**CONSULTANCY SERVICES FOR DESIGN REVIEW AND CONSTRUCTION SUPERVISION OF ONE STOP BORDER POST (OSBP) AT MULOZA – MALAWI / MOZAMBIQUE BORDER CROSSING**

# **TERMS OF REFERENCE**

1. **BACKGROUND**

The Government of Malawi (GoM) has obtained a credit and grant from the International Development Association (IDA) under the Southern African Connectivity and Trade Project (SATCP), P164847, to support efforts to reduce trade costs and time, increase access to improved infrastructure, and increase value chain development in targeted corridors of Malawi and Mozambique. The project will be implemented over a period of 6 years.

Trade and regional integration are central to southern Africa's recovery from the impacts of the COVID-19 pandemic. As the world experiences a crisis of unprecedented proportions, the region is being affected by supply disruptions and declines in trade flows, export prices, fiscal shortfall and capital outflows. Malawi and Mozambique are no exceptions. The Gross Domestic Product of both countries is expected to decline, pushing more Malawians and Mozambicans into poverty.

For Mozambique and Malawi, it is particularly important to strengthen regional trade and economic links through a spatial focus on Mozambique's economic corridors by reducing trade costs. The corridors of Beira and Nacala connect central and northern Mozambique with Malawi, Zimbabwe, Zambia and by extension, Botswana and the Democratic Republic of Congo. These two corridors can be considered fundamental and the newly elected government has emphasized the need to focus on improving logistics and rail access, and expanding aggregation and export processing. For Malawi, these two corridors feature the closest and potentially cheapest routes to the sea. These are therefore critical options for access to regional and global markets. Strengthening regional integration can increase trade and investment, contributing in turn to structural transformation, job creation and poverty reduction in southern Africa.

The project development objective is to reduce trade costs and time, improve access to infrastructure, and increase value chain development in targeted corridors of Malawi and Mozambique. Reducing trade costs and improving the road network will facilitate the development of value chains by improving access to global and regional markets. There is substantial economic potential for increasing regional trade, especially with regard to agribusiness, light manufacturing, and services including logistics and tourism and attracting private investment in these sectors.

The main Project components, to meet the above objectives, are:

* Component 1: Reducing trade costs through trade facilitation, including border infrastructure and regulatory framework reforms.
* Component 2: Strengthening regional coordination and supporting Project implementation.
* Component 3: Increasing investment in regional value chains; and
* Component 4: Improving the transport infrastructure of market access.

These Terms of Reference have been prepared to procure consultancy services to undertake design review and supervision of the works for the construction of Muloza One–Stop Border Post (OSBP) at the border crossing between Malawi and Mozambique. The design review and supervision of works in this assignment is restricted to the Malawian side only. A parallel assignment will be carried out for the required works on the Mozambique side of the border.

The Muloza OSBP is situated at the South –Eastern Border between Malawi and Mozambique on the Beira Corridor along the M002 road. It is approximately 80km from Blantyre City, the Commercial hub of Malawi. Due to the improvements of the Beira Corridor road infrastructure in Mozambique, Muloza is now one of the fastest growing border points in Malawi. Currently a single building is being used for all border operations and heavy vehicles park along the main road.

The feasibility study and detailed design for the construction of Muloza OSBP were carried out as part of the studies for design of one stop border posts at Mwanza and Dedza border posts which were completed in May 2017 and the following documents are available;

* Volume 1 - Design Development Report
* Volume 2 - Drawings & Schedules
* Volume 3 - Tables, Calculations Sheets & Other Enclosures
* Volume 4 - Specifications and Bills of Quantities
* Volume 5 - Environmental & Social Impact Assessment & ARAP Reports

The following major infrastructure is intended to be constructed at Muloza Border site;

* Main Passenger Terminal
* Port Health Building
* Public Facility Building
* Inspection Sheds
* Warehouses
* Animal Health Building
* Truck parking apron

The detailed layout of the buildings is attached under Annex 1.

The proposed Muloza OSBP will be located within the area of the existing Muloza Border Post. The Main Passenger Terminal is planned to be constructed adjacent to the current offices while the Freight clearance offices and Heavy goods parking areas will be opposite the road. During the current rainy season as a result of Cyclone Gombe both locations were flooded. The site is close to the confluence of Muloza and Limbuli rivers. Due to the considerably high flow of Muloza river, water from Limbuli river was pushed back at the confluence which resulted in flooding of the entire Muloza Border Post area. The current detailed designs for the border post included construction of a cut off wall along the river bank to curb any flooding within the site. However due to the severity of the recent flooding of Muloza/Limbuli River, it is vital that a review of the hydrological analysis of the area be conducted during the current design review to mitigate any future flooding of similar magnitude in future.

1. **OBJECTIVES OF THE ASSIGNMENT**

The Roads Authority requires the services of a consultant to carry out design review of the previous detailed designs for the project, construction supervision and contract administration, quality assurance, implementation and compliance monitoring of the project’s Environmental and Social Management Plan.

The assignment shall be performed in three phases: design validation and revision, assistance during tendering period and supervision of works. Phases 1 and 2 are lump sum while the Phase 3 is a time-based assignment.

**Phase 1: Design Validation and Revision**

The primary objective under Phase 1 is design validation and revision (as necessary), acceptable by the client, before proceeding to tender. Thereafter, the consultants will bear the professional liability for the accuracy of the design, which will be covered by this contract. The design review shall include but not limited to the following tasks:

1. Conduct a design-stage climate vulnerability assessment for the project location using the latest guidelines and confirm relevant robustness and resilience measures consistent with 20,50 and 100-year flood return periods.
2. Validate the detailed engineering design i.e. building infrastructure and access roads designs and related calculations in accordance with international design standards and best codes of practices and ensure climate resilience according to the findings of the climate vulnerability assessment.
3. Validate the economic feasibility study of the road section, including the GHG accounting analysis.
4. Review and update the Environmental and Social Impact Assessment of the road section in line with Environmental Management Act (2017); prepare an Environmental and Social Management Plan that conforms to the project Environmental and Social Management Framework and World Bank ESF.
5. Review and update the waste management plan, the trafficking in persons management plan for the site over the life cycle of the project and the site.
6. Review the compensation schedule, compensation rates and revise Abbreviated Resettlement Action Plan in line with the project Resettlement Policy Framework.
7. Prepare a design review report clearly indicating the areas of the design that are modified and the reasons for the modification
8. Prepare Engineer’s estimates of the works to be carried out and provide a confidential cost estimate (estimates should also include costs related to implementation of environmental and social management plan)

**Phase 2: Assistance during tendering period**

Provide technical review and advise tender committee members, independently or together, on Client considerations during the tendering stage

**Phase 3: Supervision of works**

Provide Construction supervision during construction of the works and compliance monitoring of environmental, OHS, and social safeguards.

Note: Award of Phase 3 is subject to satisfactory performance of Phase 1 and 2 and will only be triggered upon signing of the civil works contract

1. **SCOPE OF CONSULTING SERVICES** 
   1. **SCOPE OF CONSULTING SERVICES - PHASE 1 (DESIGN REVIEW)**
      1. **General**

The consultant shall perform all services, provide due diligence of current detailed design reports and carry out any additional necessary investigations, to enable validation or revision (if necessary) of the detailed design for Muloza OSBP. The consultant will undertake a design stage assessment of Greenhouse Gas (GHG) effects, carry out hydrological assessment to mitigate future floods, update the economic analysis, road safety audit, prepare revised detailed engineering designs, bill of quantities, and cost estimates, update environmental and social impact assessment report and associated ESMP, and Abbreviated Resettlement Plan, review and update the waste management plan, trafficking in persons management plan for the life-cycle of the site (construction and operation). Should there be omissions in the reports the Consultants shall carry out the necessary additional analysis, designs, surveys and investigations.

The Roads Authority (RA) shall wherever possible assist the consultant in obtaining information and data to enable the execution of the services described herein affectively. However, the consultant shall be solely responsible for executing the works, analysis and interpretation of all data received and for his findings, making appropriate conclusion and recommendations. The consultant shall ensure that data is accurate and available for ease of supervision of the works. The following codes will be used;

**Table 1: List of Codes of Practice**

|  |  |
| --- | --- |
| Element of Design | Codes |
| Buildings - Structural | 1. British Standard 8110 – Structural Concrete 2. British Standard 5950 – Structural Steel 3. British Standard 5368 – Structural Timber 4. British 8004 - Foundations |
| Bridges | 1. British Standard 5400 2. SATCC- Draft Code of Practice for the Design of Road Bridges and Culverts (September 1998 (Reprinted July 2001) 3. The South African National Roads Agency Limited, Drainage Manual, 5th Edition 4. Standard Specifications for Roads & Bridge Works (Metric Edition) Ministry of Works and Supplies 1978 5. WRB No TP12 Malawi, Guideline for Peak Flood Estimate for Design of Culverts and Bridges |
| Pavement | 1. SATCC- Draft Code of Practice for the Design of Road Pavement (September 1998 (Reprinted July 2001) 2. South African Pavement Engineering Manual, Chapter 10, Pavement Designs 3. The Overseas Road Note 31, A Guide to the Structural design of bitumen- Surfaced roads in tropical and sub- tropical countries |
| Geometry | 1. Addendum to SATCC Code of Practice for the Geometric Design of Trunk Roads (Roads Authority, 2014) 2. SATCC- Draft Code of Practice for the Geometric Design of Trunk Roads (September 1998 (Reprinted July 2001) 3. The Overseas Road Note 6, A Guide to Geometric Design |
| Traffic Counts | The Overseas Road Note 40, A Guide to Axle load surveys and traffic counts for determining traffic loading on pavements |
| Road Safety | Road Safety Engineering Manual (February 2014) |

The languages of all drawings, documents and reports shall be English.

All drawings, documents and reports produced by the consultant under the contract shall become the property of the Roads Authority upon completion of the consultancy services.

* + 1. **Design Review of the Muloza OSBP**

The Consultant shall validate the designs as follows;

* + - 1. **Topographic surveys**

The Consultant shall check and validate the topographic surveys of the existing site, pertinent existing features, benchmarks and setting out beacons. Any survey marks, benchmarks or beacons shall be sufficiently permanent as agreed with the Roads Authority and Malawi Revenue Authority.

The Consultant shall confirm that the coordinates of all benchmarks and setting out beacons are tied to the National Survey Grid and levels related to the National Benchmarks.

