water installation, waste and soil water systems), drainage and sewage systems, mechanical ventilation, lift design, firefighting, security systems, and the construction industry as a whole. Donor funded project is an added advantage. Wastewater treatment system experience is an added advantage.</p> <p>Supporting documents demonstrating her/his knowledge in design and mechanical installations management to be submitted.</p> <p>Illustration of his/her ability to provide cost effective mechanical engineering solutions as per design and site conditions is vital.</p> <p>Knowledge in CAD programs and costing/ valuation of mechanical works is necessary.</p> <p>Fluency in written and spoken English is mandatory.</p>

7	<b>Services Engineer (Electrical) (1)</b>	<p>She/he must be a Registered Electrical Engineer with a degree in Electrical Engineering. She/he must have at least eight (8) years cumulative experience in design of electrical installations.</p> <p>She/he must have served in similar capacity in design of electrical and installation systems and the construction industry as a whole. Donor funded project is an added advantage.</p> <p>The Electrical Engineer must be conversant with all aspects of design and construction/ installations of electrical systems in office/public buildings and supply main connections in at least three (3) projects of similar magnitude and complexity with a cumulative value of not less than TZS 8 billion in the past ten (10) years.</p> <p>Supporting documents demonstrating her/his knowledge in design and construction management to be submitted.</p> <p>Illustration of his/her ability to provide cost effective electrical engineering solutions as per design and site conditions is vital.</p> <p>Knowledge in CAD programs and costing/ valuation of electrical works is necessary.</p> <p>Fluency in written and spoken English is mandatory.</p>
8	<b>ICT Engineer (1)</b>	<p>She/he must be a certified ICT expert with a degree in ICT/ Computer science/ Information Technology or equivalent.</p> <p>She/he must have at least five (5) years cumulative experience in ICT projects. She/he must have served in similar capacity in at least two (2) projects related</p>

		<p>to educational facilities of similar magnitude and complexity.</p> <p>Supporting documents of his/her actual involvement in such projects is necessary.</p> <p>ICT Consultant should possess enough work experience in Technical solution designs, integration and expansion for large ICT projects, Wireless LAN design, Implementation and Management, Structured Cabling Design and Installation, Core network design, Server room layout design and equipment installation, TCP/IP protocol stack, Voice and Video over IP service delivery using proprietary and open source platforms, Network analysis tools, Configuration of network equipment, Access Control/Security System and Communication Systems Analysis</p> <p>Fluency in written and spoken English is mandatory.</p>
9	<b>Land Surveyor (1)</b>	<p>She/he must be a Registered Topographical Surveyor with a degree in in land surveying.</p> <p>She/he must have at least five (5) years cumulative experience in land surveying and related infrastructure.</p> <p>She/he must have served as a Topographical Surveyor in at least three (3) projects similar magnitude and complexity. Fluency in written and spoken English is mandatory.</p> <p>Supporting documents of his/her actual involvement in such projects is necessary.</p> <p>Should be registered with a recognized Professional Board. Possessing Valid Practicing License is necessary where applicable.</p>

		Fluency in written and spoken English is mandatory.
<b>10</b>	<b>Environmental Engineer</b>	<p>She/he must be a holder of Degree in Environmental Engineering or Sciences or equivalent, with broad range of experience in ESIA and host community assessments and a minimum of five (5) years relevant cumulative experience in design and environmental systems construction and installation.</p> <p>Experience in environment management issues in tropical countries is mandatory during supervision of construction project in order to ensure that the construction works adhere to developed project reports e.g. ESIA/ESMP.</p> <p>She/he must have served in similar capacity in design of environmental systems and installations in at least three (3) building projects of similar magnitude and complexity.</p> <p>Supporting documents of his/her actual involvement in such projects is necessary.</p> <p>Fluency in written and spoken English is mandatory.</p>
<b>11</b>	<b>Geo-Technical/Material Engineer (1)</b>	<p>Must be a registered Civil Engineer and should possess a Degree or equivalent in Geo-Technical Engineering/ Highway/ Material Engineering with a minimum of eight (8) years of geotechnical experience.</p> <p>Experience of at least three (3) projects with supporting documents of similar nature and size in terms of scope is also an added advantage.</p> <p>Experience on projects of similar nature and size in terms of scope is also an added advantage.</p>
<b>12</b>	<b>Sociologist (1)/ Sexual Exploitation and Abuse (SEA/Gender</b>	<p>She/he must be a holder of Degree in Social Sciences, Development Studies, Community Development or related fields with demonstrated experience in environmental and related studies and a minimum of five (5) years relevant experience.</p>

