

EAST AFRICAN COMMUNITY



**WORLD BANK IPF PROJECT THROUGH EAST AFRICAN
COMMUNITY (EAC)**

TERMS OF REFERENCES

FOR

**PROVISION OF CONSULTANCY SERVICES FOR DESIGN
(ARCHITECTURAL & ENGINEERING) AND CONSTRUCTION SUPERVISION
OF THE MULTI-PURPOSE BUILDING AT EASTERN AFRICA STATISTICAL
TRAINING CENTRE (EASTC) MAIN CAMPUS-**

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1.0. BACKGROUND

Eastern Africa Statistical Training Centre (EASTC) is a Regional Public Learning Institute for Statistics in Tanzania that has received financial support from the World Bank (WB) through its IPF program undertaken by the East African Community (EAC). Infrastructure development (civil works) is among the activities that will be implemented under the project. For the purpose of implementing the infrastructure civil works of the project, the Institute intends to use part of the funds to cover eligible payments for procuring consultancy services for, design and supervision of construction of new multi-purpose building and related external works (as indicated in the scope of the assignment).

The desired facility must be a modern high-performance building that offers increased worker satisfaction and productivity, improved health, greater flexibility, and energy efficient and environmental performance. Typically, the project will apply life-cycle analysis to optimize initial investments in architectural and engineering design, systems selection, and building construction.

1.1 OBJECTIVE OF THE ASSIGNMENT

1.1.1 General Objective

The general objective of the assignment is to carry out architectural and engineering design and construction supervision of the following:

- a. Construction of fully furnished multi-purpose building and external works as illustrated below;

Table 1: building specifications and capacities.

S/N	Name of facility/laboratory	Quantity	Number of People Occupancy each	
1	Training (1,000 Students)			
	Professional Programs.			
	Auditoriums	1	600	
	Meeting Room/board room	1	50	
2	Other Services			
	Staff Offices	3	3	
	Reception	1	2	
	Pantry	1	2	
	Stores	4		

		Toilets	6	10	
3	External Works	This include but not limited to accessibility to other buildings and facilities surrounding the proposed building, parking and soft landscaping			

Note: The site is located at EASTC campus.

1.1.2 Specific Objectives

1.1.2.1 Conduct a topographical survey and geo-technical investigation.

The consultant shall conduct the afore mentioned surveys of the proposed construction site. The consultant shall review existing masterplan.

1.1.2.2 Design (Architectural & Engineering) and preparation of tender documents

The consultant shall conduct shall provide approved detailed design drawings (i.e. Architectural, Structural and for Services (including electrical, plumbing, firefighting infrastructure, ICT and security System) to ensure proper design execution. The consultant shall advise of design applicability in terms of construction methodologies, green building and project implementation to supplement the completeness or consistency of the design execution. The consultant shall also prepare Bills of Quantities and Specifications and Tender documents.

1.1.2.3 Supervision of Construction

The consultant shall be fully responsible for supervision of the new construction works from beginning (site handover) to the successful completion (practical completion) including to the end the defects liability period (final completion) as specified in the contract.

1.2 SCOPE OF THE ASSIGNMENT

Table 2: List of Facilities

S/No	Facility	Remarks
1	Construction of the multi-purpose building	To design one fully furnished (1) multi-purpose building, with the capacity as illustrated in the table 1 above.
2	Construction of landscaping and walkways to connect EASTC buildings.	To design soft and hard landscaping that connects EASTC buildings to the proposed building with consideration to the people with special needs.

1.3 TASKS/ACTIVITIES OF THE CONSULTING ASSIGNMENT

The main tasks shall include design and construction supervision to ensure Environmental and Social (ES) compliance but not limited to:

- a) Conduct topographical survey of the proposed site.
- b) Review and update of existing master plan for the entire EASTC Campus.
- c) Prepare Environmental and Social Safeguard instruments including: Environmental and Social Impact Assessment (ESIA); Environmental and Social Management Plan (ESMP); and Environmental and Social Monitoring Plan (ESMP).
- d) The ESMP to document actions required to ensure that the mitigation measures proposed in the impact assessment study are carried out to satisfaction levels and covers each stage of the project, from pre-construction to operation phase. On the other hand, an ESMP to outlines the monitoring parameters, frequency and monitoring locations against specific mitigation measures. In addition, the ESMP must clearly defines the responsibilities for mitigation and monitoring and suggests time-bound schedules.
- e) The ESIA report to stipulate Grievance Redress Mechanism (GRM). The GRM mechanism shall be established prior to commencement of the construction activities in the project areas. The GRM will ensure that complaints of on-site workers and local communities including other relevant stakeholders will be taken

care of. Complaints from the workers may include (but not limit to): On-site working conditions including health and safety of workers; Issues related to wages and working hours; Prevention and protection of child labour from hazardous work conditions; Issue of forced labour; Gender discrimination and Gender Based Violence (GBV) and Sexual Abuse.

- f) Conduct geotechnical investigation for construction site;
- g) Prepare preliminary design (state of art, environmental-friendly) of the proposed design works which includes drawings (architectural, engineering, services); technical specifications, bills of quantities and initial cost estimates in accordance with the acceptable professional standards;
- h) Preparation of the detailed design drawings of the project, specifications and schedule of works. Prepare architectural design of the buildings following acceptable modern professional standards. Full (final) construction drawings to be ensured that are on appropriate scales, e.g. 1:100, 1:50, 1:20 and 1:10 as the need arises. The produced construction drawings will include plans, sections, and elevations and associated details as appropriate. The prepared architectural details should cover hard (pavements) and soft (grass) landscaping as this is also an important aspect of the project. Analysis of the Architectural /engineering soundness of construction drawings and contract documents must be provided.
- i) Preparation of cost preliminary and confidential estimates based on the detailed design drawings of the project, specifications and schedule of works in order to have a true reflection of the project cost. This will form a base for drawing up a realistic procurement plan;
- j) 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. This should be conducted well in advance of the commencement of the construction's activities on site; and he/she will supervise the actual construction works.
- k) Receive, analyze and approve the contractor's program of works prior to the commencement of the construction activities. The Consultant shall provide the appropriate and timely inputs to the program where required to ensure that the

construction works are implemented using effective and realistic plans and schedules.

- l) Carry out supervision of proposed construction works from the beginning (site handover) and completion of works (practical completion) and to the end of defect liability period (final completion); and ensuring that contractors comply with project's environmental and social performance.
- m) Consultant will ensure that the design accommodates the accessibility to buildings and additional internal facilities for physically challenged persons is appropriately allocated. This should go in line with a consideration of the best practice and positive legal regulations in Tanzania regarding the rights of the disabled persons;
- n) Proposed design should take regards of the constructability of the project, construction means, methods and techniques employed.