* + - 1. **Traffic Surveys**

The Consultant shall carry out classified traffic surveys and update the traffic volumes projections calculated during the previous design studies. The consultant shall take recognizance of the current trends in road/rail corridor infrastructure improvement within the region in order to predict the future flow of traffic through the facility.

* + - 1. **Hydrological surveys of the site**

The Consultant shall carry out hydrological/hydraulic studies that will assess the hydrological vulnerability of the project site taking into account the recent flooding of the area due to Cyclone Gombe. The consultant shall make reference to and follow the resilience to the Effects of Climate Change when carrying out the assessment.

* + - 1. **Review of architectural and engineering drawings**

The Consultant shall validate the architectural and engineering drawings in order to ensure that all drawings are complete and that the structural analysis/calculations are adequate. In case of any shortfalls, the consultant shall carry out additional designs and/or analysis and update/produce subsequent relevant drawings.

* + - 1. **Review of Access Roads and Parking Areas**

The Consultant shall validate the designs for access roads. All elements of the designs in terms of the geometric, pavement and road safety audit shall be reviewed in order to conform to the requirements of the respective design codes. Revised designs and drawings shall be prepared where required. The designs shall include structures to manage storm water, hazardous waste management facility including oils and other hazardous confiscated materials, parking areas for vehicles with hazardous chemicals.

* + - 1. **Review of Environmental and Social Assessment**

The Consultant shall review the Environmental and Social Impact Assessment (ESIA) report and then develop the detailed Environmental and Social Management Plan (ESMP) and Revised Abbreviated Resettlement Action Plan (ARAP) in line with the national legislation and policies as well as the World Bank’s Operational Policies and Bank Procedures (OP/BP) and environmental and social standards and the Environmental and Social Framework/Resettlement Policy Framework for the project. The consultant shall also review the Roads Authority Stakeholder Engagement Plan and Labor Management Procedures.

The following safeguard policies shall apply to this project:

* Environmental Assessment (OP4.01), including the WBG General EHS Guidelines;
* Physical Cultural Resources (OP/BP4.11); and
* Involuntary Resettlement (OP4.12).

The Consultant shall review the Environmental and Social Management Framework (ESMF) and prepare a detailed Environmental and Social Management Plan (ESMP), integrating the specific performance metrics and regulatory requirements that contractors are expected to comply through respective Management Strategies and implementation Plans. General guidelines listed under Annex 1.

It is expected that as a minimum the following shall be addressed in the ESMP, *inter alia*:

* 1. Safety of communities arising from construction traffic
  2. Storage of hazardous substances and associated safety procedures and equipment in case of spills or fire both during construction and operation phases of the project;
  3. Waste Management of the life cycle of the site. Storm water management, and mitigation against flooding adjacent properties including erosion control
  4. Flood mitigation on site, and during construction activities
  5. Contamination of drinking water and management of impacts to both sensitive environmental and social receptors;
  6. Waste generation, storage, management and disposal arising from construction activities and camp site areas
  7. Deforestation prevention and mitigation
  8. Vibration, Noise and air pollution
  9. Grievances arising from project implementation
  10. Occupational health and safety issues e.g. safety procedures around heavy equipment, safety around tipper trucks, safety working near water, increased HIV transmissions
  11. Labour management in construction and Labour influx mitigation
  12. Stakeholder engagement
  13. COVID 19 Management
  14. Gender management
  15. Child Protection
  16. Trafficking in persons management
  17. Gender Based Violence (GBV)
  18. Sexual Exploitation and Abuse - Sexual Harassment (SEA-SH)

The consultant shall also consult stakeholders which include communities neighboring the road, learning institutions, local administrations, vulnerable members of the community (PwDs, Elderly and Women) in order to inform both designs and other stakeholders as identified in the stakeholder engagement plan.

* + - 1. **Customs Modernization and Coordinated Border Management**

The Consultant shall review ongoing programs of modernization in Customs operations including expansion of ASYCUDA World and the National Single Window, and initiatives for introduction of Coordinated Border Management, to inform workflow practices and positioning of Customs and Border Agency operations in the overall OSBP design.

* + - 1. **Bidding Document, Bill of Quantities and Cost Estimate**

1. **Bidding Documents**

Procurement will be done based on the World Bank’s “Procurement Regulations for IPF Borrowers” dated November 2020 (“Procurement Regulations”). The consultant shall prepare a project procurement strategy document that includes a construction market analysis of potential bidders to justify the cost estimate, and package.

Bidding document shall be prepared fully in accordance with the latest World Bank Standard Procurement Documents.

The consultant shall review the technical specifications used in the bidding document for completeness.

1. **Bill of Quantities**

Calculated quantities for the items of work to be executed shall be based on the finalized construction drawings. Where items don’t fall within the standard specifications, these shall be clarified in the Particular Specifications, based on the final detailed engineering design. A breakdown of quantities calculations will be supplied to the client in electronic form. The Consultant shall include in the BoQ all furniture requirements for the OSBP facility.

1. **Cost Estimate**

The Consultant shall prepare an estimate of the construction cost based on the final bills of quantities. The cost estimates will be based on unit price analysis of each item using basic cost elements: labour, materials, equipment, tolls, overheads, profit and supervision etc. but excluding and showing separately the cost of all taxation (direct or indirect). A detailed comparison of the overall bid price/km of other similar contracts awarded through international competitive bidding shall also be included. The estimate shall also incorporate provisional sums of Environmental, Social, Health and Safety considerations.

* + 1. **Expertise Required**

The key professional staff input is expected to be approximately 37 person-months as detailed below:

Table 2: Key Staff Time Input – Design Review Phase

|  |  |  |
| --- | --- | --- |
| **Item** | **Description** | **Person Month** |
| 1 | Architect – Team Leader | 4 |
| 2 | Structural Engineer | 3 |
| 3 | Electro – Mechanical Engineer | 2 |
| 4 | ICT Specialist | 1 |
| 5 | Hydrologist | 2 |
| 6 | Highway Engineer | 1 |
| 7 | Pavement Engineer | 1 |
| 8 | Contract Document Specialist | 1 |
| 9 | Road Safety Specialist | 1 |
| 10 | Customs Expert | 12 |
| 11 | Environmental Expert | 3 |
| 12 | Occupational Health and Safety Specialist | 2 |
| 13 | Social Expert | 3 |
| 14 | Engineering Surveyor | 1 |
|  | **Total Person-months** | **37** |

The Consultant shall provide sufficient resources to carry-out the design review services for Muloza OSBP as required under the assignment and the minimum requirements for the key professional staff are as indicated below;

* + - 1. **Team Leader/Architect**

In addition to holding a graduate degree, the Team Leader shall be a Registered Architect of not less than 15 years’ general experience, and shall have undertaken at least 10 projects as an Architect in similar complexity. The Team Leader shall have specific experience in working in, and, managing consultancy teams working on complex design projects in the region. Fluency in written and spoken English is mandatory.

* + - 1. **Structural Engineer**

In addition to holding a graduate degree, the Structural Engineer shall be a Registered or Chartered Engineer with at least 10 years’ general experience, and shall have undertaken at least 8 projects as a Structural Engineer. He shall also have been involved in complex infrastructure projects. Fluency in written and spoken English is mandatory.

* + - 1. **Electro Mechanical Engineer**

Electro Mechanical Engineer with a minimum qualification of B.Sc. in Electronic or Mechanical Engineering, professionally qualified, and must have at least 10 years of working experience in design works and structures, and should have undertaken 5 design projects as an electromechanical engineer.

* + - 1. **ICT Specialist**

ICT Specialist with a minimum qualification of B.Sc. in Computer related field and must have at least 10 years of working experience in ICT and should have undertaken 5 design projects relating to design of networking and wireless infrastructures.

* + - 1. **Hydrologist**

The Hydrologist shall be a qualified and competent chartered or registered professional civil engineer with a degree in civil engineering or equivalent qualification and with a minimum of 10 years’ general experience, and shall have undertaken at least 5 projects as a Hydrologist. Fluency in written and spoken English is mandatory.

* + - 1. **Highway Engineer**

In addition to holding a graduate degree, the Highway Engineer shall be a Registered or Chartered Engineer with at least 10 years’ general experience, and shall have undertaken at least 5 projects as a Highway Engineer. He shall also have been involved in road design and construction projects. Fluency in written and spoken English is mandatory.

* + - 1. **Pavement Design Engineer**

In addition to holding a graduate degree, the Pavement Design Engineer shall be a Registered or Chartered Engineer with at least 10 years’ general experience, and shall have undertaken at least 5 projects as a Pavement Design Engineer. He shall also have been involved in road design and construction projects. Fluency in written and spoken English is mandatory.

* + - 1. **Contract Document Specialist**

The Contract Document Specialist shall be a qualified and competent chartered or registered professional civil engineer or quantity surveyor with a degree in civil engineering or equivalent qualification and with a minimum of 10 years’ general experience, and shall have undertaken at least 5 projects as a Contract Document Specialist. Experience in claims and dispute resolution shall be an advantage. Fluency in written and spoken English is mandatory.

* + - 1. **Road Safety Specialist**

The Road Safety Specialist shall be a qualified and competent chartered or registered professional civil engineer with a degree in civil engineering or equivalent qualification and with a minimum of 10 years’ general experience, and shall have undertaken at least 2 projects as a Road Safety Specialist.

* + - 1. **Customs Expert**

The Customs Expert shall have a first degree in the field of either Business Studies or Economics or relevant professional experience and shall have working experience of international and cross border trade. The expert shall have a minimum of 10 years’ Customs experience with specific experience in matters of customs declaration processing, documentary inspection, cargo examination and inter-agency coordination, specifically from a border perspective. S/He shall have undertaken at least 2 projects as a Customs Expert related to design and organization of border zone operations.

* + - 1. **Environmental Expert**

The Environmental Expert with an MSc degree in environmental engineering, environmental management, or related natural science degree. The Specialist shall have at least 10 years’ experience working on environmental management with sound knowledge of environmental impacts, safeguards, initiatives and managing mitigation measures. Fluency in both written and spoken English is essential. The consultant must be one registered or recognized with Malawi Environment Protection Authority (MEPA). He / She must have proven expertise in preparing at least five ESIAs studies for large infrastructure developments. Experience in environment management issues in construction projects will be an added advantage.

* + - 1. **Social Expert**

The Social Expert with a degree in social management, or related social science degree or Community Development. The Specialist shall have at least 10 years’ experience working on social management with sound knowledge of social issues, initiatives and managing mitigation measures. Furthermore, the expert have experience in preparation of Resettlement Action Plans (RAPs). Fluency in both written and spoken English is essential. Experience in social management issues in construction projects will be an added advantage.