	<p><b>Based Violence (GBV) Specialist</b></p>	<p>He/she must have working experience related to social impact management in the supervision of construction project including ensuring that the construction works adhere to developed project reports e.g. ESIA/ESMP.</p> <p>Relevant experience in supervising construction projects, which follow specific relevant standards of World Bank Group EHS Guidelines including adverseness to the Equal Employment Opportunity principles and the Ethnic Affairs will be added advantage.</p> <p>She/he should have experience in gender equality and women empowerment agenda, stakeholder consultation, labour and working conditions, resettlement and health and safety with a minimum of 5 years of field experience supervising similar projects including aspects of gender based violence, sexual abuse and exploitation, social and conflict analysis. She/he must have served in at least two (2) construction projects of similar complexity. Fluency in written and spoken English is mandatory on similar assignments with proven experience to recognize and to deliver good industry practice with respect to Environment, Social (including sexual exploitation and abuse (SEA) and Gender-Based Violence (GBV), Health and Safety (HS).He/she must be fluent in written and spoken English and ability to communicate ideas freely and easily are essential qualities.</p> <p>Where applicable should be registered with recognized Professional Board with valid practicing license where applicable.</p>
<p><b>13</b></p>	<p><b>Resident Engineer</b></p>	<p>The resident engineer shall be on site full time during the construction period.</p> <p>She/he must be a Registered Civil/ Architect/ Quantity Surveyor/ Structural/Geo-technical Engineer with a degree in above field. She /he must have at least five (5) years cumulative experience in building and civil engineering construction works.</p>



		<p>Must have served in a similar capacity on at least two (2) building projects of similar magnitude and complexity within the last 3 years.</p> <p>He /she shall be responsible for giving directions/instructions (as directed and approved by the consultant) to the contractor or to the foreman-in charge in respect of; the interpretation of the Tenderers' instructions, Drawings, specifications, or bill of quantities; and any other matter in respect of which the Architect is expressly empowered to issue instructions and on which the Tenderers have authorized in writing the resident engineer so to act.</p> <p>He/she will be responsible for keeping the site diary for day-by-day activities/events.</p> <p>Shall be a registered engineer or architect with experience of managing construction of at least two (2) project of similar magnitude and complexity within the last 3 years.</p> <p>Supporting documents of his/her actual involvement in such projects is necessary.</p> <p>Fluency in written and spoken English and Kiswahili. Ability to express ideas freely is mandatory.</p>
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### ***Non-Key Experts***

In addition to the key personnel designated above, the Consultant may deploy Non-Key Expert to assist with the supervision of the works as deemed fit. In this case, it is at the discretion of the Consultant to propose Non-Key Experts for successful implementation of the assignment.

### **Note:**

CVs for Support Staff will not be evaluated. However, evidence of professional registration and academic certificates for key staff should be submitted and will be evaluated.

## **6.2 Proposed Man-Month for the Assignment**

The estimated number of professional staff-months required for the assignment is **82.75** Staff- Months as summarized in table 3 below.

**Table 3: Staff man-month**

S/No	KEY STAFF	Design	Supervision	Defect Liability	Expected Man-Month
1	Team Leader (1)	2.0	4.5	0.5	7.0
2	Architect (1)	5.75	7.5	0.75	14.0
3	Interior Designer (1)	1	0.75	0	2.0
4	Civil/ Structural Engineer	3	4.5	0.25	7.75
5	Quantity Surveyor (1)	3.0	6.0	0.5	9.5
6	Services Engineer (Mechanical/plumbing) (1)	2.25	4	0.25	6.5
7	Services Engineer (Electrical) (1)	1.5	3.5	0.25	5.25
8	ICT Engineer (1)	1	2.5	0.25	3.75
9	Land Surveyor (1)	0.75	0.5	0	1.25
10	Environmental Engineer	0.5	2	0.25	2.75
11	Geo-technical/Material Engineer (1)	1.25	0	0	1.25
12	Sociologist (1)/ Sexual Exploitation and Abuse (SEA/Gender Based Violence (GBV) Specialist	0.5	2	0.25	2.75
14	Resident Engineer	0	18	1	19
<b>TOTAL MAN MONTHS</b>		<b>22.5</b>	<b>55.75</b>	<b>4.25</b>	<b>82.75</b>

**Note:** Staff Man month input specified is for all project activities

## 7.0 IMPLEMENTATION TIME FRAME AND SCHEDULE

### 7.1 Time frame

The overall time frame for implementation of consultancy works for design and supervision of construction of Training facilities and infrastructures is estimated at a total of **36 calendar months** (6-Month design, tender documents preparations and approval, 18-Months construction and Supervision including mobilization period and 12-Months Defects liability Period) starting from the date of commencement of Consultant's assignment. The defect liability period of Twelve (12) calendar-months shall commence after practical completion of works.

