

Republic of Kenya



**MINISTRY OF TRANSPORT, INFRASTRUCTURE, HOUSING, URBAN
DEVELOPMENT AND PUBLIC WORKS.**

State Department for Housing and Urban Development

Second Kenya Informal Settlements Improvement Project (KISIP)

Credit No: 6759-KE

Project ID No: P167814

Terms of Reference

For

Consultancy Services for Engineering Design Review, Repackaging of Detailed Engineering Designs, and Preparation of Procurement Documents; updating RAP and ESIA Reports; and Supervision of the proposed Infrastructures improvement works in selected Informal Settlements in the Counties of Nairobi & Nakuru (8No. Settlements).

CONTRACT NO. KE-MOTI-214833

April 2021

1. Introduction

The Government of Kenya has received a Credit from the IDA towards the cost of the Second Kenya Informal Settlements Improvement Project (KISIP) and intends to apply part of the proceeds of the credit to procure the Consultancy Services for Engineering Design Review and Repackaging of Detailed Engineering Designs; preparation of Procurement Documents; updating RAP and ESIA Reports; and Supervision of the proposed repackaged Infrastructures improvement works in selected Informal Settlements in the Counties of Nairobi & Nakuru.

The overall objective of KISIP 2 Programme is to improve access to basic services and tenure security of residents in participating urban informal settlements and strengthen institutional capacity for slum upgrading in Kenya.

This Project, while concentrating on informal settlements, complements existing and past urban operations in Kenya to address the Urban infrastructure deficit and Urban institutional challenges. It supports the Governments' affordable housing agenda as it seeks to complement the demand-side and supply-side operations to improve housing affordability.

The project has the following four components:

Component 1: Integrated Settlement Upgrading. This component supports settlement upgrading through two main interventions classified under two sub-components:

Sub-component 1.1: Tenure regularization

Coordinates regularization of tenure for people living on uncontested public lands whose process includes;

- (i) Development of a local physical plan for the settlement which lays out land parcels and infrastructure (roads, drainage, walkways, etc.);
- (ii) Surveying with physical placement of beacons to demarcate the parcels as per the plan;
- (iii) Preparation and issuance of letters of allotment based on the survey plan; and finally
- (iv) Issuance of titles.

Sub-component 1.2: Infrastructure Upgrading

Coordinates infrastructure investment portfolio whose menu includes: roads, bicycle paths, pedestrian walkways, street and security lighting, vending platforms, solid waste collection and settlement sorting, storm water drainage, water and sanitation systems, public parks, and green spaces. It further includes investments related to prevention of crime and violence, including but not limited to community centers.

Component 2: Socioeconomic Inclusion Planning

This component supports community development plans to enhance social and economic inclusion, identifies beneficiaries who fit the eligibility criteria of government programs but are excluded and connects them appropriately, supports participatory crime and violence mapping, monitors the employment of local labor, carries out community capacity building

and awareness raising for various project interventions including community-based solid waste management.

Component 3: Institutional Capacity Development for Slum Upgrading

This component supports institutional and policy development at national and county levels; develops a capacity building plan for national and county levels to implement the Strategy and to develop understanding of slum upgrading processes; also supports technical assistance, training, workshops and learning events, experience sharing and peer-learning activities with other counties, and other capacity building activities.

Component 4: Program Management and Coordination

This component supports activities of the NPCT and the CPCT related to national and county-level project management and coordination, including planning, surveying, engineering, fiduciary (financial management and procurement), safeguards compliance and monitoring, monitoring and evaluation (M&E), communication and community development.

2. Objective of the Consultancy

The overall objective of the consultancy is to ensure that the proposed infrastructure improvement works are implemented to the required specifications so as to improve living conditions in the selected informal settlements in Counties of Nairobi & Nakuru.

3. Scope of Services

3.1. Overview of the Scope of Services

The Consultant's role and responsibilities in the assignment shall include,

- a. To fulfill the role of the Design Engineer in the design review and repackaging of the proposed infrastructure construction works to be undertaken in selected informal settlements and counties under each cluster;
- b. To fulfill the role of the Engineer's Representative (ER) to the Engineer who shall be appointed by the respective County Government, being the Employer, in the supervision of the proposed infrastructure construction works to be undertaken in selected informal settlements in the respective counties under each cluster; and
- c. To provide the Client with regular status reports and other reports as per the Terms of Reference and as shall be required by the client from time to time, together with all related necessary technical assistance and professional advice, backed by professional recommendations to the Engineer, related to supervision of the construction of the said works.

