



**REHABILITATION AND PERFORMANCE BASED ROUTINE MAINTENANCE OF
RHINO AND MANYANI CIRCUIT ROADS
IN
TSAVO EAST NATIONAL PARK**

TENDER NO.KWS/OT/PBC/R&F/14/2015-2016

:

NOVEMBER 2015

**DIRECTOR GENERAL
KENYA WILDLIFE SERVICE
P.O.BOX 40241-00100
NAIROBI**

**HEAD-ROADS AND FLEET MANAGEMENT
KENYA WILLIFE SERVICES
P.O.BOX 40241-00100
NAIROBI**

Issued on:
November 2015

For

Procurement of Road Maintenance Works

Under

Performance Based Term Contract Tender No Tender No.

KWS/OT/PBC/R&F/18/2015-2016 for Rhino And Manyani Circuit Roads

In

Tsavo East National Park

	Road	Length(Km)
1	Rhino And Manyani Circuit Roads	100

Procurement Entity: KENYA WILDLIFE SERVICE

Important Notice to Bidders

- 1) This is a Tendering Document that has been prepared for the Procurement of Works under Performance Based Road Maintenance type of Contract. The contract covers an array of activities needed to achieve and maintain a Specified Service Level for road users, including many activities related to the **Management and Maintenance** (including Routine maintenance, spot improvement, emergency works and Periodic Maintenance) of the road network under contract.
- 2) In Performance Based Contract (PBC), contractors compete among each, other during the tendering process, by essentially proposing fixed lump-sum prices for bringing the road to required service level and then maintaining it at that level for a specified period. *Payments made to the contractors are not based on quantities of works measured by unit prices for works “inputs” or physical works, but on measured ‘outputs’ reflecting the specified and target conditions of the roads under contract. This is expressed through ‘Service Levels’, i.e., the Rehabilitation of the road to pre-defined standards (as required by the tendering documents), the maintenance service of ensuring specific Service Levels on the roads under contract, and specific improvements (as required by the tendering documents). All this represents outputs.*

A monthly lump-sum remuneration paid to the Contractor will cover all physical and non-physical maintenance services provided by the Contractor, except for unforeseen emergency works which are remunerated separately as opposed to **traditional road construction and maintenance contracts, where** the Contractor is responsible for the execution of works which are normally defined by the Procurement Entity. And the Contractor is paid on the basis of unit prices for different quantities of measured work items, i.e. a contract based on “inputs” to the works.

For example, the contractor is not paid for removing 2 cubic meters of silt from a culvert (his actual work input) in a certain month, but for keeping the culvert clean and free of silt at all times (the output of his efforts). This means that in some months the Contractor will be paid the agreed standard monthly lump sum amount even though much work has not been done. In other words, it is possible that during some months, the contractor will have to carry out a rather large amount of physical works in order to comply with the required **Service Levels** and very little work during other months.

The agreed monthly payment for maintenance works and services will be made to the Contractor if he has complied during the month for which the payment is to be made with the agreed Service Levels on the road network under contract. Together with his monthly invoice, the Contractor will report the result of his own evaluation of compliance with the required Service Levels, based on his own monitoring system which is mandatory. His statement will then be verified by the Procurement Entity or his representative (supervision consultant) through inspections. If the Service Levels are not met, payments are reduced, based on a schedule given in the contract. Payments may even be suspended, and the contract cancelled, if the contractor fails during an extended period to achieve specified minimum thresholds values of Service Levels. **This contract describes the formulas used to calculate payment reduction and potential contract suspensions.**

- 3) PBC may from time to time involve some unit rate based activities such as :
 - a) Carrying out **Rehabilitation Works** to bring section of the Road up to pre-defined standards.
 - b) **Improvement Works:** This will be specified by the Procurement Entity aiming at adding new characteristics to the Roads in response to new traffic, safety or other conditions.
 - c) **Emergency Works** needed to reinstate the Roads after damage has occurred as a result of natural phenomena with imponderable consequences under the conditions defined in the contract.
 - d) The Rehabilitation and Improvement Works which have been explicitly specified by the Procurement Entity in the contract are quoted on the basis of measurable output quantities and paid as performed. In order to be entitled to the monthly payment for maintenance services, the Contractor must ensure that the roads under contract comply with the Service Levels which have been specified in the tendering

document.

- 4) When improvement, rehabilitation or emergency works are required, a well-designed bill of quantities defining specific outputs for bidders' to price and, later on, allow measurement and payment to the Contractor is provided. Emergency works, although impossible to quantify in advance, will occasionally be necessary. To allow bidders' to offer prices for Emergency Works, a unit price bill of quantities (similar for civil works under unit prices) shall be prepared for bidders' to price for tender evaluation purposes. Later on, these unit prices and real measured volumes of Emergency Works executed will be used for payments.
- 5) Another major difference is that the Contractor is responsible for deciding on the works necessary to reach the required Service Levels, and the durability and performance of the roads over a longer period. Although the design of the works and services to be carried out is under the responsibility of the Contractor, a good preparatory engineering work will be prepared by the Procurement Entity. It is necessary to prepare comprehensive information on the actual condition of the roads covered by the contract.
- 6) Minimum road conditions and Service Levels are defined through service-level and performance measures to define and measure the desired performance of the Contractor. In the PBC, the defined performance measures are thus the accepted minimum thresholds for the quality levels of service on the roads for which the Contractor is responsible.
- 7) The performance criteria will cover all aspects of the contract and take account of the fact that different sub-areas within the contract area might require different measures of Service Levels. Criteria has been defined at three different measures of levels (although simpler contracts will not use all of the criteria identified below)
 - (a) **Road User Service and Comfort** measures,
 - (b) **Road Durability** measures,
 - (c) **Management Performance Measures**,
- 8) Another important aspect in the Performance type of contract is for the contractor and Procurement Entity to enter into a long term relationship whereby the contractor takes over more responsibility for managing the condition of the road and is rewarded by a longer term contract than is traditional; sometimes several years.
- 9) In case of any conflict between the provisions outlined in this standard tender document and The Public Procurement and Disposal Act, 2005 and Regulations 2006, the latter shall prevail
- 10) Maintaining a road network includes both **routine** and **periodic** tasks. Routine maintenance consists of many different tasks frequently necessary to maintain the function of the road (such as pothole repairs, cleaning of drainage, sealing of cracks, cutting of vegetation, road marking, etc.). Periodic maintenance consists of predictable and more costly measures of a less frequent nature designed to avoid road degradation (such as grading, drainage work, resurfacing, asphaltic concrete overlays, etc.). Intelligent management, the timeliness of interventions and the adequacy of technical solutions are critical.

When Rehabilitation Works and Improvement Works are not specifically required in the tendering documents, it is expected that in order to comply with the contract, the Contractor will most likely have to carry out different types of works, including some small initial rehabilitation and improvements, routine maintenance activities and periodic maintenance works. The definition of the exact nature of the works, their timing, their costing and their implementation is left to the judgment of the Contractor. This means that his capacity must be above the usual capacity of a traditional civil works contractor. In fact, an essential attribute is the capacity to manage roads, while the actual physical execution may either be carried out by the Contractor himself, or by different specialized firms participating in a Joint Venture with the main contractor, or under subcontracts. Joint Ventures may include Engineering firms and medium, small and even micro-enterprises.

Bidders will present their financial offer as appropriate for:

- the Performance Based **Maintenance Services** in the form of the amount of the monthly lump-sum payment demanded by the bidder according to the conditions of contract (this will be a monthly amount

applicable throughout the duration of the contract);

- the **Rehabilitation Works** (if so required in the Tender Data Sheet), in the form of a lump-sum amount, while indicating the quantities of measurable outputs to be executed in order that the road achieves the performance standards specified in the tendering documents. Payments will be made in accordance with the progress in the execution of those measured outputs;
 - the **Improvement Works** (if so required and for the improvements indicated in the tendering documents) in the form of unit prices for outputs of each type of improvement works; payments for improvements will be made in accordance with quoted unit prices for those outputs; and
 - Unit prices for **Emergency Works** in the form of a traditional bill of quantities. Payments will be made for each emergency on a case-by-case basis, in the amount of a lump-sum value estimated by the Contractor and approved by the Procurement Entity, on the basis of the estimated quantities and on the quoted unit process.
- 11) Another important aspect in the Performance type of contract is for the contractor and Procurement Entity to enter into a long term relationship whereby the contractor takes over more responsibility for managing the condition of the road and is rewarded by a longer term contract than is traditional; sometimes several years.
- 12) In case of any conflict between the provisions outlined in this standard tender document and The Public Procurement and Disposal Act, 2005 and Regulations 2006, the latter shall prevail.

**SECTION II:
INVITATION FOR TENDERS**



Address: P.O.BOX 40241-00100

Nairobi

INVITATION FOR TENDER

Tender Reference No. KWS/OT/PBC/R&F/14./2015-2016

Tender Name: Performance Based Contract for Rehabilitation and Maintenance of Rhino and Manyani Circuit Roads in Tsavo East National Park

Kenya Wildlife Service (KWS) has received funds from the Government of Kenya and the Kenya Roads Board and intends to carry out Periodic Maintenance on the above road Tsavo East National Parks as listed in the KWS website. Eligible contractors are those registered as road works contractors by the National Construction Authority (NCA) **Category 4,5 and 3** for the rehabilitation work for the above road . The works are to be funded through the GOK Funds.

Tender documents containing detailed specifications can be downloaded for free at our website; www.kws.go.ke. Communication in regard to the tender must be in writing through email address: hps@kws.go.ke. All clarifications and/or amendments will be published in KWS website and tenderers are required to check for any addendums or amendments in the course of the bidding period prior to the closing date.

Interested eligible candidates may obtain further information and inspect tender documents from Procurement Office, KWS Headquarters, KWS Headquarters, Ndovu Court, 1st Floor, Lang'ata Road, Tel: 0726610508/9, 0735663421, e-mail: hps@kws.go.ke, during normal working hours.

Bidders are notified that there will be a **MANDATORY organized pre-tender site visit** on the dates and venues indicated in the detailed Tender Notice on the website

The bid must be accompanied must by an Original bid security of the amount shown below issued in Kenya shillings or a freely convertible currency and in the form of bank guarantee, or an insurance guarantee and valid for the period indicated in the instruction to bidders.:

Tender No.	Amount Bid Security Required
KWS/OT/PBC/R&F/14/2015-2016	Kshs 500,000.00

Complete Tender documents in plain sealed envelopes clearly marked with the tender name and tender reference number should be addressed to the:

Director General,
Kenya Wildlife Service,
P.O. Box 40241 -00100
Nairobi

The tenders shall deposit in the tender box at the entrance of Main Reception (KWS Headquarters) not later **than 10.00 am on Monday, 14th December 2015.**

The bidders **MUST** comply with all the instructions and rules of the tender and particularly ensure that all the forms required are properly completed. Tenders will be opened immediately thereafter, in the presence of tenderers' representatives who choose to attend at KWS Board Room.

HEAD OF SUPPLY CHAIN MANAGEMENT

A brief description of these documents is given below.

PART 1 – TENDERING PROCEDURES

Section I: Instructions to Tenderers (ITT)

This Section provides relevant information to help Tenderers prepare their bids. Information is also provided on the submission, opening, and evaluation of bids and on the award of Contracts.

Section II: Tender Data Sheet (TDS)

This Section consists of provisions that supplement the information or requirements included in Section I, Instructions to Tenderers (Appendix to form of bid).

Section III: Evaluation and Qualification Criteria

This Section contains the criteria to determine the lowest evaluated tender and to ascertain the Continued qualification of the Tenderer to perform the contract.

Section IV: Schedules of Supplementary Information

This Section contains the forms which are to be completed by the Tenderer and submitted as part of his Bid.

Section V: Technical Evaluation Criteria

This Section contains the Tenderer's technical proposal. This section also contains the technical scores on documents and proposals submitted by the Tenderer as part of his Bid.

PART 2 – CONDITIONS OF CONTRACT AND CONTRACT

FORMS Section VI: General Conditions of Contract (GCC)

This Section contains the general clauses to be applied in the contract.

Section VII: Particular Conditions of Contract (PCC)

This Section consists of **Part A, Contract Data**, and **Part B, Specific Provisions**, which contains clauses specific to each contract. The contents of this Section modify or supplement the General Conditions of Contract.

Section VIII: Standard Forms

This Section contains forms which, once completed, will form part of the Contract. The forms for **Performance Security** and **Advance Payment Security**.

PART 3 – SPECIFICATION

This Section contains the Specification, the Drawings, and supplementary information that describe the Services and Works to be procured.

Section IX: Performance Specifications (*for Performance-based Road Contract*)

Section X: Standard Specification

Book of Drawings

This Section contains the Drawings, and supplementary information that describe the Services and Works to be procured

Bills of Quantities

This Section contains the description of quantity of items of work and the Services carried out by the contractor.

PART 1 – Tendering Procedures

Section I. Instructions to Bidders

A. General

- | | | | |
|----------|-------------------------------|------------|--|
| 1 | Definitions | | |
| | The Procurement Entity | 1.1 | The Procurement Entity is Kenya Wildlife Service represented by the Director General |
| | The Engineer | 1.2 | The Engineer is the Project Manager appointed by the Procurement Entity to be responsible for the overall administration of the Contract and the supervision of the works and services to be performed by the Contractor. In other words, he fulfills a role similar to that of the Engineer in traditional contracts. He may delegate the actual day-to-day superintendence of the contract to one of his staff, to be named in writing to the Contractor. The Engineer or his representative may be a supervision consultant.
Highest standard of ethics will be observed during the procurement and execution of these contracts. In pursuance of this policy, the procurement Entity: |
| | Corrupt Practices | 1.3 | <ul style="list-style-type: none"> a) Defines corrupt practices, for the purposes of this provision, the terms set forth below as follows: <ul style="list-style-type: none"> i. "corrupt practice" is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party; ii. "fraudulent or collusive practice" is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation; b) The Employer Shall reject a proposal for award if it determines that the bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract, and c) The Employer Shall declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a government contract if it at any time it is determined that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a government financed contract. <p>Throughout these Tendering Documents:</p> <ul style="list-style-type: none"> a) the term "in writing" means communicated in written form and delivered against receipt; b) except where the context requires otherwise, words indicating the singular also include the plural and words indicating the plural also include the singular; and c) "day" means calendar day d) "Service Levels" means predetermined target conditions of the roads under contract or what the roads are supposed to look like |
| | Other Terms | 1.4 | <ul style="list-style-type: none"> e) Performance Based Contract' means contract based on quantities of works measured by unit prices for works inputs. f) "Off Carriage works" are Routine maintenance consists of many different tasks as frequently as necessary to maintain the function of the road (such as, cleaning of culverts, ditch cleaning, cutting of vegetation, etc.) g) "On carriageway works" means both Routine and Periodic maintenance consisting of predictable and more costly measures of a less frequent nature designed to avoid road degradation (such as pothole repairs, grading, regravelling, light grading, spot gravelling, , resurfacing, asphaltic concrete overlays, etc.). |
| | | 2.1 | The project name will be as specified in the BDS |
| 2 | Scope of Bid | 2.2 | In connection with the Invitation for Bids indicated in the Tender Data Sheet (TDS), the Procurement Entity, as indicated in the TDS, issues these Tendering Documents for the procurement of Works and Services as listed below for the award of a Rehabilitation and Performance-Based Contract for Road Maintenance (PBC).The Works and Services under the PBC will cover the Roads and works indicated in the Bidding Data Sheet (BDS) and will consist of: |

- a) Maintenance Services or “Services” consisting of all interventions on the Roads which are to be carried out by the contractor in order to achieve and keep the Road performance standards defined by the Service Level included in the Specifications in Section XI of this Tendering Documents,
- b) and all activities related to the management and evaluation of the road network under contract.
- The Government of Kenya has set aside funds through the development fund for use by **Kenya Wildlife Service**. It is intended that part of the proceeds of the funds will be applied to cover eligible payments under the contract for the works as described in the **BDS**.
- 3 Source of Funds** **3.1**
- 4. Eligible Tenderers** **4.1** This invitation to tender is open to all tenderers who are qualified as stated in the appendix.
- 4.2** A bidder shall be deemed to have the nationality of a country if the bidder is a citizen or is constituted, incorporated, or registered and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed subcontractors or suppliers for any part of the Contract including related Services.
- 4.3** A bidder shall not have a conflict of interest. All bidders found to have a conflict of interest shall be disqualified. A bidder may be considered to have a conflict of interest with one or more parties in this tendering process, if :
- a) they have controlling partners in common; or
- b) they receive or have received any direct or indirect subsidy from any of them; or
- c) they have the same legal representative for purposes of this bid; or
- d) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the tender of another bidder, or influence the decisions of the Purchaser regarding this tendering process; or bidder participates in more than one tender in this tendering process:
- e) a bidder participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the bid;
- f) a bidder was affiliated with a firm or entity that has been hired (or is proposed to be hired) by the Procurement Entity as Engineer for the contract or any person/persons from the procurement entity has an interest in the firm participating in this bid.
- 4.4** Bidders shall provide such evidence of their continued eligibility satisfactory to the Procurement Entity, as the Procurement Entity shall reasonably request
- 4.5** Government-owned entities in the Procurement Entity’s country shall be eligible only if they can establish that they are legally and financially autonomous and operate under commercial law. Also, they shall not be dependent agencies of the Procurement Entity.
- Joint Ventures**
- Tenders submitted by a joint venture of two or more firms as partners shall comply with the following requirements:-
- 4.6** (a) The tender, and in case of a successful tender, the Form of Agreement, shall be signed so as to be legally binding on all partners
- (b) One of the partners shall be nominated as being in charge, and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the partners
- (c) The partner in charge shall be authorized to incur liabilities and receive instructions for an on behalf of any and all partners of the joint venture and the entire execution of the Contract including payment shall be done exclusively with the partner in charge.

5 Qualification of the Bidder

5.1

- (d) All partners of the joint venture shall be liable jointly and severally for the execution of the Contract in accordance with the Contract terms, and a relevant statement to this effect shall be included in the authorization mentioned under (b) above as well as in the Form of Tender and the Form of Agreement (in case of a successful tender)
- (e) A copy of the agreement entered into by the joint venture partners shall be submitted with the tender.

To be qualified for award of Contract, the tenderer shall provide evidence satisfactory to the Employer of their eligibility under Sub clause 2.1. above and of their capability and adequacy of resources to effectively carry out the subject Contract. Bidders shall as part of their bid:

- a) Update any information submitted with their bids and in any case the information indicated in Section VII, schedules of supplementary information changes.
- b) The bidder shall meet the minimum qualification criteria set out in the tender documents.

As a minimum, bidders shall submit the following:

5.2

- a) Details of experience and past performance of the tenderer on the works of a similar nature and details of current work on hand and other contractual commitments.
- b) The qualifications and experience of key personnel proposed for administration and execution of the contract, both on and off site.
- c) Major items of construction plant and equipment proposed for use in carrying out the Contract. Only reliable plant in good working order and suitable for the work required of it shall be shown on this schedule. The tenderer will also indicate on this schedule when each item will be available on the Works. Included also should be a schedule of plant, equipment and material to be imported for the purpose of the Contract, giving details of make, type, origin and CIF value as appropriate.
- d) Details of sub contractors to whom it is proposed to sublet any portion of the Contract and for whom authority will be requested for such subletting in accordance with clause 4 of the Condition of Contract.
- e) Details of any current litigation or arbitration proceedings in which the tenderer is involved as one of the parties.

