

TANZANIA NATIONAL ROADS AGENCY  
MSIMBAZI BASIN DEVELOPMENT PROJECT  
**CONSTRUCTION OF JANGWANI BRIDGE**

**TERMS OF REFERENCE**  
**FOR**  
**CONSULTANCY SERVICES OF THE HIGHWAY DESIGN ENGINEER TO**  
**SUPPORT IMPLEMENTATION OF JANGWANI BRIDGE PROJECT**

**1.0 BACKGROUND**

The Government of the United Republic of Tanzania has received financing from the International Development Association (IDA) in the form of Credit toward the cost of Msimbazi Basin Development Project (MBDP) which among others covers construction of Jangwani Bridge and associated infrastructures.

Tanzania National Roads Agency (TANROADS) under the Ministry of Works is responsible for implementation of Jangwani Bridge project. The project is being implemented using one Works Contract and one Supervision Consultancy Contract. TANROADS intends to apply a portion of the proceeds of this credit for eligible payments under the contract of the Highway Design Engineer to support implementation of Jangwani bridge project

In order to manage properly implementation of the Project, TANROADS looks for a dynamic, motivated, creative and open-minded professional to support management of the project in the capacity of Highway Design Engineer for which this Terms of Reference is concerned.

**2.0 OBJECTIVES OF ASSIGNMENT**

The objective of the assignment is to support TANROADS in implementation of the Project particularly reviewing works requirements (designs, specifications as well as schedule of quantities) and monitoring adherence to requirements during construction.

**3.0 SPECIFIC OBJECTIVE OF THE ASSIGNMENT**

Specific objective of the assignment is to monitor (peer review with emphasis on design) the adherence to Design Standards, Contract Specifications and Contract Provisions (design, road surveys and construction of pavement and associated drainage structures) and ensure adherence to standard procedures for Measurements of Road Works by the Works Supervising Consultant and Contractors to enable completion of the project within the agreed time frame, cost and quality.

## **4.0 SCOPE OF SERVICES**

The Highway Design Engineer shall be responsible for reviewing the road designs associated with the bridge works and monitoring road construction works to ensure are carried out based on best practice and standard methods of construction and complies with the Contract Specifications and Contracts provisions. Further shall be responsible for attending to all issues concerning roadwork that will require TANROADS attention. In particular, the Highway Design Engineer will be required to undertake inter alia the following tasks:

- (i) Participate in reviewing the design of approach roads and road features provided on the bridge including associated ancillaries;
- (ii) Assessing and ensuring that survey, setting out and construction of earthworks, pavement works, drainage and appurtenant structures are carried out according to design and conform to the contract provisions;
- (iii) Reviewing and advising the Employer on issues associated with road designs as brought up in the course of implementation of the project;
- (iv) Monitoring method of measurements of Road Works items on site for ensuring are in compliance with standard procedures for Measurements prior to recommending the same for payment;
- (v) Assess Contractor's Work methodology in line with Contract specifications and bring up shortfalls that may result to poor quality of Works for timely intervention pursuant to the Contract provisions;
- (vi) Conduct site visits and inspect the works for conformity with Contract provisions and identify problem areas and reporting the same to the Project Manager / Employer with advice on remedial measures;
- (vii) Attending regular site meetings and ensuring that the proceedings are adequately recorded;
- (viii) Ensuring that design review of Road Works including take off-sheets is done and submitted as scheduled;
- (ix) Ensuring that as-built drawings for Road Works are done continuously throughout the construction time; and
- (x) Review Works progress reports and other ad hoc reports submitted by Consultants and Contractors.

## **5.0 QUALIFICATIONS AND EXPERIENCE**

### *a) Education:*

- (i) The Highway Engineer must be a professionally registered Civil Engineer with a degree in Civil Engineering.

- (ii) Master's Degree in Highway Engineering will be added advantage.

*b) Professional experience:*

- (i) She/he must have a minimum of ten (10) years of progressively responsible experience in designing large multi-disciplinary highways and urban roads projects.
- (ii) She/he must demonstrate profound knowledge of internationally recognized highway design standards with good knowledge of AutoCAD or other applicable computer-based design packages.
- (iii) She/he must have served as Highway Design Engineer in at least two (2) of similar nature over the last 10 years of which one is from Sub-Saharan Africa.

