



**KENYA RAILWAYS CORPORATION**

**KENYA URBAN MOBILITY IMPROVEMENT (KUMIP)**

**TERMS OF REFERENCE FOR INDIVIDUAL CONSULTANT - SIGNALLING AND  
TELECOMMUNICATION ENGINEERING EXPERT**



**SEPTEMBER 2026**

---

## Table of Contents

|     |                                                                              |    |
|-----|------------------------------------------------------------------------------|----|
| 1   | Background .....                                                             | 1  |
| 2   | Objectives of the Assignment .....                                           | 2  |
| 3   | Scope of Services .....                                                      | 3  |
| 3.1 | Technical Support & Advisory Services.....                                   | 3  |
| 3.2 | Review of Feasibility Study Reports.....                                     | 3  |
| 3.3 | Review of Front-End Engineering Design (FEED)/Basic Engineering Design ..... | 3  |
| 3.4 | Review of Bidding Documents .....                                            | 4  |
| 3.5 | Standard, Regulations and Safety Compliance.....                             | 4  |
| 3.6 | Rolling Stock Integration and Compatibility.....                             | 4  |
| 3.7 | Capacity building and knowledge transfer.....                                | 5  |
| 4   | Outputs, Deliverables and reporting requirements .....                       | 5  |
| 4.1 | Monthly Progress Reports .....                                               | 5  |
| 4.2 | Technical Review Reports .....                                               | 5  |
| 4.3 | Adhoc technical Memoranda.....                                               | 6  |
| 4.4 | Capacity building and knowledge transfer.....                                | 6  |
| 4.5 | Final Assignment Completion Report.....                                      | 6  |
| 5   | Duration and Location of Assignment .....                                    | 6  |
| 5.1 | Assignment Duration .....                                                    | 6  |
| 5.2 | Mode of Engagement .....                                                     | 6  |
| 5.3 | Assignment location.....                                                     | 7  |
| 6   | Minimum Requirements for Consultant's Qualification and Experience.....      | 7  |
| 6.1 | Academic Qualifications.....                                                 | 7  |
| 6.2 | Professional Registration .....                                              | 7  |
| 6.3 | General Professional Experience .....                                        | 7  |
| 6.4 | Specific Experience Requirements.....                                        | 7  |
| 6.5 | Knowledge of standards and regulations .....                                 | 8  |
| 6.6 | Technical Competences and Skills.....                                        | 8  |
| 6.7 | Communication and interpersonal skills .....                                 | 8  |
| 6.8 | Desirable additional experience .....                                        | 8  |
| 7   | Reporting .....                                                              | 9  |
| 7.1 | Reporting structure.....                                                     | 9  |
| 7.2 | Working Relationships.....                                                   | 9  |
| 7.3 | Coordination mechanisms .....                                                | 9  |
| 7.4 | Decision making authority.....                                               | 9  |
| 7.5 | Quality Assurance .....                                                      | 10 |

---

---

|      |                                           |    |
|------|-------------------------------------------|----|
| 8    | Payment Schedule .....                    | 10 |
| 8.1  | Payment Basis .....                       | 10 |
| 8.2  | Payment Frequency .....                   | 10 |
| 8.3  | Contract Ceiling .....                    | 10 |
| 8.4  | Approval of Payments .....                | 10 |
| 8.5  | Reimbursable Expenses .....               | 10 |
| 8.6  | Estimated Time-Input.....                 | 10 |
| 8.7  | Withholding of Payments .....             | 12 |
| 8.8  | Time Records and Audit.....               | 12 |
| 8.9  | Currency of Payment .....                 | 12 |
| 9    | Data, Services and Facilities .....       | 12 |
| 9.1  | Office space and facilities .....         | 12 |
| 9.2  | Project Information and data .....        | 12 |
| 9.3  | Site access .....                         | 13 |
| 9.4  | Counterpart Staff .....                   | 13 |
| 9.5  | Coordination with other Agencies .....    | 13 |
| 9.6  | Travel and transportation .....           | 13 |
| 10   | Obligations of the Consultant .....       | 13 |
| 10.1 | Professional standards.....               | 13 |
| 10.2 | Resource provision .....                  | 13 |
| 10.3 | Quality Assurance .....                   | 14 |
| 10.4 | Communication and coordination .....      | 14 |
| 10.5 | Confidentiality and Data Security.....    | 14 |
| 10.6 | Health Safety and environment.....        | 15 |
| 10.7 | Conflict of Interest .....                | 15 |
| 10.8 | Compliance with laws and regulations..... | 15 |