5.3

Tenderers shall also submit Work Execution Programme, technical proposals of work methods in sufficient detail, as requested in Section VII, to demonstrate the adequacy of the bidder's proposals to meet the technical specifications and the completion time referred to in **BDS**

			B. Contents of Tendering Document
			The Tendering Documents consist of Parts 1, 2, and 3, which include all the Sections indicated below, and should be read in conjunction with any Addenda issued in accordance with ITB 8.
			PART 1 Tendering Procedures
			• Section I. Instructions to Tenderers (ITB)
			• Section II. Tender Data Sheet (BDS)
			• Section III. Evaluation and Qualification Criteria
			• Section IV. Schedule of Supplementary Information
		6.1	• Section V. Technical Evaluation Criteria
			PART 2 Conditions of Contract and Standard Forms
			• Section VII. General Conditions of Contract (GCC)
			• Section VIII. Particular Conditions of Contract (PCC)
			• Section X. Standard Contract Forms
			PART 3 Specifications
			• Section XI. Standard Specifications
			• Section XII. Special Specifications
			• Section XIII. Performance Specifications
		6.2	The Procurement Entity shall not be responsible for the completeness of the Tendering Documents and their addenda, if they were not obtained directly from the source stated by the Procurement Entity in the Invitation for Bids.
			The bidder is expected to examine all instructions, forms, terms, and
		6.3	Specifications in the Tendering Document. Failure to furnish all information or documentation required by the Tendering Documents may result in the rejection of the bid.
			If a pre-tender meeting is convened, the tenderer's designated representative is invited to attend at the venue and time in the Invitation to Tender. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage. The bidder is required to visit and examine the Site of the Roads and its surroundings and obtain for itself and on its own responsibility all information that may be necessary for preparing the tender and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the bidder's own expense.
		7.1	The bidder and any of its personnel or agents will be granted permission by the Procurement Entity to visit the Road and surrounding lands on their own for the purpose of familiarizing themselves with the site conditions, but only upon the express condition that the bidder, its personnel, and agents will release and indemnify the Procurement Entity and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.
		7.2	A prospective bidder requiring any clarification of the Tender Document shall contact the Procurement Entity in writing at the Procurement Entity's address indicated in the BDS or raise his enquiries during the pre-tender meeting if provided for in accordance with ITB 7.1. The Procurement Entity will respond in writing to any request for clarification, provided that such request is received no later than seven (7) days prior to the deadline for submission of bids.
6	Sections of Tendering Document		
7	Pre-tender Meeting		
8	Clarification of Tendering Document,		

- 8.2** The Procurement Entity shall forward copies of its response to all bidders who have acquired the Tendering Document in accordance with ITB 6.2, including a description of the inquiry but without identifying its source. Should the Procurement Entity deem it necessary to amend the Tendering Document as a result of a request for clarification, it shall do so following the procedure under ITB 8.1 and ITB 22.2
- 8.3** Minutes of the pre-tender/site meeting, including the text of the questions raised, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all bidders who have acquired the Tendering Documents. Any modification of the tender documents listed in – Clause 11.1 which may become necessary as a result of the pre-tender meeting shall be made by the Employer exclusively through the issue of a tender notice pursuant to Clause 9 and not through the minutes of the pre-tender meeting.
- 9** **Amendment of Tendering Document**
- 9.1** At any time prior to the deadline for submission of bids, the Procurement Entity may amend the Tendering Documents by issuing addenda.
- 9.2** Any addendum issued shall be part of the Tendering Documents and shall be as indicated in the Tender Notice.
- 9.3** To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Procurement Entity may, at its discretion, extend the deadline for the submission of bids, pursuant to ITB 22.2

C. Preparation of Bids

9	Cost of Tendering	9.1	<p>The bidder shall bear all costs associated with the preparation and submission of its Bid, and the Procurement Entity shall not be responsible or liable for those costs, regardless of the conduct or outcome of the tendering process.</p> <p>The Bid, as well as all correspondence and documents relating to the tender exchanged by the bidder and the Procurement Entity, shall be written in the English Language.</p>
10	Language of Bid	10.1	<p>Supporting documents and printed literature that are part of the Tender may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified in the BDS, in which case, for purposes of interpretation of the Bid, such translation shall govern.</p> <p>The tender to be prepared by the tenderer shall comprise:</p> <ol style="list-style-type: none"> i. the Form of Tender and Appendix thereto, ii. a Tender Security iii. the Priced Bills of Quantities and Schedules in accordance with ITB 12 and 14 iv. the information on eligibility and qualification v. Technical Proposal in accordance with ITB 16; and vi. Any other materials required must be completed and submitted in accordance with the Instructions to Tenderers. The Forms, Bills of Quantities and Schedules provided in the tender documents shall be used without exception (subject to extensions of the schedules in the same format and to the provisions of clause 13.2 regarding the alternative forms of Tender Surety). <p>The Form of Tender and Schedules, including the Bills of Quantities, shall be prepared using the relevant forms furnished in Section I, and Standard Forms.</p>
11	Documents Comprising the Bid	11.1	<p>The forms must be completed without any alterations to the text, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested.</p>
12	Form of Bid, and Schedules	12.1	<p>Alternative bids shall not be considered.</p>
13	Alternative Bids	13.1	<p>When alternative times for reaching the required Service Levels or for the completion of Rehabilitation or Improvement Works are explicitly invited, a statement to that effect will be included in the BDS, as will the method of evaluating different times for completion.</p> <p>Except as provided under ITB 13.4 below, bidders wishing to offer technical alternatives to the requirements of the tendering document must first price the Procurement Entity's design as described in the tendering document and shall further provide all information necessary for a complete evaluation of the alternative by the Procurement Entity, including drawings, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details.</p> <p>Only the technical alternatives, if any, of the lowest evaluated bidder conforming to the basic technical requirements shall be considered by the Procurement Entity</p> <p>When specified in the BDS, bidders are permitted to submit alternative technical solutions for specified parts of the Rehabilitation and/or Improvement Works, and such parts will be identified in the BDS, as will the method for their evaluating.</p>
14	Tender Prices and Discounts	14.1	<p>The prices and discounts quoted by the bidder in the Form of Tender and in the Bills of Quantities shall conform to the requirements specified below.</p>

**14 Tender
Prices and
Discounts**

- The bidder shall fill in rates and prices for all items of the Works and Services described in the Bills of Quantities. Items against which no rate or price is entered by the bidder will not be paid for by the Procurement Entity when executed and shall be deemed covered by the rates for other items and prices in the Bills of Quantities.
- Each price or unit rate inserted in the Bills of Quantities should be a realistic estimate for completing the activity or activities described under that particular item and the tenderer is advised against inserting a price or rate against any item contrary to this instruction
- 14.2 Every rate entered in the Bills of Quantities, whether or not such rate be associated with a quantity, shall form part of the Contract. The Employer shall have the right to call for any item of work contained in the Bills of Quantities, and such items of work to be paid for at the rate entered by the tenderer and it is the intention of the Employer to take full advantage of unbalanced low rates
- 14.3 The price to be quoted in the Form of Bid, in accordance with ITB 12.1, shall be the total price of the Bid, excluding any discounts offered. The bidder shall quote any unconditional discounts and the methodology for their application in the form of bid, in accordance with ITB 12.1
- 14.4 Unless otherwise specified the tenderer must enter the amounts representing 10% of the sub-total of the summary of the Bills of Quantities for Contingencies and Variation of Prices [V.O.P.] payments in the summary sheet and add them to the sub-total to arrive at the tender amount. Unless otherwise provided in the BDS and the Contract, the rates and prices quoted by the bidder are subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract. In such a case, the bidder shall furnish the indices and weightings for the price adjustment formulae in the Schedule of Adjustment Data and the Procurement Entity may require the bidder to justify its proposed indices and weightings.
- 14.5 The tenderer shall furnish with his tender written confirmation from his suppliers or manufacturers of basic unit rates for the supply of items listed in the Conditions of Contract clause 70 where appropriate. The Employer may require the tenderer to justify such rates so obtained from the suppliers or manufacturers
- 14.6 Contract price variations shall not be allowed within the first 12 months of the contract.
- 14.7 Where quantity contract variation is allowed, the variation shall not exceed 25% of the original contract quantity.
- 14.8 Price variation requests shall be processed by the procuring entity within 30 days of receiving the request.
- 14.9 If so indicated in ITB 1.1, bids are being invited for individual lots (contracts) or for any combination of lots (packages). Bidders wishing to offer any price reduction for the award of more than one Contract shall specify in their tender the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Price reductions or discounts shall be submitted in accordance with ITB 14.3, provided the bids for all lots (contracts) are submitted and opened at the same time
- 14.10 All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 28 days prior to the deadline for submission of bids, shall be included in the rates and prices and the total Tender Price submitted by the bidder.

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| 15 | Currencies of Tender and Payment | 15.1 | The currency of the tender shall be Kenya Shillings . |
| | | 15.2 | Tenderers are required to indicate in the Statement of Foreign Currency Requirements, which forms part of the tender, the foreign currency required by them. Such currency should generally be the currency of the country of the tenderer's main office. However, if a substantial portion of the tenderer's expenditure under the Contract is expected to be in countries other than his country of origin, then he may state a corresponding portion of the contract price in the currency of those other countries. However, the foreign currency element is to be limited to two (2) different currencies and a maximum of 30% (thirty percent) of the Contract Price |
| | | 15.3 | The rate or the rates of exchange used for pricing the tender shall be the selling rate or rates of the Central Bank ruling on the date thirty (30) days before the final date for the submission of tenders. |
| | | 15.4 | Tenderers must enclose with their tenders, a brief justification of the foreign currency requirements stated in their tenders. |
| 16 | Documents Comprising the Technical Proposal | 16.1 | The bidder shall furnish a Technical Proposal including a statement of work methods, equipment, personnel, schedule of work, cash flow projection, environmental management plan and any other information as stipulated in Section VII, in sufficient detail to demonstrate the adequacy of the bidders' proposal to meet the requirements of Section V of tender document. |
| 17 | Documents Establishing the Qualifications of the Tenderer | 17.1 | To establish its qualifications to perform the Contract in accordance with Section VII, Evaluation and Qualification Criteria, the bidders' shall provide the information requested in the corresponding information sheets included in Section VII, Schedule of Supplementary information |
| | | 17.2 | Domestic bidders, individually or in joint ventures, applying for eligibility for domestic preference shall supply all information required to satisfy the criteria for eligibility as described in ITB 33. |
| 18 | Period of Validity of Bids | 18.1 | Bids shall remain valid for the period specified in the BDS after the tender submission deadline date prescribed by the Procurement Entity. A tender valid for a shorter period shall be rejected by the Procurement Entity as non-responsive. |
| | | 18.2 | In exceptional circumstances, prior to the expiration of the tender validity period, the Procurement Entity may request bidders to extend the period of validity of their bids. The request and the responses shall be made in writing or by cable, telex or facsimile. A tenderer may refuse the request without forfeiting his Tender Surety. A tenderer agreeing to the request will not be required nor permitted to modify his tender, but will be required to extend the validity of his Tender Surety correspondingly. |
| 19 | Tender Security | 19.1 | Unless otherwise specified in the BDS , the Tenderer shall furnish as part of its bid, a tender security in original form and in the amount and currency specified in the BDS . |
| | | 19.2 | The tender security shall be a demand guarantee at the Tenderer's option, in any of the following forms
(a) an unconditional bank guarantee; (b) Bankers Check
(c) Insurance Bond |
| | | 19.2 | The tender security shall be submitted in the Tender Security Form included in Section V, and Standard Forms. The form must include the complete name of the Bidder. The tender security shall be valid for thirty (30) days beyond the original validity period of the bid, or beyond any period of extension if requested under ITB 18.2 |

20 **Format and
Signing of
Bid**

- 19.3** Any tender not accompanied by an enforceable and compliant tender security, shall be rejected by the Procurement Entity as non-responsive.
- 19.4** The tender security of unsuccessful bidders shall be returned as promptly as possible, but not later than twenty eight (28) days after expiration of the tender validity period upon the successful bidder's furnishing of the performance security pursuant to ITB 41.
- 19.5** The tender security of the successful bidder shall be returned as promptly as possible once the successful bidder has signed the Contract and furnished the required performance security.
- The tender security may be forfeited:
- (a) if a bidder withdraws its tender during the period of tender validity specified by the bidder on the Form of Tender Form, except as provided in ITB 18.2 or
- 19.6** (b) if the successful Tenderer fails to:
- (i) sign the Contract in accordance with ITB 40; or
- (ii) furnish a performance security in accordance with ITB 41.
- (c) If the bidder does not accept the corrections of its Bid Price, pursuant to ITB 31.
- The bidder shall prepare one original of the documents comprising the tender as described in ITT 11 and clearly mark it "ORIGINAL." In addition, the bidder shall submit copies of the bid, in the number **specified in the BDS and** clearly mark them "COPY." In the event of any discrepancy between the original and the copies, the original shall prevail.
- 20.1** The original and all copies of the tender shall be typed, printed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the bidder. This authorization shall consist of a written confirmation **as specified in the BDS and** shall be attached to the bid. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the tender document where entries or amendments have been made shall be signed or initialed by the person signing the bid.
- 20.2** The complete tender shall be without alterations, interlineations or erasures, except as necessary to correct errors made by the tenderer, in which case such corrections shall be initialed by the person or persons signing the tender.
- 20.3** Any inter-lineation, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the bid.
- 20.4** The Tender shall be bound and divided clearly in descending order as listed appendix
- The order and arrangement as indicated in the Tender Submission Checklist will be considered as the Tender Formats. The format indicated above will be used without exception .Any documents not compliant will not be evaluated
- 20.5**

			D. Submission and Opening of Bids
21	Sealing and Marking of Bids	21.1	The bidder shall enclose the original and all copies of the bid, in separate sealed envelopes, duly marking the envelopes as “ORIGINAL,” and “COPY.” These envelopes containing the original and the copies shall then be enclosed in one single envelope.
			i) The outer envelope shall: <ul style="list-style-type: none"> ▪ be addressed to the Procurement Entity in accordance with ITB 22.1; ▪ bear the specific identification of this tendering process indicated in the BDS and
		21.2	▪ bear a warning not to open before the time and date for tender opening.
			ii) The inner envelopes shall: <ul style="list-style-type: none"> a) Bear the name and address of the bidder in addition to (i) above.
		21.3	If all envelopes are not sealed and marked as required, the Procurement Entity will assume no responsibility for the misplacement or premature opening of the bid. A tender opened prematurely for this cause will be rejected by the Employer and returned to the tenderer.
		22.1	Bids must be received by the Procurement Entity at the address specified in clause 21.2 and on the date and time specified in the Letter of Invitation, and no later than the date and time indicated in the BDS and subject to the provisions of clause 9.3, 22.2 and 22.3.
22	Deadline for Submission of Bids	22.2	The Procurement Entity may, at its discretion, extend the deadline for the submission of bids by amending the Tendering Document in accordance with ITB 8, in which case all rights and obligations of the Procurement Entity and Tenderers previously subject to the deadline shall thereafter be subject to the deadline as extended.
		23.1	The Procurement Entity shall not consider any tender that arrives after the deadline for submission of bids, in accordance with ITB 22. Any tender received by the Procurement Entity after the deadline for submission of bids shall be declared late, rejected, and returned unopened to the bidder.
23	Late Bids	24.1	A bidder may withdraw, substitute, or modify its tender after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITB 20.2, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the tender must accompany the respective written notice. All notices must be <ul style="list-style-type: none"> (a) prepared and submitted in accordance with ITB 20 and ITB 21 (except that withdrawals notices do not require copies), and in addition, the respective envelopes shall be clearly marked “WITHDRAWAL,” “SUBSTITUTION,” “MODIFICATION;” as appropriate and (b) Received by the Procurement Entity prior to the deadline prescribed for submission of bids, in accordance with ITB 22.
		24.2	Bids requested to be withdrawn in accordance with ITB 24.1 shall be returned unopened to the bidders.
		24.3	No tender may be modified subsequent to the deadline for submission of tenders.
		24.4	No tender may be withdrawn, substituted, or modified in the interval between the deadline for submission of bids and the expiration of the period of tender validity specified by the bidder on the Form of Tender or any extension thereof. Withdrawal of a tender during this interval will result in the forfeiture of the Tender Surety.
24	Modification of Bids , and Withdrawal, Substitution	24.5	Subsequent to the expiration of the period of tender validity prescribed by the Employer, and the tenderer having not been notified by the Employer of the award of the Contract or the tenderer does not intend to conform with the request of the Employer to extend the period of tender validity, the tenderer may withdraw his tender without risk of forfeiture of the Tender Surety.

E. Tender Opening and Evaluation

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|----|------------------------------|------|--|
| 25 | Tender Opening | 25.1 | <p>The Procurement Entity shall open the bids in public, in the presence of bidders' designated representatives and anyone who choose to attend, and at the address, date and time specified in the BDS. The tenderers' representatives who are present shall sign a register evidencing their attendance.</p> |
| | | 25.2 | <p>First, envelopes marked "WITHDRAWAL" shall be opened and read out and the envelope with the corresponding tender shall not be opened, but returned to the bidder. No tender withdrawal shall be permitted unless the corresponding withdrawal notice pursuant to clause 19 contains a valid authorization to request the withdrawal and is read out at tender opening.</p> |
| | | 25.2 | <p>First, envelopes marked "WITHDRAWAL" shall be opened and read out and the envelope with the corresponding tender shall not be opened, but returned to the bidder. No tender withdrawal shall be permitted unless the corresponding withdrawal notice pursuant to clause 19 contains a valid authorization to request the withdrawal and is read out at tender opening.</p> |
| | | 25.2 | <p>Next, envelopes marked "SUBSTITUTION" shall be opened and read out and exchanged with the corresponding tender being substituted, and the substituted tender shall not be opened, but returned to the bidder. No tender substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at tender opening.</p> |
| | | 25.2 | <p>Envelopes marked "MODIFICATION" shall be opened and read out with the corresponding bid. No tender modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at tender opening. Only envelopes that are opened and read out at tender opening shall be considered further.</p> |
| | | 25.3 | <p>At the tender opening, the Employer will announce the tenderer's: the name of the bidder and whether there is a modification; the Tender Price(s); the presence of a tender security; and any other details as the Procurement Entity may consider appropriate. If so requested by the Procurement Entity in the BDS, the Form of Tender and the Bill of Quantities are to be initialed by representatives of the Procurement Entity attending tender opening in the manner indicated in the BDS. No tender shall be rejected at tender opening except for late bids, in accordance with ITB 23.1..</p> |
| | | 25.4 | <p>The Employer shall prepare minutes of the tender opening including the information disclosed to those present and as a minimum: the name of the bidder and whether there is a withdrawal, substitution, or modification; the Tender Price, per lot if applicable, and the presence or absence of a tender security. The bidders' representatives who are present shall be requested to sign the record. The omission of a bidder's signature on the record shall not invalidate the contents and effect of the record.</p> |
| | | 25.5 | <p>Tenders not opened and read out at the tender opening shall not be considered further for evaluation, irrespective of the circumstances.</p> |
| 26 | Confidentiality | 26.1 | <p>After the public opening of tenders, information relating to the to the examination, clarification, and evaluation of bids and comparisons of tenders and recommendation concerning the contract award shall not be disclosed to bidders or any other persons not officially concerned with such process until information on Contract award is communicated to all bidders.</p> |
| | | 26.2 | <p>Any effort by a tenderer to influence the Employer in the process of examination, evaluation and comparison of tenders and decisions concerning award of Contract may result in the rejection of the tenderer's tender.</p> |
| | | 26.3 | <p>Notwithstanding ITB 26.2, from the time of tender opening to the time of Contract award, if any bidder wishes to contact the Procurement Entity on any matter related to the tendering process, it may do so in writing.</p> |
| 27 | Clarification of Bids | 27.1 | <p>To assist in the examination, evaluation, and comparison of the bids, and Qualification of the bidders, the Procurement Entity may, at its discretion, ask any bidder for a clarification of its bid. Any clarification submitted by a bidder that is not in response to a request by the Procurement Entity shall not be considered. The Procurement Entity's request for clarification and the response shall be in writing. No change in the prices or substance of the tender shall be sought, offered, or permitted,</p> |

- except to confirm the correction of arithmetic errors discovered by the Procurement Entity in the evaluation of the bids, in accordance with ITB 31
- 27.2** If a bidder does not provide clarifications of its tender by the date and time set in the Procurement Entity's request for clarification, its tender may be rejected.
- 27.3** No tenderer shall contact the Employer on any matter relating to his tender from the time of the tender opening to the time the Contract is awarded. If the tenderer wishes to bring additional information to the notice of the Employer, he shall do so in writing
- During the evaluation of bids, the following definitions apply:
- 28** **Deviations, Reservations, and Omissions** **28.1** (a) "Deviation" is a departure from the requirements specified in the Tendering Document;
- (b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Tendering Document; and
- (c) "Omission" is the failure to submit part or all of the information or documentation required in the Tendering Document.
- 29** **Determination of responsiveness** **29.1** The Procurement Entity's determination of a bid's responsiveness is to be based on the contents of the tender itself, as defined in ITB 11.
- A substantially responsive tender is one that meets the requirements of the Tendering Document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that,
- (a) if accepted, would
- 29.2** i. affect in any substantial way the scope, quality, completion timing or administration of the Works to be undertaken by the tenderer under the Contract, or performance of the Works specified in the Contract; or
- ii. limit in any substantial way, inconsistent with the Tendering Document, the Procurement Entity's rights or the bidder's obligations under the proposed Contract; or
- (b) if rectified, would unfairly affect the competitive position of other bidders presenting substantially responsive bids.
- 29.3** Each price or unit rate inserted in the Bills of Quantities shall be a realistic estimate of the cost of completing the works described under the particular item including allowance for overheads, profits and the like. Should a tender be seriously unbalanced in relation to the Employer's estimate of the works to be performed under any item or groups of items, the tender shall be deemed not responsive.
- 29.4** If a tender is not substantially responsive to the requirements of the Tendering Document, it shall be rejected by the Procurement Entity and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.
- Provided that the tender is substantially responsive, the Procurement Entity shall correct arithmetical errors on the following basis:
- 30** **Correction of Arithmetical Errors** **30.1** (a) Where there is a discrepancy between the amount in figures and the amount in words, the amount in words will govern.
- (b) Where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will prevail, unless in the opinion of the Employer, there is an obvious typographical error, in which case adjustment will be made to the entry containing that error.
- (c) In the event of a discrepancy between the tender amount as stated in the Form of Tender and the corrected tender figure in the main summary of the Bills of Quantities, the amount as stated in the Form of Tender shall prevail.
- (d) The Error Correction Factor shall be computed by expressing the difference between the tender amount and the corrected tender sum as a percentage of the corrected builder's work (i.e. corrected tender sum less Prime Cost and Provisional Sums.