## 7.2 Implementation Schedule

The breakdown of the estimated time frame and implementation schedule for the proposed construction of Infrastructures Projects for Mzumbe University is set out in the table below:

**Table 2:** Implementation time frame

Item	Activity description	Duration (months)
<b>1</b>	<b>Phase 1 (Design, Preparation of Tender Documents and approval)</b>	
A	Inception report	M+1
B	Outline design proposals	M+2.5
C	Schematic Design	M+3
D	Detailed Design	M+5
E	Final Report-Phase I (specifications and BOQs)	M+6
<b>2</b>	<b>Post Contract Stage</b>	
A	Construction and Supervision	18
B	Defects Liability Period	12
	<b>Total duration</b>	<b>37</b>

## 8.0 DATA, SERVICES AND FACILITIES TO BE PROVIDED BY THE CLIENT

### 8.1 Information to be provided by the Client

The Client will provide basic data needed to facilitate the assignment; these include assistance on matters related to administration as required for carrying out the work and liaison necessary for this purpose. In addition, the consultant will have access to all available information including the Mzumbe University Master Plan, planning consent - if any and Topographical survey report.

During carrying out of Physical Condition Survey, the Team will be guided by the respective Mzumbe University staff. Likewise, on technical issues regarding the documentation will liaise with Client's in-house technical team.

A pre-briefing meeting will be held in Tanga Region with prospective consultants in order to make them become aware and familiar with this assignment.

## **8.2 Obligation of Consultant and Client**

### **8.2.1. Consultant**

- i. The Consultant shall be responsible for the execution of the entire assignment as described in this Terms of Reference (TOR) and shall provide such facilities, staff and equipment that will enable her to execute the assignment in a timely and efficient manner.
- ii. The Consultant shall be responsible for organising her/his office. She/He will be responsible for his accommodation, transport, equipment, supplies, secretarial services and such other services that are necessary for smooth and efficient execution of the assignment.
- iii. The Consultant shall allow working with counterpart staff from Mzumbe University for the duration of the consultancy service. The consultant shall prepare a management, control and supervision of projects and it is expected that the counterpart staffs will be fully integrated within the consultant's operations for capacity building.
- iv. Consultant designs should abide with the Mzumbe University Master plan which will be provided to the Consultant by the Client (Mzumbe University).
- v. Shall prepare and review specifications and bills of quantities for the entire assignment including submission of confidential cost estimates of the various components.
- vi. Shall prepare and review bidding documents for the entire assignment. Assist the client in obtaining qualified contractors for the execution of the works. In doing so the consultant shall be available to assist the Client in the bidding proceedings and undertake the following activities:
  - a) Provide detailed clarification as requested from the bidders.
  - b) Assist the Client and the Tender Board in the preparation of the Bid Evaluation Report, negotiation, and recommendations for award.

- vii. The Consultant shall be responsible for the quality, safety, and security of the submitted designed works and specifications.
- viii. The consultant shall adhere to different statutory obligations such as; insurance, taxes, and duties related to the design works shall be the responsibility of the consultant. The Consultant must contact the Tanzania Revenue Authority for specific details.
- ix. The Consultant must comply with the Terms of Reference for this project. Arrange for own office space expenses and transportation activities related to this project (including travel costs, documents and drawings preparations/submissions and per diems).
- x. Preparations and submission of reports as per these terms of reference. The Consultant shall allow working with counterpart staff from Mzumbe University for the duration of the consultancy service. The Consultant shall prepare a management, control and supervision of projects and it is expected that the counterpart staffs will be fully integrated within the consultant's operations for capacity building.
- xi. The consultant shall submit a project supervision plan and project performance management plan.
- xii. Consultant shall be responsible for obtaining all necessary work permits (if applicable) and cover all necessary costs for his/her expatriates and any other necessary consent from relevant statutory bodies.
- xiii. Provide designers risk assessment in accordance with Environmental, Health and Safety policies.
- xiv. Ensure the compliance of the contractor's construction drawings with the specifications of the contract, and subsequently approve such drawings; and
- xv. Participate in all site meetings during construction.
- xvi. To enhance HEET education development plan the consultant should practice professional development and responsibility. The consultants are encouraged to train and engage graduate architects/ quantity surveyors and engineers to boost their experience in design and management. This will ensure professional continuity and sustainability for future projects. There should be allowance of students to visit the site regularly and gain practical knowledge on applicability of theoretical studies.