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 work involved is mainly expected to be as follows:

- Design and supervision of construction of new multi-purpose building with lecture halls, classrooms and staff offices.
- Design and supervision of construction of landscaping and walk ways to connect EASTC buildings

The consultant shall review ESIA report and related documents. Thereafter design, produce bills of quantities, specifications, schedule of works and tender documents and supervise the construction works.

2.1 PREPARATION OF THE DESIGN WORKS

The consultant will in this regard provide detailed architectural, structural and services design on the buildings to be constructed and this will include:

- i) 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;
- ii) Study the available designs, specifications, drawings and other relevant documents and propose modifications where necessary as agreed with the client;
- iii) Prepare necessary working drawings for the scope to be implemented where modifications are made;
- iv) Prepare the architectural design of the buildings following acceptable modern professional standards. The initial sketch design produced to scale of 1:200 will have to be approved by client before embarking on the production of full working drawings at scales of 1:100, 1:50, 1:20 and 1:10 as the need arises. 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;
- 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 client);
- vi) Prepare a complete set of all necessary engineering designs and detailing of the structure and services required. This will involve electrical installation, telephone services, Local Area Network systems (LAN), Closed Circuit Television systems (CCTV), Alarm systems, Fire Fighting systems, Sewerage systems, Solid waste disposal systems, Storm water Drainage systems, Water supply systems and other water reticulation system. The consultant will provide necessary detailed drawings for trunking and ducting that will accommodate the centralized Information Technology system in 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) Review design assumptions, design calculations and specifications to ensure their compliance with the applicable codes and regulations;

- viii) Design and review appropriateness of selection of material specification from design alternatives;
- ix) 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 well in advance of the commencement of the construction's activities on site; and he/she will supervise the actual construction works;
- x) Consultant will propose a solution to enable the access to the building for physically challenged persons. The consultant will consider the best practice and positive legal regulations in Tanzania regarding the rights of the disabled persons;
- xi) Design and review constructability of the project, construction means, method and techniques employed; and
- xii) After commission of the project the consultant shall ensure that the contractor has produced As-Built-Drawings for works carried out.

2.2 PREPARATION OF DOCUMENTS

The consultant shall prepare plans, sections, elevations and detailed drawings for the building covering architectural, structural, civil and other services, all of which will take into consideration environmental and social aspects as necessary. 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 estimate 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 standard sections for the corresponding buildings to be constructed.

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, Labor Influx, HIV/AIDS, Gender-Based Violence (GBV) and Violence against Children.

Bidding 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.

2.4 COST ESTIMATES

A detailed Cost Estimate and a summary of the project shall be submitted showing total infrastructure requirement. As a result of physical conditional survey, and other factors, the cost estimate for the buildings 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 (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 $\pm 10\%$ and presented in Tanzanian Shilling (TZS) and United States Dollars (USD). 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. The Team will be required to advise on cost effective and fit for purpose design in relation to Client’s budget.

2.5 IMPLEMENTATION STAGE

2.5.1 Supervision of the Works

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

- i) 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;
- ii) Approve contractor's proposed designs/drawings for temporary works;
- iii) Examine and approve various plans and programs submitted by the contractor including review bonds validity;
- iv) Provide day to day supervision of the works in terms of quality and quantity and arrange for daily, weekly and monthly progress report. 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;
- v) Ensure the contractor undertakes all the necessary material tests before they are incorporated into the works; such tests may be conducted directly by contractor or preferably by other approved competent entities at his cost;
- vi) Check the setting out of the works to make sure that construction conform to the standard practice, plumbing, waste-water, drainage works and leveling as per the designs;
- vii) Check measured or estimated quantities of work completed and certify payment certificates for interim payment to be effected by the client;
- viii) Provide continuous liaison with the client on all possible changes on the designated scope and budget of works;

- ix) 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, World Bank ESMP & HSMP and all government regulations;
- x) Inspect the entire contractor's safety measures, including labour welfare according to World Bank HSMP, notify immediately both the Employer and the Contractor of any infringement or violation;
- xi) Liaise and coordinate with relevant authorities to remove all obstacles and encumbrances from the project site, including utility relocation and tree cutting as required;
- xii) 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;
- xiii) To examine and approve various plans and programmes submitted by the contractor;
- xiv) To 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;
- xv) To assist the client in resolving all contractual matters and disputes that may arise;
- xvi) Record all claims and submit recommendations to the client for review and ultimate settlement, if justifiable;
- xvii) Check contractor's application of payment, advise the client and issue interim certificates of payments in accordance to the conditions of contract;
- xviii) 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;

- xix) 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;
- xx) Ensure that the contractor strictly adheres to the contract, 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;
- xxi) 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 Head of Institute;
- xxii) Arrange 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) days;
- xxiii) A detailed Contract Completion Report of which, an electronic copy and 5 copies to be submitted to the Head of Institute;
- xxiv) 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 Head of Institute;
- xxv) Review and approve As-built drawings, operation & maintenance manuals where applicable and submit documents in hard and electronic copies to the Employer;
- xxvi) Upon practical completion, the consultant shall be responsible to undertake final inspection prior to issuing of the practical completion certificate and a penultimate certificate;
- xxvii) Monitoring the completed works after completion up to defects liability period;

- xxviii) Prepare variation orders whenever required and submit them to the client for approval before giving relevant instructions to the contractor;
- xxix) Facilitate the project handing over upon successful completion of the project;
- xxx) 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;
- xxxi) Prepare and submit to the client the final payment certificate for the completed works;
- xxxii) Prepare the maintenance schedule for the building at the completion of the rehabilitation works;
- xxxiii) Prepare a final report for the works. The report in addition to all aspects of the project should include lesson learnt as a reference to future project execution and management;
- xxxiv) Approve return of bonds to the contractor after practical completion;
- xxxv) Perform Regular inspection of the works during defective Liability Period; and
- xxxvi) On practical completion of construction ensure the Contractor acquires certificate of occupancy from relevant authority.