---

---

## Abbreviation

| Term  | Meaning                                                      |
|-------|--------------------------------------------------------------|
| AFCS  | Automated Fare Collection Systems                            |
| BEMU  | Battery Electric Multiple Units                              |
| CHMP  | Cultural Heritage Management Plan                            |
| ERP   | Enterprise Resource Planning                                 |
| ESS   | Environmental & Social Commitment Plan                       |
| ESIA  | Environmental & Social Impact Assessment                     |
| ESMF  | Environmental & Social Management Framework                  |
| ESS   | Environment and Social Safeguards                            |
| FEED  | Front-End Engineering Design also known as Basic Engineering |
| GOK   | Government of Kenya                                          |
| KR    | Kenya Railways                                               |
| KUMIP | Kenya Urban Mobility Improvement Project                     |
| LMP   | Labour Management Procedure                                  |
| MDBs  | Multilateral Development Banks                               |
| NCR   | Nairobi Commuter Railways                                    |
| NEMA  | National Environment Management Authority                    |
| PIT   | Project Implementation Team                                  |
| RAP   | Relocation Action Plan                                       |
| RPF   | Resettlement Policy Framework                                |
| SA    | Sexual Assessment                                            |
| SEA   | Sexual Exploitation & Abuse                                  |
| SHP   | Sexual Harassment Plan                                       |
| SRA   | Sexual Risk Assessment                                       |
| SEP   | Stakeholder Engagement Plan                                  |
| TA    | Technical Assistance                                         |
| TOD   | Transit Oriented Development                                 |

---

# **TERMS OF REFERENCE FOR SIGNALLING AND TELECOMMUNICATION EXPERT FOR SUPPORT TO THE KENYA URBAN MOBILITY IMPROVEMENT PROJECT (KUMIP)**

## **1 Background**

Kenya Railways (KR) is a State Corporation established in 1978 pursuant to the Kenya Railways Act, Cap 397 Laws of Kenya. It is mandated to develop an integrated rail network and provide rail and inland waterways transport services in the Country.

The Government of Kenya (GOK) has applied for financing from World Bank toward the cost of the Kenya Urban Mobility Improvement (KUMIP) and intends to apply part of the proceeds for consulting services. The Kenya Urban Mobility Improvement Project (KUMIP) is a World Bank-financed project under preparation that aims to transform urban mobility in the Nairobi Metropolitan Area through the development of an integrated, financially sustainable and low-carbon public transport network. The project addresses the chronic underperformance of the Nairobi Commuter Rail network, a metre gauge railway spanning four lines radiating from Nairobi Central Station which currently operates at low frequency, with aging diesel rolling stock, degraded track and civil infrastructure, inadequate stations and minimal integration with other public transport modes. The project will involve the modernization of the Nairobi Central to Thika corridor comprising full track and civil infrastructure renewal including bridges, drainage and level crossing upgrades; station modernization with universal access, gender-informed safety design and intermodal interchange; procurement of rolling stock; traction electrification; signalling and telecommunications upgrade; operationalization of the Makadara depot; and deployment of an Integrated Automated Fare Collection System. The project will also support transit-oriented development planning and land-based financing at priority station areas along the corridor, and the institutional strengthening of Kenya Railways Corporation and other transport related authorities involved in the project.

KR has engaged a Consultant to carry out the Feasibility Study and Front-End Engineering Design (FEED)/Basic Engineering Design for the entire Nairobi Commuter Rail (NCR) network. The Consultant for FEED/Basic Engineering Design is expected to complete the feasibility study within 24 months of contract effectiveness, with priority given to the Nairobi-Thika Line (Line 2)

Given the technical complexity and safety-critical nature of railway signalling, telecommunication, and electrical systems, KR requires specialized expertise to ensure that the feasibility study and FEED/Basic Engineering Design meet internal best practices, safety standards, and World Bank Environmental and Social Framework (ESF) requirements. The consultant will provide independent technical review, strategic advisory services, and ensure compliance with all applicable standards throughout the project lifecycle.