* + - 1. **Occupational Health and Safety Expert**

The OHS Expert shall be responsible for reviewing project designs so that they are in line with the occupational health and safety requirements.

He/she must have a degree in Environmental Health or related discipline from a reputable institution. He /She must have a NEBOSH or equivalent national qualification and min 5 years of experience supervising construction projects. He/she shall be fluent in written and spoken English.

* + - 1. **Engineering Surveyor**

The Surveyor shall be a qualified surveyor with Bachelor of Science degree or equivalent with a minimum of 5 years’ relevant experience in topographic surveys in major infrastructural projects using computerized survey software for analyzing survey details and shall have undertaken at least 5 complex projects as a surveyor.

* + 1. **Reporting Requirements**

The Consultant shall prepare and submit the following reports and documents, in English, in an approved format to the Client. The comments of the Client shall be incorporated in the final version of the reports and documentation. The Consultant shall also present to the client in power point the Design Review Report and the Draft Detailed Engineering Design report at meetings with relevant stakeholders to be arranged in consultation with the RA.

1. **Design Review Report**

This report shall incorporate an assessment of the available documents, describe the findings of the design review and update the detailed design. The report shall be submitted after 4 weeks from the date of commencement of the services. Ten (10) hard copies and one (1) soft copy of each of the reports/documents shall be sent to the Client.

1. **Draft Detailed Engineering Design Report and Bidding Documents**

The consultant shall submit a draft detailed engineering design report and bidding documents containing as a minimum the activities under Section 4.2. The Consultant shall submit the Hydrological Report separately. This report will be submitted after 10 weeks from the date of commencement of the services. Ten (10) hard copies and one (1) soft copy of each of the reports/documents shall be sent to the Client. In addition, copies of all Word, Excel, AutoCAD or other similar files used in compiling the reports shall be submitted.

1. **Draft Environmental and Impact Assessment Report (including Environmental and Social Management Plan) and Draft Revised Abbreviated Resettlement Action Plan**

The revised ESIA and ARAP shall be submitted as separate reports. The reports shall be submitted after 12 weeks from the date of commencement of the services. Ten (10) hard copies and one (1) soft copy of each of the reports/documents shall be sent to the Client.

1. **Final Detailed Engineering Design Report and Bidding Documents**

After approval of the draft detailed design report, draft ESIA and RAP, the consultant shall submit the final detailed engineering design report complete with drawings and bidding documents and Engineer’s Confidential Cost Estimate, acceptable to the Client. The final ESIA (inclusive of Environmental and Social Management Plan) and ARAP reports shall also be submitted. This detailed engineering design report shall be submitted within 2 weeks after receipt of the client’s comments.

Ten (10) hard copies and one (1) soft copy of each of the reports/documents shall be sent to the Client. In addition, copies of all Word, Excel, AutoCAD or other similar files used in compiling the reports shall be submitted. In addition, ten (10) sets of the final bidding documents in hard copy shall also be provided. Four sets shall be provided with A1 size drawings and six sets with A3 size drawings.

* + 1. **Duration**

The duration of Phase 1 is four months

* 1. **SCOPE OF CONSULTING SERVICES - PHASE 2 (PRE- CONTRACT)**

## **Tender Period**

## During the tender period, the consultant shall:

1. Assist the Client in conducting a site inspection of the project site.
2. Assist the Client in conducting a pre-bid meeting
3. Assist the Client in drafting responses to Bidders’ requests for clarifications and in the preparation of any amendments that may be required to the bidding documents.
4. Assist the Client in conducting contract negotiations.

## **Expertise Required**

## The Consultant shall provide a Contract Document Specialist to carry out the services under Phase 2. The Contract Document Specialist shall be the same one that will provide the services under Phase 1 and 3. The estimated time input under phase 2 is 1.5 months.

## The Consultant shall be responsible for ensuring the key expert is provided with such head office support as may be required for the execution of the services.

* 1. **SCOPE OF CONSULTING SERVICES - PHASE 3 (SUPERVISION)**
     1. **General Requirements**

1. The Consultant’s supervision teams shall work in close co-operation with the Roads Authority. The team is to operate from the consultant’s offices on site.
2. The Road Authority will provide all relevant information available. Interpretation of such information will, however, be the sole responsibility of the Consultant. Any additional data will be collected by the consultant.
3. Accommodation of the Consultants site teams will be the responsibility of the Consultant.
4. The provision of support staff and transport for the Consultant inclusive of fuel and drivers will also be the responsibility of the Consultant.
5. The consultant shall be responsible for providing office space and facilities, accommodation, transport and support staff for the supervision teams for the period of the services.
6. The Roads Authority will provide through the works contract, laboratory and survey facilities for use by the consultant.
7. Preparation of minor designs that may be required can be covered by using standard drawings available from the Road Authority and Buildings Department of the Ministry of Transport and Public Works. Where standard drawings are not available for a particular item, the Consultant is to prepare such drawings.
   * 1. **Administrative/Technical Tasks**
        1. **Consultant’s Representative on Site**

The Consultant shall undertake full time supervision, ES and OHS compliance supervision, and contract administration during the construction works and shall provide the full- time supervision team described below:

1. Resident Team Leader
2. Clerk of Works
3. Social Expert
4. Environmental Expert
5. Occupational Health and Safety Expert
6. Architect
7. Structural/Materials Engineer
8. Contracts Specialist
9. Electro Mechanical Engineer
10. Quantity Surveyor
11. Surveyor
12. Materials Technicians
13. Inspectors of works
    * + 1. **Contract Preliminaries and General**
14. The Resident Engineer shall review the qualifications of the proposed key site management personnel of the Contractor and make appropriate recommendations to the Client;
15. The Resident Engineer shall receive from the Contractor, check for compliance with Contract requirements, approve and forward to the Client all performance bonds, insurance certificates and policies and guarantees relating to the Contract before submitting to the Client for acceptance.
16. During the mobilization of contractor’s equipment, camp and personnel, the Resident Engineer shall monitor the contractor’s progress against the approved program.
17. The Resident Engineer shall prepare and compile detailed works specific forms and check lists relevant to the nature of works. These shall be used and maintained by the inspectors for monitoring work activities. These forms shall be available for inspection by the Client at all times.
    * + 1. **Work Programme**
18. The Resident Engineer shall review the program submitted by the Contractor for the execution of the Works to establish whether the methods, arrangements, order and timing of the activities are realistic and coherent in relation to the conditions pertaining on Site.
19. The Resident Engineer shall identify from the approved program the information needed by the Contractor for the execution of the works and ensure that such information is made available to the Contractor in a timely manner. The requirement for detailed drawings and information related to the works should be given adequate consideration.
    * + 1. **Quality Assurance Management**
20. The Resident Engineer shall review and approve the Quality Assurance and Quality Control Procedures submitted by the Contractor.
21. The Resident Engineer shall ensure that all material tests results are kept secure preferably backed by a cloud-based data repository for future retrieval and use.
    * + 1. **Review of Work, Rejection of Defective Work and Tests**

The Resident Engineer using the resources of the supervision Teams shall:

1. Conduct on-site observation of the work in progress to determine if the work is proceeding in accordance with the contract schedule, and that the completed work conforms to the contract’s technical specifications;
2. Carry out quality control of construction materials through testing on site or in the laboratory, for compliance with the relevant clauses in the technical specifications in line with the agreed Quality Assurance and Quality Control procedures. Soils and materials testing records shall be kept on site, with comments in the monthly report. The onus for all testing and control rests entirely on the Consultant.
3. Verify that selection and use of materials is in accordance with the design specifications. Establish procedures, criteria, and testing methods to verify the quality of the materials;
4. Inform the Contractor when work is to be corrected or rejected or to be uncovered for observation, or special testing, inspection or approval and ensure that defective work is properly corrected in a timely manner;
5. Suggest or review and approve substitute materials when necessary. Estimate the cost of such materials and make appropriate adjustments in the specifications in consultation with the Client.
6. Inspect and test the works including testing of materials for incorporation in the works and ensure compliance with the relevant clauses in the Technical Specifications. Soils and materials testing records shall be kept on site, with comments in the monthly report.
7. Advise the Contractor of the necessity for special inspection and testing of materials and plant to be supplied for incorporation in special maintenance requirements.
8. Receive, review and approve or recommend revisions as necessary the Contractors Traffic Management Plan and monitor that once approved this is implemented as proposed.
9. The Consultant is to monitor all aspects of health and safety during the execution of the works and ensure that the relevant regulations and requirements are complied with by the Contractor
10. The Consultant is to report on all incidents or accidents on the site of the works or associated with the implementation of the works and liaise as necessary with the local authorities and/or police and promptly provide the client with copies of such reports
11. Accompany visiting Inspectors representing public or other agencies having jurisdiction over the project, and record the outcomes of these inspections and report as appropriate
12. Ensure the contractor’s compliance to all Environmental and social safeguards as contained in the Contractors’ Environmental and Social Management Plan (C-ESMP), Stakeholder Engagement Plan (SEP) and Labour Management Procedures (LMP)
13. Oversee the implementation of the Grievance Redress Mechanism (GRM) for both community and workers by the contractor and/or sub-contractors at project implementation level.
    * + 1. **Interpretation of Contract Documents**

The Resident Engineer shall:

1. Maintain liaison with contractor, working principally through the contractor’s senior personnel and assist them as necessary in understanding the intent of the contract documents.
2. Issue in good time additional details and drawings necessary for the proper execution of the contract;
3. Provide interpretations necessary for the proper execution and progress of work, with reasonable promptness and in accordance with agreed time limits;
4. Provide written recommendations within a reasonable time, on all claims, disputes and other matters in question relating to the execution or progress of work or the interpretation of the contract documents.
5. Instruct the contractor to immediately stop in the event that an activity commences before the contractor has made appropriate submissions and obtained necessary approvals.
6. Issue written instructions to the contractor as required.
7. Recommend suspension of work when the contractor consistently fails to comply with instructions or to perform the work in accordance with the contract, and recommend appropriate action.
   * + 1. **Claims Control**

The Resident Engineer shall:

1. Conduct regular meetings with the Contractor to identify issues of design, technical and commercial challenges that may give rise to delays or claims. Ensure that measures are put in place to address these.
2. Ensure that the Client is kept fully informed of all issues that the consultant believes may result in claims.
3. Identify any correspondence from the Contractor that may be construed as early warning of a claim and ensure proper record keeping is in place to monitor the issue.
4. Review the Contractor’s ‘early warnings’ submissions and claim submissions and make recommendations in accordance with the requirements of the Contract.
   * + 1. **Modifications of Contract**