2.5.2 Environmental and Social Health and Safety (ESHS)

In a course of design and supervision, the consultant shall comply with Project safeguard documents such as Environmental and Social Management Framework (ESMF), Stakeholders Engagement Plan (SEP); Labor Management Plan (LMP), Environmental and Social Impact Assessment (ESIA) and Environmental, Social Management Plan (ESMP). During construction phase the consultant shall also ensure contractor observe relevant WB - ESF standards such as: ESS1 - Assessment and Management of Environmental and Social Risks and Impacts; ESS2 - Labor and Working Conditions; ESS3 - Resource Efficiency and Pollution Prevention and Management; ESS4 - Community Health and Safety; ESS6 - Biodiversity Conservation

and Sustainable Management of Living Natural Resources; and ESS10 - Stakeholder Engagement and Information Disclosure Standard

Specifically, the consultant will be responsible for the following:

1. Reviewing and approving the Contractor's Environment and Social Management Plan (C-ESMP) prior to any construction works including all updates and revisions (within a reasonable time and prior to any significant works that would be covered by proposed materials changes in consultation with EASTC and Project's Social and Environmental Safeguard Specialist);
2. Ensure that building design accommodate ESIA recommendations including ESMP provisions and the Contractor's Environmental, Social, Health and Safety (ESHS) Management Plan;
3. Review the ESHS method statements, implementation plans, and develop GBV Prevention and Response Action Plan; Grievance Redress Mechanism (GRM), Labor Management Plan (LMP) and related code of conduct documents;
4. Promptly report of accidents and incidences including any other identified non-compliance with ESHS obligations issues during implementation of construction activities by contractor. Ensure that contractor define and prepare acceptable remedial actions and their time frame to avoid recurrence of incidences and accidents. Accidents of fatality to be reported to the client immediately within 24 hours and to the WB within 48 Hours as per procedures and country's laws and WB guidelines. The contractor in collaboration with consultant shall prepare a detailed Accident Report detailing the root cause analysis and corrective actions. This should be developed within 7 days and submitted to the Bank.
5. Develop and maintain ESHS checklist and undertake Environmental and Social audits, supervision and inspections of the sites where contractor is undertaking activities related to works to verify the contractor compliance with ESHS requirements including Gender Based Violence (GBV)/ Sexual Exploitation and Abuse (SEA);

6. Ensure that the contractor operates with the required capacity in terms of resources, skills, personnel, etc. on the management of environmental and social issues under the project. The Consultant shall ensure that the contractor has in place arrangements for observing labor management procedures and preventing SEA and GBV issues as well as measures for ensuring compliance with ESIA report;
7. Ensure that the contractor engages all the project stakeholders as per the project SEP.
8. 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;
9. Ensure that the contractor prepares and maintains a master database for recording and tracking management of all grievances and monitoring, evaluate and report contractor's stakeholder engagement performance including annual grievances received, speed of resolution and how they have been addressed; and the level of involvement of affected people.
10. Agree remedial action/s and their timeframe for implementation in the event of a noncompliance with the contractor's ESHS obligations;
11. Ensure appropriate representation at relevant meetings including site meetings, and progress meetings to discuss and agree appropriate actions to ensure compliance with ESHS obligations;
12. 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; and
13. Additionally, ensure that OSHA is involved in inspection and monitoring of respective activities as per OSHA act.

2.6 TESTING, COMMISSIONING AND COMPLETION

- i) Witness any specified test done by the contractor (Material tests and Systems and services tests) to ensure that the contractor will not use construction materials containing hazardous substances such as lead paints etc.;
- ii) Conduct any independent tests necessary to confirm the results;
- 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 tests carried out together with their reviewed results should be included in the consultant's monthly and quarterly reports; and
- v) Issue the Taking over Certificate to the Employer.
- vi) The Consultant shall certify that the construction material brought at site by the contractor(s) is in accordance with the specifications and it had been tested as per standard practices.
- 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 issue a Certificate of Completion to the Contractor verifying the outstanding defects the Contractor shall rectify before operational acceptance
- x) The Consultant shall arrange the operational acceptance and handover of the completed works from the Contractor to EASTC upon satisfactory rectification of all the defects notified to the Contractor.

2.7 CONSULTING SERVICES TO BE PROVIDED DURING DEFECTS LIABILITY PERIOD PHASE

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 contractor's remedy works of defects;
- ii) Inspect, suggest mitigation measures and supervise remedial works of all Environmental, Social, Health and Safety matters. The client shall also be consulted to assess overall effectiveness of the completed facilities;
- 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 EASTC
- v) Finalize all the work and the records thereof including drawings, as-built drawings review and submission, 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) Issue of Performance Certificate/ Certificate of making good defects Prepare and issue the final payment certificate and final completion certificate; and
- viii) Recommend the return of bonds and retention money should be conducted immediately after practical completion of the project. .

3.0 CONSULTANCY FEES AND PAYMENT

Payment shall be effected after completion of specific tasks and submission of the associated reports during design stage. Whereas during supervision stage payment shall be in proportion to the construction work that is completed by the contractor after the contractor has submitted application of payment as indicated in Table 3. The final payment shall be effected after the defects liability period and upon submission of final project report for closure of the project together with the final payment certificate and final completion certificate. The consultant's remuneration shall be deemed to cover his liabilities, taxes, travel costs and support of his head office staff, site staff (resident The assignment is divided into two phases: Phase 1- Design and tendering and Phase 2 - Construction Supervision and Defect Liability Period. The Consultant shall clearly submit separately each consultancy services (technical and financial) fee on design and supervision when submitting the financial proposals.

Payment to the Consultant will be made in consideration of the achieved milestone based on project activities. Payment shall be effected after completion of specific tasks and submission of the associated reports. Milestone for payments shall be effected after submission and obtaining approval of the under mentioned activities with the associated reports/documents. The terms and conditions of payment shall be as follows:-

- i. Payment shall be paid against deliverables for phase 1 while for phase 2 payments will be on monthly as per terms and conditions of time based contracts. The Consultant shall price separately for each stage described above (Design and Supervision Phase).
- ii. The Consultant's remuneration shall be deemed to cover her liabilities, taxes, travel costs and support of his head office, site staffs personnel and all his obligations.
- iii. Detailed fee for design and construction supervision shall be submitted separately as financial proposal. Reimbursable expenses, which cover all out-of-pocket expenses and shall be made against contractual acceptable documentary evidence, as agreed with the Client. The final payment shall be effected after the defects liability period and upon submission of final project report for closure of the project together with the final payment certificate and final completion certificate.