- (e) The Error Correction Factor shall be applied to all builder's work (as a rebate or addition as the case may be) for the purposes of valuations for Interim Certificates and valuations of variations.
- (f) The amount stated in the tender will be adjusted in accordance with the above procedure for the correction of errors and, with concurrence of the tenderer, shall be considered as binding upon the tenderer. If the tenderer does not accept the corrected amount, the tender may be rejected and the Tender Security may be forfeited in accordance with clause 19.
- 30.2** If the bidder that submitted the lowest evaluated tender does not accept the correction of errors, its tender shall be disqualified
- 31 Conversion to single currency**
- 31 Conversion to Single Currency**
- 31.1** For compensation of tenders, the tender price shall first be broken down into the respective amounts payable in various currencies by using the selling rate or rates of the Central Bank of Kenya ruling on the date twenty one (21) days before the final date for the submission of tenders.
- 31.2** The Employer will convert the amounts in various currencies in which the tender is payable (excluding provisional sums but including Day works where priced competitively) to Kenya Shillings at the selling rates stated in clause 31.1.
- 32 Evaluation of Bids**
- 32.1** The Employer will evaluate only tenders determined to be substantially responsive to the requirements of the tender documents in accordance with clause 29. No other evaluation criteria or methodologies shall be permitted. To evaluate a bid, the Procurement Entity shall consider the following:
- (a) the tender price, excluding Provisional Sums and the provision, if any, for contingencies in the Summary Bill of Quantities;
- 32.2** (b) price adjustment for correction of arithmetic errors in accordance with ITB 30.1;
- (d) adjustment for nonconformities in accordance with ITB 30.3;
- (e) the evaluation factors indicated in Section III, Evaluation and Qualification Criteria;
- 32.3** The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in tender evaluation.
- 32.4** The Employer reserves the right to accept any variation, deviation or alternative offer. Variations, deviations, alternative offers and other factors which are in excess of the requirements of the tender documents or otherwise result in the accrual of unsolicited benefits to the Employer, shall not be taken into account in tender evaluation
- 32.3** The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in tender evaluation.
- 32.4** The Employer reserves the right to accept any variation, deviation or alternative offer. Variations, deviations, alternative offers and other factors which are in excess of the requirements of the tender documents or otherwise result in the accrual of unsolicited benefits to the Employer, shall not be taken into account in tender evaluation
- 32.5** If the lowest evaluated tender is seriously unbalanced or front loaded in relation to the Employer's estimate of the items of work to be performed under the Contract, the Employer may require the tenderer to produce detailed price analyses for any or all items of the Bills of Quantities, to demonstrate the relationship between those prices, proposed construction methods and schedules. After evaluation of the price analyses, the Employer may require that the amount of the Performance Security set forth in clause 38 be increased at the expense of the successful tenderer to a level sufficient to protect the Employer against financial loss in the event of subsequent default of the successful tenderer under the Contract.

			Firms incorporated in Kenya where indigenous Kenyans own 51% or more of the share capital shall be allowed a 10% preferential bias provided that they do not sub-contract work valued at more than 50% of the Contract Price excluding provisional sums to a non-indigenous sub-contractor
		32.6	
		32.7	Preference where allowed in the evaluation of tenders shall not exceed 15%
		32.8	The procuring entity may at any time terminate procurement proceedings before contract award and shall not be liable to any person for the termination
		32.9	The procuring entity shall give prompt notice of the termination to the tenderers and on request give its reasons for termination within 14 days of receiving the request from any tenderer.
		32.10	A tenderer who gives false information in the tender document about its qualification or who refuses to enter into a contract after notification of contract award shall be considered for debarment from participating in future public procurement.
		32.11	Poor past performance shall not be used as an evaluation criteria unless specifically provided for in the appendix.
33	Comparison of Bids	33.1	The Procurement Entity shall compare all substantially responsive bids to determine the lowest evaluated bid, in accordance with ITB 34.2.
		33.2	After application of the criteria established in Sub-Clauses 32.1 to 32.5, the Evaluated Tender Price for comparison of bids will be: (a) The lump-sum price offered by the Tenderer for the Maintenance Services as indicated in the form of bid.
34	Post-qualification criteria	34.1	Post-qualification criteria are as provided in the BDS. The bidders who pass the technical criteria will be subjected to financial evaluation
35	Procurement Entity's Right to Accept Any Bid, and to Reject Any or All Bids	35.1	The Procurement Entity reserves the right to accept or reject any bid, and to annul the tendering process and reject all bids at any time prior to contract award, without thereby incurring any liability to bidders. In case of annulment, all bids submitted and specifically, tender securities, shall be promptly returned to the bidders.
36	Award Criteria	36.1	Subject to Sub-clause 36.2, the Employer will award the Contract to the tenderer whose tender is determined to be substantially responsive to the tender documents and who has offered the lowest evaluated tender price subject to possessing the capability and resources to effectively carry out the Contract Works as required in Sub-clause 2.1 and 2.2 here above.
		36.2	The Employer reserves the right to accept or reject any tender, and to annul the tendering process and reject all tenders, at any time prior to award of Contract, without thereby incurring any liability to the affected tenderers or any obligation to inform the affected tenderers of the grounds for the Employer's action.
37	Notification of Award and signing of Contract	37.1	Prior to the expiration of the period of tender validity prescribed by the Employer, the Employer will notify the successful tenderer by cable, telefax or telex and confirmed in writing by registered letter that his tender has been accepted. This letter (hereinafter and in all Contract documents called "Letter of Acceptance") shall name the sum (hereinafter and in all Contract documents called "the Contract Price") which the Employer will pay to the Contractor in consideration of the execution and completion of the Works as prescribed by the Contract
		37.2	At the same time that the Employer notifies the successful tenderer that his tender has been accepted, the Employer shall notify the other tenderers that the tenders have been unsuccessful
		37.3	Within fourteen [14] days of receipt of the Form of Contract Agreement from the Employer, the successful tenderer shall sign the form and return it to the Employer together with the required Performance Security.

		37.3	Within fourteen [14] days of receipt of the Form of Contract Agreement from the Employer, the successful tenderer shall sign the form and return it to the Employer together with the required Performance Security.
		37.4	The parties to the contract shall have it signed within 30 days from the date of notification of contract award unless there is an administrative review request.
38	Performance Guarantee	38.1	Within twenty eight [28] days of receipt of the notification of award from the Employer, the successful tenderer shall furnish the Employer with a Performance Security in the amount stated in the Appendix to Form of Tender and in the format stipulated in the Conditions of Contract.
		38.2	The Performance Security to be provided by the successful tenderer shall be an unconditional Bank Guarantee issued at the tenderer's option by a reputable Bank approved by the Employer and located in the Republic of Kenya and shall be divided into two elements namely, a performance security payable in foreign currencies (based upon the exchange rates determined in accordance with clause 60(5) of the Conditions of Contract) and a performance security payable in Kenya Shillings. The value of the two securities shall be in the same proportions of foreign and local currencies as requested in the form of foreign currency requirements.
		38.3	Failure of the successful tenderer to lodge the required Performance Security shall constitute a breach of Contract and sufficient grounds for the annulment of the award and forfeiture of the Tender Security and any other remedy under the Contract. The Employer may award the Contract to the next ranked tenderer.
39	Advance Payment	39.1	An advance payment, if approved by the Employer, shall be made under the Contract, if requested by the Contractor, in accordance with clause 60(1) of the Conditions of Contract. The Advance Payment Guarantee shall be denominated in the proportion and currencies named in the form of foreign currency requirements. For each currency, a separate guarantee shall be issued. The guarantee shall be issued by a Bank located in the Republic of Kenya, or a foreign Bank through a correspondent Bank located in the Republic of Kenya, in either case subject to the approval of the Employer
42	Corrupt or fraudulent practices	42.1	The procuring entity requires that tenderers observe the highest standard of ethics during the procurement process and execution of contracts. A tenderer shall sign a declaration that he has not and will not be involved in corrupt or fraudulent practices.

SECTION III:

BIDDING DATA

SHEET

3.0 Bidding Data Sheet

3.1 Appendix to Instructions to Tenderers

The following appendix to instructions to tenderers shall complement or amend the provisions of the instructions to tenderers (Section II). Wherever there is a conflict between the provisions of the instructions to tenderers and the provisions of the appendix, the provisions of the appendix herein shall prevail over those of the instructions to tenderers.

Table 3-1: Appendix to Instructions to Tenderers

ITB Clause Reference	Tender Data
1.1	The Procurement Entity is: Kenya <u>Wildlife Service</u>
2.1	The name of the Tender is: Performance Based Contract for Maintenance of ... Rhino and Manyani Circuit Roads in Tsavo East National Park
2.2	The Roads is 100km in length. Rehabilitation works will be required. The sections of the Road(s) subject to Rehabilitation or Emergency Works will be instructed by the Engineer. Performance based routine maintenance will be carried for the entire road
2.2	Improvement Works are not required.
4.1	Tendering is open to all eligible bidders Eligible contractors who are registered as road works contractors by the National Construction Authority (NCA) Category 5, 4, and 3.
4.2	Eligible bidders Must also provide certified copies of a certificate of incorporation and current tax compliance certificate,
4.3	Eligible bidders Must provide Certified Copy of Form C12 and demonstrate Compliance with parts (a), (b), (c), (d), (e) and (f) in form of sworn affidavit.
4.4	The Bidder shall submit with its tender the following additional documents as appropriate: <ul style="list-style-type: none"> a) Certified copy of Certificate of incorporation b) Certified Copy of Certificate of NCA Category 5 and above. c) Certified copy of Tax Compliance certificate d) Sworn affidavit of litigation history e) Copy National Identification Card of the Company directors f) Form CR12 g) Bank Statement Current for the last Six(6) Months duly certified by the bank or Letter of Line of Credit h) Audited accounts for the Last Three Financial Year duly Certified and Signed by the Auditor i) Power of attorney j) Certificate of Tenderer site visit
4.6	Joint ventures for the purpose of bidding will NOT be allowed
5.2 and 5.2	a) Provide a Completion or Substantial Completion Certificates for at least two (2) previous similar assignment in the last Five (5) Years. The Applicant shall meet the following minimum criteria: -
5.1 and 5.2	a) Execution as contractor, , or subcontractor, in at least two [2] contracts within the last Five [5] years prior to the applications submission deadline, each with a value of at least Kshs. 50 Million (Forty million) , that have been successfully and substantially completed and that are similar to the proposed Works and Services. The similarity shall be based on the physical size, complexity, methods/technology or other characteristics as described in Section VI.
	b) Average annual turnover for the last 5 years – Kshs 100,000,000.00(Kenya Shillings One Hundred Million Only) calculated as total certified payments

received for contracts in progress or completed, within the last Three [3] years in the role of contractor, subcontractor, or management contractor prior to the applications submission deadline

- b) Provide Signed CV for Key Staff and Certified copies of their corresponding certified qualification Certificates. The bidder should list down key personnel of minimum qualification as listed:
- a. Higher National Diploma in Civil Engineering with minimum Seven (7) years experience in road works for Site Agent,
 - b. Ordinary Diploma Engineering Survey or Equivalent with minimum Five (7) years experience in road works for the surveyor and
 - c. Ordinary Diploma Civil Engineering/Building and Construction with minimum 5 years experience in road works for Foreman.

- c) Major items of construction plant and equipment proposed for use in carrying out the Contract.

The bidder should list down, the plants and equipments that are in his ownership and the ones proposed for hire which should be suitable for executing contract works. – Applicants must attach current evidence of ownership or hiring arrangements from reputable hiring or leasing agencies. At least 50% of major equipment must be owned by the bidder

- d) Financial Performance

Cash flow statement: The Applicant should demonstrate that the firm has access to or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means sufficient to meet the construction cash flow for a period of 2 months, estimated at 20% of the estimated tender sum.

Balance Sheets:

- a) Submission of audited balance sheets and other financial statements acceptable to the Employer, for the last three [3] years.
- b) the current soundness of the applicants financial position and its prospective long term profitability, and
- c) capacity to have a cash flow equivalent to 20% of the tender sum
- e) Bidders shall also submit proposals of work execution programmed in sufficient detail to demonstrate the adequacy of the bidders' proposals to meet the technical specifications and the completion time for both Rehabilitation and PBC contracts

A Pre-Tender meeting will take place at the following date, time and place:

Date: As per tender Notice

Time: As per tender Notice

7.1 Place: As per tender Notice

A site visit conducted by the Procurement Entity **will be** organized. Attendance is **Mandatory** for all bidders. The bidders designated representative should have necessary **qualification and knowledge in Civil Engineering Construction works** in order to benefit from the meeting.

8.1 For **clarification purposes** only, the Procurement Entity's address is

Attention: Ag Director General,
Street Address: P.O.BOX 40241, Langata Road
Floor/Room number: Ndovu Court,
City: Nairobi
Postal Code:00100
Country: Kenya
Telephone: 0726610508/9 or 0735663421
Electronic mail address: hps@kws.go.ke.

C. Preparation of Bids

- 10.1 The language of the tender is: English
- 13.1 No Alternative bids shall be considered
- 15.1 The currency of the tender shall be Kenya Shillings
- 16.1 The bidder shall furnish a Technical Proposal

- 17.2 No domestic preference shall be granted for local bidders. This is a national tender.
- 18.1 The tender validity period shall be **90 (Ninety)** days
- 19.1 A tender security **shall be required**. The amount of the tender security shall be 1.0 % of the Tender sum
- 19.2 **No other bid security shall be accepted other than that listed in ITB 19.2** The tender security shall be valid for thirty (30) days beyond the original validity period of the bid, or beyond any period of extension if requested under ITB 18.2
- D. Submission and Opening of Bids**
- 20.1 In addition to the original of the bid the documents comprising the tender as described in ITT 11, the number of copies is: One (1). The Tender shall be bound and divided clearly in descending order as listed below.
- The Tender shall be bound and divided clearly in descending order as listed below
1. **Letter of Invitation to Tender**
 2. **Instruction to Tenders**
 3. **Appendix to Instruction to bidders**
 4. **Form of Bid**
 5. **Appendix to Form of Bid**
 6. **Bid Security**
 7. **Schedule of Supplementary Information for Eligibility**
 - 7-A1 Confidential Business Questionnaire
 - 7-A2 Certificate of Incorporation
 - 7-A3 Form CR12
 - 7-A4 Certified copy of Tax Compliance Certificate
 - 7-A5 Certified copy of proof of Registration with NCA Category 5 and above
 - 7-B Form of Power of Attorney
 - 7-C Form of Power of Attorney
 - 7-D Declaration of Tenderer's Knowledge of site.
 - 7-E Schedule of Major Items of Plant.
 - 7-F Schedule of Key Personnel and Signed CV
 - 7-G **Road Works Completed Satisfactorily Certified**
 - 7-H **Schedule of ongoing Works**
 - 8 **Schedule of Supplementary Information on Financial standings**
 - 8-A Audited Financial Accounts.
 - 8-B Construction Turnover.
 - 8-C Sworn affidavit on History of None Performance and Ligation History
 - 9 **Work Execution Programme.**
 - 10 **Priced Bill of Quantities**
- 20.2 The written confirmation of authorization to sign on behalf of the Bidder shall consist of: in the form of **Power of attorney**
- 20.2 The order and arrangement as indicated in the Tender Submission Checklist will be considered as the Tender Formats. Any documents not compliant will not be evaluated.
- For **tender submission purposes** only, the Procurement Entity's address is:
 Attention: Director General,
 Street Address: P.O.BOX 40241, Langata Road
 Floor/Room number: Ndovu
- 22.1 Court, City: Nairobi
 Postal Code:00100
 Country: Kenya
 Tenderers **shall not** have the option of submitting their bids electronically

Table 3-1: Appendix to Instructions to Tenderers cont'

22.2	The deadline for tender submission is: Date and Time: <u>As per tender Notice</u> or in accordance with ITB 22.2 The tender opening shall take place at: Street and Address: <u>As per tender Notice</u>
25.1	Date and Time: <u>As per tender Notice</u> or in accordance with ITB 22.2
25.3	The Form of Tender and Summary of Bills of Quantities shall be initialed by representatives of the Procurement Entity attending Tender opening.
34.1	The pass mark shall be 75%. The bidders who pass the technical criteria will be subjected to financial evaluation

3.2 PRELIMINARY EVALUATION AND MANDATORY REQUIREMENTS

- 3.2.1 This will involve evaluation of duly submitted tenders in accordance with clause 11 and 20.1. Mandatory requirements shall include confirmation requested in clause 4.4.
- 3.2.2 The Evaluation will examine the above submission and consider the details that correspond to the related information in the bid document.

Notwithstanding the above, bidders submitting more than one bid and or has ongoing works with KWS will be disqualified.

Tenders will proceed to the Technical Evaluation Stage only if they qualify in compliance with Preliminary Evaluation clause.