The Resident Engineer shall:

1. Consider and evaluate the Contractor’s suggestions for modifications in drawing or specifications and report them to the Client with recommendations;
2. Examine Contractor’s proposals for changes in construction and provide recommendations to the Client for approval when changes affect cost or quality. Changes, which do not affect cost or quality may be approved on-site and recorded in the monthly progress reports. Such changes shall be effected by written orders issued by the Consultant; and
3. Prepare any further design and drawings necessary for the information of the Contractor to enable him to carry out the Works. In particular, the Consultant shall issue all instructions related to the works for which the Contract contains only provisional items.
   * + 1. **Surveying, Setting Out and Measurements (where applicable)**

The Resident Engineer using the resources of the supervision team shall:

1. Indicate to the contractor the location of all survey control points established during the design stage and where necessary re-establish any points that have been lost or disturbed.
2. Check all alignment and elevation control points provided to the Contractor;
3. Check all setting out of the works undertaken by the Contractor; and
4. Compile necessary field measurements and calculate quantities of materials incorporated in the works.
5. Check the setting out of the alignment and elevations and maintain the corresponding documentation. Continuous control of pavement levels, culvert levels and levels of any other structures;
   * + 1. **Measurement of Works**

The Resident Engineer through the Measurement Engineer shall:

1. Carry out measurement of the works certified as complete on site together with the Surveyor to be used in checking contractor’s payment and progress claims; and
2. Maintain a record of measured works on site.
   * + 1. **Payment Certificates**

The Resident Engineer with assistance of the Measurement Engineer shall review monthly interim payment applications submitted by the Contractor in accordance with the conditions of contract and the Resident Engineer shall certify these for payment or return them to the Contractor for revision. Upon certification the Resident Engineer will forward five copies of the approved payment certificates plus all supporting measurements sheets and supporting documentation within two weeks of receipt from the Contractor to the Client, who will forward these for payment to the Road Fund Administration.

The interim payment certificates shall detail the actual quantities of work items completed to date compared with the total billed quantity for each item together with the contract unit rates for each work item, materials on site, details of Dayworks, price adjustments, any other payments to which the Contractor may be entitled to under the contract, and deductions for retentions and advance repayments.

Any matters of dispute on the extent of payments shall be resolved between the Resident Engineer and the Client and any agreed adjustments advised to the Contractor by the Resident Engineer and included as adjustments in the subsequent month’s certification.

* + - 1. **Keeping Records**

The Resident Engineer shall:

1. Maintain at the project office files for correspondence, reports, minutes of meetings, product and material submissions, additional drawings issued subsequent to the execution of the Contract, as well as Consultant’s clarifications and interpretations of the documents, progress reports and other related documents;
2. Keep a diary or log book, recording Contractor’s staff hours on job site, equipment availability/ operation, weather conditions, data relative to questions of extras or deductions, list of visiting officials, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and
3. Maintain a set of drawings (As-built drawings) recording all details of the work as actually executed.
   * + 1. **Monthly Progress Meetings**

The Resident Engineer shall:

1. Arrange monthly progress meetings with site inspections and notify those expected to attend. In arranging these meetings, he is expected to circulate the meeting agenda and to subsequently maintain and circulate minutes thereof;
2. Prepare monthly progress reports recording the contractor’s and the consultant’s activities, physical and financial progress in relation to the contractor’s program, quality of materials and workmanship, and comment on any unusual occurrences. Eight copies of the reports are to be submitted to the Client within 10 days following the month reported.
   * + 1. **Health, Safety, Social and Environmental Management**

The Resident Engineer shall ensure that the Contractor delivers its ES obligations under its contract. This includes, but is not limited to the following:

1. Review the Contractor’s Environment and Social Management Plan (C-ESMP), including all updates and revisions at frequencies specified in the Contractor’s contract (normally not less than once every 6 months);
2. Review all other applicable contractor’s documents related to ES aspects including the health and safety manual, security management plan and SEA prevention and response action plan;
3. Review and consider the ES 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;
4. Undertake, as required, audits, supervisions and/or inspections of any sites where the Contractor is undertaking activities under its contract, to verify the Contractor’s compliance with ES requirements (including relevant requirements on SEA/SH);
5. Undertake audits and inspections of Contractor’s accident logs, community liaison records, monitoring findings and other ES related documentation, as necessary, to confirm the Contractor’s compliance with ES requirements (including relevant requirements on SEA/SH);
6. Determine remedial action/s and their timeframe for implementation in the event of a noncompliance with the Contractor’s ES obligations;
7. Ensure appropriate representation at relevant meetings including site meetings, and progress meetings to discuss and agree appropriate actions to ensure compliance with ES obligations;
8. Ensure that the Contractor’s actual reporting (content and timeliness) is in accordance with the Contractor’s contractual obligations;
9. Review and critique, in a timely manner, the Contractor’s ES documentation (including regular reports and incident reports) regarding the accuracy and efficacy of the documentation;
10. Undertake liaison, from time to time and as necessary, with project stakeholders to identify and discuss any actual or potential ES issues;
11. Establish and maintain a grievance redress mechanism including types of grievances to be recorded and how to protect confidentiality e.g. of those reporting allegations of SEA and/or SH.
12. carry-out the following activities consistent with the Works contract to be supervised, including but not limited to the following:
    * 1. support the Works employer to organize an SEA/SH conference, ensure appropriate representation in the conference and follow-up on any agreed actions by the attendees;
      2. monitor contractor’s compliance with its SEA/SH Prevention and Response Obligations in the Works contract, and take appropriate contractual actions if non-compliance is identified, including upon identification of potential non-compliance by a dispute board;
      3. ensure that any allegation of SEA and/or SH that are received by the Consultant are documented , maintaining appropriate confidentiality, and promptly submitted to the Employer and the Contractor;
      4. prior to its engagement for the Works, verify that, any proposed subcontractor not named in the contract, is qualified in accordance with the provisions of the SEA/ SH performance declaration for sub-contractors;
      5. provide appropriate support and relevant documents that a dispute board may need in reviewing SEA/SH contractual compliance;
13. Ensure that the contractor complies with all national labour, health and safety rules and all health and safety requirements of the contract documents as per the local legal and regulatory requirements as well as the LMP;
14. Ensure that all contractor’s staff are properly equipped with personal protective equipment;
15. Ensure that the contractor carries sufficient training of his personnel to ensure a safe working environment;
16. Ensure that any accidents are properly reported within 24 – 48 hours after occurrence and that investigations on the causes are carried out so that preventative measures are put in place to prevent recurrence;
17. Monitor the contractor’s implementation of his traffic accommodation to ensure safety of road users including pedestrians and non-motorized traffic during the rehabilitation works;
18. Ensure that the contractor has appointed all safety personnel required by the contract documents, trained them and set up systems to allow them to function properly as required by local legal and regulations as well as the World Bank EHS Guidelines;
19. Conduct regular safety meetings with the Contractor’s nominated health and safety officers;
20. Ensure that daily health and safety toolbox meetings are conducted within all worksites prior to commencement of work;
21. Ensure that an HIV and AIDS awareness program is implemented in accordance with the requirements of the works contract;
22. Monitor HIV and AIDS awareness activities to ensure that the program is being implemented as required by the works contract;
23. Check that the contractor has put in place environmental and Social management procedures compliant with the contract Environmental and Social Management Plan;
24. Ensure that Contractor prepares Standard Operating Procedures (SOPs) for each work site and that these are translated in a language understandable by local workforce and are displayed in visible and accessible locations within worksites;
25. Ensure that the Stakeholder Engagement Plan (SEP) and Labour Management Procedures (LMP) are implemented by the constructor;
26. Review and approve the contractor’s site-specific construction Contractors Environmental, Health, Safety and Social Management Plan (C-EHSSMP), Health and Safety, Labor Management Plans and Traffic Management Plans together with the PIU;
27. Monitor compliance with the Environmental and Social Management Plan and the C-EHSSMP;
28. Report on environmental and social compliance in the Monthly Progress Report;
29. Instruct the contractor(s) to take remedial actions within a specified timeframe, and carry out additional monitoring, if required, according to the contractual requirements and procedures in the event of non-compliances or complaints;
30. Instruct the contractor(s) to stop activities which generate adverse impacts, and/or when the contractor(s) fails to implement the ESMP requirements / remedial actions; and
31. Refer to Annex 1 for a detailed description of monitoring the implementation of RAP and ESHS Management Strategies and Implementation Plans (ESHS-MSIP)
    * + 1. **Financial Progress Monitoring**

The Resident Engineer shall:

1. Ensure that the Contractor provides regular cash flow updates in accordance with the works contract;
2. Monitor actual cash flows against programme;
3. Maintain a “Final Job estimate” which shall be published at least once per quarter and shall contain the base estimate of the final job cost taking into account changes in quantities, variation orders, and claims.
   * + 1. **Completion of Works**

The Resident Team Leader shall:

1. Inspect the works in the company of representatives of the Client, the Contractor and the Sub-contractor, if any, prior to handing over of any section of the works;
2. Prepare a final snag list of items to be completed or replaced together with a time schedule for remedying of the same;
3. Verify that all items on the final snag list have been completed or corrected; and
4. Prior to the commencement of the Defects Notification Period for any section, provide written affirmation that the works have been completed in accordance with the requirements of the contract, plans and specifications, and issue a Taking-Over Certificate.
5. The Consultant shall maintain and keep updated a set of ‘As-Built Drawings’. The As-Built drawings shall be finalized for submission with the final report before the end of the Defects Notification Period
   * + 1. **Required Input During Defects Notification Period**
6. Immediately prior to the expiration of the Defects Notification Period for any section of the works for which a Taking-Over Certificate has been issued, the Resident Engineer shall in the company of the Client, and the Contractor inspect the said section and provide written affirmation that the works have been completed and maintained in accordance with the contract, and issue a Maintenance Certificate for the relevant section subject to the approval of the client.
7. Upon receipt from the Contractor within 56 days of the issue of the Maintenance Certificate for the last section for which the defects notification period has expired, the Resident Engineer shall prepare in co-operation with the Contractor the Final Account for the contract.
   * 1. **Contract Duration**

The duration for this phase is estimated at a total of 12 months based on the anticipated durations of the works contracts plus a Defects Notification Period of Twelve (12) months.

* + 1. **Team** **Composition**

The following expertise will be required to carry out the consultancy services. For each expert proposed, curriculum vitae of no more than four pages shall be submitted.

