

**TERMS OF REFERENCE FOR ENGINEERING SURVEYOR -(LOCAL)
(PROJECT: ROAD INFRASTRUCTURE PROGRAMME SOMALIA)**

1. Project Background

The Federal Government of Somalia (hereinafter called Grant Recipient) has applied for financing from the African Development Bank (AfDB) and the European Union toward the cost of the Road Infrastructure Programme Somalia, and intends to apply a portion of the proceeds of the grant to eligible payments under the contract for the consultancy services for the Technical Assistant (TA) to the Ministry of Public Works, Reconstruction and Housing (MPWR&H) in Somalia.

Road Infrastructure Programme Somalia has the strategic objectives to improve: (i) the management of the road sector at the national level through technical assistance and capacity building, and (ii) transport connectivity for road users through road rehabilitation and construction works.

The roads identified for intervention (in the Federal Member States of Galmudug, Hirshabelle, Jubaland and Puntland) are: (i) 82km (BeledWeyne-Kalabeyr 22km; and Dhusamareb-Qaradhi 60km) of the existing 327km, 7.3m wide BeledWeyne-Galkayo paved road, (ii) 85 km (Galkayo-Faratoyo) of the existing 240km, 7.3m wide Galkayo-Garowe paved road, (iii) existing 80km, 7.3m wide Luuq, Ganane-Dolow earth road, and (iv) 100 km, 7.3m wide Galkayo-Elgula (part of 241km Galkayo-Hobyo feeder road).

The MPWR&H, therefore, is seeking to recruit an experienced Engineering Surveyor who will support the MPWR&H in engineering survey and monitoring of road and infrastructure related tasks, provide quality technical assistance as well as assist with capacity building and strengthening of the MPWR&H. The Engineering Surveyor will also assist the MPWR&H in the day-to-day project administration and management relating to road/infrastructure design and construction.

2. Overall purpose

The overall purpose is to contribute to the effective implementation of policies and programs/projects in Somalia through participation in the areas of policy dialogue, monitoring and supervision of infrastructure development in close collaboration with the national authorities, implementing/development partners and other stakeholders.

3. Job Summary

The Engineering Surveyor will be responsible for assisting with the delivery of the projects and ensuring that the assignments performed by the consultants and works carried out by contractors with respect to engineering surveys adhere to sound engineering surveys principles, specifications and standards. Engineering surveys entail performing physical activities that require considerable use of your arms and legs and moving your whole body, such as climbing, lifting, balancing, walking, stooping, and handling of instruments and materials. He/She will

ensure timely delivery of the activities set out in the Terms of Reference and also ensure alignment with the national priorities.

4. Key Duties and Responsibilities

- Perform engineering survey duties and day-to-day administrative tasks such as maintaining information files and processing paperwork in the MPWR&H as directed by the delegated officer of the MPWR&H
- Provide engineering survey expertise to the technicians in the MPWR&H.
- Check and verify the setting out of the road alignments and levelling (by the design consultants and civil works contractors) during authorised missions to the site of the works
- Support capacity building efforts and mentor colleagues by sharing knowledge on engineering surveys
- Observe, receive, and otherwise obtain information from all relevant sources. Verify the accuracy of survey data, including measurements and calculations conducted at survey sites. Calculate heights, depths, relative positions, property lines, and other characteristics of terrain
- Direct or conduct surveys in order to establish legal boundaries for site and roadworks. Prepare and maintain sketches, maps, reports, and descriptions of surveys
- Check and verify fixed points established by design consultants and civil works contractor for use in making maps, drawings, using surveying and engineering instruments
- Record results of surveys, including the shape, contour, location, elevation, and dimensions of land or land features. Adjust surveying instruments in order to maintain their accuracy
- Prepare or supervise preparation of all data, charts, sites, maps, records, and documents related to surveys. Analyse survey data, information and evaluate results to choose the best solution and solve problems
- Provide support in planning and conducting ground surveys designed to establish baselines, elevations, and other roadwork measurements
- Inspect instruments, equipment, structures, or materials to identify cause of errors or other problems or defects
- Provide documentation, detailed instructions, drawings, or specifications to tell others about how devices, parts, equipment are to be maintained, or used
- Use computers and computer systems (including hardware and software) to set up functions, enter data, or process information. Enter, transcribe, record, store, and maintain information in written or electronic form
- Use computer-aided design (CAD) and other IT software to interpret data and present information
- Monitor and review information from materials, events, sites or the environment, to detect or assess problems. Analyse information thoroughly before it is handed over to design consultants, contractors and other stakeholders
- Coordinate findings with the work of engineering personnel, clients, and others concerned with projects. Analyse survey objectives and specifications in order to prepare survey proposals or to direct others in survey proposal preparation