Table 3.2: Prequalification Checklist for Completeness and responsiveness

S/No.	Completeness and responsiveness criteria	References	Required
1	Form of Bid	Section IV	Amount must be indicated, Properly fill and sign
2	Appendix to Form of Bid	Section IV	Form properly sign
3	Bid Security	Section IV, ITT clause 19.	Unconditional guarantee, in the format and conditions provided Must be valid for 120days
4	Eligibility	ITT clause 4.1	Provide all information requested, Properly fill and sign and Provide all information requested, Conflict of Interest explicitly Stated Copy of National ID or passport for all directors and certified copy of Form CR12
5	Confidential Business Questionnaire	Section VII, Schedule 1	Certified copies by commissioner of Oaths, Valid as at the date of Tender opening
6	Tax Compliance Certificate	ITT clause 4.1	Category 8 and above, Certified copies by commissioner of Oaths and valid as at the date of Tender opening
7	Registration with Ministry of Roads	ITT clause 4.1	Copy of Certificate certified by the commissioner of oaths and valid as at the date of Tender opening
9	Certificate of Incorporation	ITT clause 4.1	
11	Form of Power of Attorney	Section VII, Schedule 2	Properly fill and sign
12	Certificate of Tenderer site visit	Section VII, Schedule 3	Attendance of pre-bid site visit, Certificate must be signed by the bidder's representative
13	Schedule of Major Items of Plant	Section VII, Schedule 4	Fill properly in the format given, proof of ownership and sign
14	Schedule of Key Personnel	Section VII, Schedule 5	Fill properly in the format given and sign and attach CV and Certified copies of resume.
15	Road Works Completed Satisfactorily	Section VII, Schedule 6	Fill properly in the format given and sign and attach copies of completion certificate
16	Schedule of ongoing Works	Section VII, Schedule 7	Fill properly in the format given and sign
17	Schedule of other supplementary, information /Financial standings	Section VII, Schedule 8, 9	Fill properly in the format given and sign
21	Schedule of other supplementary,	Section V, Schedule 8, 9	Fill properly in the format given and sign
23	Litigation History	ITT clause 29	Fill properly in the format given and sign also attach sworn affidavit that as current as the month of tendering
24	History of None performance	ITT clause 29	Fill properly in the format given and sign also attach sworn affidavit that as current as the month of tendering
25	Work Execution Programme	Section V, Schedule 10 & Table 3.3,	Must be provided in the format given, brief and to the point

Table 3.2: Prequalification Checklist for Completeness and responsiveness Cont'

26	Priced Bill of Quantities	Section I, clause 13	Fill all rates, prices and amounts
27	Preparation of the Tenders	Clause 20 of the ITT	The Forms, BOQ and Schedules provided in the tender documents to be properly filled without exception
28	Copy of Bid Document	14.1	Replica of the Original

SECTION IV:
FORM OF BID AND APPENDIX TO FORM OF BID

FORM OF BID

Date:

Tender Number.....

To:

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Tendering Document, including Addenda issued in accordance with Instructions to Bidders (ITT) 8;
- (b) We offer to execute in conformity with the Tendering Document the following Works:

.....
 ...

- (c) Our tender price is composed of the following components:

Description	Amount (in
Performance Based Routine Maintenance Services in an amount of <i>Kshs</i>per km per month (<i>in words</i>).Kenya Shillings(Unit Price Per Km Per Month) (A) (Unit price per km per month) × 24×53=(<i>carried over to column on right</i>)	
(B) Rehabilitation and Emergency Works in an amount of [amount in words] [ksh].	
C. TOTAL (A+B)	
D. Add 10 % Contingency (C x 0.10)	
E. TOTAL (C+D)	
F. Add 16% VAT (E x 0.16)	
G. TOTAL (E+F)	

Amount in words.....

.....
 ..

- (d) Our tender shall be valid for a period of **90 Days** from the date fixed for the tender submission deadline in accordance with the Tendering Document, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (e) If our tender is accepted, we commit to obtain a performance security in accordance with the Tendering Document;
- (f) We, including any subcontractors or suppliers for any part of the contract, are eligible in accordance with IT B-4.2;

- (g) We, including any subcontractors or suppliers for any part of the contract, do not have any conflict of interest in accordance with ITB-4.3;
- (h) We are not participating, as a Tenderer or as a subcontractor, in more than one tender in this tendering process in accordance with ITB-4.3
- (i) We, including any of our subcontractors or suppliers for any part of the contract, have not been declared ineligible by the Kenyan laws or official regulations
- (j) We are not a government owned entity;
- (k) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall not constitute a binding contract between us, until a formal contract is prepared and executed; and
- (l) We understand that you are not bound to accept the lowest evaluated tender or any other tender that you may receive.
- (m) We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in corrupt practices.

Name:.....in the capacity of

Signed

Duly authorized to sign the tender for and on behalf of:

Dated on..... Day of2015

Bidder must complete as appropriate

APPENDIX TO FORM OF BID

This Appendix to Form of Tender forms part of the Agreement.(Note: with the exception of the items for which the Employer's requirements have been inserted, the Contractor shall complete the following information before submitting his offer.)

Conditions of Contract	Clause	Amount
Authorized Person	3.1	Project Manager :Head –Roads and Fleet Management
Law of Contract	4.1	Laws of the Republic of Kenya
Language	4.1	English
Arbitration Rules	6.2.3	CAP 49 of the Laws of Kenya
Place of Arbitration	6.2.3	KWS Headquarters
Amount of Performance Security Unconditional Bank Guarantee)	53.31	10 per cent of Tender Sum in the form of Unconditional Bank Guarantee
Programme to be submitted	17.2	Immediately after issuance of order to commence
Cash flow estimate to be submitted	17.3	Immediately after issuance of order to commence
Minimum amount of Third Party Insurance	35.1	1% of the contract sum
Period for commencement, from Engineers order to commence	5.5	14days
Time for completion	39.1	Rehabilitation works 18Months Performance based Contract 36 Months
Liquidated Damages Amount payable due to failure to complete	39.2	0.025% of Contract Sum per
Limit of liquidated Damages	39.3	% of Contract Sum.
Defect Liability Period	49.2	3 Months
Minimum Amount of Interim Payment Certificate	49.4	15% of Contract Sum
Percentage Retention	51.1	5 % of Interim Payment Certificate
Time within which payment to be made after Interim Payment certificate signed by Engineer	50.1	28 Days
Time within which payment to be made after Interim Payment certificate signed by Engineer	50.1	28 Days
Appointment of adjudicator	6.2.2	Chairman Chartered Institute of Arbitrators, Kenya Branch
Notice to the Employer		Director General Kenya Wildlife Service P.O.BOX 40241-00100 Nairobi The Engineer's address is: Head of Roads & Fleet Management P.O.BOX 40241-00100 Nairobi

SECTION V:
FORM OF TENDER
SECURITY

**FORM OF TENDER
SECURITY**

(Note: The tenderer shall complete only this form of bank guarantee. No other Form of Tender Bond or any other forms of security will be accepted. Tenderers who fail to comply with this requirement will be disqualified).

WHEREAS [*Name of tenderer*].

(Hereinafter called “the Tenderer”) has submitted his tender dated.
For the

.....hereinafter
called “the Bid”

KNOW ALL MEN by these presents that we [*Name of Bank*]

of (*Name of Country*) having our registered offices at

(Hereinafter called the Bank) are bound unto **Kenya Wildlife Services**, (hereinafter called “the Procurement Entity”)
in the sum of (in words) Kenya Shillings

(In figures)
Kshs).....

for which payment will be well and truly made to the said Procurement Entity the Bank binds itself, its successors and assigns by these presents.

Signed for the said Bank this day of,

THE CONDITIONS of this obligation are:

- ❖ If the tenderer withdraws his Tender during the period of tender validity specified by the bidder
- ❖ On the Tender Form; or
- ❖ If the Tenderer refuses to accept the correction of errors in his bid; or
- ❖ If the Tenderer having been notified of the acceptance of his tender by the Procurement Entity during the period of Tender Validity
 - (i) Fails or refuses to execute the Form of Agreement in accordance with the Instructions to bidder when required or
 - (ii) Fails or refuses to furnish the Performance Security, in accordance with the Instructions to bidder.

We undertake to pay to the Procurement Entity up to the above amount upon receipt of his first written demand, without the Procurement Entity having to substantiate his demand, provided that in his demand the Procurement Entity will note that the amount claimed by him is due to him owing to the occurrence of any of the above conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including thirty (30) days after the date of expiration of the tender validity, as stated in the Instructions to bidders.

At the request of the Procurement Entity the Tender validity period may be extended by mutual agreement between the Procurement Entity and the bidder and we undertake to extend the validity of this surety accordingly without you having to inform us of such an extension of the Tender validity period if within this period the bidder has been notified of the acceptance of his Bid. This Surety shall remain valid up to the time the Contract Agreement has been executed.

SIGNATURE AND SEAL OF THE BANK

(
(
(
(
(
(

NAME OF THE SIGNATORY:

.....

DATE..... ,

TITLE OF THE SIGNATORY

.....

NAME OF THE WITNESS:

.....

SIGNATURE OF WITNESS

.....

DATE..... ,

ADDRESS OF THE WITNESS :

SECTION VI:
QUALIFICATION AND
EVALUATION CRITERIA

6.1 Evaluation and Qualification Criteria

This Section contains the criteria that the Procurement Entity shall use to evaluate bids and qualify bidders. In accordance with ITB 34 and ITB 36, no other factors, methods or criteria shall be used. The bidder shall provide all the information requested in the forms included in Section IV, Tendering Forms. In addition to the criteria listed in ITB 11.1 (a) – (g) and 36 the following criteria shall apply:

6.1: Qualification Criteria

Qualification Criteria		Compliance Requirement	Documentation	
No.	Subject	Requirement	Bidder	Submission Requirements
1. Eligibility				
1.1	Eligibility	Nationality in accordance with Sub-Clause 4.1.	Must meet requirement	Section 7, Schedule
1.2	Conflict of Interest	No conflicts of interest in Sub-Clause 4.2. <i>No- conflicts of interests as described in ITB 4.3.</i>	Must meet requirement	Section 7, Schedule 1
1.3	Debarment	Not having been declared ineligible by the Employer, as described in Sub-Clause 4.3. Must fill the Declaration form	Must meet requirement	Section 7, Schedule 11
1.4	Incorporation & Registration	Pursuant to sub-clause 4.1 the following shall be provided; - Copy of Certificate of incorporation certified by a Commissioner of Oaths or issuing authority to show that the applicant is a registered company and legally authorized to do business in Kenya - Certified copy of Form R12 - Proof of registration with National Construction Authority as roads Contractor class 5,4, and 3.	Must meet requirement	Section 7, Schedule 1
2. Historical Contract Non-Performance				
2.1	History of Non-Performing Contracts	Non performance of a contract did not occur within the last Five (5) years prior to the deadline for application submission based on all information on fully settled disputes or litigation. A fully settled dispute or litigation is one that has been resolved in accordance with the Dispute Resolution Mechanism under the respective contract, and where all appeal instances available to the applicant have been exhausted. The applicant to provide Sworn affidavit.	Must meet requirement	Section 7, Schedule 6
2.2	Pending Litigation	All pending litigation shall in total not represent more than fifty percent (50%)] of the Applicant's net worth and shall be treated as resolved against the Applicant. The applicant to provide Sworn affidavit.	Must meet requirement	Section 7, Schedule 9

Qualification Criteria		Compliance Requirement	Documentation	
No.	Subject	Requirement	Bidder	Submission Requirements
3. Financial Situation				
3.1	Financial Performance	(a)Submission of audited balance sheets and other financial statements acceptable to the Employer, for the last three [3] years to demonstrate the bidders current soundness of the applicants financial position and its prospective long term profitability, and (b) capacity to have a cash flow or access to credit equivalent to 20% of the tender sum	Must meet requirement	Section 7, Schedule 8
3.2	Average Annual Construction Turnover	(d) Average annual construction turnover of KShs. 50 Million [Fifty Million], calculated as total certified payments received for contracts in progress or completed, within the last three (3) years	Must meet requirement	Section 7, Schedule 8
4. Experience				
4.1(a)	General construction experience	(a)Execution as contractor, , or Management contractor, in at least two [2] contracts within the last Five [5] years prior to the applications submission deadline, each with a value of at least Kshs. 50 Million (Fifty million) , that have been successfully and substantially completed and that are similar to the proposed Works and Services.. The similarity shall be based on the physical size, complexity, methods/technology or other characteristics as described in Section VI, Procurement Entity's Requirements.	Must meet requirement	Section 7, Schedule 6
4.1(b)	Specific Construction Experience	<i>b)</i> For the above or other contracts executed during the period stipulated in 4.1(a) above, a minimum experience in the following key activities: a)Graveling and grading Projects b) Culvert and drainage works -Repair & rehabilitation gravel roads.	Must meet requirement	Section 7, Schedule 6
4.2	Work Methodogy	Submission of a detailed work methodology 3 – 5 pages single space font 12 in accordance with sub-clause 5.3	Must meet requirement	Section 7, Schedule 10

5. Current Commitments				
5.1	On-going contracts	The total value of outstanding works or the on-going contracts should not exceed 50% of the working capital.	Must meet requirement	Section 7, Schedule 7
6. Site Staff				
	Site Agent	Qualification = HND Civil Engineering or Equivalent General Experience= 7 Yrs Specific Experience = 5 Yrs	Must meet requirement	Section 7, Schedule 5
	Foreman	Qualification = Dip. Civil Engineering or Equivalent General Experience = 7 yrs Specific Experience = 5 Yrs	Must meet requirement	Section 7, Schedule 5
	Site Surveyor	Qualification = Diploma in Survey General Experience = 5 yrs Specific Experience = 3 Yrs	Must meet requirement	Section 7, Schedule 5

2. SECTION III (B): TECHNICAL EVALUATION CRITERIA

This Section shall apply to tenderers whose bids have been determined to be responsive and have met all the Qualification Criteria as per the instruction to bidders. It contains all the factors, methods and criteria that the Procurement Entity shall use for the technical evaluation. The information to be provided in relation to each factor and the definitions of the corresponding terms are included in the respective supplementary information Forms (Schedules). Table 6.2 summarize the post qualification score.

The Technical Evaluation Committee shall examine tender documents and score them based on their validity, accuracy and quality. Where the bidder fails to meet the requirement, the bidder shall be disqualified. The information to be provided in relation to each factor and the definitions of the corresponding terms are included in the respective supplementary information Forms (Schedules).

Table 6.2: Post Qualification Score criteria .

Post qualification score criteria and break down of the scores is given in the table below

Qualification Criteria			Submission Requirement	Compliance and Documentation	Score
Item	No.	Subject			
Contractors Capability to supervise and perform the work	7	Equipment holding	Bidder to submit the following in accordance with Clause 27.6 of ITT and section V; - Ownership list of required equipment and/or Authorization letter of hiring from M&T or reputable hiring company At least	Section V, Schedule 4	20
	6	Key Personnel	Provide List of professional and technical staff and their resume in accordance with Clause 27.5 of ITT and Section V	Section V, Schedule 5	15
	4.1, 4.2 & 5.1	Past relevant work Experience	Bidder to submit the following in accordance with Clause 27.4 of ITT and Section VII - Completion certificate, Taking Over Certificate or Substantial Completion Certificate of relevant work in the previous 3 years -Value of ongoing work must be < 50% of	Section VII, Schedule 6 and 7	15
	2	Contractual misconducts and litigation	Record of contractual misconduct in the previous 3 years Clause 27.11,27.12 of ITT and Section V - Record of litigation in the previous 3	Section V, Schedule 9 (4)	5
	3	Financial Capability	Bidder to submit the following in accordance with Clause 527.727.8, &27.9 of ITT section V - <i>Certified audited accounts for the last Three [3] years</i> - <i>Cash flow Statement (Banks statement)</i> - <i>Line of Credit current the last one month</i>	Section V,	15
Sub Total Score					70

Table 3.2 contractors capability to Supervise and Perform the Works Cont”					
Qualification Criteria			Submission Requirement	Compliance Requirement	Score
Item	No.	Subject			
Technical Proposal and comments	4.3	Mobilization Management plan	Bidder to submit the following Proposals in accordance with Clause 27.10 of ITT section VII a) Site lay plan out and material mobilization b) Site Organization Chart c) Equipment management plan d) Personnel mobilization	Section V, Schedule 10	6
	4.3	Quality and Quantity Management	Bidder to submit the following Proposals in accordance with Clause 27.10 of ITT section VII a) Methodology b) Proposals on material testing c) Proposal on measurements d) Photograph plan	Section VII, Schedule 10	10
	4.3	Working Schedule and Projected Cash flow.	Bidder to submit the following Proposals in accordance with Clause 27.10 of ITT section VII a) Signed work programme chart b) Signed c) Cash flow plan during the contract period.	Section VII, Schedule 10	4
	4.3	Work safety management	Bidder to submit the following Proposals in accordance with Clause 27.10 of ITT section VII the following shall be provided; a) Proposals on traffic control b) workers safety & c) accident prevention	Section VII, Schedule 10	5
	4.3	Environmental and social management	Bidder to submit the following Proposals in accordance with Clause 27.10 of ITT section VII - Proposal on environmental and social mitigation measures	Section VII, Schedule 10	5
Total Score					30
SUB-TOTAL TECHNICAL SCORE					100
TENDERING PRICE EVALUATION SCORE = {50 X (1-BIDDING PRICE/AGENCY’S PRICE)}					
GRAND TOTAL SCORE = (TECHNICAL EVALUATION SCORE TENDERING PRICE EVALUATION SCORE)					

Bidders whose shall **score 75%** and above shall proceed to financial evaluation stage.

6.3 Technical Score Sheet

Technical Evaluation of Tender No.....in National Park.					Evaluated score for Each Bidder				
Required References to be submitted in Tendering Forms from Tender for evaluation as indicated in section III (A)					X	Y	Z		
Item	Sub-Items		No Req'd	Distributed Score	Maxi Score				
Contractor's Capability to Execute Works	Equipment holding	Concrete Mixers and Vibrator	1	1	20				
		6 X 4 tippers payload 16 – 20 tones	6	4					
		Water tankers (18,000 – 20,000lbs. capacity)	1	2					
		Wheeled loaders (2m3)	1	2					
		Motor graders (93 - 205kW)	2	5					
		Crawler Dozer (D6 and above) or Excavator	1	4					
		Self propelled single drum vibrating (10 tons)	2	2					
	Key staff	Site Agent	Minimum Qualification HNDip in Civil Eng		1	15			
			Exp. 7Yrs and above		3				
			Signed CV		1				
		Forman	Minimum Dip in Civil Eng		1				
			Exp.7Yrs and above		3				
			Signed CV		1				
		Surveyor	Dip. Cert in Survey and above		1				
			Exp.5Yrs and above		3				
			Signed CV		1				
	Past relevant work	Completion Certificate for at least two similar Works @ Kshs 50M	> 2no. Project		10	15			
		Average construction turnover.	Over last 5 years		5				
	Sworn affidavit on Contractual misconduct and litigation				5	5			
	Financial capability	Certified audited accounts for the last Three 3yrs	2012-2014 (3 Years)		7	15			
2012-2013(2 Years)				2					
2012 (1Years)				1					
Bank Statement current 6 months or Line of credit current the last one month			5						
Technical Proposal (Work Execution Programme)	Mobilization management plan	Site lay plan out and material mobilization		1	6				
		Site Organization Chart		1					
		Equipment management plan		2					
		Personnel mobilization		2					
	Quality and quantity management	Methodology statement			5	10			
		Proposals on material testing			2				
		Proposals on measurements			2				
		Photographic plan			1				
	Work scheduling	Work Programme charts			2	4			
		Cash flow plan			2				
Work safety management	Traffic control, and accident prevention			2	5				
	Workers safety			3					
Enviromental and social management			5	5					
Total Score					100				

SECTION VII:
SCHEDULES OF SUPPLEMENTARY INFORMATION

SCHEDULE 1: CONFIDENTIAL BUSINESS QUESTIONNAIRE
REPUBLIC OF KENYA CONFIDENTIAL BUSINESS QUESTIONNAIRE

This Confidential Business Questionnaire of the Government of Kenya shall be completed by the Bidder or by each member of a Joint venture if the Bidder is a Joint-venture.

You are requested to give the particulars indicated in Part 1 and either Part 2 (a), 2(b) or 2(c) whichever applies to your type of business. You are also advised that it is a serious offence to give false information on this Form.

Part 1 - General:

Business Name:

Location of Business Premises

Plot No.*Street/Road*

Postal Address.....*Tel No.*

Nature of Business.....

Current Trade License No.*Expiring Date*

Maximum value of Business which you can handle at any one time:

Kshs.

Name of your Bankers

Branch.....

Part 2(a) - Sole Proprietor:

Your Name in full.....

Age:

Nationality*Country of Origin*.....

***Attach Copy of Citizenship (Compulsory).**

Part 2(b) - Partnership:

Give details of partners as follows:

Name	Nationality	Citizenship Details*	Shares
1.....	1.....	1.....	1.....
2.....	2.....	2.....	2.....
3.....	3.....	3.....	3.....