3.2. Design Review and Repackaging of the Infrastructure Upgrading works, Tender document preparation and assistance in the tendering process

The services by the consultant under this heading includes and not limited to.

- a) Review the existing infrastructure designs including preparation of detailed designs, prepare and package infrastructure designs to fit within provided budgets per settlement in consultation with respective counties and settlement committees. Where the existing designs may not be applicable, the consultant will be expected to prepare new designs, including surveying, carrying out site investigations and RAPs as appropriate, for the affected settlements at no additional cost to the Client. The Consultant will be expected to have factored such costs after having undertaken site visits and review of the existing designs and costed appropriately;
- b) Advise the client on the design implementation feasibility in settlements with a view to dropping those whose design are not feasible;
- c) Review and update existing RAP and ESIA Reports;
- d) To prepare design reports and cost estimates and procurement documents ready for bidding process. The design reports shall include the design philosophy, calculations, drawings etc. The drawings and survey data shall be sufficiently detailed for issuance to the Works contractors; and
- e) Prepare all the construction tender documents, which include the conditions of contract, instructions to bidders, bills of quantities, drawings, and specifications.

3.3. Supervision of Repackaged Infrastructure Upgrading Works

The services to be provided by the consultant under this heading shall be those specified as being the responsibility of the Engineer's Representative in the works contract, which will be signed between respective Counties and Contractor(s) and shall include;

3.3.1. Pre-construction contract award and coordination

- a) Assist the Client in the tendering process, pre-bid site visit, clarifications to bidders and bid evaluation. The consultant will be responsible for the following in consultation with the Client.
 - 1) Conduct pre-bid site visit and conference.
 - 2) Prepare response to queries raised by bidders.
 - 3) Participate in the evaluation of tenders received by the Client.
 - 4) Participate in preparation of Tender Evaluation Report; and
 - 5) Attend Contract negotiations between the Client and the Contractor.
- b) Assist the County Project Coordinating Team (CPCT) and the Engineer in the preparation and handing over the site to the successful Contractor within the specified time framework
- c) Assist the Engineer in coordination with stakeholders and sectoral agencies responsible for the regulation and operation of proposed infrastructures
- d) Facilitate coordination meetings, with the Contractors and the Engineer and/or Employer throughout the contract period

- e) Facilitate and coordinate liaison with relevant authorities e.g. Kenya Power, Local Water Services Providers among others in the removal or relocation of existing services, obstacles, or encumbrances.

The consultant will be expected to mobilize the site supervision team prior to commencement of the construction works.

3.3.2. Construction Phase Quality Control

- a) Assist the Engineer in the issuance to the contractor the order to commence works.
- b) Prepare and issue the necessary notices and instructions to the contractor
- c) Develop a Quality Control and Assurance system for the works.
- d) Review and approve drawings, materials and proposed construction methods statement submitted by the Contractor to ensure compliance with the contract requirements
- e) Review and approve Contractor(s) proposed personnel for positions nominated in the Contract
- f) Review and approve the work zone (including work site, plant site and contractor operated quarry locations) safety plan and ensure compliance
- g) Inspect, check, and conduct quality test on the works. The consultant will maintain records of all quality tests.
- h) Monitoring and track of progress of works, identify causes, or potential causes, of any delay and advise the Engineer of suitable corrective actions in a timely manner. The Consultant will develop a contract performance plan (system),
- i) Inspect the Works or any part of the Works, on Substantial Completion

3.3.3. Occupational Safety and Environmental and Social Management

- a) Review and approve Contractor's Environmental and Social Management Plan (C-ESMP) and ensure it is compliant with EIA report and World Bank's Environmental and Safety Management Plan Guidelines (ESMP). The consultant will monitor and enforce implementation of the C-ESMP and recommend remedial measures to be implemented by the contractor.
- b) Make periodic reports to the Engineer/ Employer on status of implementation and compliance with the Contractor's environmental and social management plan.
- c) Ensure that the construction methods proposed by the Contractor for carrying out the works are of sound environmental standards,
- d) Inspect at regular intervals, the Contractor(s) plant and facilities, to ensure that they conform to both the conditions of contract and all government regulations. The consultant shall also review the Contractor's occupational health and safety measures, including labour welfare and notify immediately both the Engineer and the Contractor of any infringement or violation of Kenyan labour laws.
- e) Open and maintain complaints and grievances logs for recording of complaints and grievances including regular updating, as necessary. The consultant will be expected to review and collate, as part of the quarterly reports, grievance logs from contractors.