## **Current Signalling and Train Control Status**

---

Train operations on the Meter Gauge Railway (MGR) network are currently governed by the América Latina Logística Track Warranty/Onboard Computer (ATW/OBC) system, a proprietary Direct Traffic Control System where the dispatcher communicates directly with train drivers to issue movement authorities.

**Key Characteristics of Current System:**

- Proprietary system with exclusive rights, incompatible with international railway standards
- Limited to cargo/freight services, not certified for high-frequency commuter operations
- No formal safety rating or certification
- Supplier confirmed end of support in 2020, and the system now due for replacement
- Incomplete implementation- some section of the network, especially the recently rehabilitated branch lines are not covered by the system.
- Very expensive to operate and maintain due to limited source market for proprietary systems

Given the rehabilitation and revitalization of the MGR network and anticipated increase in train traffic, particularly in the Nairobi Commuter Railway network where passenger safety is paramount, there is an urgent need for modern, efficient, and reliable signalling and telecommunication systems compliant with international standards that support open, interoperable, and multi-vendor solutions.

**2 Objectives of the Assignment**

The specific objectives of this consultancy are to:

- Review proposals for signalling system modernization against modern standards based on ETCS or equivalent, to support safe train operations at design headways of 5-10 minutes during peak periods;
- Review and recommend modern telecommunication systems including fibre-optic backbone network, train-to-ground communication system such as GSM-R or LTE-R or FRMCS), and passenger information systems
- Advise on deployment of open standard, interoperable and multivendor signalling and telecommunication systems to reduce lifecycle costs
- Verify interoperability and compatibility between new and existing rolling stock and existing/upgraded infrastructure
- Advise on Reliability, Availability, Maintainability, Safety (RAMS) compliance with maintenance support
- Assess testing and commissioning facilities including signalling laboratories and electrical testing equipment for ongoing maintenance and system verification.

---

### **3 Scope of Services**

The individual consultant shall provide technical advisory services covering the following scope of work:

#### **3.1 Technical Support & Advisory Services**

- Provide specialized technical advisory services on railway signalling systems design, telecommunication infrastructure planning and engineering for all project components;
- Advise PIT on train protection and signalling systems, with primary expertise in ETCS Level 1, computer-based interlocking and track detection systems, and provide technical advice on their integration, interoperability and implementation within the proposed railway system.
- Provide secondary technical input on railway telecommunications architecture, including the review of GSM-R, LTE-R and emerging FRMCS technologies, particularly their interface with signalling, train control and other railway systems, as applicable.
- Support interpretation and implementation of consultant recommendations on feasibility studies and design reports;
- Provide technical guidance on rolling stock procurement specifications to ensure compatibility with wayside signalling and telecommunication infrastructure.
- Provide technical advisory services on railway signalling and telecommunication engineering to KRC, as requested.

#### **3.2 Review of Feasibility Study Reports**

- Review Inception Report with specific focus on signalling system concepts, telecommunication architecture, and baseline assessment;
- Review Draft Feasibility Study including hazard identification and risk assessment (HIRA) for signalling systems and telecommunication network vulnerability analysis;
- Review Final Feasibility Report with comprehensive evaluation of recommended signalling technology options and telecommunication system architecture;
- Review compliance with World Bank Environmental and Social Framework (ESF) requirements, including Environmental and Social Management Plans (ESMP) related to signalling and telecommunication infrastructure.