Note: Attach proof of citizenship (Compulsory) and Certified Copy of Form C12 (Compulsory)

Part 2(c) – Registered Company

Give details of partners as follows:

Private or Public.....

State the Nominal and Issued Capital of the Company

Nominal Shares (Kshs)	Issued Shares (Kshs)
.....

Give details of all directors as follows:

Name	Nationality	Citizenship Details*	Shares
1.....
2.....
3.....
4.....
5.....

Note: Attach proof of citizenship (Compulsory) and Certified Copy of Form C12 (Compulsory).

Part 2 (d) Interest in the Firm:

Are there any person / persons in Kenya Wildlife Service who has interest in this firm? Mark in the box alongside as necessary.

Yes	No

Date:..... Signature of Tenderer.....

REGISTRATION, COMPLIANCE AND STATUTORY DOCUMENTS

Please attach the following documents and any other requested in this schedule after this page

- i) Certified copy of Certificate of incorporation
- ii) Certified copies of Form CR12
- iii) Attach proof of citizenship
- iv) Certified copy of valid tax compliance certificate
- v) Certified copy of proof of registration with the National Construction Authority (NCA) in Category 5 and above as a roads contractor.

SCHEDULE 2: FORM OF WRITTEN POWER OF ATTORNEY

The Bidder shall state here below the name(s) and address of his representative(s) who is/are authorized to receive on his behalf correspondence in connection with the Tender.

.....
(Name of Bidder's Representative in block letters)

.....
(Address of Bidder's Representative)

.....
(Signature of Bidder's Representative)

Alternate:

.....
(Name of Bidder's Representative in block letters)

.....
(Address of Bidder's Representative)

.....
(Signature of Bidder's Representative)

*To be filled by all Bidders.

SCHEDULE 3: DECLARATION OF TENDERER’S KNOWLEDGE OF SITE

1. This is to certify that
[Name/s].....
Being the authorized representative/Agent of [Name of Bidder]
.....
has undertaken the inspection of site in accordance with the instruction to Bidders, for purposes of bidding for REHABILITATION AND PERFORMANCE BASED AND ROUTINE MAINTENANCE of
.....
.....
[name and location of the project] held on..... Day of.....20.....
2. Having studied the tender document, I carefully examined the site to make myself familiar with the local conditions likely to influence the works and cost thereof.
3. I further certify that I am satisfied with the description of the works and I understand perfectly the scope of the works as specified and implied in the performance of the contract

Signed and Stamped.....

(Bidder’s Representative)

.....
(Name and Designation of Procurement Entity’s Representative)

.....
(Signature of Procurement Entity’s Representative)

NOTE: This form Must be completed and duly signed.

**To be filled by all Bidders*

SCHEDULE 4: MAJOR ITEMS OF CONSTRUCTION PLANT AND EQUIPMENT

The Bidder must indicate the mandatory minimum number plant and equipment required by the Employer for the execution of the project that the bidder must make available for the Contract. Only reliable plant in good working order, and suitable for the work should be considered by the company to be necessary for undertaking the project together with proof ownership

Item No.	Equipment Details	Minimum Number Required for the Contract Execution	No of Equipment Owned by the Bidder	No. of equipment to be hired/purchased by the Bidder	No. of equipment to be made available for the Contract by the Bidder	Date of Arrival on Project (Days after commence)
	A) Concrete Equipment					
	(i) Mobile concrete mixers	2				
	(ii) Concrete vibrators	4				
	B) Transport (Tippers, dumpers, water tankers)					
	(i) 6 X 4 tippers payload 16 – 20 tones	6				
	(ii) Water tankers (18,000 – 20,000 lts. capacity)	2				
	C) Earth – Moving Equipment					
	(i) Wheeled loaders	1				
	(ii) Motor graders (93 - 205kW)	2				
	D) Excavators					
	(i) Hydraulic crawler mounted (7 – 10 tonnes) – 0.25 – 0.4 m ³ SAE bucket.	1				
	E) Rollers					
	Self propelled single drum vibrating (various types)	2				

The bidder should attached proof of ownership of all or at least 50% of the fleet or authorized letter of hire for the remainder. Anyone who submits fake logbook(s)/lease agreement(s) shall have their names forwarded to Public Procurement Oversight Authority (PPOA) for Debarment/Blacklisting. I certify that the above information is correct.

Signature of Tenderer: Date:

Name of Signatory:

SCHEDULE 5: KEY PERSONNEL**i) Key Personnel proposed by Tenderer**

The Bidder shall list in this schedule the in-house professional and technical personnel he will employ, list of their current workload together with their qualifications, experience, position held and nationality.

Name of Key Staff	Designation		Required
	Site Agent	Qualification	National Higher Dip in Civil Engineering/Equivalent
		General Experience	At least 7 yrs
		CV	Provide Cv current to the Month of Tender
		Qualification Certificate	Certified copy of Qualification Certificate
		Current work Load	Specify
	Foreman	Qualification	Dip in Civil Engineering or Equivalent
		General Experience	At least 7 yrs
		CV	Provide Cv current to the Month of Tender
		Qualification Certificate	Certified copy of Qualification Certificate
		Current work Load	Specify
	Surveyor	Qualification	Dip in Civil Engineering or Equivalent
		General Experience	At least 5 yrs
		CV	Provide Cv current to the Month of Tender
		Qualification Certificate	Certified copy of Qualification Certificate
		Current work Load	Specify

I certify that the above information is correct.

Signature of Tenderer: Date:

The CV's for each of the proposed key personnel are presented informant indicated below. Attach certified copies of qualification Certificates

ii) **Format of Resume of Proposed Personnel** (use the same format for all other required staff)

Proposed Position	
Personnel information	Name of Personnel Date of birth
	Professional qualifications
	Years of Experience Years with present employer
Present employment	Present Employer's Name:
	Job Title
	Name of Contact person (Supervisor) <i>Telephone No</i> <i>E-mail</i>
From	To
<i>(Summarize professional experience, in reverse chronological order. Indicate particular technical and managerial experience relevant to the project)</i>	
<p>Company :</p> <p>Project:</p> <p>Position:</p> <p>Role in project</p>	

Signature of Proposed Staff.....Date:.....

Note: Attach Certified Copies of Qualification Certificates

SCHEDULE 6: SCHEDULE OF ROADWORKS CARRIED OUT BY THE TENDERER IN THE LAST FIVE YEARS

DESCRIPTION OF WORKS	NAME OF CLIENT	VALUE OF WORKS (KSHS) *	YEAR COMPLETED OR REMARKS
A) Non Completed Works(Beyond Completion Dates)			
B) Completed Works			
C) Specific Construction Experience			

Note: Bidders shall attach certified copies of all the following letters of award (for each listed project), certified copies of completion certificates (for completed projects) and any certified evidence for executed works for non-completed projects e.g copy of recent payment certificate.

I certify that the above works were successfully carried out (Attach Completion Certificates and or other supportive evidence as requested in Table 3 in Section III: Qualification Criteria.

Signature of bidder: Date.....

* Value in KShs using Central Bank of Kenya mean exchange rate at a reference date 28 days before date of BID opening

SCHEDULE 7: SCHEDULE OF ONGOING PROJECTS

Bidders should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, or for which an unqualified, or full completion certificate has yet to be issued.

Name of Contract	Procurement Entity's contact address/fax	date of commencement	date of completion	value of works (kshs)	Physically completed up to date %

I certify that the above works are being carried out by me and that the above information is correct.

Signature of bidder:Date:

*** Value in KShs using Central Bank of Kenya mean exchange rate at a reference date 28 days before date of BID opening**

SCHEDULE 8: SCHEDULE OF LOCAL LABOUR BASIC RATES

The rates inserted in this schedule will be those used in determining changes in cost of local labour market.

LABOUR CATEGORY	MONTH/SHIFT/HOUR	UNIT	RATE (KShs)
Skilled Labour			
Semi-Skilled Labour			
Unskilled Labour			

NOTE: Categories to be generally in accordance with those used by the Kenya Building Construction Engineering and Allied Trade Workers Union and Ministry of labour

I certify that the above information is correct.

Signature of bidder: Date:.....

SCHEDULE 4: SCHEDULE OF BASIC RATES OF MATERIALS

(Ref: Conditions of Contract Part II, Clause 70)

Bidders shall complete the blank section of this schedule only, and shall make no alterations to any item nor insert any additional materials. The prices inserted shall be those prevailing 30 days before submission of Bids and shall be quoted in Kenya shillings using the exchange rates specified in the Bidding Data. The prices shall be supported by bona fide quotations for use as provided in Clause 70.

ITEM NO	DESCRIPTION	COUNTRY OF ORIGIN	NAME OF SUPPLIER	UNIT	RATE	
					KSHS.	CTS
1	Automotive Diesel Fuel			Litre		
2	Industrial Diesel Oil			Litre		
3	Industrial Fuel Oil			Litre		
4	Kerosene Fuel			Litre		
5	Ordinary Portland Cement			Tonne		
6	Flex beam Guardrail			Metre		
7	Gabion Mesh			M ²		
8	Reinforcing Steel			Tonne		
9	Lime			Tonne		
10	Sand			Tonne		
11	Ballast			Tonne		

.....
(Signature of Tenderer)

.....
(Date)

SCHEDULE 9: FINANCIAL INFORMATION/CURRENT COMMITMENTS

1. Financial reports for the last three years, balance sheets, profit and loss statements, auditors’ reports for the last three calendar years with certified English translation where appropriate. List them below and attach copies.

.....

SUMMARY OF ASSETS AND LIABILITIES OF THE AUDITED FINANCIAL STATEMENTS OF THE LAST THREE (3) FINANCIAL YEARS.

	Year 2014/2015	Year 2013/2014	Year 2012/2013
	Kshs.	Ksh	Kshs.
1. Total Assets			
2. Current Assets			
3. Bank credit Line Value			
4. Total Liabilities			
5. Current Liabilities			
6. Net worth (1-4)			
7. Working capital (2+3-4)			

2. Evidence of access to financial resources to meet the qualification requirements. Cash in hand, lines of credit etc. List below and attach copies of supporting documents (bank to fill attached form).

.....

3. Give turnover figures for each of the last Three (3) financial years. Quote in millions and decimal thereof.

Type of Work	Year 2014/2015	Year 2013/2014	Year 2012/2013
	Kshs.	Kshs.	Ks
Road works			
Other civil engineering works			
Other (specify)			
Total			

Note: Provide information in the specified format

- (a) Name/Address of Commercial Bank providing credit line

.....
 Total amount of credit in Shillings.....

(Attach a certified copy of the current Letter of Line of credit from the Bank.)

- (b) Attach certified copies of financial bank statements of the last six months.

4. Name, address, telephone, telex, fax numbers of the Tenders' Bankers who may provide reference if contacted by the Contracting Authority.

.....

.....

.....

5. Information on History of Non performing contract and current Litigation in which the Tenderer is

- a) Provide Information on History of Non performing contract

OTHER PARTY (IES)	CAUSE OF DISPUTE	AMOUNT INVOLVED (KShs)

- b) Provide Information on current Litigation involved.

OTHER PARTY (IES)	CAUSE OF DISPUTE	AMOUNT INVOLVED (KShs)

Note: (Provide a sworn affidavit for both (a) and (b)).

I certify that the above information is correct

Signature of bidder:.....Date:.....

SCHEDULE 10: WORK EXECUTION PROGRAMME

Note: Works Execution programme is different from form “programme of works referred in FIDIC and Standard Specification for Roads and Bridge Construction. The said “programme of works” is but part of Works Execution Programme (WEP). The Works execution programme should include all relevant information to the project. The information given should be clear, not flawed description and compliance to standard and special specification.. The WEP will be used hand in hand with Supervision Check-list Manual indicated in Section – IX and the Supervision Check-list sheet in Appendix II below of the Tender Document. .

The Contents of Works Execution Programme shall include:

1. General information a) Project data

- Project name,
- employer,
- implementing agency
- contract period,
- date of completion,
- defects liability period,
- date of submission of works execution programme,
- Scopes of works. A brief description of the project which includes major work items

2. Mobilization Plan

- Site office Plan and site organization chart,
- Personnel management plan (Head Office and Self Control Unit)
- Equipment management plan

3. Work execution Schedule

- a) Signed Programme of works
- b) Signed cash flow plan during the contract period. It is desirable that work execution schedule includes time frame of each activity such as in bar chart format.

4 Quality and Quantity Management

- Method statement: This includes Work procedures, order and methods for execution.
- Proposal on material testing.
- Proposal on measurements
- Photograph plan. The bidder shall provide a photograph plan to record the progress and proof of quality control, measurement and any event that may arise.

5 Safety management plan

This includes but not limited compliance with safety rules and regulation, traffic control and detour plans, emergency contact list

6 Environmental and social management plan

When the negative impacts on third parties during the execution are predicted, the management and mitigation plans should be included in WEP.

Note: Works Execution Programme to be submitted by the bidder shall not be less than five (5) pages covering all the above stated items.

**PART 2: Condition of Contract and
Standard Contract Forms**

SECTION IX:
GENERAL CONDITIONS OF CONTRACT(GCC)

Clause	Sub- Clause	A. CONTRACT AND INTERPRETATION
1	Definitions	<p>1.1 Bill of Quantities means the priced and completed Bill of Quantities forming part of the Contractor's Bid.</p> <p>The Certificate of Substantial Completion is a document issued by the Project Manager upon completion of Rehabilitation Works, Improvement Works and Emergency Works, or parts thereof, as applicable, in accordance with GCC 54.1</p> <p>The Completion Date is the date of completion of the Services and Works as certified by the Project Manager, in accordance with Sub-Clause 10.2.</p> <p>The Contract is the Contract between the Procurement Entity and the Contractor to perform the services to be provided by the Contractor, and to execute, complete, and maintain the Works. It consists of the documents listed in Clause 3 below.</p> <p>The Contractor is a person or corporate body whose Tender to carry out the Works and Services has been accepted by the Procurement Entity</p> <p>The Contractor's Tender is the completed tendering document submitted by the Contractor to the Procurement Entity.</p> <p>The Contract Price is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract.</p> <p>Days are calendar days; months are calendar months.</p> <p>A Defect is any part of the Works and Services not completed in accordance with the Contract.</p> <p>The Defects Liability Certificate is the certificate issued by Project Manager upon correction of defects by the Contractor.</p> <p>The Defects Liability Period is the period specified in the Contract and is applicable for Rehabilitation Works and Improvement Works, with exclusions identified in the PARTICULAR CONDITION OF CONTRACT, if any.</p> <p>Dispute Review Board (DRB) is a board of three members selected and act in accordance with rules and procedures defined in the Contract to seek to resolve any dispute of any kind that may arise between the Procurement Entity and the Contractor in connection with or arising out of the Contract, as provided for in Clause 6 hereunder.</p>

Clause	Sub- Clause	A. CONTRACT AND INTERPRETATION
1.1		<p>Dispute Review Expert (DRE) is one expert selected and acting in accordance with rules and procedures defined in the Contract to seek to resolve any dispute of any kind that may arise between the Procurement Entity and the Contractor in connection with or arising out of the contract, as provided for in Clause 6 hereunder.</p> <p>Drawings include calculations and other information provided by the Contractor for the execution of the Contract</p> <p>Emergency Works is a set of necessary and sufficient activities to reinstate the Road and reconstruct its structure or right of way strip damaged as a result of natural phenomena with imponderable consequences, such as strong storms, flooding and earthquakes. The need for execution of Emergency Works is jointly identified by the Procurement Entity and the Contractor and for starting of execution of Emergency Works the Procurement Entity shall issue a Work Order</p> <p>The Procurement Entity is the party who employs the Contractor to carry out the Works and Services.</p> <p>Equipment is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works and to carry out the Services.</p> <p>The Intended Completion Date is the date on which it is intended that the Contractor shall complete the Works and Services. The Intended Completion Date is specified in the Particular Conditions (PARTICULAR CONDITION OF CONTRACT). The Intended Completion Date may be revised only by the Project Manager by issuing an extension of time.</p> <p>Materials are all supplies, including consumables, used by the Contractor for incorporation in the Works and for provision of Services.</p> <p>The Project Manager is The Head of Roads and Fleet Management Department representing the Employer to be responsible for the overall administration of the Contract on behalf of the Procurement Entity, and the supervision of works and services to be performed there under. The Project Manager may delegate through a written instrument some of his functions to any other competent person, retaining however the overall responsibility for the actions of that person. The Project Manager may not delegate the overall administrative control of the Contract.</p> <p>Road means the road or network of roads for which the Works and Services are contracted under the Contract.</p> <p>Self Control Unit is a team to to be established by the contractor under the PBC contract for exclusively performing self-management of PBC Works. The Self-Control Unit is responsible for gathering information required by the Contractor to prepare the Monthly Statement. The unit should have a complete knowledge of the road condition both on and off carriage way</p>

Execution Unit is a unit that consists of a fore man, supervisor & labors, responsible for the execution of works and quality/progress control

The **Road Management Office** is the location indicated by the Contractor from which the Road Manager operates, and where the Contractor shall receive notifications.

The **Road Manager** is a person appointed by the Contractor who is in charge of managing all activities of the Contractor under the Contract. He is also the Contractor's Representative for the purposes of this contract.

Services means all interventions on the Road under the Contract and all activities related to the management and evaluation of the Road which shall be carried out by the Contractor in order to achieve and keep the Road Performance Standards as defined by the Service Levels, and to receive full payment of the monthly fee under the contract

Service Levels are the minimum performance standards for the level of quality of conditions of the Road defined in the Specifications which the Contractor shall comply with.

The Site is the area of the road reserves of the various roads as stated in **ITT 1.1**

Site Investigation Reports are those that were included in the tendering documents and are factual and interpretative reports about the surface and subsurface conditions at the Site.

The **Start Date** is the date when the Contractor has started the physical execution of the Works and Services on the site. It does not necessarily coincide with any of the Site Possession Dates

A **Subcontractor** is a person or corporate body who has a contractual agreement with the Contractor to carry out certain activities related to the services to be provided under the contract, which may include work on the Site.

Specifications means the Specifications of the Works and Services included in the Contract and any modification or addition made or approved by the Project Manager.

A **Variation** is an instruction given by the Project Manager which varies the Works or Services.

The **Works** are what the Contract requires the Contractor to construct, install, and turn over to the Procurement Entity, as covered under Rehabilitation Works, Improvement Works and Emergency Works.

Work Order is an order issued by the Project Manager to the Contractor authorizing the execution of Improvement Works and Emergency Works, as provided for in Clause 27 hereunder.

Corrective Order is an order made by the Client to correct the contractor's activity or achievement under the PBC Works which are not in compliance with the specifications so that the contractor can take further action. Such an order may be issued during Ad hoc Inspection and Formal Inspection as required by the judgment of the Project Manager.

PBC Works is a series of works and services required for routine maintenance to bring up the road condition to the required service levels. Works and services are normally of labor based works and pavement repair works.