Item	Deliverables	Payment	Timing
Design stage (Phase I) – LUMP SUM			
	Commencement of Service		M
1	Submission of acceptable Inception Report	5% of phase 1 cost (lump-sum)	M+1
2	Submission of acceptable Master Plan as well as an outline proposal & report	10% of phase 1 cost (lump-sum)	M+2
3	Submission of Scheme Design and report	30% of phase 1 cost (lump-sum)	M+3
4	Submission of acceptable Draft Detailed Design Report, Bidding Documents, ESIA and ESMP	25% of phase 1 cost (lump-sum)	M+5
5	Submission of acceptable Final Detailed Design Report, Bidding Documents, ESIA and ESMP	30% of phase 1 cost (lump sum)	M+6
Supervision stage (Phase II) – TIME BASED total amount			
6	<p>Payments under the time-based supervision consultancy service contract shall be made monthly based on actual inputs for undertaking the assignments described in these Terms of Reference, to cover fees (remunerations) for approved personnel and items under reimbursable expenses as shall be described in the contract. During supervision stage the Consultant should submit the following deliverables:</p> <ul style="list-style-type: none"> - Monthly/ Quarterly Progress Reports - Financial reports - Practical completion report - Operation and maintenance manual - Financial appraisal - Penultimate Certificate - Practical Completion project Report - Operation and Maintenance Manuals - Any other report as might be required by Client 	Monthly	Monthly/ as might be required
Defects Liability Period (Phase III) – Lumpsum total amount			
7.	<p>Payment under this phase shall be made at the end of the set Defects Liability Period (DLP) and after the preparation of;</p> <ul style="list-style-type: none"> -Final Account Certificate -Final Project. 	Lumpsum 10% of the Total Cost of Phase II	M

4.0 SITE VISIT BY THE CONSULTANT

- i) The consultant at his/her 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; and
- iii) The costs of visiting the site shall be borne by the consultant and upon submitting appropriate evidence and receipts he/she shall be reimbursed by the client.

During this assignment, the consultant is free to seek additional information/clarification on any issue relating to the earmarked project and the same shall be provided to the consultant.

5.0 DELIVERABLES

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

5.1. PHASE I (DESIGN):

5.1.1 Documents

The consultant shall prepare and submit four (4) sets of proposed contract documents, comprising of drawings for both building and services, Specifications, Geotechnical investigation report, review documents for the Topographical survey, ESMP and Bills of Quantities for the proposed design work in hardcopy format and an 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 hard copy formats and soft copies. For compatibility reasons with client's equipment, the consultant shall submit soft copy drawings in ArchiCAD, DXF, AutoCAD and DWG format in a hard drive. In addition, the consultant shall submit to the client some perspective view drawings, in soft copy format and also in 3D each of A₀, and A₃ hard copies (3).

5.1.2 Reports

The consultant shall prepare and submit four (4) required sets of reports such as inception report, **outline design proposal report**, scheme design report, draft final report and final report.

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 proposed site details (advantages and constraints), 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 comments. This will 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 includes but not limited to geotechnical investigation and topographical survey, and other relevant reviews including all necessary advice on statutory requirements.

The consultant should submit a design 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 schematic design report shall illustrate the size and character of the project in sufficient detail to enable the client to agree on spatial arrangements, material and appearance.

d) *Draft Final Report*

Draft final report may include an outline review of existing designs if any including site layouts, specifications and preliminary cost. The report will be discussed with the Institute Eastern Africa Statistical Training Centre while in draft form for more input if any. The consultant will use such inputs to improve the draft final report discussed.

e) Final Report-Phase I (Design)

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 the Eastern Africa Statistical Training Centre(Employer) at schematic design stage.

The final report should be due on the completion of Phase I assignment. A physical presentation in *power point* format will be part of Final Report. The report must be submitted in five (5) hard copies duly signed by the Team Leader, final detailed design report and Tender documents for tendering purposes. 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 PHASES II & III: PROJECT MANAGEMENT (SUPERVISION & DEFECTS LIABILITY PERIOD)

5.2.1 Contract Management and Supervision

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

5.2.2 Inception Report

The consultant shall submit a inception report within four (4) weeks after the notification of the commencement of the construction stage. The consultant shall present to the Eastern Africa Statistical Training Centre consolidated work plan outlining methodologies, staff schedule, and a plan to ensure the quality of the services.

The inception report will address the following:

- (a) Methodology.
- (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); and
- (d) Proposed format for weekly, monthly, quarterly report formats for approval by the client.

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

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

1. Cover page to indicate Country, Regional, District, Beneficiary, Project name and Chronological number of reports;
2. Page 1 Index;
3. Page 2 Location map of project site/s;
4. 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;
5. Page 4 Block diagram of Supervising Engineer’s personnel with names;
6. Page 5 Block diagram of Contractor’s personnel with names;

7. Page 6 Responsibility Assignment Matrix (who is in charge of what, names of certified laboratories or approving agencies where official tests will be performed);
8. Page 7 Project Schedule to be updated monthly;
9. Page 8 Percentage completion of BOQ showing drawdown;
10. Page 9 Brief description (text) of construction activities carried out over the last month;
11. 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;
12. Page 11 CMP – 1-page description of approved Construction Management Plan in 1st progress report. (In the 2nd and successive reports, only report changes in CMP and any deviations by the contractor);
13. 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;
14. Page 13 Health and Safety plan report sheet drawn up by contractor;
15. Page 14 Status of personnel and human power on site (previous month and current month);
16. Page 15 Status of Plant and equipment on site (previous month and current month);
17. Page 16 Status of stockpiles and materials on site in table format;
18. Page 17 Daily weather diary for the month of reporting;
19. Page 18 Chronological list of all official correspondence with contractor and client;
20. Page 19 List of Revisions, drawings or variations (date initiated, and date approved, and date issued);
21. Page 20 Status of Project grievance redress mechanism including issues to be resolved Client-Stakeholder or Client-Contractor-Sub contractors;
22. Page 21 Financial draw down. Funds still available for disbursement, Interim Payment Certificate (IPC) and cumulative drawdown;

23. Page 22 Supervising Engineer's comments on the progress of the works;
24. Page 22 Supervising Engineer's suggestions/feedback for head office/client;
25. Annex 1-Progress photos from site – Low resolution pictures, 3 to each page, total 5 or 6 pages; and
26. Annex 2-Attach copies of official lab results (concrete, aggregate and batching water quality, environmental readings where appropriate, etc.).

Weekly Reports

Weekly reports shall 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.

5.2.4 Preparation of interim certificates

The consultant shall prepare interim valuation and payment certificates to the interval as applied by the Contractor

5.2.5 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, project physical and financial progress reports.

5.2.6 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 the Eastern Africa Statistical Training Centre input if any. A physical presentation in Power point format will be part of Final Report. Upon completion of the project, the 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; and
- 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.

5.2.7 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 certificate, final payment certificate, final completion and handover report shall be prepared upon completion of the Defects Liability Period.

