

TERMS OF REFERENCE
(Individual Contract Agreement)

Title: Senior Mechanical Engineer - Retainer
Project: Multiple projects
Duty Station: Multiple, Nigeria
Section/Unit: Infrastructure
Contract/Level: ICS 11 / LICA 11

1. Background Information

United Nations Office for Project Services (UNOPS) Ghana Multicountry Office (GMCO), located in Accra, Ghana is responsible for projects in Anglophone West Africa, covering Ghana, Gambia, Liberia, Nigeria and Sierra Leone. GMCO is responsible for managing strategic and operational risks engagements portfolio, developing and delivering cost effective services contributing to partners' sustainable results and achievements of UNOPS management results.

The Nigeria Duty Stations are managed by the Nigeria Country Office based in Abuja, Nigeria.

Nigeria is considered a key player in the West African region, with an estimated population of 200 million and accounts for about 47% of the total population of West Africa. Nigeria is considered a High Priority Country for UNOPS GMCO; being a fragile country with a complex development profile and possessing a high risk of humanitarian emergencies and disasters. Likewise with high donor interest and demand for implementation support, Nigeria is viewed as a country in which UNOPS can add value and scale-up efforts by its partners to deliver on the Sustainable Development Goals, particularly the Government of Nigeria.

The last donor-funded project implemented by UNOPS ended in June 2018. The office was reopened in April 2019 and high-level efforts are ongoing to secure donor funded projects. Our objective for 2020 is to consolidate the implementation of our Strategy 2018-2021 - to become Known, Recognized and viewed as a Resource for our development partners on the ground, delivering on our mandate of infrastructure, procurement and project management. A healthy pipeline of engagements are at various stages of discussion with our priority partners including international financial institutions, UN agencies, bilateral and multilateral donors.

The **Senior Mechanical Engineer** is part of the Infrastructure/ Engineering Team, with Primary Supervisor based in GMCO and direct reporting line to the Country/Project Manager in Nigeria on the day-to-day operations. The **Senior Mechanical Engineer** is required to have extensive design and construction experience. He/she is expected to meet and exceed the organization's performance and delivery goals.

1. Purpose and Scope of the Assignment

The **Senior Mechanical Engineer** is considered a valuable asset to the UNOPS team in Nigeria as partners begin to consider UNOPS as a partner in infrastructure development mainly within the north east of the county. Such development projects include construction of feeder roads that create access to markets and other social and commercial services, rehabilitation of WASH facilities,

access to energy through rural electrification and provision of social infrastructure including schools, hospitals, markets etc. Our delivery approach is evidence based, embeds sustainability, and mainstreams gender, to ensure people are connected and are able to access basic services.

The **Senior Mechanical Engineer** will give his/her technical expertise as required to produce, manage and coordinate **Mechanical Engineering designs** and supervise related works. He or she is responsible for managing staff under his/her supervision and ensure high quality design documentation and site works are carried out on time and on or under budget. The projects may be in national and or international locations.

An agreed Terms of Reference (ToR) including the scope, deliverables and the maximum time duration will be agreed upon by UNOPS-GMCO and the **Senior Mechanical Engineer** prior to commencement of each and every assignment. He/she is responsible for ensuring designs and related documentation of projects which is to be carried out on time as per the agreed task.

The **Senior Mechanical Engineer** will be requested to work from home and be prepared to travel to any site in or around Nigeria as required and as United Nations Department of Safety and Security (UNDSS) permits.

3. Functional Responsibilities

Specifically, the **Senior Mechanical Engineer** will be responsible for the following substantive tasks involving the following but not limited to:

Technical - Design and Construction

- Working closely with Project team in the planning of projects, scheduling of tasks and developing an integrated project design
- Preparation of comprehensive **Assessments and Mechanical Engineering design** in accordance with UNOPS, local and international standards
- Design and installation of mechanical services in buildings, including ventilations, fire safety, ducting systems, water and waste management ensuring water efficiency, hygiene and safety
- Experience with designing cold and hot water systems based on sustainability goals, developing a building's fire protection system, designing medical gas systems for hospitals, facility's sewer system
- Adopting context appropriate technology/techniques and embedding sustainable solutions as well as whole life-costing in the design development process
- Use of Engineering software such as Autocad and relevant Mechanical Engineering design software
- Review designs and modification in terms of accuracy and ensure suitability to overall design requirements, including identifying improvements in the designs and be able to propose practical solutions
- Development of Drawings, Technical specifications, BoQs etc to support the Design Review Package and subsequently Tender Dossier
- Contribute to Design Review process to address feedback from Independent Design Reviewers until receipt of Certificate of Design Review Compliance
- Collaborate with the Procurement Team in the preparation and evaluation of tender documents