2	Interpretation	2.1	<p>In interpreting these General Conditions of Contract (GCC), singular also means plural, male also means female or neuter, and vice versa. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Project Manager will provide instructions clarifying queries about these General Conditions of Contract (GCC).</p> <p>The documents forming the Contract shall be interpreted in the following order of priority:</p> <ol style="list-style-type: none"> 2. Agreement 3. Letter of Acceptance 4. Contractor's Bid 5. Conditions of Contract 6. Specifications 7. Drawings 8. Bills of Quantities.
3	Documents Forming the Contract	3.1	<p>If any ambiguity or discrepancy is found in the documents the Project Manager will provide instructions clarifying the position.</p>
4	Language and Law	4.1	<p>The language of the Contract shall be English. The law of the Contract is that of the Republic of Kenya.</p>
5	Notices	5.1	<p>Unless otherwise stated in the Contract, all notices to be given under the Contract shall be in writing, and shall be sent by personal delivery, airmail post, special courier, fax or E-mail to the address of the relevant party set out in the PARTICULAR CONDITION OF CONTRACT, with the following provisions:</p>
		5.1.1	<p>Any notice sent by fax or E-mail shall be confirmed within two (2) days after dispatch by notice sent by airmail post or special courier, except as otherwise specified in the Contract</p>
		5.1.2	<p>Any notice sent by airmail post or special courier shall be deemed (in the absence of evidence of earlier receipt) to have been delivered ten (10) days after dispatch. In proving the fact of dispatch, it shall be sufficient to show that the envelope containing such notice was properly addressed, stamped and conveyed to the postal authorities or courier service for transmission by airmail or special courier.</p>
		5.1.3	<p>Any notice delivered personally or sent by fax or E-mail shall be deemed to have been delivered on date of its dispatch.</p>
		5.1.4	<p>Either party may change its postal, fax or E-mail address or addressee for receipt of such notices by ten (10) days' notice to the other party in writing.</p>
		5.2	<p>Notices shall be deemed to include any approvals, consents, instructions, orders and certificates to be given under the Contract.</p>

		<p>The Contractor shall provide at its own cost, and maintain in operation permanently during the duration of the Contract, such communications equipment which ensures that both written (fax or E-mail) and oral (voice) communications can be established at all times</p>
	5.3	<p>(a) between the Road Manager and his senior field staff; (b) between the Project Manager and the Road Manager; (c) between the public telephone system and the Road Manager; (d) The equipment to be provided and maintained includes the equipment located at the Project Manager's office.</p> <p>At the Start Date of the Contract, the Contractor must communicate to the Procurement Entity the address of his office, including the postal, fax and E-mail address, which for the purposes of this contract is called the Road Management Office, where Notices will be addressed to. The Procurement Entity may require that the physical location of the Road Management Office is within the close geographical area of the Road. If the Contractor fails to communicate the address of his Road Management Office, and the Procurement Entity is otherwise unable to locate the Road Manager, all notifications to the Contractor shall be valid if they are deposited at a designated location within the office of the Project Manager, and if a copy is sent to the Contractor's legal address.</p>
	5.4	
	5.5	<p>The Start Date shall be not later than 18 days after the issuance of the Letter of Commencement. The Contractor shall attain the required Service Levels within the time specified in the Timetable in the Specifications. The Contract will be completed after the number of months specified in the Timetable has elapsed</p>
	Start Date and Completion	
	Settlement of Disputes (Alternative when using a Dispute Review Board)	
6	6.1	Dispute Review Board
	6.1.1	<p>If any dispute of any kind whatsoever shall arise between the Procurement Entity and the Contractor in connection with or arising out of the Contract, including without prejudice to the generality of the foregoing, any question regarding its existence, validity or termination, or the execution of the Works and Services—whether during the progress of the execution or after completion and whether before or after the termination, abandonment or breach of the Contract—the parties shall seek to resolve any such dispute or difference by mutual consultation. If the parties fail to resolve such a dispute or difference by mutual consultation, then the matter in dispute shall, in the first place, be referred in writing by either party to the Disputes Review Board ('the Board'), with a copy to the other party.</p>
	6.1.2	<p>The Board shall be established when each of the three Board Members has signed a Board Member's Declaration of Acceptance as required by the DRB's Rules and Procedures (which, along with the Declaration of Acceptance form, are attached to the Contract).</p>

The Board shall comprise three Members experienced with the type of construction and services involved in the Contract and with the interpretation of contractual documents. One Member shall be selected by each of the Procurement Entity and the Contractor and approved by the other. If either of these Members is not so selected and approved within 28 days of the date of the Letter of Acceptance, then upon the request of either or both parties such Member shall be selected as soon as practicable by the Appointing Authority specified in the PARTICULAR CONDITION OF CONTRACT. The third Member shall be selected by the other two and approved by the parties. If the two Members selected by or on behalf of the parties fail to select the third Member within 14 days after the later of their selections, or if within 14 days after the selection of the third Member, the parties fail to approve that Member, then upon the request of either or both parties such third Member shall be selected promptly by the same Appointing Authority specified in the PARTICULAR CONDITION OF CONTRACT who shall seek the approval of the proposed third Member by the parties before selection but, failing such approval, nevertheless shall select the third Member. The third Member shall serve as Chairman of the Board.

6.1.3 In the event of death, disability, or resignation of any Member, such Member shall be replaced in the same manner as the Member being replaced was selected. If for whatever other reason a Member shall fail or be unable to serve, the Chairman (or failing the action of the Chairman then either of the other Members) shall inform the parties and such non-serving Member shall be replaced in the same manner as the Member being replaced was selected. Any replacement made by the parties shall be completed within 28 days after the event giving rise to the vacancy on the Board, failing which the replacement shall be made by the Appointing Authority in the same manner as described above. Replacement shall be considered completed when the new Member signs the Board Member's Declaration of Acceptance. Throughout any replacement process the Members not being replaced shall continue to serve and the Board shall continue to function and its activities shall have the same force and effect as if the vacancy had not occurred, provided, however, that the Board shall not conduct a hearing nor issue a Recommendation until the replacement is completed.

6.1.4 Either the Procurement Entity or the Contractor may refer a dispute to the Board in accordance with the provisions of the DRB's Rules and Procedures, attached to the Contract. The Recommendation of the Board shall be binding on both parties, who shall promptly give effect to it unless and until the same shall be revised, as hereinafter provided, in an arbitral award. Unless the Contract has already been repudiated or terminated, the Contractor shall continue to proceed with the Works and Services in accordance with the Contract.

If either the Procurement Entity or the Contractor is dissatisfied with any Recommendation of the Board, or if the Board fails to issue its Recommendation within 56 days after receipt by the Chairman of the Board of the written Request for Recommendation, then either the Procurement Entity or the Contractor may, within 14 days after his receipt of the Recommendation, or within 14 days after the expiry of

-
- 6.1.5** the said 56- day period, as the case may be, give notice to the other party of his intention to commence arbitration, as hereinafter provided, as to the matter in dispute. Such notice shall establish the entitlement of the party giving the same to commence arbitration, as hereinafter provided, as to such dispute and, subject to Sub-Clause 6.3, no arbitration in respect thereof may be commenced unless such notice is given.
- 6.1.6** If the Board has issued a Recommendation to the Procurement Entity and the Contractor within the said 56 days and no notice of intention to commence arbitration as to such dispute has been given by either the Procurement Entity or the Contractor within 14 days after the parties received such Recommendation from the Board, the Recommendation shall become final and binding upon the Procurement Entity and the Contractor.
- 6.1.7** Whether or not it has become final and binding upon the Procurement Entity and the Contractor, a Recommendation shall be admissible as evidence in any subsequent dispute resolution procedure, including any arbitration or litigation having any relation to the dispute to which the Recommendation relates.
- 6.1.8** All Recommendations that have become final and binding shall be implemented by the parties forthwith.
- 6.2 Arbitration**
- 6.2.1** If either the Procurement Entity or the Contractor is dissatisfied with the Board's decision, then either the Procurement Entity or the Contractor may, in accordance with Sub-Clause 6.1.5, give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. The arbitral tribunal shall have full power to open up, review, and revise any decision, opinion, instruction, determination, certificate, and any Recommendation(s) of the Board
- 6.2.2** Any dispute in respect of which a notice of intention to commence arbitration has been given, in accordance with GCC Sub clause 6.2.1, shall be finally settled by arbitration. Neither party shall be limited in the proceedings before such arbitration tribunal to the evidence nor arguments put before the Board for the purpose of obtaining his Recommendation(s) pursuant to Sub-Clause 6.2.1. No Recommendation shall disqualify the Board from being called as a witness and giving evidence before the arbitrator(s) on any matter whatsoever relevant to the dispute Arbitration may be commenced prior to or after completion of the Works and Services.
- 6.2.3** Arbitration proceedings shall be conducted in accordance with the rules of procedure designated in the PARTICULAR CONDITION OF CONTRACT.
- 6.2.4** Where neither the Procurement Entity nor the Contractor has given notice of intention to commence arbitration of a dispute within the period stated in Sub-Clause 6.1.5 and the related Recommendation has become final and binding, either party may, if the other party fails to comply with such Recommendation and without prejudice to any other right it may have, refer the failure to arbitration in accordance with Sub-Clause 6.2. The provisions of Sub-Clause 6.1 shall not apply to any such reference.
- 6.2.5** Notwithstanding any reference to the Board or Arbitration herein,
(a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree
(b) the procurement entity shall pay contractor any moneis due to the contractor.

B. ASSIGNMENT OF RESPONSIBILITIES

- | | | | |
|----------|------------------------------------|--------------|---|
| 7 | Scope of Works and Services | 7.1 | Unless otherwise expressly limited in the Specifications, the Contractor's obligations cover the Design, the carrying out of all Works and the performance of all Services required for keeping the Road in accordance with the Service Levels defined in the Specifications, while at the same time respecting the plans, procedures, specifications, drawings, codes and any other documents as identified in the Specifications. Such specifications include, but are not limited to, the provision of supervision and engineering services; the supply of labour, materials, equipment; Contractor's Equipment; construction utilities and supplies; temporary materials, structures and facilities; transportation (including, without limitation, unloading and hauling to, from and at the Site); and storage, except for those supplies, works and services that will be provided or performed by the Procurement Entity, if any, as set forth in the corresponding Specifications. |
| | | 7.2 | The Contractor shall, unless specifically excluded in the Contract, perform all such work, services and/or supply all such items and materials not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for attaining the Performance Standards (as specified in Clause 24 of GCC) as if such work, services and/or items and materials were expressly mentioned in the Contract. |
| 8 | Design Responsibility | 8.1 | The Contractor shall be responsible for the design provided to or produced by him and programming of the Works and Services, and for the accuracy and completeness of the information used for that design and programming in accordance with the requirements established in the Specifications |
| | | 8.2 | Specifications and Drawings |
| | | 8.2.1 | The Contractor shall implement the basic and detailed design and the engineering work in compliance with the provisions of the Contract and the Specifications, or where not so specified, in accordance with good engineering practice.

The Contractor shall be responsible for any discrepancies, errors or omissions in the specifications, drawings and other technical documents that it has prepared, whether such specifications, drawings and other documents have been approved by the Project Manager or not, provided that such discrepancies, errors or omissions are not because of inaccurate information furnished in writing to the Contractor by or on behalf of the Procurement Entity. |
| | | 8.3 | Codes and Standards

Wherever references are made in the Contract to codes and standards in accordance with which the Contract shall be executed, the edition or the revised version of such codes and standards current at the date twenty-eight (28) days prior to date of tender submission shall apply unless otherwise specified. During Contract execution, any changes in such codes and standards shall be applied after approval by the Procurement Entity and shall be treated in accordance with GCC Clause 63. |
| | | 8.4 | Approval/Review of Technical Documents by Project Manager

For those Works specified in the PARTICULAR CONDITION OF CONTRACT, |

the Contractor shall prepare (or cause its Subcontractors to prepare) and furnish to the Project Manager the documents listed in the Specifications (List of Documents for Approval or Review) for its approval or review.

- 8.4.1** Unless otherwise specified in the PARTICULAR CONDITION OF CONTRACT, the Contractor shall not be required to submit for the Procurement Entity's approval the Design or other technical documents concerning the Maintenance Services remunerated through monthly lump-sum payments.

Any part of the Works covered by or related to the documents to be approved by the Project Manager shall be executed only after the Project Manager's approval thereof.

GCC Sub-Clauses 8.4.2 through 8.4.7 shall apply only to those documents requiring the Project Manager's approval, but not to those furnished to the Project Manager for his information or review only

- 8.4.2** Within fourteen (14) days after receipt by the Project Manager of any document requiring the Project Manager's approval in accordance with GCC Sub-Clause 8.4.1, the Project Manager shall either return one copy thereof to the Contractor with its approval endorsed thereon or shall notify the Contractor in writing of its disapproval thereof and the reasons therefore and the modifications that the Project Manager proposes.

If the Project Manager fails to take such action within the said fourteen (14) days, then the said document shall be deemed to have been approved by the Project Manager.

- 8.4.3** The Project Manager shall not disapprove any document, except on the grounds that the document does not comply with some specified provision of the Contract or that it is contrary to good engineering practice.

- 8.4.4** If the Project Manager disapproves the document, the Contractor shall modify the document and resubmit it for the Project Manager's approval in accordance with GCC Sub-Clause 8.4.2. If the Project Manager approves the document subject to modification(s), the Contractor shall make the required modification(s), whereupon the document shall be deemed to have been approved.

- 8.4.5** If any dispute or difference occurs between the Procurement Entity and the Contractor in connection with or arising out of the disapproval by the Project Manager of any document and/or any modification(s) thereto that cannot be settled between the parties within a reasonable period, then such dispute or difference may be referred to the DRB (or DRE) for determination in accordance with GCC Sub-Clause 6.1 hereof. If such dispute or difference is referred to the DRB (or DRE), the Project Manager shall give instructions as to whether and if so, how, performance of the Contract is to proceed. The Contractor shall proceed with the Contract in accordance with the Project Manager's instructions, provided that if the DRB (or DRE) upholds the Contractor's view on the dispute and if the Procurement Entity has not given notice under GCC Sub-Clause 6.1.5 hereof, then the Contractor shall be reimbursed by the Procurement Entity for any additional costs incurred by reason of such instructions and shall be relieved of such

			responsibility or liability in connection with the dispute and the execution of the instructions as the DRB (or DRE) shall decide, and the Time for Completion shall be extended accordingly.
		8.4.6	The Project Manager's approval, with or without modification of the document furnished by the Contractor, shall not relieve the Contractor of any responsibility or liability imposed upon it by any provisions of the Contract except to the extent that any subsequent failure results from modifications required by the Project Manager.
		8.4.7	The Contractor shall not depart from any approved document unless the Contractor has first submitted to the Project Manager an amended document and obtained the Project Manager's approval thereof, pursuant to the provisions of this GCC Sub-Clause 8.4. If the Project Manager requests any change in any already approved document and/or in any document based thereon, the provisions of GCC Clause 63.2 shall apply to such request.
9	Copyright	9.1	The copyright in all drawings, documents and other materials containing data and information furnished to the Procurement Entity by the Contractor herein shall remain vested in the Contractor or, if they are furnished to the Procurement Entity directly or through the Contractor by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party
10	Start Date and Completion	10.1	The Contractor shall start the Works and Services within the period specified in the PARTICULAR CONDITION OF CONTRACT. Upon request from the Contractor, the Procurement Entity shall confirm in writing the Start Date, after verifying that works and services have started on the Site.
		10.2	The Contractor shall attain the required Service Levels and the Completion of the Rehabilitation and Improvement Works (or of a part where a separate time for Completion of such part is specified in the Contract) within the time schedules included in the PARTICULAR CONDITION OF CONTRACT and the Specifications, or within such extended time to which the Contractor shall be entitled under GCC Clause64 hereof

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| 11 | Contractor's Responsibilities | 11.1 | The Contractor shall design and carry out the Works and Services (including associated purchases and/or subcontracting) necessary to comply with the requirements established in the Specifications with due care and diligence in accordance with the Contract. |
| | | 11.2 | The Contractor confirms that it has entered into this Contract on the basis of a proper examination of the data relating to the Works and Services required, including any data and tests provided by the Procurement Entity, and on the basis of information that the Contractor could have obtained from a visual inspection of the Site and of other data readily available to it relating to the Road as of the date Fourteen (14) days prior to tender submission. The Contractor acknowledges that any failure to acquaint itself with all such data and information shall not relieve its responsibility for properly estimating the difficulty or cost of successfully performing the Works and Services. |
| | | 11.3 | The Contractor shall acquire in its name all permits, approvals and/or licenses from all local, state or national government authorities or public service undertakings in the country of the Procurement Entity that are necessary for the performance of the Contract, including, without limitation, visas for the Contractor's and Subcontractor's personnel and entry permits for all imported Contractor's Equipment. The Contractor shall acquire all other permits, approvals and/or licenses that are not the responsibility of the Procurement Entity under GCC Sub-Clause 14.3 hereof and that are necessary for the performance of the Contract |
| | | 11.4 | The Contractor shall comply with all laws in force in the country of the Procurement Entity and where the Works and Services are carried out. The laws will include all local, state, national or other laws that affect the performance of the Contract and bind upon the Contractor. The Contractor shall indemnify and hold harmless the Procurement Entity from and against any and all liabilities, damages, claims, fines, penalties and expenses of whatever nature arising or resulting from the violation of such laws by the Contractor or its personnel, including the Subcontractors and their personnel, but without prejudice to GCC Sub-Clause 14.1 hereof. |
| | | 11.5 | Any Plant, Material and Services that will be incorporated in or be required for the Works and Services and other supplies shall have their origin in an eligible Country as defined under the Bank's procurement guidelines. |
| | | 11.6 | The Contractor shall permit the Bank and/or persons appointed by the Bank to inspect the Site and/or the accounts and records of the Contractor and its subcontractors relating to the performance of the Contract, and to have such accounts and records audited by auditors appointed by the Bank if required by the Bank. The Contractor's attention is drawn to Sub- Clause 59.2.1 which provides, inter alia, that acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under Sub-Clause 11.6 constitute a prohibited practice subject to contract termination.

The Contractor may subcontract activities listed in the PARTICULAR CONDITION OF CONTRACT. Any other activity under the Contract may be subcontracted only when approved by the Project Manager. The Contractor may not assign the entire Contract without the approval of the Procurement Entity in writing. Subcontracting shall not alter the Contractor's obligations nor relieve the Contractor from any liability or obligation under the Contract and he shall be responsible for the acts, |
| 12 | Subcontracting | 12.1 | |

- defaults and neglects of any Subcontractor, his agents, servants or workmen as fully as if they were the acts, defaults or neglects of the Contractor, his agents, servants or workmen.
- 12.2** Notwithstanding GCC Sub-Clause 12.1, the Contractor may subcontract under his own responsibility and without prior approval of the Procurement Entity the small Works and Services also listed in the PARTICULAR CONDITION OF CONTRACT.
- 13** **Assignment of Contract**
- 13.1** Neither the Procurement Entity nor the Contractor shall, without the express prior written consent of the other party (which consent shall not be unreasonably withheld), assign to any third party the Contract or any part thereof, or any right, benefit, obligation or interest therein or there under, except that the Contractor shall be entitled to assign either absolutely or by way of charge any monies due and payable to it or that may become due and payable to it under the Contract.
- 14.1** The Procurement Entity shall apply due diligence to ensure the accuracy of all information and/or data to be supplied to the Contractor as described in the Specifications, except when otherwise expressly stated in the Contract.
- 14.2** The Procurement Entity shall be responsible for acquiring and providing legal and physical possession of the Site and access thereto, and for providing possession of and access to all other areas reasonably required for the proper execution of the Contract, including all requisite rights of way, as specified in the corresponding Specifications. The Procurement Entity shall give full possession of and accord all rights of access thereto on or before the date(s) specified in the PARTICULAR CONDITION OF CONTRACT
- 14.3** The Procurement Entity shall acquire and pay for all permits, approvals and/or licenses from all local, state or national government authorities or public service undertakings in the country where the Site is located, when such authorities or undertakings require the Procurement Entity to obtain them in the Procurement Entity's name, are necessary for the execution of the Contract, and are specified in the corresponding Specifications
- 14** **Procurement Entity's Responsibilities**
- 14.4** If requested by the Contractor, the Procurement Entity shall use its best endeavours to assist the Contractor in obtaining in a timely and expeditious manner all permits, approvals and/or licenses necessary for the execution of the Contract from all local, state or national government authorities or public service undertakings that such authorities or undertakings require the Contractor or Subcontractors or the personnel of the Contractor or Subcontractors, as the case may be, to obtain
- 14.5** The Procurement Entity shall be responsible for the continued operation of the Road after Completion, in accordance with GCC Sub-Clause 28, and shall be responsible for facilitating the Guarantee Test(s) for the Road, in accordance with GCC Sub-Clause 20.
- 14.6** All costs and expenses involved in the performance of the obligations under this GCC Clause 14 shall be the responsibility of the Procurement Entity, save those to be incurred by the Contractor with respect to the performance of Guarantee Tests, in accordance with GCC Sub-Clause 20
- 15** **Confidential Information**
- 15.1** The Procurement Entity and the Contractor shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to,

during or following termination of the Contract. Notwithstanding the above, the Contractor may furnish to its Subcontractor(s) such documents, data and other information it receives from the Procurement Entity to the extent required for the Subcontractor(s) to perform its work under the Contract, in which event the Contractor shall obtain from such Subcontractor(s) an undertaking of confidentiality similar to that imposed on the Contractor under this GCC Clause 15.