5.2.8 Environmental and Social Health and Safety (ESHS) Reporting

- (a) The consultant shall provide immediate notification (within 24 Hours) to the client of any incident in the following categories occur while carrying out the services. The client should inform the WB of such accident/incident within 48 Hours. This is to be followed by full details of such incidents shall be provided to the Client

within the timeframe agreed with the client. A root cause analysis and safeguards corrective action plan should develop within 7 days and shared with the WB.

- (i) Confirmed or likely violation of any law or international agreement;
 - (ii) Any fatality, accident 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 (within 24 hours) and ensure that the Contractor reports promptly such incidents to their insurance company, where applicable , ;
 - (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; and
 - (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 both Phase I and Phases II & III works if so, required by the client, at the rates under conditions applicable in the contract.

6.0 CONSULTANT TEAM

The firm should have at least ten 10years' experience in the building industry and must have demonstrated capabilities of undertaking works of similar nature, value and volume. In addition, the firm must have experience with at least one (1) or donor funded/

Development partners project. Supporting documents of at least 3 projects of similar nature executed by the firm within the previous ten (10) years (2014 -2024) of

The consulting firm should be registered by recognized professional boards and authorities recognized internationally and upon commencement of the project the consultant must be registered by recognized professional boards and authorities in Tanzania.

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, certificates and professional registration have been reviewed and approved by authorizing bodies and thereafter the Eastern Africa Statistical Training Centre. 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.

The consultant must describe in her/his technical proposal the technical and managerial capability of the firm (provide the structure of the organization, general qualifications and number of permanent staff).

The consultant must describe in its technical proposal her/his 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, firms must provide Curriculum Vitae duly signed by the owner for all positions indicated in Table 3.

6.1 KEY EXPERTS AND THEIR QUALIFICATIONS

Table 1: Key expert's qualifications

Category of Consultant	Qualifications and Experience of key experts
<p>Team Leader</p>	<p>The Team Leader shall be an Architect or Engineer or Quantity Surveyor, with a minimum qualification of bachelor's degree or equivalent in Civil Engineering/Construction Management/Project Management/Architecture/Building Economics/Quantity Surveying/Construction Technology.</p> <p>She/he must have at least 10 years cumulative experience in design and preparation of donor funded projects or similar Standard Bidding and Contract documents. Must have served in a similar capacity in the design and supervision of 3 projects of similar magnitude and complexity in the last ten (10) years.</p> <p>A clear demonstration – supporting documents of his/her project management abilities for new design and rehabilitation works in the past 10 years of 3 projects of similar nature is an added advantage.</p> <p>Must demonstrate good communication and interpersonal skills and working knowledge of ICT applications. Fluency in written and spoken English is mandatory. Registration as a professional by relevant Board is necessary.</p> <p>In addition, the Team Leader must have a documented experience of successfully completing donor funded or Development partners projects within the EAC region.</p>
<p>Architect(s)</p>	<p>She/he must be a Registered Architect with a degree in Architecture or equivalent.</p> <p>She/he must have at least 7 years cumulative experience in architectural practice, planning and designs.</p>

Category of Consultant	Qualifications and Experience of key experts
	<p>She/he must have served in a similar position in at least three (3) projects of similar magnitude and complexity within the last ten (10) years.</p> <p>The Architect should have proven ability to lead the design teams in the design (new and rehabilitation) and supervision of construction activities.</p> <p>The Architect must have participated in at least one donor funded/Development Partner project.</p> <p>Must be conversant with all aspects of architectural design, landscaping, interior design, and Computer Aided Designs (CAD) plus Microsoft office.</p> <p>Supporting documents demonstrating her/his knowledge in design and construction planning to be attached. Evidence of his/her experience in executing at least 3 projects of similar nature within the EAC region. Fluency in written and spoken English is mandatory.</p>
Interior Designer	<p>The Interior Designer must possess a minimum of bachelor's degree in architecture in Interior Designing with at least five (5) years working experience and three (3) 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. Supporting documents</p>

Category of Consultant	Qualifications and Experience of key experts
	<p>demonstrating her/his knowledge in new design, rehabilitation approaches and construction planning to be attached.</p> <p>Evidence of execution of at least 3 projects of similar nature within the EAC region.</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>
Landscape architect	<p>The Landscape architect/designer must possess a minimum of bachelor's degree in architecture in landscape or equivalent with at least five (5) years working experience and three (3) years of practical working experience in interior design of buildings, construction and the construction industry as a whole.</p> <p>The Landscape architect should have proven ability to lead the landscape design teams in the design and supervision of a wide range of external works.</p> <p>Must have an ability of Creating rough drawings and more sophisticated plans with computer-aided design (CAD) programs. Analyzing complex environmental reports and using the knowledge gained in designs/plans.</p> <p>Landscape architect must have adequate experience in providing recommendations on conservation and sustainability issues, drawing up reports and contracts, Writing proposals and presenting them to clients.</p> <p>He/she must Liaise with fellow architects, team leader, engineers, and surveyors. Also provide a tentative market prices for landscape works.</p>

Category of Consultant	Qualifications and Experience of key experts
	<p>Evidence of execution of at least 3 projects of similar nature within the EAC region.</p> <p>The Landscape Architect must have excellent communication skills, fluency in written and spoken English. registration with a recognized Professional Board is an added advantage.</p>
Structural Engineer (s)	<p>She/he must be a Registered Civil/ Structural Engineer with a degree in above field.</p> <p>She/he must have at least 7 years cumulative experience in building and civil engineering designs. Must have served in a similar capacity on at least three (3) projects of similar magnitude and complexity within the last 10 years.</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>The Structural Engineer must have participated in at least one donor funded/Development Partner project.</p> <p>Supporting documents illustrating his/her actual participation in both new design and rehabilitation projects of similar nature is vital.</p> <p>A clear demonstration – supporting documents of his/her value engineering solutions for project of at least 3 projects of similar nature within the EAC region.</p> <p>Fluency in written and spoken English is mandatory.</p>
Quantity Surveyor (s)	<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</p>

Category of Consultant	Qualifications and Experience of key experts
	<p>least 7 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 of similar magnitude and complexity within the last 10 years with supporting evidence.</p> <p>The Quantity Surveyor must have participated in at least one donor funded/Development Partner project.</p> <p>Supporting documents for preparation of BOQs (rehabilitation and new projects), for at least 3 projects of similar nature within the EAC region.</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>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 proficiency in Quantity Surveying Professional Software.</p> <p>Fluency in written and spoken English is mandatory.</p>
Services Engineer (Mechanical/plumbing)	<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 in the last ten (10) years (2014 - 2024).</p> <p>Experience in supervision of plumbing systems (cold and hot water installation, waste and soil water</p>