### **8.2.2. Client**

- i. The Client will provide the necessary available documents for the task as requested by the consultant. The Consultant shall be responsible for the accuracy of data and correctness of the information, analysis and interpretation of the data and recommendations thereof. All such documents, data and information shall be treated as confidential and shall not be used for any purpose not related to the project.
- ii. The Client will assist the Consultant to meet Government Departments and other agencies as needs arise. The consultant shall be fully responsible for subsequent follow up.
- iii. The Client will appoint a Project Coordinator for the assignment who will guide the implementation of the project including providing guidance to the Consultant during the project duration.
- iv. Ensure the consultant's performance complies with the Terms of Reference of this project and is reported to the employer on monthly basis or any time in case of emergency,
- v. Ensure all payments are made according to the contract upon receiving the certificate of actual measurements taken by the employer team, consultant, and Contractor.
- vi. Ensure the availability of counterpart staff.
- vii. Receive and evaluate regular reports from consultant attached with the original reports from Contractors
- viii. Ask/demand for clarifications from the Consultant from time to time

### **9.0 PROJECT LIBRARY**

The Consultant shall create a library of all the documents, reports, maps, working papers, progress pictures, and other reference material used and./or created during the period of the work. A list of documents proposed to be kept in the library shall be included in the inception report for acceptance by the Employer.

During the work, the Consultant shall maintain it in good order and in a reference format in office space so as to be used by the Mzumbe University (Employer)

staff. On completion of the period of work, the entire contents of the project library will be transferred to the Employer in good order and properly indexed and marked.

## **10.0 MANDATORY STANDARDS**

- a) All measurements in metric units
- b) All drawings to have legend explaining symbols
- c) All drawings including revisions to be dated and signed by Design Consultant
- d) All Electrical drawings to be dated and signed by Electrical Engineer
- e) All designs must conform to all applicable standards
- f) Summary sheet with legend to all drawings
- g) A legend to indicate changes to the drawings with date of these changes
- h) Design based on soil report that assesses pre requisite foundation type required.
- i) A percolation test done according to Ministry of health standards for all sanitation and drainage requirement.
- j) Bills of Quantity shall follow the prescribed standard and not include Prime Cost Sums and can only include provisional sums where absolutely necessary. The appendices shall carry a 'List of Drawings' from which the Bill of Quantities was prepared. Each page of the BOQ shall carry a footer indicating the total prices on that particular page and read 'carried to collection'. The BOQ shall carry a general summary.
- k) All quantities are to be measured in metric units and rounded off to two decimal places.
- l) The Bills of Quantities shall not include Prime Cost Sums, and can only include Provisional Sums where absolutely necessary (i.e. only for works or for costs which cannot be entirely foreseen, quantified or detailed at the time tendering documents are prepared). The justification for ALL Provisional Sums must be outlined in a separate document, accompanying the Bills of Quantities.

- m) Engineering Services and external works shall be priced and not billed as a lump sum.
- n) Preliminaries should be properly priced.
- o) All provisional sums must be justified on a separate document.
- p) The Appendices shall carry a "List of Drawings" from which the Bills of Quantities was prepared.
- q) Each page shall carry a footer indicating the total of prices on that particular page. This footer shall read "Carried to Collection".
- r) The Bills of Quantities shall carry a General Summary.
- s) A printed copy of the priced Bills of Quantities should be submitted in electronic format.
- t) Maintenance Plan comprising an inventory of the number and types of fixtures, surface areas and other amenities with a schedule of frequency and cycle of maintenance of the inventory listing.
- u) The design consultant to provide Engineering specification covering all aspects of the proposed works.