Table 3: Key Staff Time Input – Construction Phase

| **Item** | **Key Personnel** | **Person Month** |
| --- | --- | --- |
| 1 | Resident Team Leader | 13 |
| 2 | Structural Engineer | 6 |
| 3 | Civil Engineer | 4 |
| 4 | Contracts Specialist | 6 |
| 5 | Electro Mechanical Engineer | 4 |
| 6 | Quantity Surveyor | 12 |
| 7 | Social Expert | 12 |
| 8 | Environmental Expert | 12 |
| 9 | Occupational Health and Safety Officer | 12 |
| 10 | Engineering Surveyor | 6 |
| 11 | Material Technician | 12 |
| 12 | Clerk of Works | 12 |
|  | TOTAL A | **111** |

The consultant's personnel, nominated for this project, shall be suitably qualified and experienced. As a guide, the following is an indication of the minimum level of training and experience expected of the key members of the Consultants supervision team:

* + - 1. **Resident Team Leader**

The Resident Team Leader shall head the site staff and shall be responsible for all technical and administrative aspects on the site.

Resident Team Leader must have an educational background of a minimum of a Bachelor’s Degree in Architecture or its equivalent and must be a registered/member with a relevant professional regulatory body and have a current practicing certificate in Architecture. A postgraduate qualification in Project Management or Project Monitoring will be an added advantage. He/she must have a minimum of fifteen (15) years of extensive experience related to supervision of five major Buildings of which there must be at least one Multi – Purpose Facility. He/she must have worked in sub Saharan Africa and shall be fluent in written and spoken English.

* + - 1. **Structural Engineer**

The proposed Structural Engineer must be a registered/member with a relevant professional regulatory body and have a current practicing certificate. He/she must have a minimum of a degree in Civil Engineering or an equivalent qualification. He/she must have a minimum of ten (10) years’ experience in the design of structural reinforced concrete, structural masonry, timber and steel structures infrastructure projects of which not less than five (5) years must have been on design and supervision of an assignment of similar nature as a Structural Engineer. He/she must have a working experience in sub Saharan Africa and shall be fluent in written and spoken English.

* + - 1. **Civil Engineer**

The proposed Civil Engineer must be a registered/member with a relevant professional regulatory body and have a current practicing certificate and shall have an educational background of a minimum of Bachelor’s Degree in Engineering (Civil) or its equivalent. He/she must have a minimum of five (5) years’ experience in infrastructure projects especially road works. He/she must have supervised at least three (3) road works projects as a Civil Engineer. He/she must have a working experience in sub Saharan Africa and shall be fluent in written and spoken English.

* + - 1. **Contracts Specialist**

The Contract Document Specialist shall be a qualified and competent chartered or registered professional civil engineer or quantity surveyor with a degree in civil engineering or equivalent qualification and with a minimum of 10 years’ general experience, and shall have undertaken at least 5 projects as a Contract Document Specialist. Experience in claims and dispute resolution shall be an advantage. Fluency in written and spoken English is mandatory.

* + - 1. **Electro Mechanical Engineer**

The Electro – Mechanical Engineer must be a registered/member with a relevant professional regulatory body and have a current practicing certificate and shall be responsible for ensuring all electronics; electrical and mechanical installations are performed according to design and conform to the contract specifications

He/she must be a holder of a degree in Electronics, Electrical, Mechanical Engineering or equivalent qualification and must have a minimum of ten (10) years’ experience in supervision of electronics, electrical and mechanical installations. He/she must have served as the Service Engineer or equivalent capacity in at least three (3) building construction projects of similar magnitude and complexity in last ten (10) years. He/she must have a working experience in sub Saharan Africa and shall be fluent in written and spoken English.

* + - 1. **Quantity Surveyor**

The Quantity Surveyor shall be responsible for ensuring that all measurements and evaluation of executed works submitted for payment by the contractor in connection with the construction of civil works, supply of the equipment, and other buildings conform to actual quantities executed on site, and are in line with the approved design and contract specifications.

He/she must have a degree in Quantity Surveying, Building Economics or equivalent qualification. He/she must have minimum of ten (10) years’ experience in building economics. He/she must have served as the Quantity Surveyor or equivalent capacity in at least three (3) building construction projects of similar magnitude and complexity in last ten (10) years. He/she must have a working experience in sub Saharan Africa and shall be fluent in written and spoken English.

* + - 1. **Social Expert**

The Social Expert shall be responsible for monitoring and evaluating the social impacts in the corridor of impact and prepare review mitigation plans and Resettlement Action Plan (RAP) in order to minimize any negative impacts that the project implementation will have on the people along project area. Furthermore, the Sociologist will be responsible for proposing measures to prevent vendors from the common practice of encroaching the Customs area at the borders.

He/she must be a registered/member with a relevant professional regulatory body and have a current practicing certificate with a degree in Social science or related discipline. He/she must have a minimum of ten (10) years’ experience in infrastructure projects of which not less than five (5) years must have been on design and supervision of an assignment of similar nature. He/she must have served as a Sociologist in at least three (3) civil construction projects of similar nature for the last ten (10) years. He/she must have a working experience of at least three (3) years in sub Saharan Africa and shall be fluent in written and spoken English.

* + - 1. **Occupational Health and Safety Expert**

The OHS Expert shall be responsible for ensuring a safe working environment for workers as well as community safety by reviewing contractor’s OHS SOPs and related documents; monitor and audit the sites’ OHS systems; advise on good OHS practices; ensure appropriate Task Risk Assessments are done and control measures are in place. The expert is also required to identify any Standard Operating Procedures required to be implemented during the course of the project.

He/she must be have a current a degree in Environmental Health or related discipline from a reputable institution. He/she must have a minimum of ten (7) years’ experience in infrastructure projects of which not less than five (5) years must have been on building in closed environment. He/she shall be fluent in written and spoken English

* + - 1. **Environmental Expert**

The Environmental Expert shall be responsible for carrying out an environmental impact assessment of the project and compile an Environmental and Social Management Plan (ESMP) in order to avoid, minimize or mitigate any negative impacts that the construction will have on the environment and adjacent areas.

He/she must have a current practicing certificate with a degree in Environment Management, environmental engineering, or natural resources management. He/she must have a minimum of five (5) years’ experience in infrastructure projects of which not less than five (5) years must have been on design and supervision of an assignment of similar nature. He/she must have served as an Environmentalist in at least three (1) building construction projects of similar nature for the last three (3) years. He/she must have a working experience of at least three (1) year in sub Saharan Africa and shall be fluent in written and spoken English.

* + - 1. **Architect**

He/she shall be responsible for ensuring the office buildings, rest rooms, generator house and related buildings are constructed according to design and conform to the contract specifications.

He/she must have a degree in Architecture or equivalent qualification. He/she must have a minimum of ten (10) years’ experience in building construction supervision. He/she must have served as the Architect or equivalent capacity in at least three (3) building construction projects of similar magnitude and complexity in last ten (10) years. He/she must have a working experience of at least three (3) years in sub Saharan Africa and shall be fluent in written and spoken English

* + - 1. **Engineering Surveyor**

The proposed Engineering Surveyor shall have an educational background of a minimum of Bachelor’s Degree in Surveying or its equivalent. He/she must have a minimum of seven (7) years’ experience in topographic profiles for existing and new alignments during which he/she must have been involved in at least three (3) road projects as a surveyor. He/she must have a working experience in sub Saharan Africa and shall be fluent in written and spoken English.

* + - 1. **Materials Technicians**

The Proposed Materials Technician shall have an educational background of a minimum of Bachelor’s Degree in Engineering (Civil) or its equivalent with experience in field soil engineering survey, analysis and testing of soils samples for road and building works. The proposed Materials Technician shall have more than 10 years of professional experience in the field of assignment.

* + - 1. **Clerk of Works**

The Clerk of Works shall be responsible for supervising construction of buildings, roads and other infrastructure for the OSBP.

The Clerk of Works must have a minimum of a Diploma in Civil Engineering or equivalent qualification and must have a minimum of ten (10) years’ experience in infrastructure projects of which not less than five (5) years must have been on supervision of an assignment of similar nature. He/she must have served in similar capacity in at least three (3) building projects of similar magnitude and complexity in last 10 years. He/she must have a working experience of at least three (3) years in sub Saharan Africa and shall be fluent in written and spoken English.

* + - 1. **Supporting Staff**

In addition to the expert personnel designated above, the Consultant shall determine the support and back-up staff deemed necessary to assist on the site- supervision. These include home office back-up specialists, such as IT Specialist as required. The CV for experts other than the key experts are not examined prior to the signature of the contract, therefore they need not be included in the proposal.

* + - 1. **Supporting Staff during Defects Liability Period**

The Consultant shall assign at least one of his key personnel to conduct the inspection during the Defect Liability Period.

* + 1. **Reporting Requirements and Time Schedules for deliverables**

The following reports shall be submitted:

* + - 1. **Construction Inception Report**

This report shall include results of the review of the contractor's work program, any modifications thereto, status of the Consultant’s and contractor's mobilization and any other matter requiring the Employer's action. This report shall be submitted not later than one month after effective date of contract. This report shall be submitted in five (5) copies to be distributed as follows: Three (3) copies to RA HQ, one (1) copy each to Ministry of Trade and MRA HQ

* + - 1. **Monthly Progress Reports:**

The Resident Team Leader shall submit comprehensive monthly reports on the progress of the works, the Contractors’ Performance Assessment Reports and Environmental Monitoring Forms by the 10th of the month following the month reported.

The Resident Team Leader shall furnish the client with project progress photographs for each contract in a CD together with the monthly reports.

Non-compliance with that requirement will attract a penalty. For each calendar day of delayed submission (after the tenth day of each month) a deduction of 0.25 % of the Consultant’s monthly Invoice will be applied as penalty.

This report shall be submitted in five (5) copies to be distributed as follows: Three (3) copies to RA HQ, one (1) copy each to Ministry of Trade and MRA HQ.