#### **3.3 Review of Front-End Engineering Design (FEED)/Basic Engineering Design**

- Review preliminary and detailed signaling system designs including interlocking logic, track circuits/axle counters, signals, level crossing protection systems, and control centre architecture;
- Review telecommunication system designs including fibre-optic backbone networks, radio communication systems (GSM-R/LTE-R/FRMCS), CCTV

---

surveillance, public address systems and passenger information display systems;

- Verify RAMS compliance throughout all design documentation with specific attention to safety integrity levels (SIL) requirements for signaling systems;
- Review of signalling system immunity specifications; assessment of track circuit or axle counter susceptibility to traction interference; and review of cable separation and shielding provisions for signalling cables in proximity to traction power cables. The expert shall jointly with the Electrical Systems expert review and sign off on the overall EMC management plan.
- Review depot and workshop designs with emphasis on signaling testing laboratories and telecommunication diagnostic facilities.

### **3.4 Review of Bidding Documents**

- Review technical specifications for signaling and telecommunication systems to ensure compliance with international standards (UIC, CENELEC EN 50126/50128/50129/50159, IEC 62278, IEC 62425, ISO 55000);
- Review employer's requirements and performance specifications including required safety integrity levels, availability targets, maintainability requirements, and lifecycle cost parameters;
- Review drawings, schematics and technical documentation for accuracy, completeness, and constructability;
- Review design-build documents under FIDIC Yellow Book provisions with specific attention to technical requirements, testing and commissioning procedures and acceptance criteria;
- Ensure inclusion of robust cybersecurity requirements for all telecommunication and digital signaling systems in specifications.

### **3.5 Standard, Regulations and Safety Compliance**

- Verify compliance with applicable Kenya Railways regulations and standards
- Ensure adherence to international railway standards including UIC, CENELEC standards suite, IEC standards, and ISO standards;
- Review safety management systems including hazard logs, safety cases and safety assurance processes;
- Verify compliance with World Bank Environmental and Social Framework (ESF) including occupational health and safety requirements.

### **3.6 Rolling Stock Integration and Compatibility**

- Review rolling stock technical specifications to ensure compatibility with proposed signaling systems (onboard ATP/ATO equipment, train detection systems compatibility);
- Ensure telecommunication system interoperability between onboard and wayside equipment.

---

### **3.7 Capacity building and knowledge transfer**

- Support capacity building of PIT and KR signalling and telecommunication and through mentoring, training sessions and knowledge transfer;
- Provide guidance on establishing maintenance procedures, testing protocols, and quality assurance processes.
- Support capacity building of KRC staff on railway signalling and telecommunication engineering, based on identified needs and agreed priorities

## **4 Outputs, Deliverables and reporting requirements**

The individual consultant shall prepare and submit the following deliverables

### **4.1 Monthly Progress Reports**

Submit monthly progress reports containing the following:

- Summary of activities undertaken during the reporting period
- Key technical issues identified and recommendations provided;
- Status of document reviews and approvals;
- Work plan for the following month;
- Risk register and mitigation measures

### **4.2 Technical Review Reports**

Provide comprehensive technical review reports (within two weeks of receiving the documents for review) covering the following:

- Review of Inception Report-signalling concept review, telecommunication system architecture assessment;
- Review of Draft Feasibility report- hazard management assessment, RAMS compliance verification, standards conformity check, World Bank ESF compliance review;
- Review Final Feasibility Report- comprehensive technical evaluation with recommendations for FEED phase;
- Review of FEED/Basic Engineering Design- detailed design reviews covering all signaling and telecommunication components;
- Review of Bidding Documents- comprehensive review of technical specifications, performance requirements, and contract provisions.

Each technical review report shall include executive summary, detailed technical findings, compliance assessment, risk identification, and actionable recommendations with priority classification (critical/major/minor). The Consultant will facilitate technical discussions with KR, document resolutions, and participate in meetings with the FEED/Basic Engineering Design Consultant when requested by KRC.

---

### **4.3 Adhoc technical Memoranda**

Prepare technical memoranda as required addressing specific technical queries, design clarifications, standard interpretations and emerging technical issues. Response time for urgent technical queries shall be mutually agreed with KRC.

### **4.4 Capacity building and knowledge transfer**

A key objective of this assignment is to strengthen the technical capacity of Kenya Railways staff in railway signalling and telecommunication systems.

The consultant shall conduct minimum 4 training workshops covering modern signalling technologies, telecommunication infrastructure, RAMS methodology, and safety assurance. Prepare and submit a comprehensive training report with the training materials, technical guidance notes, and knowledge management recommendations.