- 15.2** The Procurement Entity shall not use such documents, data and other information received from the Contractor for any purpose other than the operation and maintenance of the Road. Similarly, the Contractor shall not use such documents, data and other information received from the Procurement Entity for any purpose other than the design, procurement of Plant and Equipment, construction or such Works and Services as are required for the performance of the Contract.

The obligation of a party under GCC Sub-Clauses 15.1 and 15.2 above, however, shall not apply to that information which

- 15.3**
- (a) now or hereafter enters the public domain through no fault of that party;
 - (b) can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party hereto;
 - (c) otherwise lawfully becomes available to that party from a third party that has no obligation of confidentiality.

- 15.4** The above provisions of this GCC Clause 15 shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the Works and Services or any part thereof.

- 15.5** The provisions of this GCC Clause 15 shall survive termination, for whatever reason, of the Contract

C EXECUTION OF WORKS AND SERVICES

16.1 Project Manager

If the Project Manager is not named in the Contract, then within fourteen (14) days of the issuance of signing of the Agreement, the Procurement Entity shall appoint and notify the Contractor in writing of the name of the Project Manager. The Procurement Entity may from time to time appoint some other person as the Project Manager in place of the person previously so appointed, and shall give a notice of the name of such other person to the Contractor without delay. No such appointment shall be made at such a time or in such a manner as to impede the progress of the Works and Services. Such appointment shall only take effect upon receipt of such notice by the Contractor. The Project Manager shall represent and act for the Procurement Entity at all times during the period of the Contract. All notices, instructions, orders, certificates, approvals and all other communications under the Contract shall be given by the Project Manager, except as herein otherwise provided.

All notices, instructions, information and other communications given by the Contractor to the Procurement Entity under the Contract shall be given to the Project Manager, except as herein otherwise provided.

The Project Manager may delegate any of his duties and responsibilities to other people, except to the Adjudicator, after notifying the Contractor, and may cancel any delegation after notifying the Contractor.

16.2 Road Manager

If the Road Manager is not named in the Contract, then the Contractor shall appoint the Road Manager before the Start Date and shall request the Procurement Entity in writing to approve the person so appointed. If the Procurement Entity makes no objection to the appointment within fourteen (14) days, the Road Manager shall be deemed to have been approved. If the Procurement Entity objects to the appointment within fourteen (14) days giving the reason therefore, then the Contractor shall appoint a replacement within fourteen (14) days of such objection, and the foregoing provisions of this GCC Sub-Clause 16.2.1 shall apply thereto

The Road Manager shall represent and act for the Contractor at all times during the period of the Contract and shall give to the Project Manager all the Contractor's notices, instructions, information and all other communications under the Contract. The Road Manager shall be in charge of the day-to-day management of the works and services to be provided under the contract on behalf of the Contractor, and shall have legal and all other faculties to take all necessary decisions related to the execution of the contract.

16.2.2 All notices, instructions, information and all other communications given by the Procurement Entity or the Project Manager to the Contractor under the Contract shall be given to the Road Manager or, in its absence, its deputy, except as herein otherwise provided.

The Contractor shall not revoke the appointment of the Road Manager without the Procurement Entity's prior written consent, which shall not be unreasonably withheld. If the Procurement Entity consents thereto, the Contractor shall appoint some other person as the Road Manager, pursuant to the procedure set out in GCC Sub-Clause 16.2.1.

16.2.3 The Road Manager may, subject to the approval of the Procurement Entity (which shall not be unreasonably withheld), at any time delegate to any person any of the powers, functions and authorities vested in him or her. Any such delegation may be revoked at any time. Any such delegation or revocation shall be subject to a prior notice to the Project Manager signed by the Road Manager, and shall specify the powers,

16 Representatives

functions and authorities thereby delegated or revoked. No such delegation or revocation shall take effect unless and until a copy thereof has been delivered to the Project Manager.

Any act or exercise by any person of powers, functions and authorities so delegated to him or her in accordance with this GCC Sub-Clause 16.2.3 shall be deemed to be an act or exercise by the Road Manager

16.2.4

16 Representatives

From the Start Date until Completion, the Road Manager shall supervise all work and services done at the Site by the Contractor and shall be present at the Site throughout normal working hours except when on leave, sick or absent for reasons connected with the proper performance of the Contract. Whenever the Road Manager is absent from the Site, a suitable person shall be appointed to act as his or her deputy

16.2.5

The Procurement Entity may by notice to the Contractor object to any representative or person employed by the Contractor in the execution of the Contract who, in the reasonable opinion of the Procurement Entity, may behave inappropriately, may be incompetent or negligent, or may commit a serious breach of the Site regulations provided under the Specifications. The Procurement Entity shall provide evidence of the same, whereupon the Contractor shall remove such person from the Site

16.2.6

If any representative or person employed by the Contractor is removed in accordance with GCC Sub-Clause 16.2.5, the Contractor shall, where required, promptly appoint a replacement

Contractor's Organization

17.1

The Contractor shall supply to the Project Manager a chart showing the proposed organization to be established by the Contractor for carrying out the Works and Services. The chart shall include the identities of the key personnel together with the curricula vitae of such key personnel to be employed as included in the Contractor's Bid. The Contractor shall promptly inform the Project Manager in writing of any revision or alteration of such an organization chart.

Program of Performance

17.2

17 Work Program

Not later than the Start Date, the Contractor shall prepare and supply to the Project Manager a program of performance of the Contract, made in the form specified in the Specifications and showing the sequence in which it proposes to design and carry out the Works and Services, as well as the date by which the Contractor reasonably requires that the Procurement Entity shall have fulfilled its obligations under the Contract so as to enable the Contractor to execute the Contract in accordance with the program and to achieve Completion in accordance with the Contract. The Contractor shall update and revise the program as and when appropriate, but without modification in the Times for Completion given in the PARTICULAR CONDITION OF CONTRACT and any extension granted in accordance with GCC Clause 64, and shall supply all such revisions to the Project Manager.

Progress Report

17.3

The Contractor shall monitor progress of all the activities specified in the program referred to in GCC Sub-Clause 17.2 above, and supply a progress report to the Project Manager every month together with his Monthly Statement. The progress report shall be in a form acceptable to the Project Manager in accordance with the Specifications.

Progress of Execution

17.4

If at any time the Contractor's actual progress falls behind the program referred to in GCC Sub-Clause 17.2, or it becomes apparent that it will so fall behind, the Contractor shall prepare and supply to the Project Manager a revised program, taking into account the prevailing circumstances, and shall notify the Project Manager of the steps being taken to expedite progress so

			as to attain Completion of the Works and Execution of Services activities within the Time for Completion under GCC Sub-Clause 10.2, any extension thereof entitled under GCC Sub- Clause 64, or any extended period as may otherwise be agreed upon between the Procurement Entity and the Contractor.
	Work Procedures	17.5	The Contract shall be executed in accordance with the Contract Documents and the procedures given in the Specifications.
		18.1	Setting Out/Supervision/Labour
		18.1.1	<i>Bench Mark.</i> The Contractor shall be responsible for the true and proper setting-out of the Works in relation to bench marks, reference marks and lines provided to it in writing by or on behalf of the Procurement Entity. If, at any time during the progress of execution of the Works, any error shall appear in the position, level or alignment of the Works, the Contractor shall forthwith notify the Project Manager of such error and, at its own expense, immediately rectify such error to the reasonable satisfaction of the Project Manager. If such error is based on incorrect data provided in writing by or on behalf of the Procurement Entity, the expense of rectifying the same shall be borne by the Procurement Entity
		18.1.2	<i>Contractor's Supervision.</i> The Contractor shall set up the Self Control Unit give or provide all necessary supervision during the execution of the Works, and the Road Manager or its deputy shall head the unit and shall be on the Site to provide full-time supervision of the execution. The Contractor shall provide and employ only technical personnel who are skilled and experienced in their respective callings and supervisory staff who are competent to adequately supervise the work at hand.
		18.2	Contractor's Equipment
		18.2.1	All contractors' Equipment brought by the Contractor onto the Site shall be deemed to be intended to be used exclusively for the execution of the Contract. The Contractor shall not remove the same from the Site without informing the Project Manager.
18	Execution of Works	18.2.2	Unless otherwise specified in the Contract, upon completion of the Works and Services, the Contractor shall remove from the Site all Equipment brought by the Contractor onto the Site and any surplus materials remaining thereon
		18.2.3	The Procurement Entity will, if requested, use its best endeavours to assist the Contractor in obtaining any local, state or national government permission required by the Contractor for the export of the Contractor's Equipment imported by the Contractor for use in the execution of the Contract that is no longer required for the execution of the Contract.
		18.3	Site Regulations and Safety The Procurement Entity and the Contractor shall establish Site regulations setting out the rules to be observed in the execution of the Contract at the Site and shall comply therewith. The Contractor shall prepare and submit to the Procurement Entity, with a copy to the Project Manager, proposed Site regulations for the Procurement Entity's approval, which approval shall not be unreasonably withheld. Such Site regulations shall include, but shall not be limited to, rules in respect of security, safety, traffic control, accident response, gate control, sanitation, medical care, and fire prevention.
		18.4	Access to site for Other Contractors The Contractor shall, upon written request from the Procurement Entity or the Project Manager, give site access to other contractors employed by the Procurement Entity on or near the site

19 Staff and Labour**18.5 Site Clearance**

18.5.1 *Site Clearance in Course of Execution:* In the course of carrying out the Contract, the Contractor shall keep the Site reasonably free from all unnecessary obstruction, store or remove any surplus materials, clear away any wreckage, rubbish or temporary works from the Site, and remove any Contractor's Equipment no longer required for execution of the Contract.

19.1 The Contractor shall employ the key personnel named in the Contractor's Bid, to carry out the functions stated in the Specifications or other personnel approved by the Project Manager. The Project Manager will approve any proposed replacement of key personnel only if their relevant qualifications and abilities are substantially equal to or better than those of the personnel listed in the Contractor's Bid

19.2 Labour

(a) The Contractor shall provide and employ on the Site for the execution of the Works and Services such skilled, semi-skilled and unskilled labour as is necessary for the proper and timely execution of the Contract. The Contractor is encouraged to use local labour that has the necessary skills. (b) Unless otherwise provided in the Contract, the Contractor shall be responsible for the recruitment, transportation, accommodation and catering of all labour, local or expatriate, required for the execution of the Contract and for all payments in connection therewith.

(c) The Contractor shall be responsible for obtaining all necessary permit(s) and/or visa(s) from the appropriate authorities for the entry of all labour and personnel to be employed on the Site into the country where the Site is located.

(d) The Contractor shall at its own expense provide the means of repatriation to all of its and its Subcontractor's personnel employed on the Contract at the Site to their various home countries. It shall also provide suitable temporary maintenance of all such persons from the cessation of their employment on the Contract to the date programmed for their departure. In the event that the Contractor defaults in providing such means of transportation and temporary maintenance, the Procurement Entity may provide the same to such personnel and recover the cost of doing so from the Contractor.

(e) The Contractor shall at all times during the progress of the Contract use its best endeavors to prevent any unlawful, riotous or disorderly conduct or behavior by or amongst its employees and the labour of its Subcontractors.

(f) The Contractor shall provide lodging, medical assistance, alimention and sanitary installations for the employees living in the contractor's base camps to comply with the Social, Sanitary and Health Conditions of Labour requirements established in the Specifications.

(g) The Contractor shall, in all dealings with its labour and the labour of its Subcontractors currently employed on or connected with the Contract, pay due regard to all recognized festivals, official holidays, religious or other customs and all local laws and regulations pertaining to the employment of

h) HIV-AIDS Prevention. If so indicated in the PARTICULAR CONDITION OF CONTRACT, the Contractor shall conduct an HIV- AIDS awareness programme via an approved service provider or specialized NGO, and shall undertake such other measures as are specified in this Contract to reduce the risk of the transfer of the HIV virus between and among the Contractor's Personnel and the local community, to promote early diagnosis and to assist affected individuals. The Contractor shall throughout the contract:

(i) conduct Information, Education and Consultation Communication (IEC) campaigns, at least every other month, addressed to all the Site staff and labour (including all the Contractor's employees, all Sub-Contractors and Consultants' employees working on the Site, and truck drivers and crew making deliveries to the Site for Works and Services executed under the contract, and to the immediate local communities, concerning the risks, dangers and impact, and appropriate avoidance behavior with respect to of Sexually Transmitted Diseases (STD)—or Sexually Transmitted Infections (STI) in general and HIV/AIDS in particular;(ii) provide male or female condoms for all Site staff and labour as appropriate; and (iii) provide for STI and HIV/AIDS screening, diagnosis, counseling and referral to a dedicated national STI and HIV/AIDS program, (unless otherwise agreed) of all Site staff and labour.

(i) If so indicated in the PARTICULAR CONDITION OF CONTRACT, the Contractor shall include in the program to be submitted for the execution of the Works and Services under Sub-Clause 17 a program for Site staff and labour and their families in respect of Sexually Transmitted Infections (STI) and Sexually Transmitted Diseases (STD) including HIV/AIDS. The STI, STD and HIV/AIDS alleviation program shall indicate when, how and at what cost the Contractor plans to satisfy the requirements of this Sub-Clause and the related specification. For each component, the program shall detail the resources to be provided or utilized and any related sub-contracting proposed. The program shall also include provision of a detailed cost estimate with supporting documentation. Payment to the Contractor for preparation and implementation this program shall not exceed the Provisional Sum dedicated for this purpose

19.3 Removal of staff

If the Project Manager asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the work in the Contract.

19.4 Work at Night and on Holidays

Unless otherwise provided in the Contract, if and when the Contractor considers it necessary to carry out work at night or on public holidays so as to meet the Service Levels and the Time for Completion, and requests the Procurement Entity's consent thereto (if such consent is needed), the Procurement Entity shall not unreasonably withhold such consent.

20 Test and Inspection

20.1 The Contractor shall at its own expense carry out on the Site all such tests and/or inspections as are specified in the Specifications and in accordance with the procedures described in the Specifications.

20.2 The Procurement Entity and the Project Manager or their designated representatives shall be entitled to attend the aforesaid test and/or Inspection For tests to be carried out on the initiative of the Contractor whenever the Contractor is ready to carry out any such test and/or inspection, he shall give a reasonable advance notice of such test and/or inspection and of the place and time thereof to the Project Manager. The Contractor shall provide the Project Manager with a signed report of the results of any such test and/or inspection.

20.3 If the Procurement Entity or Project Manager (or their designated representatives) fails to attend a scheduled test and/or inspection, or if it is agreed between the parties that such persons shall not attend, then the Contractor may proceed with the test and/or inspection in the absence of such persons, and may provide the Project Manager with a signed report of the results thereof.

- The Project Manager may require the Contractor to carry out any test and/or inspection not required by the Contract, provided that the Contractor's reasonable costs and expenses incurred in the carrying out of such test and/or inspection shall be added to the Contract Price. Further, if such test and/or inspection impede the progress of the works and/or the Contractor's performance of its other obligations under the Contract, due allowance will be made in respect of the Time for Completion and the other obligations so affected.
- 20.5**
- If Rehabilitation Works, Improvement Works or Emergency Works fail to pass any test and/or inspection, the Contractor shall either rectify or replace such works and shall repeat the test and/or inspection upon giving a notice under GCC Sub-Clause 20.3.
- 20.6**
- If any dispute or difference of opinion shall arise between the parties in connection with or arising out of the test and/or inspection of the Works and Services, or part of them, that cannot be settled between the parties within a reasonable period of time, it may be referred to the RDB (or DRE) for determination in accordance with GCC Sub-Clause 6.1
- 20.7**
- The Contractor agrees that neither the execution of a test and/or inspection of the Works and Services or any part of them, nor the attendance by the Procurement Entity or the Project Manager, nor the issue of any test certificate pursuant to GCC Sub-Clause 20.4, shall release the Contractor from any other responsibilities under the Contract.
- 20.8**
- No part or foundations shall be covered up on the Site without the Contractor carrying out any test and/or inspection required under the Contract. The Contractor shall give a reasonable notice to the Project Manager whenever any such part or foundations are ready or about to be ready for test and/or inspection; such test and/or inspection and notice thereof shall be subject to the requirements of the Contract.
- 20.9**
- The Contractor shall uncover any part of the Works or foundations, or shall make openings in or through the same as the Project Manager may from time to time require at the Site, and shall reinstate and make good such part or parts. If any parts of the Works or foundations have been covered up at the Site after compliance with the requirement of GCC Sub-Clause 20.9 and are found to be executed in accordance with the Contract, the expenses of uncovering, making openings in or through, reinstating, and making good the same shall be borne by the Procurement Entity, and the Time for Completion shall be reasonably adjusted to the extent that the Contractor has thereby been delayed or impeded in the performance of any of its obligations under the Contract
- 20.10**
- If so indicated in the PARTICULAR CONDITION OF CONTRACT, specific Rehabilitation Works shall be carried out explicitly in accordance with the Specifications and as specified in the tendering documents and in the Contractor's Bid. Input quantities for Rehabilitation Works were estimated by the Contractor to achieve the performance criteria for Rehabilitation Works given in the Specifications. The specific Rehabilitation Works were offered by the Contractor at a Lump-Sum price.
- 21** **Rehabilitation Works** **21.1**
- If so indicated in the PARTICULAR CONDITION OF CONTRACT, Improvement Works are required and will consist of a set of interventions that add new characteristics to the roads in response to new traffic and safety or other conditions. Improvement Works quantities were offered at unit prices included in the Bill of Quantities.
- 22** **Improvement** **22.1**
- The execution of Improvement Works shall be requested by the Project Manager, who will issue a Work Order defining the requested works to be carried out by the Contractor, based on the activities priced in the Bill of Quantities. The Work order shall specify the activities to be carried out and the corresponding price. The Road Manager shall confirm his acceptance by signing the Work Order.
- 22.2**

23	Maintenance Services	23.1	<p>Maintenance Services are those activities necessary for keeping the Road in compliance with the Performance Standards pursuant to GCC Clause 24. Maintenance Services shall include all activities required to achieve and keep the Road Performance Standards and Service Levels. These Services will be remunerated by Lump-Sum amount for the period of the contract paid in fixed monthly payments during the entire Contract period</p>
24	Performance Standards	24.1	<p>The Contractor shall carry out the Maintenance Services to achieve and keep the Road complying with the Service Levels defined in the Specifications. He will carry out all Works in accordance with the performance standards indicated in the Specifications.</p>
25	Contractor's Self Control of Quality and Safety	25.1	<p>The Contractor shall, throughout the execution and completion of the Works and Services, maintain a System which shall ensure that the work methods and procedures are adequate and safe at all times and do not pose any avoidable risks and dangers to the health, safety and property of the workers and agents employed by him or any of his subcontractors, of road users, of persons living in the vicinity of the roads under contract, and any other person who happens to be on or along the roads under contract.</p>
		25.2	<p>Unless specified otherwise in the PARTICULAR CONDITION OF CONTRACT, the Contractor shall establish, within his own organizational structure, a specific Unit staffed with qualified personnel whose task is to verify continuously the degree of compliance by the Contractor with the required Service Levels. That Unit will also be responsible for the generation and presentation of the information needed by the contractor for the documentation required as defined in the Specifications. The Unit will be responsible for maintaining a detailed and complete knowledge of the condition of the Road and to provide to the Road Manager all the information needed in order to efficiently manage and maintain the Road. The Unit shall also carry out, in close collaboration with the Project Manager, the verifications on the Service Levels.</p>
		25.3	<p>The Contractor's Self-Control Unit mentioned in GCC Sub-Clause 25.2 shall report the level of compliance with the required Service Levels in the standard format presented in the Specifications.</p>
26	Environmental and Safety Requirements	26.1	<p>The Contractor shall, throughout the design, execution and completion of the Works and Services, and the remedying of any defects therein:</p> <p>(a) have full regard for the safety of all persons employed by him and his subcontractors and keep the Site (so far as the same is under his control) in an orderly state appropriate to the avoidance of danger to such persons;</p> <p>(b) provide and maintain at his own cost all guardrails, fencing, warning signs and watching, when and where necessary or required by Sub-Clause 18.3 of the Contract or by any duly constituted authority, for the protection of the Works and Services or for the safety and convenience of his workers and road users, the public or others; and</p> <p>Take all reasonable steps to protect the environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.</p>
27	Work Orders for Improvement Works and Emergency Works	27.1	<p>Improvement Works and Emergency Works shall be executed by the Contractor on the basis of Work Orders issued by the Project Manager.</p>
		27.2	<p>Work Orders shall be issued in writing and shall include the date on which the Work Order was issued and the signature of the Project Manager. Two copies of the Work Order shall be transmitted by the Project Manager to the Contractor, who shall immediately countersign one copy, including the date of acceptance, and return it to the Project Manager.</p>
		27.3	<p>If the Contractor has any objection to a Work Order, the Road Manager shall notify the Project Manager of his reasons for such objection within ten (10) days of the date of issuing the Work Order. Within five (5) days of the Road Manager's objection, the Project Manager shall cancel, modify or confirm the Work Order in writing.</p>