- f) Closely coordinate with the contractor's Safety Officers and formulate site safety guidelines & prepare checklist for safety auditing by field supervision team on day-to-day basis and carryout routine safety audit during the construction period
- g) Review, comment and submit significant incidences reports, notifications, and reports on Safeguards Corrective Action Plan (SCAP).

3.3.4. Time and Cost Control

- a) Develop a project time and cost control plan.
- b) Assist the Engineer in the formulation, review and/or updating and implementation of the works specific risk management plan
- c) Maintain records such as weather, test data, details of variations, correspondences and diaries in the formats approved/specified by the Engineer.
- d) Review and approve or otherwise, resourced contractor's work program including activity scheduling and resource programming with cash flow schedule including updates for variances exceeding 10%.
- e) Carryout comprehensive quarterly project financial appraisal and advice, with recommendations, to the Engineer accordingly.
- f) Receive and review applications for payment from the contractor, prepare and submit Payment Certificate submit to the Engineer with recommendations for certification.
- g) Review any Variations and advise the Engineer accordingly
- h) Review any Contractor's time and financial claims and advise the Engineer on the admissibility and veracity of the claims.
- i) Prepare the statements of completion and final accounts at appropriate times.

3.3.5. Works commissioning, demobilization, and construction contract closure

- a) Coordinate the acceptance tests and prepare the Certificate of Completion (Taking Over and Performance Certificates) for issuance by the Engineer.
- b) Prepare the completion report for the works
- c) Oversee and review the preparation of 'as-built drawings' and operation and maintenance manuals.
- d) Carry out inspections of the works at appropriate intervals during the Defect Notification Period
- e) Review and approve contractor's demobilization plan.

3.4. Other Services:

- a. Prepare and submit monthly and quarterly progress reports for the Engineer. A copy of the report shall be shared DIRECTLY with the National Project Coordination Team (NPCT).

- b. Assist the Engineer and the CPCT with responses to oversight bodies such as the Auditor General and the World Bank amongst others.
- c. Assist the client during Dispute Board Meetings, Adjudication, Arbitration Proceedings, and any other hearings called by statutory and legal bodies.

4. Obligations of the Consultant

The Consultant shall be responsible for the provision of all the necessary resources to carry out the services including appropriate qualified staff and shall make arrangements for the establishment of office, supporting office equipment and furniture, vehicles, accommodation, utilities, communications, insurance and any other required resources and procurement of all maps required for the designs. The Client, from time to time during the performance of the contract, may second to the Consultant project Engineers at the National and/or county levels for training and capacity building.

5. Duration and timing of services; and Staff requirement and estimated time input

The time period required for the provision of the consultancy services is envisaged to be 1 month for consultant’s mobilization, 6 months for design review, packaging, preparation of procurement documents, updating of RAP and ESIA Reports and bidding process; 12 months for supervision of works and 12 months for Defects Notification Period of the works and 1 months for preparation of Final Completion report.

5.1. The envisaged Project Schedule is as follows:

- | | |
|--|-----------|
| • Contract inception | 1 month |
| • Design review, packaging, preparation of procurement documents, updating of RAP and ESIA Reports | 3 months |
| • Bidding process | 3 months |
| • Construction Supervision & Works Commissioning | 12 months |
| • Defects Liability Period Inspections | 12 months |
| • Final Completion Report | 1 month |

5.2. Staff requirements (Key and Technical Support Staff)

Key professional staff qualifications and competence (with documentary proof) for the assignment are:

<p>Team Leader</p> <ul style="list-style-type: none"> • BSc./B.Tech in Civil & Structural Engineering or Water Engineering, with at least 15 years general experience in handling construction contracts, and be conversant with conditions of Informal Settlements • Must be a registered Professional Engineer with EBK or its equivalent, with a valid practicing license, • At least 5 years’ experience as a team leader working in Government and Donor

Funded projects of similar nature and conditions. Experience in World Bank Funded Projects will be an added advantage,

- Post-graduate training in Contract Management, Construction Claims Management or equivalent, and experience in handling construction contract claims will be an added advantage
- Have strong interpersonal skills, excellent analytical skills, report writing skills, communication skills, and ability to work in a team.
- Must be versed with computer aided contract/project management software (Ms Project).