Category of Consultant	Qualifications and Experience of key experts
	<p>systems), drainage and sewage systems, mechanical ventilation, lift design, firefighting, security systems, and the construction industry as a whole.</p> <p>She/he must have participated in at least one donor funded/Development Partner project.</p> <p>Supporting documents demonstrating her/his knowledge in design (both new and rehabilitation projects) and mechanical installations management to be submitted.</p> <p>Evidence of his/her experience in executing at least 3 projects of similar nature within the EAC region. 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>
<p>Services Engineer (Electrical)</p>	<p>She/he must be a Registered Electrical Engineer with a degree in Electrical Engineering. She/he must have at least 7 years cumulative experience in design of electrical installations.</p> <p>She/he must have served in similar capacity in design of electrical installations in at least three (3) projects of similar magnitude and complexity.</p> <p>She/he must have participated in at least donor funded/Development Partner project.</p> <p>She/he must have served in similar capacity in design of electrical and installation systems and the construction industry as a whole.</p>

Category of Consultant	Qualifications and Experience of key experts
	<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.</p> <p>Supporting documents demonstrating her/his knowledge in design and construction management to be submitted. Evidence of his experience in executing at least 3 projects of similar nature within the EAC region. Illustration of his/her ability to provide cost effective electrical engineering solutions for new design and rehabilitation works as per 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>
ICT Engineer	<p>She/he must be a certified ICT professional with a degree in ICT/Computer science/Information Technology or equivalent. She/he must have at least five (5) years cumulative experience in ICT projects.</p> <p>She/he must have participated in at least one donor funded/Development Partner project.</p> <p>She/he must have served in similar capacity in at least two (2) projects of similar magnitude and complexity within the EAC region.</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,</p>

Category of Consultant	Qualifications and Experience of key experts
	<p>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>
Land Surveyor	<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 within the EAC region.</p> <p>She/he must have participated in at least one donor funded/Development Partner project.</p> <p>Supporting documents of his/her actual involvement in such projects is necessary.</p> <p>Should be registered with a recognized Professional Board.</p> <p>Possessing valid practicing License is applicable.</p> <p>Fluency in written and spoken English is mandatory.</p>
Environmental Specialist	<p>She/he must be a holder of Degree in Environmental Engineering or Sciences, with broad range of experience in ESIA and host community assessments and a minimum of five (5) years relevant experience in design and environmental systems construction and installation.</p> <p>She/he must have participated in at least 3 projects within the EAC region at least one of which should be donor funded/Development Partner</p>

Category of Consultant	Qualifications and Experience of key experts
	<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) projects of similar magnitude and complexity.</p> <p>Supporting documents of his/her actual involvement in such projects is necessary.</p>
Geotechnical Engineer	<p>Must be a registered Geotechnical/Civil Engineer and should possess a Degree in Geotechnical Engineering or equivalent with a minimum of 7 years of geotechnical experience.</p> <p>She/he must have participated in at least one donor funded/Development Partner project.</p> <p>Experience of at least three (3) projects with supporting documents of similar nature and size in terms of scope within the EAC region.</p> <p>Experience on projects of similar nature and size in terms of scope is also an added advantage.</p>
Sociologist (i.e. social and gender specialist)	<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>She/he must have participated in at least 3 projects within the EAC region at least one of which should be donor funded/Development Partner He/she must have a working experience related to social impact management in the supervision of construction project</p>

Category of Consultant	Qualifications and Experience of key experts
	<p>including ensuring that the construction works adhere to developed project reports e.g. ESIA/ESMP.</p> <p>Relevant experience in supervising construction project 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>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.</p>
Resident Engineer	<p>The resident engineer shall be on site full time during the construction period.</p> <p>She/he must be a Registered Architect/Quantity Surveyor/Civil/Structural/Geo-technical Engineer with a degree in above field. She /he must have five (5) working years after registration 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 10 years.</p> <p>He/she shall be responsible for giving directions/instructions 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>

Category of Consultant	Qualifications and Experience of key experts
	<p>She/he must have participated in at least one World Bank/Development Partner project.</p> <p>Supporting documents of his/her actual involvement in such projects is necessary.</p> <p>Fluency in written and spoken English and Kiswahili.</p> <p>Ability to express ideas freely is mandatory.</p> <p>*The resident engineer is a consultant's eye to daily site activities. He/she will work under the consultant.</p>
<p>Urban and Physical Planner</p>	<p>Undergraduate degree in physical/urban planning.</p> <p>A postgraduate graduate degree in urban planning, urban management will be an added advantage.</p> <p>She/he must be a Registered urban planner with the relevant registration bodies.</p> <p>Experience of at least three (3) projects with supporting documents of similar nature and size in terms of scope within the EAC region.</p> <p>She/he must have participated in at least one World Bank/Development Partner project.</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>

NOTE:

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's discretion of the consultant to propose Non-Key Experts for successful implementation of the assignment.

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.

NOTE:

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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's discretion of the consultant to propose Non-Key Experts for successful implementation of the assignment.

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6.2 PROPOSED PERSON - MONTHS FOR THE ASSIGNMENT

Table 2: Person- Months for Design stage – Phase I, Supervision Stage – Phase II and Defects Liability Period

S/No.	Key staff	Person-Months			Total Person-Months
		Design stage	Supervision Stage	Defects Liability Period	
1	Team Leader	1.25	2.25	0.50	4.00
2	Architect	3.00	3.00	0.50	6.50
3	Interior Designer	0.75	1.00	0.00	1.75
4	Landscape Architect	1.00	1.25	0.25	2.50
5	Structural Engineer	2.00	2.50	0.25	4.75
6	Quantity Surveyor	2.00	5.00	1.00	8.00
7	Services Engineer (Mechanical/Sanitation)	1.25	2.00	1.00	4.25
8	Services Engineer (Electrical)	1.25	2.00	1.00	3.25
9	Geotechnical Engineer	1.50	0.50	0.00	2.00
10	ICT Engineer	1.00	1.25	0.50	2.75
11	Land Surveyor	1.00	0.00	0.00	1.00
12	Environmental Specialist	1.50	0.50	0.00	2.00
13	Sociologist (i.e. social and GBV/SEA specialist)	1.50	0.50	0.00	2.00
	Physical/urban Planner	2.0	0.5	0.00	2.50
15	Resident Engineer	0.00	15.00	2.00	17.00

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

6.3 SCHEDULE OF REIMBURSABLES

Table 7: Breakdown of Reimbursable Fees

Description of Cost	Unit of Measure	Qty	Rate	Total Price
International Flights, Return including visas, indicate route.	Trip	4		
Local Flights, Return including visas, indicate route.	Trip	10		
Local Transportation (Car Hire)	Day	20		
Office Costs (Including IT, Equipment, Furniture, Supplies, Reports, Drawings etc)	Month	15		
Per diem allowance in respect of Personnel of the Consultant for every day in which the Personnel shall be absent from the home office and, as applicable, outside the Client's country for purposes of the Services	Day	60		
Provisional Sum for Geotechnical Investigations	Provisional Sum	1		
Provisional Sum for Skills Transfer	Provisional Sum	1		
Contingency	Provisional Sum	1		
Total				

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 all the facilities and infrastructures is estimated at a total of **36 calendar months** (6 months Design, 18 months Construction and Supervision and 12 months after completion of works for Defects liability Period) starting from the date of commencement of consultant's assignment.