- Periodic site supervision and monitoring to ensure that the work is done according to the Works Contract (ie drawings and technical specifications etc), as well as to the required quality standards and in adherence to Health, Safety, Social and Environmental requirements
- Carry out testing and commissioning for handover and acceptance of deliverable to Client
- Contribute to the production of As-built drawings
- Archive files for all design documentation, memos and instructions in correct format and in line with UNOPS archiving procedures
- Timely delivery of the expected output and identification of risk of delay and development of mitigation measures
- The **Senior Mechanical Engineer** will also be required to respond to other related tasks that will be assigned in response to the Country Office needs.

Reporting

- Actively support the Project Team and all relevant stakeholders with the supply of data and information including, but not limited to, **Mechanical Engineering** designs and drawings, project implementation and completion reports and other related documents
- Ensure accurate and timely reporting of implementation plan progress
- Prepare and submit to the Country/Project Manager a weekly or monthly (or as requested) report, summarizing progress of task, risk, issues and any other pertinent facts as required
- Produce any appropriate documentation identified by the Technical Team Leader in a professional and accurate manner

Knowledge sharing

- Ensure highest standards of knowledge management, ensuring quality and complete archiving of project Infrastructure products
- Contribute to the project evaluation process; highlight challenges associated with the project and feedback into a continuous improvement cycle.
- Provide training and knowledge transfer to national/contractor personnel
- Contribute to the dissemination and sharing of best practices and lessons learned for development planning and knowledge building.

4. Qualifications and Experience

A. Education

- Advanced university degree (master or equivalent) in **Mechanical Engineering**
- University Degree (bachelor's degree / first level) in **Mechanical Engineering** with two (2) additional years of relevant work experience will be accepted in lieu of Master's Degree requirement.

B. Work Experience

- A minimum of seven (7) years past experience in Building Infrastructure development and management with focus on Quality, Health, Safety, Social and Environmental management is **required**
- Past experience working with Government institutions and/or donor funded projects is **an advantage**
- Knowledge of the UN system and familiarity with UNOPS procedures is **an advantage**

C. Language Requirement

- Full working knowledge of English is required
- Knowledge of another official UNOPS language is an asset

D. Key Competencies



Develops and implements sustainable business strategies, thinks long term and externally in order to positively shape the organization. Anticipates and perceives the impact and implications of future decisions and activities on other parts of the organization. **(Applicable only for levels ICS-10 and above)**



Treats all individuals with respect; responds sensitively to differences and encourages others to do the same. Upholds organizational and ethical norms. Maintains high standards of trustworthiness. Role model for diversity and inclusion.



Acts as a positive role model contributing to the team spirit. Collaborates and supports the development of others. **For people managers only:** Acts as positive leadership role model, motivates, directs and inspires others to succeed, utilising appropriate leadership styles



Demonstrates understanding of the impact of own role on all partners and always puts the end beneficiary first. Builds and maintains strong external relationships and is a competent partner for others (if relevant to the role).



Efficiently establishes an appropriate course of action for self and/or others to accomplish a goal. Actions lead to total task accomplishment through concern for quality in all areas. Sees opportunities and takes the initiative to act on them. Understands that responsible use of resources maximizes our impact on our beneficiaries.



Open to change and flexible in a fast paced environment. Effectively adapts own approach to suit changing circumstances or requirements. Reflects on experiences and modifies own behaviour. Performance is consistent, even under pressure. Always pursues continuous improvements.



Evaluates data and courses of action to reach logical, pragmatic decisions. Takes an unbiased, rational approach with calculated risks. Applies innovation and creativity to problem-solving.



Expresses ideas or facts in a clear, concise and open manner. Communication indicates a consideration for the feelings and needs of others. Actively listens and proactively shares knowledge. Handles conflict effectively, by overcoming differences of opinion and finding common ground.

E. Skills and Certifications

Below general Certifications, Contextual Skills and Infrastructure Skills are required:

Certifications

- Professional certification with an a Recognized **Engineering** Professional Body, with a valid license to practice

Contextual Skills

- Multi-disciplinary planning
- Work experience in Sub Saharan Africa

Infrastructure Management skills

- Design development and Management
- Construction implementation
- Construction Supervision
- Contract Administration
- Quality Management
- Health and Safety Management
- Environmental and Social Management

Project Authority (Name/Title):	Contract holder (Name/Title):
Signature : Date	Signature Date