### **4.5 Final Assignment Completion Report**

Submit a comprehensive final assignment completion report containing the following:

- Executive summary of the entire assignment;
- Summary of all technical reviews conducted and key recommendations provided;
- Assessment of design consultant performance and adherence to international best practices;
- Performance metrics achieved, lessons learned and best practices applicable for future phases;
- Recommendations for implementation phase including testing and commissioning strategies;
- Recommendations for capacity building and knowledge management within Kenya Railways.

## **5 Duration and Location of Assignment**

### **5.1 Assignment Duration**

The total Level of Effort (LoE) is 12 person-months over a period of 24 months coinciding with the duration of the feasibility study and FEED/Basic Engineering Design phase. The Consultant's inputs shall be intermittent and demand-driven, based on project needs. The Consultant will undertake tasks as agreed with the Client, each assigned an indicative number of person-days prior to commencement. These person-days may be adjusted through prior consultation and mutual agreement between the Consultant and the Client. The Consultant shall not exceed the agreed LoE ceiling without prior written approval from the Client.

### **5.2 Mode of Engagement**

The engagement will be structured as a hybrid arrangement with flexibility to accommodate project requirements. The Consultant is expected to provide intermittent inputs aligned with key project milestones including document review

---

periods, design workshops, and technical meetings. Time inputs may be non-continuous and will be adjusted based on project progress and deliverable submission schedules from the design consultant

### **5.3 Assignment location**

The in-country assignment will be primarily based in Nairobi, Kenya, at Kenya Railways offices. Periodic site visits to the Nairobi-Thika rail corridor and associated project sites will be required. Remote working arrangements may be accommodated for specific tasks such as document reviews, per agreement with the Client and ensuring effective communication and responsiveness.

## **6 Minimum Requirements for Consultant's Qualification and Experience**

### **6.1 Academic Qualifications**

- Bachelor's degree in Electrical Engineering, Electronics Engineering, Telecommunications Engineering, Railway Systems Engineering or equivalent from a recognized institution of higher learning.

### **6.2 Professional Registration**

- Registered Professional Engineer with an internationally or nationally recognized engineering body; registration with the Engineers Board of Kenya or willingness to obtain temporary registration is desirable.

### **6.3 General Professional Experience**

- Minimum of 10 years of progressively responsible professional experience in railway systems engineering.

### **6.4 Specific Experience Requirements**

- At least 7 years of specialized experience in railway signalling and train control systems design, specification, implementation, testing, and commissioning;
- Demonstrated experience in the design, review or procurement of ETCS-based lineside train protection systems (Level 1 or 2 preferred). Experience with CBTC, CTCS or other train control technologies considered advantageous."
- Proven experience in railway telecommunication systems including fiber-optic networks, radio communication systems (GSM-R, LTE-R, or equivalent), and digital communication protocols;
- Demonstrated personal responsibility for system-level technical review/design of a railway signalling modernisation program involving ETCS or equivalent train protection technology
- Demonstrated experience with RAMS (Reliability, Availability, Maintainability, Safety) analysis and safety assurance processes for railway signalling systems;
- Experience in depot and workshop signalling systems, maintenance facility design, and testing/commissioning environments.

---

## **6.5 Knowledge of standards and regulations**

- Comprehensive knowledge of international railway standards including UIC leaflets, CENELEC standards (particularly EN 50126, EN 50128, EN 50129, EN 50159), IEC standards (IEC 62278, IEC 62279, IEC 62425), and ISO standards (ISO 9001, ISO 55000);
- Familiarity with railway safety management systems, hazard identification and risk assessment (HIRA) methodologies, and safety case development;
- Knowledge of World Bank Environmental and Social Framework (ESF) requirements applicable to railway infrastructure projects.

## **6.6 Technical Competences and Skills**

- Proven track record in design review, technical specification development, and quality assurance for railway signalling, and telecommunication systems;
- Expertise in railway systems integration, particularly rolling stock-to-infrastructure interface management and compatibility verification;
- Proficiency with modern design and simulation software tools relevant to railway signalling and electrical systems;
- Strong analytical and problem-solving skills with ability to identify technical risks and develop effective mitigation strategies;
- Demonstrated ability to challenge design assumptions and provide constructive technical critiques to design consultants;
- Understanding of contract administration for design-build contracts (FIDIC Yellow Book or equivalent).