7.2 IMPLEMENTATION SCHEDULE

The breakdown of the estimated time frame and implementation schedule for the proposed construction of all the Facilities and Infrastructures is set out in table 7.

Table 8: Implementation time frame for Phase 1 (design stage), Phase II (supervision stage) and Phase III (defects liability period)

Item	Activity description	Duration (months)
1	Phase 1 (Design)	
A	Inception report	1.0
B	Outline design proposals	1.0
C	Schematic Design	1.0
D	Draft Report – phase I	2
E	Final Report - Phase I	1
2	Phase II Construction Stage	
A	Mobilization of the Contractor	1
B	Construction and Supervision	14
3	Phase III Defects and Liability Period	
A	Defects Liability Period	12
	Total duration	33

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

A pre-briefing meeting will be held at the Eastern Africa Statistical Training Centre with prospective consultants in order to make them become aware and familiar with this assignment. In addition, the consultant will have access to all available information i.e. design documents, the , ESIA report, planning consent or building permit and Topographical survey report – if any.

During carrying out of Physical Condition Survey, the Team will be guided by the respective Eastern Africa Statistical Training Centre staff. Likewise, on technical issues regarding the documentation will liaise with client’s in-house technical team.

8.1 Obligation of Consultant and Client

8.1.1. 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 Focal Person 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. Receive and evaluate regular reports from consultant attached with the original reports from contractors; and
- vii. Ask/demand clarification from the consultant from time to time.

8.1.2. 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 he/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 EASTC 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 consultants operations for capacity building;
- iv. Shall prepare and review specifications and bills of quantities for the entire assignment including submission of confidential cost estimates of the various components;
- v. 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.
- vi. The consultant shall be responsible for the quality, safety, and security of the submitted designed works and specifications;
- vii. 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;
- viii. 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);

- ix. Preparations and submission of reports as per these terms of reference. The consultant shall allow working with counterpart staff from EASTC 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 consultants operations for capacity building;
- x. The consultant shall submit a project supervision plan and project performance management plan;
- xi. 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;
- xii. Provide designers risk assessment in accordance with Environmental, Health and Safety policies;
- xiii. Ensure the compliance of the contractor's construction drawings with the specifications of the contract, and subsequently approve such drawings;
- xiv. Participate in all site meetings during construction; and
- xv. To enhance 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. More specifically for EASTC, there should be allowance of students to visit the site regularly and gain practical knowledge on applicability of theoretical studies.

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 course of 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 Eastern Africa Statistical

Training Centre (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 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 to be based on full topographic survey or spot levels as the site requires, to determine exact quantities;
- i) Design based on soil report that assesses pre-requisite foundation type required;
- j) A percolation test done according to Ministry of health standards for all sanitation and drainage requirement;
- k) Bills of Quantity shall follow the prescribed standard and 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;
- l) 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;
- m) All quantities are to be measured in metric units and rounded off to two decimal places;

- n) Engineering Services and external works shall be priced and not billed as a lump sum;
- o) Preliminaries should be properly priced;
- p) A printed copy of the priced Bills of Quantities should also be submitted in electronic format;
- q) 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; and
- r) 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 Eastern Africa Regional Statistical Program (IPF) component Project's Environmental and Social Management Framework and associated instruments including ESIA and 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 labor 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 of 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; and
15. Non-retaliation against personnel who report violations of the Code, if that report is made in good faith.

13.0 IMPORTANT DESIGN CONSIDERATIONS

The key objectives that must be adhered to in the design of the Multi-Purpose Building includes but are not limited to the following:

(a) Cost-Efficiency

The design should ensure high-performance office that should be evaluated using life-cycle economic and material evaluation models to result in a saving on long-term operations and maintenance costs.

(b) Functional/Operational

The building design must consider the integrated requirements of the intended occupants. This includes the desired EASTC image, degree of public access, operating hours, growth demands, security issues and vulnerability assessment results, organization and group sizes, growth potential, long-term consistency of need, group assembly requirements, electronic equipment and technology requirements, acoustical requirements, special floor loading and filing/storage requirements, special utility services, any material handling or operational process flows, special health hazards, use of vehicles and types of vehicles used, and economic objectives.

(c) Flexibility

The office must easily and economically accommodate frequent renovation and alteration which may be occasioned by modifications due to management

reorganization, personnel shifts, changes in business models, or the advent of technological innovation, ensuring that the office infrastructure, interior systems, and furnishings are up to the challenge.

Consideration should be given to provision of raised floors to allow for easy access to cabling and power distribution, as well as advanced air distribution capabilities to address individual occupant comfort.

Incorporation should be made of features such as plug-and-play floor boxes for power, data, voice and fiber, modular and harnessed wiring and buses, and conferencing hubs to allow for daily flexibility at work as well as future reorganization of office workstations.

(d) Productivity

Worker Satisfaction, Health, and Comfort should be of paramount concern in the formulation of the design of the Multi-Purpose Building. The following is a suggestion of some considerations that could be made:

- (i) Adoption of creative work environment that helps stimulate minds and inspire innovation;
- (ii) Provision of stimulating, dynamic working environments such as access to windows and view, opportunities for interaction, and control of one's immediate environment;
- (iii) Utilization of strategies such as increased fresh air ventilation rates, the specification of non-toxic and low-polluting materials and systems, and indoor air quality monitoring;
- (iv) Provision of individualized climate control that permits users to set their own, localized temperature, ventilation rate, and air flow preferences;
- (v) Provision of each occupant with access to natural light and views to the outside;

- (vi) Integration of the acoustic environment of the office with the other architectural systems and furnishings. Special consideration should be given to noise control in open office settings, with absorptive finish materials, masking white noise, and sufficient separation of individual occupants.