*c) Language and Regional Experience:*

- (i) Must have a working experience of at least three (3) years in developing countries; and
- (ii) Proficiency in written and spoken English is mandatory.

## **6.0 FACILITIES TO BE PROVIDED BY TANROADS**

The Employer will provide the following facilities to the staff:

- 6.1 Shared office accommodation including office furniture and equipment;
- 6.2 Work-related transport to and from project sites;
- 6.3 Relevant information and documents necessary for proper execution of the assignment;

## **7.0 DURATION OF SERVICES**

### **7.1. Duration**

Duration of assignment will be Two Years (24 Months) with possible extension if need arises.

### **7.2. Termination**

The Contract may be terminated before expiry of the duration of the assignment, in accordance with provisions of Employment and Labour Law Act No. 6 of 2004 of the United Republic of Tanzania.

## **8.0 RESPONSIBILITIES OF HIGHWAY DESIGN ENGINEER**

The Highway Design Engineer shall be responsible for the following:

- 8.1 All information, data and reports obtained from TANROADS shall be treated as confidential.
- 8.2 All plans, drawings, specifications, designs, reports, other documents and software prepared by the Highway Design Engineer for TANROADS under this Contract shall become and remain the property of TANROADS, and the Highway Design Engineer shall, not later than upon termination or expiration of this Contract, deliver all such documents to TANROADS.
- 8.3 Arranging and paying for his/her own accommodation.

## **9.0 REPORTING**

- 9.1. The Highway Design Engineer will report to the Project Manager responsible for Project under the Director of Projects.
- 9.2. The Highway Design Engineer will be required to provide inputs on progress of Works and all technical issues, to regular and ad hoc reports prepared by TANROADS.
- 9.3. The Highway Design Engineer will prepare a brief report in each month, summarizing activities performed by him/her on daily basis; the report shall be in a format to be agreed by the Project Manager.

## **10.0 LEAVE AND WORKING HOURS**

### **10.1. Leave**

- 10.1.1. The Highway Design Engineer will be entitled to twenty-eight (28) days paid annual leave during the assignment.

### **10.2. Working Hours**

- 10.2.1. Ordinary working period starts from 8:00 AM to 4:30 PM commencing Monday to Friday excluding public holidays;
- 10.2.2. The Highway Design Engineer will be expected to work on reasonable extra time when need arises at no additional payment; the Highway Design Engineer's remuneration shall be deemed to cover for such overtime.

## **11.0 PAYMENT TERMS**

- 11.1 The Highway Design Engineer shall negotiate with TANROADS and agree on remuneration for carrying out the assignment. The agreed remuneration shall be paid on monthly basis. The agreed remuneration shall cover all the Highway Design Engineer's costs and profits, including social securities, health insurances, pension, as well as any tax obligation that may be imposed on the Highway Design Engineer.
- 11.2 The Design Highway Engineer's remuneration will be fixed for entire duration of the assignment i.e. 24 Months. If the duration of assignment will be extended, the remuneration will be subject to adjustment due to increase of costs after

every 12 months with effect for the remuneration earned in the first calendar month after the end of the initial duration of the assignment.

- 11.3 The adjustment shall apply the following formula and National Consumer Price Indices (NCPI) published by National Bureau of Statistics of Tanzania:

$$R = R_o \cdot \frac{I}{I_o} \quad \text{where,}$$

$R$  = Adjusted remuneration;

$R_o$  = Agreed remuneration rate;

$I$  = Current index for the adjustment month; and

$I_o$  = Base index for the month of the date of the Contract

- 11.4 In case of travel requirements outside TANROADS HQ and within Tanzania for project-related assignments, the Consultant shall be paid travel expenses in line with the Government rules and procedures.

## **12.0 DUTY STATION**

Dar es Salaam (TANROADS HQ offices), Tanzania with possibility of TANROADS HQ Offices to move to Dodoma mid-way the Contract.