Resident Engineer

- BSc./B.Tech in Civil, Roads or Water and Sanitation Engineering as appropriate.
- Registered Engineer in the category of Professional Engineer with Engineers Board of Kenya (EBK) or its equivalent; with a valid practicing license,
- At least 10 years general experience in Civil, Roads or Water and Sanitation Engineering Designs and Supervision, including 3 years in the design and supervision of urban Roads or Water and Sanitation infrastructure as appropriate
- At least 5 years' experience as a resident engineer in Roads or Water Sanitation construction projects as appropriate of similar nature and conversant with conditions of Informal Settlements,
- Experience in Project Management/Contract Administration and handling of Construction Claims,
- Have experience in construction site management.
- Have excellent analytical, report writing skills, communication, strong interpersonal skills, and ability to work in a team.
- Must be versed with computer aided contract/project management software (Ms Project).

Roads Engineer

- BSc./B.Tech in Civil and Structural Engineering,
- Registered Engineer in the category of Professional Engineer with Engineers Board of Kenya (EBK) or its equivalent; with a valid practicing license,
- At least 10 years general experience in Roads designs and supervision, including 5 years in the design and supervision of Urban Roads projects, and be conversant with conditions of Informal Settlements
- Experience in Project Management/Contract Administration and handling of Construction Claims,
- Have experience in construction site management
- Have excellent analytical, report writing skills, communication, interpersonal skills and able to work in a team.
- Must be versed with computer aided contract/project management software (Ms Project).

Water & Sanitation Engineer

- BSc./B.Tech in Civil or Water Engineering,
- Registered Engineer in the category of Professional Engineer with Engineers Board of Kenya (EBK) or its equivalent; with a valid practicing license,
- At least 10 years general experience in Water and Sanitation projects Designs and Supervision, including 5 years in the design and supervision of Urban Water and Sanitation projects, and be conversant with conditions of Informal Settlements
- Experience in Project Management/Contract Administration and handling of Construction Claims,
- Have experience in construction site management.
- Have excellent analytical, report writing skills, communication, interpersonal skills and able to work in a team.
- Must be versed with computer aided contract/project management software (Ms Project)

Materials Engineer

- BSc./B.Tech in Civil & Structural or Material Engineering,
- Registered Professional Engineer with EBK or equivalent with a valid practicing license.
- At least 10 years general experience in Civil and Roads/Highway Engineering projects,
- At least 5 years as Materials Engineer in Civil and Roads/Highway Engineering projects

Electrical Engineer

- BSc./B.Tech in Electrical Engineering,
- Registered Professional Engineer with EBK or equivalent with a valid practicing license.
- At least 10 years general experience in Electrical Engineering projects,
- At least 5 years' experience in Design & supervision of Electrical Engineering projects, preferably projects involving installation of high mast flood lights,

Surveyor

- BSc. Surveying or Geomatic/Geospatial Engineering,
- Must be registered with a recognized Board(s) of Surveyors
- At least 10 years general experience in Surveying works,
- At least 5 years field experience in Engineering Surveying, and be conversant with conditions of Informal Settlements

Environmental Expert

- BSc. Environmental Science or equivalent,
- At least 10 years general experience in Environmental Assessment,
- At least 8 years field experience in conducting ESIA and SEA in construction projects and donor funded projects of similar nature and conversant with conditions of Informal Settlements,
- Must be registered with the relevant professional body with a valid practicing license

Sociologist/Community/Resettlement Expert

- BA. Sociology or equivalent,
- At least 10 years general experience as a Sociologist,
- At least 8 years field experience in conducting ESIA, SEA, RAPs and Gender Based Violence (GBV) in construction projects and donor funded projects of similar nature and conversant with conditions of Informal Settlements,
- Must be registered with the relevant professional body with a valid practicing license

In addition to the proposed Key Staff, the Consultant is expected to provide non-key staff including works inspectors to supervise construction works during the construction period. The Consultant will be responsible for their office support staff on site and head office. The cost of any support staff not highlighted in the list but which the consultant considers necessary will be deemed to have been included in the Consultant's Financial Proposal.