(e) Connectivity

The following issues should be considered with regard to information technology (IT):

- (i) The Multi Purpose Building should have a distributed, robust, and flexible IT infrastructure, which would allow technological access in virtually all the spaces.
- (ii) Identify all necessary technological systems (e.g., voice/cable/data systems such as audio/visual systems, speaker systems, Internet access, and Local Area Networks [LAN]/Wide-Area Networks [WAN]/Wireless Fidelity [WI-FI]), and provide adequate equipment rooms and conduit runs for them.
- (iii) Consider and accommodate for wireless technologies, as appropriate.

(f) Safety and Security

The Design for the Multi-Purpose Building should take into consideration protection of occupants and assets against violent attack and other security risks through comprehensive threat assessment, vulnerability assessment, and risk analysis.

(g) Sustainability/ Energy Efficiency

The Design should incorporate strategies for minimizing energy consumption and consideration be given to the application of renewable energy systems to improve HVAC system performance.

(h) Fire and Life Safety

The Design of the building should take into consideration the need to limit fire spread through wall openings and maintain fire rating of the structural members. The design shall provide for air-conditioning and ventilating systems to minimize the danger of spread of fire, smoke or fumes from one floor to other or from outside to any occupied building. Air-conditioning and ventilating systems circulating air to more than one floor or fire area shall be provided with dampers designed to close automatically in case of fire.

The Design shall provide for exit signs with arrows indicating the way to the escape routes that shall be provided at a suitable height from the floor level on the walls that shall be illuminated by electric lights connected to corridor circuits. Emergency lighting shall be powered from a source independent of that supplying the normal lighting. Escape lighting shall be capable of indicating clearly and unambiguously the escape routes.

Automatic fire detection and alarm facilities shall be provided, to warn occupants early of the existence of fire, so that they may escape, and to facilitate the orderly conduct of fire exit drills.

The design shall also provide for Fire Extinguishers/Fixed Fire Fighting equipment. The building shall be protected by fire extinguishers, automatic sprinkler installation, etc in accordance with the building fire safety requirements. A satisfactory supply of water for the purpose of fire fighting shall also be provided.

(i) Natural Lighting and Ventilation

The design of the building should aim to maximise natural lighting for the following reasons:

- to promote work and other activities carried out within the building;
- to promote the safety of the people using the building; and,
- to create, in conjunction with the structure and decoration, a pleasing environment conducive to interest of the occupants and a sense of their well-being.

For the purposes of daylighting design, direct solar illuminance shall not be considered and only sky illuminance shall be taken as contributing to illumination of the building interiors during the day.

The Design of the building shall provide for adequate ventilation to supply fresh air for respiration of occupants, to dilute inside air to prevent vitiation by body odours and to remove any products of combustion or other contaminants in air. Such thermal environments will also assist in the maintenance of heat balance of the body in order to prevent discomfort and injury to health of the occupants. Wherever possible, basements shall be so designed to provide for natural ventilation provided the air quality requirements are achieved.

(j) Building Services - HVAC

The Design of the building shall provide for appropriate Heating, Ventilation and Air Conditioning (HVAC) systems. HVAC systems have a significant effect on the health, comfort, and productivity of building occupants. Issues like user discomfort, improper ventilation, and poor indoor air quality are linked to HVAC system design and operation and can be improved by better mechanical and ventilation system design.

(k) Barrier Free Environment

The Design of the building should accommodate the persons with disabilities and elderly, and the building and the site should be planned and designed as an integral unit from the very beginning of the design process. Consideration should be made for the following:

- Kerb Ramps for smooth transition;
- Obstruction free footpath;
- Convenient parking/ accessible parking slots for disabled appropriately sized;
- Pedestrian ramps with gentle slopes;
- Directional signage;
- Continuous handrails/grab bars for stairs;
- Provision of Tactile paving, line-type blocks (guiding tile) and dot-type blocks (warning tile).
- Appropriately designed circulation area;
- Accessible toilets and lifts.

(I) Access Roads, Site Circulation and Parking

The Design of the Multi-Purpose Building shall include provision of site access roads, site circulation and parking. These shall be provided to ensure they satisfy security requirements and also promote effective access, natural surveillance, and increased convenience for those who use the facility. The design of the access roads, site circulation and parking shall take into account the following amongst others:

- 1) Delineation of drop-off and pick-up areas;
- 2) Site access control by incorporating
 - Inspection areas
 - Retractable bollards
 - Gates
 - Guard booths

- Sally ports
- 3) Monitoring loading and service areas
- 4) Maintaining clear access routes for first responders
- 5) Establishing clear pedestrian circulation routes
- 6) Establishing secure parking areas inside and outside the standoff perimeter
 - Surface parking;
 - Basement parking;
 - Wayfinding, lighting, and signage

(m) Green Building Materials

Green Building, also known as green construction or sustainable building, is the practice of creating structures and using processes that are environmentally responsible and resource efficient throughout a building's life-cycle: from siting to design, construction, operation, maintenance, renovation, and deconstruction.

The selection criteria for green building materials shall be based broadly on:

- Resource efficiency
- Indoor air quality
- Energy efficiency
- Water conservation
- Affordability

The Design shall consider using materials that are durable/ longer lasting or comparable to conventional products with long life expectancies. In addition, the materials shall have the following attributes:

- Low or non-toxic: Materials that emit few or no carcinogens, reproductive toxicants, or irritants as demonstrated by the manufacturer through appropriate testing.

- Minimal chemical emissions: Products that have minimal emissions of Volatile Organic Compounds (VOCs). Products that also maximize resource and energy efficiency while reducing chemical emissions.
- Moisture resistant: Materials that resist moisture or inhibit the growth of biological contaminants in buildings.
- Healthfully maintained: Materials, components, and systems that require only simple, non-toxic, or low-VOC methods of cleaning.

(n) Stormwater Management

The Design should aim at preserving and conserving stormwater run-off on site. Particular attention should be paid to provide adequate drainage facilities to avoid flooding that is currently experienced on part of the site.

(o) High Performance Environmental Technologies

The Design of the EASTC Multi-Purpose Building shall take into consideration high performance environmental strategies and technologies such as;

- i. Double Glass Units;
- ii. Insulated roof and AAC blocks wall;
- iii. Dry cladding;
- iv. BMS – Intelligent building management controls;
- v. Full water management system, Rainwater harvesting with underground storage tanks/wastewater recycling; and,
- vi. LED lighting/occupancy and motion sensor controls.