The format and the content of the monthly progress reports shall be as agreed with the Client. They will include but not limited to the following:

1. Summary progress of the works, both physical and financial;
2. Mention of any changes on the original envisaged technical solutions;
3. Major changes of quantities compared to contractual Bill of quantities;
4. Record of working units (number of equipment and labor) used for various types of works and total number of working hours of every item of equipment and labor category.
5. Suggestions for resolving any technical and other problems which occur and those affecting the progress of the works. A separate section will be given to cover issues, problems and solutions.
6. Financial status of both works and consultancy contracts;
7. Progress charts including percentages of completion of individual main work items and overall project;
8. Traffic management issues
9. Implementation against ESMP and C-ESMP
10. Progress on implementation of Health and Safety requirements
11. Weather information and charts, and
12. Construction and supervision data
    * + 1. **Minutes of Meetings:**

The Resident Team Leader shall issue comprehensive minutes of regular and special meetings and submit three copies to Roads Authority and one (1) copy each to Ministry of Trade and MRA HQ. Minutes of the regular meetings may be attached to the Monthly Progress Reports or, depending on the circumstances, may be submitted separately.

* + - 1. **Accident Reports:**

A report of the circumstances of accidents occurring on the site shall be forwarded to the Client with all due dispatch

* + - 1. **ES reporting**

The Consultant shall:

1. Immediately notify the Client of any failure by the Contractor to comply with its SEA and SH obligations;
2. Immediately notify the Client of any allegation, incident or accident, which has or is likely to have a significant adverse effect on the environment, the affected communities, the public, Client’s Personnel, Contractor’s Personnel or Experts. In case of SEA and/or SH, while maintaining confidentiality as appropriate, the type of allegation (sexual exploitation, sexual abuse or sexual harassment), gender and age of the person who experienced the alleged incident should be included in the information. The Consultant shall provide full details of such incidents or accidents to the Client within the timeframe agreed with the Client.
3. Immediately inform and share with the Client notifications on ES incidents or accidents provided to the Consultant by the Contractor, and as required of the Contractor as part of the Progress Reporting;
4. Share with the Client in a timely manner the Contractor’s ES metrics, as required of the Contractor as part of the Progress Reports.
   * + 1. **Final Report**

Within 28 days of the issuance of the Taking Over Certificate, the Resident Team Leader shall prepare a Final Report, which shall highlight all major points of interest that arose during the Contract including E&S mitigation measures. Ten (10) copies of the Final report shall be submitted to RA HQ. The report should enable the Client in the future to know the type, quality and quantity of materials used and all information which together with the as built drawings (3 originals and 5 copies) and specifications will help the Client in the maintenance of the road or structure.

The report shall also include a summary of the principal difficulties encountered during construction and the means employed to overcome them, changes (if any) made in the original designs, modifications to specifications and conditions of contract, all variation orders, assessment of claims by the contractor, utilization of provisional and price variation and physical contingencies sums. Others include cumulative monthly payments to the Contractor, by date and number of payment certificate and break down into foreign and local currencies and including a similar payment schedule for supervision services. The details of the overall project costs (construction and supervision) with justification for any significant variation from the original shall be given in the final report. The report shall also include “as built drawings.”

* + - 1. **Final Completion Report:**

Upon issuance of the defects liability and the final payment certificates, the Consultant shall prepare within 30 days a Final Completion Report shall be submitted in twelve (12) copies to be distributed as follows: - Six (6) copies to RA HQ, three (3) copies each to the Ministry of Industry and Trade and MRA HQ. The report shall include a separate volume on proposed future maintenance activities for the road and structures.

All reports shall be submitted to:

**Director of Major Projects, Roads Authority, Functional Building, Off Paul Kagame Highway, Private Bag B346, Lilongwe, Malawi.**

1. **ASSISTANCE TO THE CONSULTANT BY THE CONTRACTING AUTHORITY**

The Contracting Authority will make available the following information and support to the consultant:

1. Introduction letters to facilitate the access of the consultants’ staff to Ministries, Government administrations, public organizations, authorities and agencies, etc. whose activities and roles are relevant to the consultancy assignment.
2. Senior Staff of the Roads Authority when necessary and relevant.
3. **WORKPLAN**

On the basis of the activities outlined in 3.3.2 of these Terms of Reference, the consultants will prepare a work plan for the assignment and include this in their technical proposal as well as state the approach to be taken in carrying out the assignment. The work plan should set out the consultants’ approach to the following activities.

* 1. Organization of the Project team and interrelations between the members of the team;
  2. Description of tasks and duties of each member of the Project team
  3. Mobilization of the Team and deployment of each expert;
  4. Bar-charts displaying activities to be carried out on site, period of holidays of each expert indicative dates for short term missions of each expert, etc.;
  5. Reporting

1. **START-UP MEETING**

The successful Consultant shall attend together with all their proposed key supervision staff to a meeting with the Client to be held before the commencement of the supervision services. The client or his representative shall elaborate the expected inputs and deliverables from each level of staffing. The client shall not be responsible for the costs incurred by the consultant in attending this meeting.

1. **PRESENCE OF SITE SUPERVISION STAFF ON SITE**

In order to satisfactory perform the tasks it is a requirement that the all site supervision staff are present on site at all times while the works are in progress.

1. **LEAVE, RESIGNATIONS, TRANSFERS AND REPLACEMENTS**

The Consultant's staff shall arrange their annual leave to coincide with the Contractor's annual recess. Should a staff member however be granted special leave outside the Contractor's annual close-down, the Consultant shall provide at no additional cost to the Employer an equally qualified person to stand in for the period that the permanent site staff member is on special leave.

The special leave of a permanent site staff member as well as the person relieving a permanent site staff member shall be approved by the Client prior to such leave being taken. The Consultant shall not transfer any staff without prior written permission of the Client and shall replace personnel, if deemed necessary by the Client and fill vacancies which are created for whatever reason, e.g. resignation, illness, non-performance etc., at no additional costs to the Employer, with equally or better qualified persons approved by the Client.

The remuneration to be paid for any of the Personnel provided as a replacement shall not exceed the remuneration which would have been payable to the Personnel replaced. In case of lesser qualifications and working experience, the client shall have either the right to reject the proposed replacement or to negotiate reduced remuneration.

1. **FACILITIES TO BE PROVIDED BY THE CONSULTANT**

The Consultant shall be responsible for the provision of all facilities required to undertake the efficient and effective site supervision of road works with the exception of laboratory and survey facilities which will be provided through the works contract.

With respect to transport, the consultant shall provide five (5) motor vehicles for the supervision of the works and the measurement unit for the transport shall be “vehicle-months”.

1. **CONTACT PERSON**
2. The Consultant’s liaison person shall be the Resident Engineer and as necessary the stated representative of the Consultants firm in the Head or Regional Office;
3. The Clients liaison person on this project shall be the designated Project Engineer in the Roads Authority.
4. **PAYMENTS TO THE CONSULTANTS**

Payments will be made monthly depending on key personnel input. Payments shall be made within forty-two (42) days of receipt of the invoice and the relevant documentation, and within Sixty (60) days in the case of the final payment.

* 1. **Payments**

Payments will be made monthly depending on key personnel input. Payments shall be made within forty-two (42) days of receipt of the invoice and the relevant documentation, and within Sixty (60) days in the case of the final payment.

* 1. **Costs**

The costs shall be quoted to cover the Consultant’s performance of his duties described above (including VAT calculated at 16.5% of fees and withholding tax calculated at 10% of costs) in accordance with the following:

1. Monthly costs and subsistence allowances for expatriate personnel;
2. Monthly costs and subsistence allowances for local personnel
3. Cost of producing and printing reports as described above including secretarial expenses;
4. Shipment of personal effects;
5. Local Transport
6. Accommodation of staff.
7. Material testing and quality control
   1. **Advance Payment**

An advance payment of not more than **15%** of the total cost (excluding contingency allowance) may be provided to cover initial mobilization costs upon submission of acceptable Bank guarantee.

The advance payment shall be recouped by deductions from the Consultant’s first **five** invoices in the same currencies in which the advance was made at a rate of **20%** of the advance payment.