5.3. Staff Estimated Time Input

S/No	Key and Support Staff	No.	Input (staff months)
Stage I – Design review			
1	Team Leader	1	0.5
2	Roads Engineer	1	2.0
3	Water and Sanitation Engineer	1	1.5
4	Materials Engineer	1	1.5
5	Electrical Engineer	1	1.0
6	Surveyor	1	3.0
7	Environmental Expert	1	3.0
8	Sociologist/ Community/Resettlement Expert	1	3.0
	Subtotal for key staff		15.5
Sub-total Stage 1			15.5
Stage 2 – Construction Supervision and Defects Notification Period			
1	Team Leader	1	4.0
2	Resident Engineer	2	36.0
3	Roads Engineer (One not required when RE is a Roads Engineer)	2	8.0
4	Water and Sanitation Engineer (One not required when RE is a WS Engineer)	2	12
5	Materials Engineer	1	6.0
6	Electrical Engineer	1	3.0
7	Surveyor	2	24.0
8	Environmental Expert	2	12.0
9	Sociologist/ Community/Resettlement Expert	2	12.0
	Subtotal for key staff		117.0
NON-KEY STAFF			

S/No	Key and Support Staff	No.	Input (staff months)
10	Works Inspector	4	48.0
11	Auto CAD	2	24.0
13	Laboratory Technicians	2	24.0
13	Office Administrator	2	24.0
14	Chain men	4	48.0
	Sub-total for Non-Key Staff		168.0
Sub-total Stage 2			285.00
Total Stage 1 and Stage 2			300.5

Note: Assistant Resident Engineers where necessary will be provided by the respective Counties

6. Reporting requirements/deliverable

6.1 Reports

All reports and communications related to this assignment shall be in the English Language and all reports shall conform to a format agreed with Engineer/Client, including an executive summary, a table of contents, standard cover sheet with date and project details, submission letter showing those copied and actual date of submission.

All reports and communications will be sent directly to the KISIP Coordinator/ Client in the number and form specified below.

Reports/Deliverable	Submission Date	Copies	
		Hard Copies	Electronic Copy**
Inception Report	Within 4 weeks after Contract Commencement Date	3	2
Design review, packaging, preparation of procurement documents, updating of RAP and ESIA Reports	Within 4 months after Contract commencement Date	3	2
Construction Monthly Progress Reports	Within one Week of the end of the reporting month	3	2
Quarterly Financial Appraisal Reports	Within one Week of the end of the reporting Quarter	3	2
Project Completion Report	Within 2 weeks of Substantial	3	2

Reports/Deliverable	Submission Date	Copies	
		Hard Copies	Electronic Copy**
for Taking Over	Completion of the whole of the works and agreement of the Contractor's Final Account		
As – built drawings	Within two weeks at the end of Defects Notification Period	3	2
Operations and maintenance manual	Within two weeks after completion and acceptance of the whole works or sections of the works	3	2
Final Completion Report at the End of Defects Liability Period	Within 1 week of end of defects liability period of the whole of the Works	3	2
Any other reports required by the client	As will be required	As will be required	As will be required

N.B ** the soft copies must be delivered in CD-ROM in Microsoft Word and PDF file for text document and in Auto CAD file for all drawings.

- a. The **Inception Report** shall include: full details of the Consultant's mobilization status. Details shall also be recorded of the date of payment of the advance payment, (if any), and thereby the Date of Effectiveness and commencement of the consultancy contract; the situation on-Site/in-country as compared to that envisaged in the Consultant's proposal and any changes proposed to the Terms of Reference as a result of the Consultant's findings; an updated work plan (including actual dates for submission of deliverable).
- b. The **Detailed Design Documents Review Report** shall include: a detailed review and packaging of engineering designs, preparation and packaging of procurement documents (Instructions to bidders, design report, standard and technical specifications, drawings, bills of quantities and confidential cost estimates).
- c. Updated **RAP and ESIA Reports** including an analysis of the environmental and social baseline situation, expected environmental and social impacts and measures to mitigate them, and environmental and social management plan.
- d. **The Monthly Progress Reports** shall contain all the data necessary to serve as a formal record document of the monthly status of the works and consultant's contract, including but not limited to: the contract base data; the detailed status of all aspects of the works; progress against/compared to agreed program; color progress photographs with detailed captions; typical test results against the specification criteria, plus all test