## **6.7 Communication and interpersonal skills**

- Exceptional written and oral communication skills in English with ability to prepare clear, concise technical reports and present complex technical information to diverse audiences;
- Strong interpersonal skills with demonstrated ability to work collaboratively with multidisciplinary teams, government agencies, and international consultants;
- Ability to provide mentoring and capacity building support to client staff;
- Demonstrated leadership and sound judgment in technical decision-making.

## **6.8 Desirable additional experience**

- Experience with Diesel Electric Multiple Unit (DEMU) or hydrogen fuel cell train technologies and associated electromagnetic compatibility (EMC) considerations;
- Experience in cybersecurity for railway telecommunication and digital signalling systems;
- Professional certifications related to railway signalling, safety engineering, or systems engineering;
- Experience working in Sub-Saharan African railway projects or similar operating environments.

- 
- Experience with World Bank or other multilateral development bank (MDB) financed projects.

## **7 Reporting**

### **7.1 Reporting structure**

The Individual Consultant shall report directly to the Project Team Leader of the Kenya Railways Project Implementation Team (PIT). The reporting structure is designed to ensure effective coordination, timely decision-making and clear accountability throughout the assignment.

### **7.2 Working Relationships**

The Consultant will work closely with and interface with the following entities:

- Kenya Railways Project Implementation Team (PIT) - primary client and day-to-day coordination;
- FEED/Basic Engineering Design Consultant - technical reviews and design discussions;
- Kenya Railways Operations Department - operational requirements input;
- Kenya Railways Engineering and Technical Services Department - maintainability and lifecycle considerations;
- World Bank Task Team - periodic progress updates and safeguards compliance;
- Regular joint inter-expert coordination sessions chaired by the PIT Team Leader.
- The expert is required to coordinate with the other individual technical experts involved in the project on a more frequent basis as needed.

### **7.3 Coordination mechanisms**

- Bi-weekly technical coordination meetings with FEED consultant during active design periods;
- Regular joint inter-expert coordination sessions chaired by the PIT Team Leader.
- The expert is required to coordinate with the other individual technical experts involved in the project on a more frequent basis as needed.
- Monthly progress meetings with PIT senior management;
- Ad-hoc technical workshops and review sessions as required by project milestones.

### **7.4 Decision making authority**

The Consultant shall:

- Have authority to request additional information and clarifications from the FEED consultant;
- Provide technical recommendations and approval/non-approval recommendations to PIT;
- Escalate critical technical issues requiring management decisions to Project Team Leader;

- Not have direct contractual authority over the FEED consultant - all formal communications shall be channelled through PIT.

## 7.5 Quality Assurance

The Consultant's work will be subject to quality assurance review by the Project Team Leader. The World Bank may conduct periodic supervision missions and review the Consultant's technical outputs as part of project oversight activities.

## 8 Payment Schedule

### 8.1 Payment Basis

Payments shall be made monthly based on actual person-days worked, supported by invoices and certified timesheets approved by the Project Team Leader.

### 8.2 Payment Frequency

Payments shall be made monthly, subject to submission and approval of timesheets and brief progress reports.

### 8.3 Contract Ceiling

The total payments shall not exceed the ceiling corresponding to twelve (12) person-months (264 person-days).

### 8.4 Approval of Payments

All payments shall be subject to approval by the Project Team Leader.

### 8.5 Reimbursable Expenses

Reimbursable expenses shall be limited to pre-approved travel and subsistence costs and shall be reimbursed at actual cost upon submission of supporting documentation.

### 8.6 Estimated Time-Input

The table below presents the estimated time-input for the assignment. The allocation of person-days below is indicative only and may be adjusted based on assignment requirements. It does not constitute payment milestones.