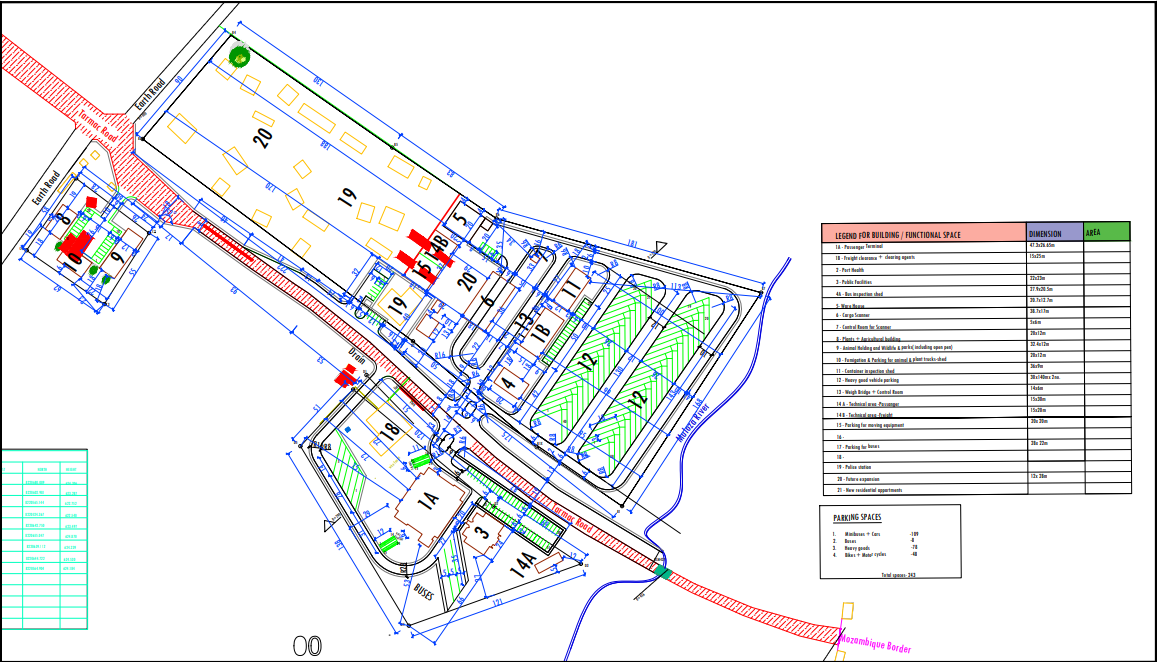
* 1. **Reimbursable**

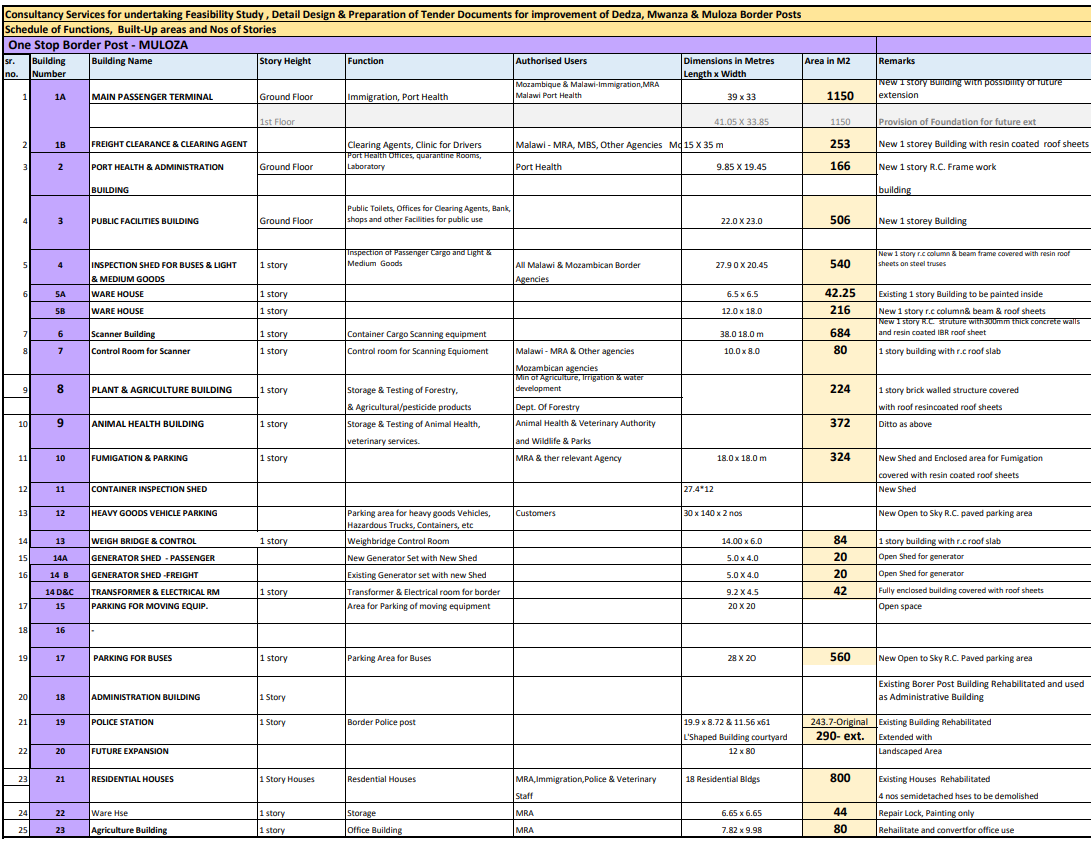
Reimbursable, which cover all out of pocket expenses, will be made against acceptable documentary evidence, as agreed with the Client.

* 1. **Other payments**

No other payments will be made to the Consultant under this contract.

**ANNEX 1 – LIST OF PROPOSED BUILDINGS AT MULOZA OSBP**

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**ANNEX 2 - ENVIRONMENTAL, SOCIAL, HEALTH AND SAFETY (ESHS) ENHANCEMENTS**

The OSBP upgrading is an important project that has numerous benefits including facilitation of trade, reduction in travel times, boosting of local and national economies, local employment and improvement of public services. However, the Environmental and Social Impact Assessment (ESIA) prepared for the project has shown that there are environmental, social, health and safety issues with varying magnitudes that must be properly managed.

In particular, the OSBP will involve several types of civil works including

* upgrade customs related offices targeting to developing them into one stop border posts;
* establish Warehouses and storage facilities for customs purposes;
* provide enough parking space for vehicles and goods of different categories;
* address the security of the traffic of people crossing the borders;
* entry and exist points that will separate the movement of people and traffic;
* support provision of equipment for customs related clearances;
* provisions for hazardous waste management; and
* provide basic facilities such as restaurants, toilets, safe water and electricity.

The Contractor is likely to use heavy machines such as excavators, earth moving equipment, compactors and other lighter equipment, working with utilities, potentially working at heights. Campsites will be necessary to accommodate staff and facilitate the storage of materials and equipment.

All these activities may cause significant environmental and social impacts that may be reversible depending on their magnitude. Prevention of such impacts is a priority but where it cannot be achieved, appropriate mitigation and pollution abatement measures will be put in place to minimise environmental damage.

In addition, the pursuit of economic growth through employment creation and income generation should be accompanied by protection of the fundamental rights of workers. For any construction project, the workforce is a valuable asset, and a sound worker-management relationship is a key ingredient in the sustainability of a company. Failure to establish and foster a sound worker-management relationship can undermine worker commitment and retention and can jeopardize a project. Conversely, through a constructive worker-management relationship, and by treating the workers fairly and providing them with safe and healthy working conditions, clients may create tangible benefits, such as enhancement of the efficiency and productivity of their operations.

Among the adverse impacts which may occur during the various stages of the project the following can be mentioned:

* Possible resettlement and private land acquisition,
* Increased soil erosion due to excavation works as well as improper drainage of runoff from the project area to lower catchment areas, including during operation of the site.
* There may be pollution of air, soils, crops and water sources along the road profile resulting from exhaust and engine emissions from vehicles and equipment used during the construction, leaks and spills of vehicles at the border post.
* There may be increased solid and liquid waste, which may lead to pollution of air, land and water sources in the area.
* The construction works may also lead to increased cases of HIV and sexually transmitted diseases due to influx of workers who may be associated with irresponsible behaviours.
* The influx of workers with disposable incomes interacting with the local communities may lead to an increase in sexual exploitation and abuse.
* Child labour and abuse risks
* Unfair treatment, discrimination, sexual harassment of female workers and denial of equal opportunity.
* Loss of trees and general disturbance to ecosystems.
* There may be accidents during the dismantling of the road construction camps and rehabilitation of borrow pits and quarries. Barriers should be put where heavy machinery will be under use to prevent people trespassing. The Contractor should also employ competent people to operate the machines used in order to maintain this to a minimum.
* During the dismantling works, there is likely to be noise to the households living around the camps. The Contractor should consider putting up the camps in less occupied areas.
* There will be air pollution from the equipment that will be used during the demolition works from dust. The exhaust fumes from vehicles and equipment used is also likely to pollute the soils, vegetation and water sources around the camp. The Contractor should consider watering the area before demolition work starts.
* Exhaust and engine emissions from vehicles used for transportation of materials and equipment may cause air pollution, which can have an impact on public health, crops and vegetation along the road, soils and water sources.
* Increased traffic along this route may lead to accidents along the road network. The designs should make provision for bumps in the appropriate places.
* The road will be used by heavy goods vehicles, leading to a faster deterioration of the road. The Contractor must ensure regular and prompt maintenance of the road.
* Risk of flooding, and emergency preparedness

The ESIA study has therefore proposed several mitigation measures to control, reduce or reverse the perceived Environmental and social impacts. It has also proposed implementation and monitoring mechanisms of the environmental and social management plan. Finally, mitigation measures have been proposed to guide the Contractor on broader issues of environmental and social significance.

Some of the recommendations contained in the ESIA and ESMP, which should be incorporated into the design and construction practices, include the following:

* Construction of culverts and drainage will be accounted for in the design. These features must be adequately and properly designed for robustness and regularly maintained to prevent runoff from ponding in inappropriate locations. Also mitigation of soil erosion where culverts discharge to adjacent land.
* Dust emissions can be reduced during construction by occasional spraying with water along the deviation routes or earth along the road section. In the case of deviations, slowing the speed of traffic by using bumps and/or clearly marked road signs may contribute to reducing dust levels. Haulage routes will need to be identified and maintained by watering to minimize the impact of dust.
* Vehicles to be used during construction must be regularly maintained. Proper disposal of oil drained from Contractor’s trucks and lorries and used oil filters should be done sensibly with the supervision team approving method of disposal.
* The area to be excavated should be cordoned off to avoid accidents both to human and animals. Gravel pits must be landscaped and reinstated or back-filled with overburden if the depth of the overburden is sufficient to allow for this.
* Blasting of rock outcrops along road alignment should be done during the day, and residents in the vicinity of the area being blasted should be suitably warned of blasting activities, including the time and date that the blasting is to take place.
* People should be informed of intended roadwork activities, including likely dates for commencement and completion of works. Warning signs should also be introduced on the approach to market/settlement areas.
* Alternative water sources for the project must be developed such as surface water to avoid stressing the already scarce commodity. The water quality supplied to the construction camps must meet the regulations on drinking water.
* Waste management at both construction sites and campsite areas, including waste separation for recycling, reuse, and disposal to authorised waste disposal facilities.
* The Contractor should fully rehabilitate campsites, quarries and borrow pits and road sides after project completion. Land that has been used for temporary works of the project should be rehabilitated to the rightful owners immediately after completion of the works.

Assessment and Management of Environmental and Social Risks and Impacts

The ESIA and ESMP has been prepared to be used as a reference manual by the Contractor and other key stakeholders involved in the planning, implementation, management and operation of the proposed project. The Contractor shall review and, if required, update the document with reference to all the project stages and submit them for the Employer’s Representative’s review. The review shall be carried out by means of desk top review of existing policies, strategies, guidelines of the government and the donors, inspection surveys and public consultations, where required. Furthermore, the revision shall account for project site reserve, borrow pits, quarry sites, detours, stockpiling places, spoil areas and any other places which demands resettlement based on the detailed design undertaken by the Contractor. The Contractor’s methodology and reporting for updating the ESIA shall be in line with the Employer and the World Bank procedures and requirement.

The Contractor shall identify any critical or sensitive sections of the Contract’s road and will ensure that the interests of the local community are not adversely affected by the Contractor’s activities. Where the Contractor becomes aware of any issues impacting upon his ability to complete the contract works, he shall communicate these concerns to the Employer’s Representative as soon as possible. The Contractor shall be proactive in reporting to the Employer’s Representative any other safety, social or environmental concerns relating to the management of the contract that are observed or he is made aware of as part of his day to day activities.

The Contractor shall implement the environmental and social commitments of the Project Road in accordance with the relevant environmental and social regulations as well as the requirements of the standards and publications listed below.