results which do not meet specification and the action taken by the Consultant; details of the Site record keeping system established and available for audit; equipment mobilization/demobilization data against the agreed equipment list; equipment availability records; key professional staffing bar chart for the Contractor, by position, name and duration/days of deployment; interim valuation of the works; payment status of both the Contractor and the Consultant; and full details of all claims, delays, requests for Extensions of Time and any other information the consultants may considered necessary to include in the report.

- e. The **Quarterly Report** shall be a combination of the monthly reports, including an overall financial appraisal of the project and a risk management section.
- f. **The Project Completion Report (PCR)**: The PCR shall be submitted to the Engineer within one week following completion of the construction works.
- g. **Final Completion Report (FCR)**

The FCR will form a comprehensive record of the Construction Work including:

- Details of the handing over of all the ER's Facilities and Resources to the Engineer and
- Details of the handing over to the Engineer of all Site Records, As-Built Drawings and other deliverable - which shall include but not be limited to a record of all test results of the key Soils and Material used in the construction; site photos; with a detailed text on how each of the records have been catalogued and referenced, and to whom they were handed over, to facilitate future use of the record data.

The Consultant shall submit the above-mentioned Reports to the Engineer duly bound in sequential manner with table of contents upfront and cover titles on the front cover. The As-Built drawings should be prepared in A-1 size hard copy as well as in Computer - aided design (CAD) files specified by the Client. Specification of CAD shall be agreed with Client.

6.2 Reporting Format

All the reports shall be ORIGINAL submitted in A4 format, except only the Detailed Engineering Drawings which shall be presented in both A3 and A1 bound sets plus originals. Two electronic CD-R copies (plus one for the Funding Agency) shall also be provided along with hard copies of Schedule of Deliverable. All the deliverable shall be suitable for monochrome photocopying, i.e. figures and charts should not use color alone for identification purposes. All reports shall include a signed and dated Letter of Submission, a Table of Contents and an Executive Summary, in addition to the report text.

7. Institutional Arrangements

Principal Secretary, State Department for Housing and Urban Development; Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works is the Client for these services. The Principal Secretary has appointed the Project Coordinator for the Project as the Client's Representative. During infrastructure implementation, the respective counties will appoint the Engineer to whom the Consultant shall report to on contractual matters. The Project Coordinator will also be responsible for all payments to the Consultants once the services have been accepted.

The Consultant shall work with the participating Counties, KISIP 2 Team from the commencement of the contract to completion.

8. Client Inputs

The Client will:

- (a) Provide the Consultant with available data, maps and reports relevant to the project for use for project purpose only and collaborate in obtaining additional required information
- (b) Facilitate the Consultant's access to Government entities and respective County Governments
- (c) The client shall make available, existing Bidding Documents and Designs and Design Reports to all the shortlisted firms for review prior to submission of their Technical and Financial Proposals.
- (d) Services to be provided under the works contracts during works execution.
 - (a) Fully furnished and serviced site office
 - (b) Fully furnished Laboratory or alternative from an approved materials laboratory service provider approved by the Resident Engineer

ANNEX 1: SCOPE OF WORKS TO BE REPACKAGED AND SUPERVISED

The works to be repackaged and supervised shall comprise of:

- Roads and Drainage Works;
- Street High Mast Lighting Works and;
- Water and Sanitation Works.
- Any other related works as captured in the program.

ANNEX 2: SELECED SETTLEMENTS

Comprising of;

(A) 4 No. Informal settlements in Nairobi County;

- (i) Kahawa Soweto
- (ii) Embakasi Village
- (iii) Kambi Moto
- (iv) Kayole Soweto

(B) 4 No. Informal settlements in Nakuru County;

- (i) Kwa Murogi
- (ii) Karagita
- (iii) London
- (iv) Lake View