**Table 1: Indicative Level of Effort Allocation**

| Item | Activity        | Activity Description                                                                                                                                                     | Output / Deliverable                                 | Estimated Expert Input Duration (Person-Months) |
|------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-------------------------------------------------|
| 1    | Inception Phase | Review and familiarization with all relevant project documents, contracts, and feasibility study inception report and any other technical support related to the project | Expert's Inception Report and comments as applicable | 1                                               |

| <b>Item</b> | <b>Activity</b>                                  | <b>Activity Description</b>                                                                                                                                                               | <b>Output / Deliverable</b>                                                                                          | <b>Estimated Expert Input Duration (Person-Months)</b> |
|-------------|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| 2.1         | Feasibility Study                                | Review of Draft Feasibility Reports (as per Section 3(vii)) and any other technical support related to the project                                                                        | Review Report on Draft Feasibility Study and comments as applicable                                                  | 1                                                      |
| 2.2         | Feasibility Study                                | Review of Final Feasibility Reports (as per Section 3(vii))                                                                                                                               | Review Report on Final Feasibility Study                                                                             | 1                                                      |
| 3           | FEED / Basic Engineering Design (Corridor Level) | Review of Designs / FEED / Basic Engineering Reports and Bid Documents for Nairobi–Ruiru–Thika Line, Access Roads, and TOD and any other technical support related to the project         | Review Report on FEED / Basic Engineering Designs and Bid Documents (Nairobi–Ruiru–Thika) and comments as applicable | 2                                                      |
| 4.1         | Network-Wide FEED Review                         | Review of Interim Design / FEED / Basic Engineering Report for Entire Commuter Rail Network, Access Roads, and TOD and any other technical support related to the project                 | Review Report on Interim FEED and comments as applicable                                                             | 1                                                      |
| 4.2         | Network-Wide FEED Review                         | Review of Draft Final Design / FEED / Basic Engineering Report for Entire Commuter Rail Network, Access Roads, and TOD and any other technical support related to the project             | Comments and Review Report on Draft Final FEED and comments as applicable                                            | 2                                                      |
| 4.3         | Network-Wide FEED Review                         | Review of Final Design / FEED / Basic Engineering Report and Bid Documents for Entire Commuter Rail Network, Access Roads, and TOD and any other technical support related to the project | Comments and Review Report on Final FEED and Bid Documents and comments as applicable                                | 1                                                      |
| 5           | Investment Program                               | Review of Investment Program for NCR Network, Station Areas, Access Roads, and Transit-Oriented Development                                                                               | Review Report / Comments on Proposed Investment Program and comments as applicable                                   | 1                                                      |

| Item         | Activity                       | Activity Description                                                                                                                                          | Output / Deliverable                                                               | Estimated Expert Input Duration (Person-Months) |
|--------------|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------|
| 6            | Operations, Safety & Security  | Review of Operations, Safety, and Security Plans and any other technical support related to the project                                                       | Review Report on Operations, Safety, and Security Plans and comments as applicable | 1                                               |
| 7            | Capacity Building & Completion | Input into Capacity Building Program for Counterpart Staff and Verification of Completion Deliverables and any other technical support related to the project | Capacity Building Review & Completion Report and comments as applicable            | 1                                               |
| <b>Total</b> |                                |                                                                                                                                                               |                                                                                    | <b>12</b>                                       |

## 8.7 Withholding of Payments

Payments may be withheld in case of unsatisfactory performance or missing reports.

## 8.8 Time Records and Audit

Time records may be audited by KR and the World Bank.

## 8.9 Currency of Payment

Payment shall be made in Kenya Shillings with a USD option for expatriate consultants.

# 9 Data, Services and Facilities

## 9.1 Office space and facilities

Kenya Railways shall provide the following office facilities to the Consultant:

- Furnished office space with desk, chair, and secure document storage at Kenya Railways headquarters in Nairobi;
- Access to internet connectivity, printing, photocopying, and document binding services;
- Meeting room facilities for technical workshops and review sessions;

## 9.2 Project Information and data

Kenya Railways shall provide access to the following information and data:

- Existing railway infrastructure data including track layouts, signalling system inventories and telecommunication network diagrams where applicable;
- Current operational data including train timetables, traffic volumes, and operational procedures;
- Historical maintenance records and performance data for existing systems;

- 
- Project documentation including feasibility studies, design reports, and other relevant technical documents prepared by the FEED consultant;
  - Applicable Kenyan railway standards, regulations, and operating rules;
  - Access to KR's document management system and project collaboration platforms.