## **11.0 ENVIRONMENTAL AND SOCIAL RISK MANAGEMENT**

The consultant should follow the guidelines as provided by the Higher Education for Economic Transformation Project's Environmental and Social Management Framework and associated instruments including the Environmental and Social Management Plan (ESMP) for proposed construction works.

For the Supervision Phase the Consultant should attach or refer to the Consultant's environmental, social, health and safety policies that will apply to the project. As a minimum, the policy is set out to the commitments to:

1. Apply good international industry practice to protect and conserve the natural environment and to minimize unavoidable impacts;
2. Provide and maintain a healthy and safe work environment and safe systems of work;



3. Protect the health and safety of local communities and users, with particular concern for those who are disabled, elderly, or otherwise vulnerable;
4. Ensure that terms of employment and working conditions of all workers engaged in the Works meet the requirements of the ILO labour conventions to which the host country is a signatory;
5. Be intolerant of, and enforce disciplinary measures for illegal activities. To be intolerant of, and enforce disciplinary measures for GBV, inhumane treatment, sexual activity with children, and sexual harassment;
6. Incorporate a gender perspective and provide an enabling environment where women and men have equal opportunity to participate in, and benefit from, planning and development of the Works;
7. Work co-operatively, including with end users of the Works, relevant authorities, contractors and local communities;
8. Engage with and listen to affected persons and organizations and be responsive to their concerns, with special regard for vulnerable, disabled, and elderly people;
9. Provide an environment that fosters the exchange of information, views, and ideas that is free of any fear of retaliation, and protects whistleblowers;
10. Minimize the risk of HIV transmission associated with the execution of the Works;
11. Provide mechanism to resolve grievances including those related to Gender Based violence, Sexual Abuse and harassment; and
12. Ensure that there are ample measures to minimize the risk of COVID – 19 transmission during the entire period of assignment.

The policy should be signed by the senior manager of the Consultant. This is to signal the intent that it will be applied rigorously.

## **12.0 CODE OF CONDUCT**

The Consultant is required to attach or prepare a Code of Conduct for Supervision Civil Works. A satisfactory code of conduct will contain obligations on all Consultant's Experts that are suitable to address the following issues, as a

minimum. Additional obligations may be added to respond to particular concerns of the region, the location and the project sector or to specific project requirements. The code of conduct shall contain a statement that the term “child” / “children” means any person(s) under the age of 18 years.

The issues to be addressed include:

1. Compliance with applicable laws, rules, and regulations
2. Compliance with applicable health and safety requirements to protect the local community (including vulnerable and disadvantaged groups), the Consultant's Experts, the Client's personnel, and the Contractor's personnel, including sub-contractors and day workers (including wearing prescribed personal protective equipment, preventing avoidable accidents and a duty to report conditions or practices that pose a safety hazard or threaten the environment)
3. The use of illegal substances
4. Non-Discrimination in dealing with the local community (including vulnerable and disadvantaged groups), the Consultant's Experts, the Client's personnel, and the Contractor's personnel, including sub-contractors and day workers (for example, on the basis of family status, ethnicity, race, gender, religion, language, marital status, age, disability (physical and mental), sexual orientation, gender identity, political conviction or social, civic, or health status)
5. Interactions with the local community(ies), members of the local community (ies), and any affected person(s) (for example to convey an attitude of respect, including to their culture and traditions)
6. Sexual harassment (for example to prohibit use of language or behavior, in particular towards women and/or children, that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate)
7. Violence, including sexual and/or gender based violence (for example acts that inflict physical, mental or sexual harm or suffering, threats of such acts, coercion, and deprivation of liberty)
8. Exploitation including sexual exploitation and abuse (for example the prohibition of the exchange of money, employment, goods, or services for

sex, including sexual favors or other forms of humiliating, degrading behavior, exploitative behavior or abuse of power)

9. Protection of children (including prohibitions against sexual activity or abuse, or otherwise unacceptable behavior towards children, limiting interactions with children, and ensuring their safety in project areas)
10. Sanitation requirements (for example, to ensure workers use specified sanitary facilities provided by their employer and not open areas)
11. Avoidance of conflicts of interest (such that benefits, contracts, or employment, or any sort of preferential treatment or favors, are not provided to any person with whom there is a financial, family, or personal connection)
12. Respecting reasonable work instructions (including regarding environmental and social norms)
13. Protection and proper use of property (for example, to prohibit theft, carelessness or waste)
14. Duty to report violations of this Code
15. Non-retaliation against personnel who report violations of the Code, if that report is made in good faith