- Compute survey measurements and interpret survey data in order to determine positions, shapes, and elevations of topographic features.
- Use relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards
- Participate in consultation/stakeholder workshops including consultation/stakeholder workshops to be held by Design Consultants and other Consultants.
- Participate in validation workshops to validate: i) preliminary engineering designs, studies and reports; and ii) detailed engineering designs/studies, draft final reports, draft bidding documents, technical specification, etc.
- Participate in review of deliverables submitted by consultants (inception report, draft final report, final report, surveys and design reports, technical specifications, summaries, etc.)
- Prepare work plan, inception report, procurement monthly progress reports, quarterly progress reports, annual reports, etc. Prepare presentations, reports and briefs as required by the designated officer of the MPWR&H
- Carry out any other duties as may be assigned from time to time
- Inform the AfDB, EU Delegation and the Government of any event likely to affect or delay the progress of the project
- Report immediately to the Government, the Bank and the EU Delegation to Somalia any noted fraud and corruption or governance issues with staff, bidders and consultants

5. Qualifications, Skills and Experience

- a) A University Bachelor's Degree in Surveying, Civil Engineering, Highway Engineering or a related discipline from a recognised university and at least 8 years work experience in road/infrastructure projects. OR, Masters' degree in Surveying, Highway Engineering, from a reputable university and at least 6 years' experience in road/infrastructure project. OR a University Bachelor's Degree in Surveying, Civil Engineering, Highway Engineering or a related discipline from a recognised university together with a professional qualification (Chartered Surveyor, Licensed Surveyor, Registered Surveyor, Chartered Engineer, Professional Engineer, Registered Engineer) and have at least 6 years' experience in road/infrastructure project.
- b) At least 3 years' working on similar project and has worked on at least 2 similar projects in a developing country preferably in Africa in the transport sector (road/infrastructure studies and construction)
- c) Previous work history with main contractor engineering construction company or have had previous experience working on civil related projects with a survey firm or government
- d) A good understanding and demonstrative experience of modern survey instrumentation, including Total Station, satellite technique - Global Navigation Satellite System (GNSS) Real Time Kinematic (RTK through GPS, etc.), data modeling and manipulation
- e) Experience of carrying out detailed topographic surveys using the most up to date surveying procedures and equipment regarding road works, bridge sites, culvert sites, and others where necessary