World Bank Environmental and Social Safeguard Policies

* Environmental Assessment (OP /BP/ 4.01)
* Physical Cultural Resources (OP /BP/ 4.11)
* Involuntary Resettlement (OP/BP 4.12)
* WBG Environmental, Health and Safety Guidelines
* WB Good Practice Note on Road Safety, 2019

National Environmental and Social Safeguard Policies

* The National Environmental Policy, 2004
* National Land Policy, 2002
* National Forestry Policy, 1997
* National Water Policy, 2005
* Decentralization Policy, 1998
* Environment Management Act, 2017
* Land Act, 2016
* Land Acquisition act, 2016
* Customary Land Act, 2016
* Malawi Forestry Act, 1997
* National Local Government Act, 1998
* Water Resources Act, 2013
* Occupational Health and Welfare Act, 1997
* Public Roads Act (Cap. 69:02)

The Contractor shall prepare and implement Site Environmental and Social Management and Monitoring Plan, which shall be incorporated in the Quality Management Plan that identifies methodologies for implementation of environmental health and safety mitigation measures, key personnel roles and responsibilities, identifies procedures for environmental and social compliance, establishes methods for identifying and correcting non-compliance and establishes procedures for emergency response.

The contactor shall establish an environmental health and safety unit under its organizational structure for the environmental and safety management during the construction works. The unit shall undertake environmental and social monitoring based on the site environmental and social management plan (ESMP) and will report to the Employer’s Representative’s regularly.

Labor and Working Conditions

The Employer will only guarantee the issuing of work permits for Contractor staff with technical skills generally unavailable in the country.

Prior to mobilization, or for new staff, the Contractor shall supply the Engineer a list of all staff proposed for the project who have resided outside the country for more than 12 months over the last 5 years with an accompanied background check acceptable to the Engineer. This background check shall cover: (i) all countries for which the staff have citizenship; and, (ii) include verbal referee checks with employers over the last 2 years.

This background check should identify any criminal, arrest, incarceration and/or sex offenses. The Engineer reserves the right to reject any proposed staff on the basis of this background check. All costs associated with the Engineer rejecting staff due to the background check shall remain with the Contractor.

The Contractor shall comply with all the relevant labor Laws applicable to the Contractor’s Personnel, including Laws relating to their employment, health, safety, welfare, immigration and emigration, and shall allow them all their legal rights.

The Contractor shall require his employees to obey all applicable Laws, including those concerning safety at work.

* 1. Health and Safety

Funding for: (i) Occupational Health and Safety (OHS) training and activities; and, (ii) HIV/AIDS, Gender Based Violence (GBV), and Child Protection (CP) Information, Education and Consultation Communication (IEC) campaigns are provided in the bill-of-quantity as separate provisional sums.

The Contractor’s costs shall be financed from this on proof of record (e.g. time sheets, material invoices etc.) for the following:

* Recruitment of provider for delivery of HIV/AIDS education training.
* Recruitment of provider for delivery of GBV and CP training
* Expenses related to delivering HIV/AIDS, GBV and CP training
* Safety signage, safety literature, HIV/AIDS literature, condoms, voluntary counselling and testing, GBV and CP literature, etc.
* Drug and alcohol testing of staff to enforce a zero alcohol tolerance policy
* Sexually Transmitted Infections (STI) and Sexually Transmitted Disease (STD) including HIV/AIDS screening,
* Labor costs for attending: (i) dedicated safety training such as working at heights, confined space training, first aid training etc.; (ii) HIV/AIDS, GBV and CP education training. The contractor shall make their employees available for initial training of 1.5 days, and a total of at least 0.5 days per month for other such formal trainings.

For the purposes of the project, in addition to the national OHS standards the employer is adopting a code of practice for occupational health and safety based on good international industry practice. To be qualified for bidding contractors will be required to have in place an occupational health and safety management system which is compliant with, or equivalent to, OHSAS 18000 (http://certificationeurope.com/ohsas-18000-health-safety-managment-standards/) and is acceptable to the client.

The contractor shall specify which occupational health and safety standards are to be applicable to the project and provide evidence of application of such standards on a project of similar size and complexity during the past 5 years. The standards to be adopted may include those of Australia, Canada, New Zealand, the EU and the US, which are referred to in the World Bank Group EHS Guidelines.

The contractor shall comply with the OHS requirements embodied in the PESMP.

Civil works shall not be permitted to commence until the Engineer has approved the OHS Plan prepared by the Contractor for the project, the Safety Officer is mobilized and on site, and all employees have undergone site specific induction training.

The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor’s Personnel and affected stakeholders. In collaboration with local health authorities, the Contractor shall ensure that first aid facilities and locations of appropriate sick bays are available at all times at the Site, including appropriate vehicles that are available to be used immediately to transport Contractor’s and Employer’s Personnel to medical facilities in the event of an emergency. The Contractor shall ensure that suitable arrangements are made for all necessary welfare facilities and hygiene procedures are in place for the prevention of the spreading of diseases.

The Contractor shall appoint a certified Safety Officer at the Site, with qualifications acceptable to the Engineer. The Safety Officer shall be responsible for supporting implementation of the OHS Plan through technical advice, guidance, mentoring, and training under the guidance of the Contractor’s Project Manager. This person shall have the authority to issue instructions and take protective measures to prevent accidents whilst promoting a safety culture across the project. Throughout the execution of the Works, the Contractor shall provide whatever is required by this person to exercise this responsibility and authority.

The Contractor shall post in clearly accessible places information on how to transport injured Contractor’s and Employer’s Personnel to medical facilities, including the precise location and contact details of such medical facilities, name and contract details of the site designated Safety Officer.

The Contractor shall ensure that all workers on the site have appropriate PPE of an appropriate standard including: (i) impact resistant safety eyewear; (ii) safety footware with steel toe, sole and heel; (iii) high visibility clothing; (iv) long sleeves and long pants suitable for operating environment; (v) safety helmet with provision of sun protection as necessary; (vi) gloves (carried and worn when manual handling); (vii) hearing protection when working in close proximity to noisy equipment and in all underground environments. For site visitors, the above equipment will be supplied as appropriate based on assessed risks and depending on number of visitors and where they will be on site. See <http://tinyurl.com/nzta-ppe-requirements> for additional information.

The Contractor shall verbally notify the Engineer immediately of any incident where serious harm has occurred, with written details being forwarded within 24 hours of the incident occurring.

Within 5 working days of the end of the calendar month the Contractor will be required to report to the Engineer on their performance with the following OHS indicators:

* Number of serious near miss incidents, where serious harm to employees or others may have resulted.
* Number of fatal injuries (resulting is loss of life of someone associated with the project or the public)
* Number of notifiable injuries (an incident which requires notification of a statutory authority under health and safety legislation or the contractor’s health and safety management system)
* Number of lost time injuries (an injury or illness certified by a medical practitioner that results in absence of work for at least one scheduled day or shift, following the day or shift when the accident occurred)
* Number of medical treatment injuries (the management and care of a patient to effect medical treatment or combat disease and disorder excluding: (i) visits solely for the purposes of observation or counseling; (ii) diagnostic procedures (e.g. x-rays, blood tests); or, (iii) first aid treatments as described below)
* Number of first aid injuries (minor treatments administered by a nurse or a trained first aid attendant)
* Number of restricted work cases. (those people who have returned to work, but are undertaking “light duties”)
* Number of recordable strikes of services (contact with an above ground or below ground service resulting in damage or potential damage to the service)
* Rate of recordable strikes of services per services crossed.
* Lost Time Injury Frequency Rate (the number of allowed lost time injury and illness claims per million man-hours worked)
* Total Recorded Frequency Rate (the number of recordable injuries [recordable/lost time/fatal] per million man-hours worked)

The monthly reports shall also include:

* Number of drug and alcohol tests
* Proportion of positive drug and alcohol tests
* Number of site health and safety audits conducted by contractor
* Number of safety briefings
* Number of near misses
* Number of traffic management inspections
* Number of sub-contractor reviews
* Number of stop work actions
* Number of hazard cards reported
* Number of positive reinforcements

For each fatality, injury or near miss incident, the Contractor shall provide a corrective action report within the monthly report detailing steps taken to ensure risks of a repeat incident are minimized.

* 1. HIV-AIDS Prevention.

While mobilized for work, the Contractor shall conduct an HIV-AIDS IEC campaign via an in-country service provider approved by the Engineer, and shall undertake such other measures as are specified in this Contract to reduce the risk of the transfer of the HIV virus between and among the Contractor’s Personnel and the local community, to promote early diagnosis and to assist affected individuals. The Contractor shall not discriminate against people found to have HIV-AIDS as part of the campaign.

The Engineer shall provide to the Contractor a list of approved service providers which shall include recognized NGOs and/or recognized local health departments. From the provided list, the Contractor shall enter into agreement with one service provider to undertake the HIV-AIDS IEC campaign. The cost of the campaign shall be funded by the Contractor from the provisional sum provided in the bill-of-quantity. The contractor shall make staff available for a total of at least 0.5 days per month for formal trainings including HIV/AIDS.

Prior to contractor mobilization, the approved service provider shall prepare an action plan for the IEC campaign based on the ‘Road to Good Health Toolkit’ ([www.theroadtogoodhealth.org](http://www.theroadtogoodhealth.org)) which shall be submitted to the Engineer for approval.

The action plan will clearly indicate (i) the types and frequency of education activities to be done; (ii) the target groups (as a minimum to all the Contractor's employees, all Sub-Contractors and Consultants' employees, and all truck drivers and crew making deliveries to Site for construction activities as well as immediate local communities); (iii) whether condoms shall be provided; and (iv) whether STI and STD including HIV/AIDS screening, diagnosis, counseling and referral to a dedicated national STI and HIV/AIDS program, (unless otherwise agreed) of all Site staff and labor shall be provided.

The IEC campaign shall adopt the ‘Road to Good Health’ Toolkit methodology ([www.theroadtogoodhealth.org](http://www.theroadtogoodhealth.org)) and use readily available information for the Project. No specific new information shall be produced unless instructed by the Engineer.

The IEC campaign shall be conducted while the Contractor is mobilized in accordance with the approved approach. It shall be addressed to all target groups identified concerning the risks, dangers and impact, and appropriate avoidance behavior with respect to, of STD and STI in general and HIV/AIDS in particular.

* 1. Gender-Based Violence and Child Protection

The Resident Team Leader shall provide to the Contractor a list of approved service providers which shall include recognized NGOs and others for conducting training on GBV and CP. From the provided list, the Contractor shall enter into agreement with one service provider to undertake the GBV and CP IEC campaign. The cost of the campaign shall be funded by the Contractor from the provisional sum provided in the bill-of-quantity. The contractor shall make staff available for a total of at least 0.5 days per month for formal trainings including GBV and CP.

Prior to contractor mobilization, the approved service provider shall prepare an action plan for GBV and CP IEC campaign which shall be submitted to the Engineer for approval.