### **9.3 Site access**

Kenya Railways shall facilitate and guarantee site access for the Consultant to conduct field inspections, site assessments, and verification surveys along the Nairobi-Thika corridor and associated facilities. This includes coordination with operational teams to ensure safe access to operational railway infrastructure and provision of required personal protective equipment (PPE) and safety briefings.

### **9.4 Counterpart Staff**

Kenya Railways shall assign designated counterpart staff who will work with the Consultant under the Consultant's technical guidance during document reviews, site visits, and capacity building activities. These staff shall have appropriate qualifications and shall be made available according to agreed work schedules.

### **9.5 Coordination with other Agencies**

Kenya Railways shall facilitate coordination and information exchange with relevant government agencies, regulatory bodies, utility providers, and other stakeholders as required for the Consultant to effectively execute the assignment. This includes facilitating meetings, obtaining necessary clearances, and supporting information requests.

### **9.6 Travel and transportation**

For site visits and field inspections within Kenya approved by the Project Team Leader, Kenya Railways shall facilitate transportation arrangements or reimburse approved transportation costs in accordance with existing company policies. Accommodation costs for domestic travel shall be reimbursed at prevailing government rates upon submission of receipts.

Travel costs for mission- assignments shall be reimbursed.

## **10 Obligations of the Consultant**

### **10.1 Professional standards**

The Consultant shall:

- Comply with Kenya Railways code of ethics

### **10.2 Resource provision**

The Consultant shall:

- 
- Provide all necessary resources including laptop computer, software licenses, technical reference materials, and professional subscriptions required to execute the assignment;
  - Ensure availability and responsiveness throughout the assignment duration according to agreed time commitments

### **10.3 Quality Assurance**

The Consultant shall:

- Ensure that all deliverables meet contractual requirements and professional quality standards;
- Conduct thorough self-review and quality checks before submission of reports and technical documents;
- Ensure technical outputs are consistent with contractual requirements, professional standards, legal frameworks, and international best practices;
- Respond to Client comments and revise deliverables as required within agreed timelines.

### **10.4 Communication and coordination**

The Consultant shall:

- Maintain regular communication with the Project Team Leader and report on assignment progress;
- Immediately notify the Client of any issues that may affect deliverable quality, schedule, or budget;
- Participate in coordination meetings, technical workshops, and review sessions as scheduled;
- Maintain professional and constructive working relationships with all project stakeholders.

### **10.5 Confidentiality and Data Security**

The Consultant shall:

- Maintain strict confidentiality of all project information, data, and documents not in the public domain;
- Sign a Non-Disclosure Agreement (NDA) with Kenya Railways prior to commencement of services;
- Implement appropriate cybersecurity measures to protect sensitive project data, particularly information related to signalling systems, telecommunication network architecture, and security-sensitive infrastructure details;
- Not disclose, reproduce, or utilize confidential information for purposes other than this assignment without prior written consent from Kenya Railways;
- Return or securely dispose of all confidential documents and data upon completion of the assignment.

---

## **10.6 Health Safety and environment**

The Consultant shall:

- Comply with all applicable health, safety, and environmental regulations during site visits and field activities;
- Use required personal protective equipment (PPE) and follow KR safety protocols when accessing operational railway infrastructure;
- Report any safety incidents or near-misses immediately to the Project Team Leader

## **10.7 Conflict of Interest**

The Consultant shall:

- Disclose any actual or potential conflicts of interest that may arise during the assignment;
- Not have any business or financial relationships with the FEED consultant or potential bidders for the design-build contract;
- Maintain independence and avoid any activities that could compromise objectivity in technical reviews and recommendations.

## **10.8 Compliance with laws and regulations**

The Consultant shall comply with all applicable laws, regulations, and administrative requirements of the Republic of Kenya, as well as World Bank procurement and safeguards policies applicable to the assignment.