- f) Experience of establishing primary reference beacons and benchmarks for topographic survey and future works as well as establishing secondary reference beacons and benchmarks
- g) Experience of levelling operations, setting out designed road alignments (horizontal alignment and vertical alignment, surface elevation), slope stakes, highway structures to the accuracy required
- h) Experience of developing a topographic contour map showing the following topographic surveys information: i) ground contours, site boundaries, major landmarks, survey benchmarks, ii) all visible physical features including existing buildings and infrastructure, all paved and unpaved roads, all streams, water bodies, trees, anthills, rock outcrops, iii) all underground and overhead utility systems, water supply wells and lines, cables, telephone lines and poles, electric lines and poles, and iv) drainage, drains, channels, culverts, sewerage, invert of drainage structure, manholes and type and diameter of connecting pipes
- i) Computer literacy in standard software such as Microsoft Office (Word, Excel, Access, PowerPoint, Outlook, etc.) is mandatory
- j) Excellent interpersonal, oral and written communication skills (English Language)
- k) Decision-making skills, high levels of numeracy and the ability to work independently
- l) Ability to handle responsibility, capacity to identify problems quickly and to offer solutions
- m) Accuracy, especially when using equipment; ability to conceptualise 2D and 3D information
- n) Ability to work and deliver results in an environment with multiple and challenging tasks
- o) High level of integrity, confidentiality in handling public resources, must be highly motivated, innovative and a committed team player

6. Reports and Deliverables

The deliverables and their timescales are specified below. All reports and deliverables shall be written in English Language and delivered in electronic copies (Word Format and PDF) and in four (4) hard copies: 1 hard copy each to MPWR&H, AfDB, EU Delegation to Somalia and the PCU (Project Coordinating Unit) Project Manager/Coordinator. The Reports will be reviewed by stakeholders.

No	Deliverables	Timescales
1	Inception Report	14 days after start of the assignment
2	Monthly Progress Reports	Monthly: within 7days after the end of the reporting month
3	Quarterly Progress Reports	Quarterly: within 7days after the end of the reporting quarter
4	Annual Reports	Annually: within 7days after the end of the reporting year
5	Mission Reports	Within 3 days after return from mission
6	Draft Final Report	Within 21 days prior to end of contract
7	Final Report	Within 7 days after end of contract

Inception Report: outlining the approach and methodology and work plan to fulfil the Terms of Reference for the assignment. This will include a breakdown of work, timelines, risks, and an overview of stakeholders to be engaged during the assignment. The Inception Report shall be reviewed, discussed and agreed with the MPWR&H, AfDB and EU Delegation to Somalia and the PCU Project Manager/Coordinator.

Monthly Progress Reports: summarising progress and key achievements in the reporting month; planned activities for the coming month; problems identified and solution proffered during the reporting period.

Quarterly Progress Reports: updating activity and staff schedule showing actual against planned progress and achievement of deliverables; description of work completed in the reporting period and planned activities for coming quarter; summary of issues addressed; identifying potential problems, delays, etc.

Annual Reports: outlining progress against agreed work plan, activities and outcomes, challenges, risks and options to mitigate them; update on costs, recommendations.

Mission Reports: addressing mission discussions, decisions reached and actions points.

Draft Final Report: detailing actual progress against original planned activities, inputs, key issues raised and addressed during the assignment; outstanding issues; lessons learned and recommendations.

Final Report: updating Draft Final Report by incorporating comments, feedback and suggestions from the stakeholders. The report should be complete with objectives, methodology, key findings, and recommendations with annexes of relevant information.

7. Reporting

The Engineering Surveyor will work under the supervision and guidance of the designated officer in the the MPWR&H and in collaboration with the PCU staff, AfDB Somalia team, EU Delegation to Somalia.

8. Duration of Assignment

The input of the Engineering Surveyor will be 36 person-months. An initial Contract will be issued for a period of one (1) year, with a probation period of six (6) months and may be extended for a period of one (1) year and renewable annually subject to satisfactory performance, budget availability and operational needs.

9. Services and Facilities to be Provided by the Client

The Client will be responsible for provision of the following:

- Office space equipped with access to Internet, local telephone line, printers, personal computer, photocopier, fax machines and document binding
- General office supplies, stationeries
- Access to necessary documents

10. Remuneration

The Engineering Surveyor's remuneration will include their professional fees, accommodation, transport, medical fees, etc.

11. Duty Station

The Engineering Surveyor will be based in the MPWR&H, Mogadishu, Somalia and will be expected to travel frequently on missions within Somalia as may be required.