28	Taking Over Procedures	28.1	<p>When the whole of the Works and Services have been substantially completed and have satisfactorily passed any Tests on Completion prescribed by the Contract, the Contractor may give a notice to that effect to the Project Manager, accompanied by a written undertaking to finish with due expedition any outstanding work during the Defects Liability Period. Such notice and undertaking shall be deemed to be a request by the Contractor for the Project Manager to issue a Taking-Over Certificate in respect of the Works and Services. The Project Manager shall, within twenty-one (21) days of the date of delivery of such notice, either issue to the Contractor a Taking-Over Certificate, stating the date on which the Works and Services were substantially completed in accordance with the Contract, or give instructions in writing to the Contractor specifying all the conditions to be complied with and all the work which is required to be done by the Contractor before the issue of such Certificate. The Project Manager shall also notify the Contractor of any defects in the Works and Services affecting substantial completion that may appear after such instructions and before completion of Taking-Over Certificate within twenty-one (21) days of completion, to the satisfaction of the Project Manager, of the Works and Services so specified and remedying any defects so notified.</p> <p>Similarly, in accordance with the procedure set out in Sub-Clause 28.1, the Contractor may request and the Project Manager shall issue a Taking-Over Certificate in respect of:</p> <p>(a) any Section in respect of which a separate Time for Completion is provided in the contract,</p>
		28.2	<p>(b) any substantial part of the Works and Services which has been both completed to the satisfaction of the Project Manager and, otherwise than as provided for in the Contract, occupied or used by the Procurement Entity, or</p> <p>(c) any part of the Works and Services which the Procurement Entity has elected to occupy or use prior to completion (where such prior occupation or use is not provided for in the Contract or has not been agreed by the Contractor as a temporary measure).</p>
		29.1	<p>The need for execution of Emergency Works is jointly identified by the Procurement Entity and the Contractor and the starting of the execution of Emergency Works shall always require a Work Order issued by the Project Manager</p>
29	Emergency Works	29.2	<p>The execution of Emergency Works shall be requested by the Contractor based on losses or damages occurred as a result of natural phenomena (such as strong storms, flooding or earthquakes) with imponderable consequences, or on the possibility of damages or losses occurring, or the safety of individuals, works, services or equipment being at risk as result of the natural phenomena. In order to characterize the Emergency Works, the Contractor shall forward a Technical Report to the Project Manager requesting the execution of Emergency Works and characterizing the situation. On the basis of the said report, and of his own judgment of the situation, the Project Manager may issue a Work Order to the Contractor.</p>
		29.3	<p>The Procurement Entity or even Government authorities may declare an Emergency Situation on the basis of local legislation. In those cases, the Project Manager may issue a Work Order for Emergency Works to the Contractor even without a request by the Contractor.</p>
		29.4	<p>If the Contractor is unable or unwilling to do such work immediately, the Procurement Entity may do or cause such work to be done as the Procurement Entity may determine necessary in order to prevent damage to the Road. In such event the Procurement Entity shall, as soon as practicable after the occurrence of any such emergency, notify the Contractor in writing of such emergency, the work done and the reasons therefore.</p>

- If the work done or caused to be done by the Procurement Entity is work that the Contractor was liable to do at its own expense under the Contract, the reasonable costs incurred by the Procurement Entity in connection therewith shall be paid by the Contractor to the Procurement Entity. Otherwise, the cost of such remedial work shall be borne by the Procurement Entity.
- The quality of materials used by the Contractor for the execution of the Contract shall be in compliance with the requirements of the Specifications. If the Contractor is of the opinion that materials of higher quality than those stated in the Specifications need to be used in order to ensure compliance with the Contract, he shall use such better materials, without being entitled to higher prices or remunerations.
- Under no circumstances may the Contractor make any claim based on the insufficient quality of materials used by him, even if the material used was authorized by the Project Manager.
- The Contractor shall carry out at his own cost the laboratory and other tests that he needs to verify if materials to be used comply with the Specifications, and shall keep records of such tests. If requested by the Project Manager, the Contractor shall hand over the results of the tests.
- To ensure the safety of road users, including non-motorized road users and pedestrians, the Contractor is responsible to install and maintain at his cost the adequate signaling and demarcation of work sites, which in addition must comply with the applicable legislation.
- If the execution of services and works under the contract is likely to interfere with traffic, the Contractor shall take at his cost the measures necessary to limit such interference to the strict minimum, or any danger to the workers or others. For that purpose, he is entitled to install, within the right-of-way of the road, temporary bypasses, structures or other modifications to be used by traffic during the execution of works and services. The Contractor shall notify the Project Manager of any such temporary installations.
- If the execution of Works and Services by the Contractor makes it necessary to temporarily close a road section, and a traffic detour has to be implemented over other public roads or streets, the Contractor shall be responsible for the adequate signalling of the detour, under the same conditions as stated in GCC Sub-Clause 31.1.
- The Contractor shall inform the local authorities and the local police about such activities to be carried out by him which may cause any significant interruptions or changes to the normal traffic patterns. Such information shall be made in writing and at least seven (7) days before the beginning of such activities. Upon request from the Contractor, the Procurement Entity shall assist the Contractor in the coordination with the local authorities and the local police.

30 Quality of materials used by Contractor

30.1

30.2

30.3

31 Signaling and demarcation of work zones and bypasses

31.1

31.2

31.3

31.4

D ALLOCATION OF RISKS

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| 32 | Procurement Entity's Risks | <p>32.1 From the Start Date until the Defects Liability Certificate has been issued, the following are Procurement Entity's risks insofar as they directly affect the execution of the Works and Services included in this Contract:</p> <ul style="list-style-type: none"> (a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies; (b) rebellion, revolution, insurrection, military or usurped power, or civil war; (c) ionizing radiations, contamination by radioactivity from any nuclear fuel, or any nuclear waste from the combustion of nuclear fuel, radioactive toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof; (d) riot, commotion or disorder, unless solely restricted to employees of the Contractor or of his Subcontractors and arising from the conduct of the Works and Services; (e) loss or damage due to the use or occupation by the Procurement Entity of any unfinished Section or part of the Works, except as may be provided for in the Contract; (f) any operation of the forces of nature against which an experienced contractor could not reasonably have been expected to take precautions. |
| 33 | Contractor's Risks | <p>33.1 The Procurement Entity carries the risks which this Contract states are Procurement Entity's risks, and the remaining risks are the Contractor's risks.</p> <p>34.1 Subject to GCC Sub-Clause 34.3, the Contractor shall indemnify and hold harmless the Procurement Entity and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, in respect of the death or injury of any person or loss of or damage to any property arising in connection with the execution and by reason of the negligence of the Contractor or its Subcontractors, or their employees, officers or agents, except any injury, death or property damage caused by the negligence of the Procurement Entity, its contractors, employees, officers or agents.</p> |
| 34 | Loss of or Damage to Property; Accident or Injury to Workers; Indemnification | <p>34.2 If any proceedings are brought or any claim is made against the Procurement Entity that might subject the Contractor to liability under GCC Sub-Clause 34.1, the Procurement Entity shall promptly give the Contractor a notice thereof and the Contractor may at its own expense and in the Procurement Entity's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.</p> <p>If the Contractor fails to notify the Procurement Entity within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Procurement Entity shall be free to conduct the same on its own behalf. Unless the Contractor has so failed to notify the Procurement Entity within the twenty-eight (28) day period, the Procurement Entity shall make no admission that may be prejudicial to the defense of any such proceedings or claim. The Procurement Entity shall, at the Contractor's request, afford all available assistance to the Contractor in conducting such proceedings or claim, and shall be reimbursed by the Contractor for all reasonable expenses incurred in so doing.</p> |

- The Procurement Entity shall indemnify and hold harmless the Contractor and its employees, officers and Subcontractors from any liability for loss of or damage to property of the Procurement Entity, other than the Works not yet taken over, that is caused by fire, explosion or any other perils, in excess of the amount recoverable from insurances procured under GCC Clause 35, provided that such fire, explosion or other perils were not caused by any act or failure of the Contractor.
- 34.3**
- The party entitled to the benefit of an indemnity under this GCC Clause 34 shall take all reasonable measures to mitigate any loss or damage which has occurred. If the party fails to take such measures, the other party's liabilities shall be correspondingly reduced.
- 34.4**
- To the extent specified in the PARTICULAR CONDITION OF CONTRACT, the Contractor shall at its expense take out and maintain in effect, or cause to be taken out and maintained in effect, during the performance of the Contract, the insurances set forth below in the sums and with the deductibles and other conditions specified in the said PARTICULAR CONDITION OF CONTRACT. The identity of the insurers and the form of the policies shall be subject to the approval of the Procurement Entity, who should not unreasonably withhold such approval. The Procurement Entity shall be named as co-insured under all insurance policies taken out by the Contractor pursuant to GCC Sub-Clause 35.1, except for the Third Party Liability, Workers' Compensation and Procurement Entity's Liability Insurances, and the Contractor's Subcontractors shall be named as co-insured under all insurance policies taken out by the Contractor pursuant to GCC Sub-Clause 35.1 except for the Cargo Insurance During Transport, Workers' Compensation and Procurement Entity's Liability Insurances. All insurers' rights of subrogation against such co-insured for losses or claims arising out of the performance of the Contract shall be waived under such policies.
- 35** **Insurance** **35.1**
- The Contractor shall deliver to the Procurement Entity certificates of insurance (or copies of the insurance policies) as evidence that the required policies are in full force and effect. The certificates shall provide that no less than twenty-one (21) days' notice shall be given to the Procurement Entity by insurers prior to cancellation or material modification of a policy.
- 35.2**
- The Contractor shall ensure that, where applicable, its Subcontractor(s) shall take out and maintain in effect adequate insurance policies for their personnel and vehicles and for work executed by them under the Contract, unless such Subcontractors are covered by the policies taken out by the Contractor.
- 35.3**
- If the Contractor fails to take out and/or maintain in effect the insurances referred to in GCC Sub-Clause 35.1, the Procurement Entity may take out and maintain in effect any such insurances and may from time to time deduct from any amount due the Contractor under the Contract any premium that the Procurement Entity shall have paid to the insurer, or may otherwise recover such amount as a debt due from the Contractor.
- 35.4**
- Unless otherwise provided in the Contract, the Contractor shall prepare and conduct all and any claims made under the policies affected by it pursuant to this GCC Clause 35, and all monies payable by any insurers shall be paid to the Contractor. The Procurement Entity shall give to the Contractor all such reasonable assistance as may be required by the Contractor. With respect to insurance claims in which the Procurement Entity's interest is involved, the Contractor shall not give any release or make any compromise with the insurer without the prior written consent of the Procurement Entity. With respect to insurance claims in which the Contractor's interest is involved, the Procurement Entity shall not give any release or make any compromise with the insurer without the prior written consent of the Contractor.
- 35.5**
- 35.6**

- If, during the execution of the Contract, the Contractor shall encounter on the Site any physical conditions (other than climatic conditions) or artificial obstructions that could not have been reasonably foreseen prior to the date of the Contract Agreement by an experienced contractor on the basis of reasonable examination of the data relating to the Road (including any data and tests provided by the Procurement Entity), and on the basis of information that it could have obtained from a visual inspection of the Site or other data readily available to it relating to the Road, and if the Contractor determines that it will in consequence of such conditions or obstructions incur additional cost and expense or require additional time to perform its obligations under the Contract that would not have been required if such physical conditions or artificial obstructions had not been encountered, the Contractor shall promptly, and before performing additional work or using additional Plant and Equipment or Contractor's Equipment, notify the Project Manager in writing of:
- 36 Unforeseen Conditions 36.1**
- (a) the physical conditions or artificial obstructions on the Site that could not have been reasonably foreseen;
 - (b) the additional work and/or Plant and Equipment and/or Contractor's Equipment required, including the steps which the Contractor will or proposes to take to overcome such conditions or obstructions;
 - (c) the extent of the anticipated delay;
 - (d) the additional cost and expense that the Contractor is likely to incur.
- On receiving any notice from the Contractor under this GCC Sub-Clause 36.1, the Project Manager decides upon the actions to be taken to overcome the physical conditions or artificial obstructions encountered. Following such consultations, the Project Manager shall instruct the Contractor, with a copy to the Procurement Entity, of the actions to be taken.
- Any reasonable additional cost and expense incurred by the Contractor in following the instructions from the Project Manager to overcome such physical conditions or artificial obstructions referred to in GCC Sub-Clause 36.1 shall be paid by the Procurement Entity to the Contractor as an addition to the Contract Price.
- 36.2**
- If the Contractor is delayed or impeded in the performance of the Contract because of any such physical conditions or artificial obstructions referred to in GCC Sub-Clause 36.1, the Time for Completion shall be extended in accordance with GCC Clause 64.
- 36.3**
- If, after the date twenty-eight (28) days prior to the date of Tender submission, in the country where the Site is located, any law, regulation, ordinance, order or by-law having the force of law is enacted, promulgated, abrogated or changed (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the costs and expenses of the Contractor and/or the Time for Completion, the Contract Price shall be correspondingly increased or decreased, and/or the Time for Completion shall be reasonably adjusted to the extent that the Contractor has thereby been affected in the performance of any of its obligations under the Contract. Notwithstanding the foregoing, such additional or reduced costs shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable, in accordance with the PARTICULAR CONDITION OF CONTRACT.
- 37 Change in Laws and Regulations 37.1**

38 Force Majeure 38.1

“Force Majeure” shall mean any event beyond the reasonable control of the Procurement Entity or of the Contractor, as the case may be, insofar as they directly affect the execution of the Services and Works included in this Contract and which is unavoidable notwithstanding the reasonable care of the party affected, and shall include, without limitation, the following:

- (a) war, hostilities or warlike operations (whether a state of war be declared or not), invasion, act of foreign enemy and civil war;
- (b) rebellion, revolution, insurrection, mutiny, usurpation of civil or military government, conspiracy, riot, civil commotion and terrorist acts;
- (c) confiscation, nationalization, mobilization, commandeering, requisition by or under the order of any government or de jure or de facto authority or ruler or any other act or failure to act of any local state or national government authority;
- (d) strike, sabotage, lockout, embargo, import restriction, port congestion, lack of usual means of public transportation and communication, industrial dispute, shipwreck, shortage or restriction of power supply, epidemics, quarantine and
- (e) earthquake, landslide, volcanic activity, fire, flood or inundation, tidal wave, typhoon or cyclone, hurricane, storm, lightning, or other inclement weather condition, nuclear and pressure waves or other natural or physical disaster;
- (f) shortage of labour, materials or utilities where caused by circumstances that are themselves Force Majeure.

38.2

If either party is prevented, hindered or delayed from or in performing any of its obligations under the Contract by an event of Force Majeure, then it shall notify the other in writing of the occurrence of such event and the circumstances thereof within fourteen (14) days after the occurrence of such event.

38.3

The party who has given such notice shall be excused from the performance or punctual performance of its obligations under the Contract for so long as the relevant event of Force Majeure continues and to the extent that such party’s performance is prevented, hindered or delayed. The Time for Completion shall be extended in accordance with GCC Clause 64.

38.4

The party or parties affected by the event of Force Majeure shall use reasonable efforts to mitigate the effect thereof upon its or their performance of the Contract and to fulfill its or their obligations under the Contract, but without prejudice to either party’s right to terminate the Contract under GCC Sub-Clause 38.6

38.5

No delay or nonperformance by either party hereto caused by the occurrence of any event of Force Majeure shall:

- (a) constitute a default or breach of the Contract;
- (b) give rise to any claim for damages or additional cost or expense occasioned thereby; if and to the extent that such delay or non-performance is caused by the occurrence of an event of Force Majeure

38.6

If the performance of the Contract is substantially prevented, hindered or delayed for a single period of more than sixty (60) days or an aggregate period of more than one hundred and twenty (120) days on account of one or more events of Force Majeure during the currency of the Contract, the parties will attempt to develop a mutually satisfactory solution, failing which either party may terminate the Contract by giving a notice to the other, but without prejudice to either party’s right to terminate the Contract under GCC Clause 59.

		38.7	In the event of termination pursuant to GCC Sub-Clause 38.6, the rights and obligations of the Procurement Entity and the Contractor shall be as specified in GCC Sub-Clauses 59.1.2 and 59.1.3.
		38.8	Notwithstanding GCC Sub-Clause 38.5, Force Majeure shall not apply to any obligation of the Procurement Entity to make payments to the Contractor herein.

	E	GUARANTEES AND LIABILITIES
39	Completion Time Guarantee and Liability	<p>39.1 The Contractor guarantees that it shall attain specified Service Levels and the Completion of Rehabilitation and Improvement Works (or a part for which a separate time for completion is specified in the PARTICULAR CONDITION OF CONTRACT) within the time schedules specified in the PARTICULAR CONDITION OF CONTRACT and the Specifications, pursuant to GCC Sub-Clause 10.2, or within such extended time to which the Contractor shall be entitled under GCC Clause 64 hereof.</p> <p>39.2 If the Contractor fails to attain specified Service Levels within the contractually agreed time schedules as given in the Specifications, the contractor shall receive reduced payments for Maintenance Services, for such default and not as a penalty, in accordance with the Specifications.</p> <p>39.3 If the Contractor fails to attain the Completion of Rehabilitation and Improvement Works (or a part for which a separate time for completion is specified in the PARTICULAR CONDITION OF CONTRACT clause 39.1) within the contractually required time schedules, the contractor shall pay to the Procurement Entity liquidated damages for such default and not as a penalty, in accordance with the PARTICULAR CONDITION OF CONTRACT and the Specifications. The payment reductions and liquidated damages indicated in GCC 39.2 and 39.3 shall be the only monies due from the Contractor for such defaults, and they will be applied for every day of delay, in accordance with the PARTICULAR CONDITION OF CONTRACT and the Specifications. The aggregate amount of such liquidated damages and payment reductions shall in no event exceed the “aggregate liability” in accordance with GCC Clause 42. The payment or deduction of such sums shall not relieve the Contractor from his obligation to complete the Works and Services, or from any other of his obligations and liabilities under the Contract.</p> <p>39.4 The Contractor guarantees that during the Performance Tests or Inspections for Rehabilitation and Improvement Works, and for Emergency Works, the Road and all parts thereof shall attain the Performance Standards specified in the corresponding Specifications.</p> <p>40.1 If, for reasons attributable to the Contractor, the minimum level of the Performance Standards specified in the corresponding Specifications are not met either in whole or in part, the Contractor shall at its cost and expense make such changes, modifications and/or additions to the Road or any part thereof as may be necessary to meet at least the minimum level of such Standards. The Contractor shall notify the Procurement Entity upon completion of the necessary changes, modifications and/or additions, and shall request the Procurement Entity to repeat the Test or Inspection until the minimum level of the Standards has been met. If the Contractor eventually fails to meet the minimum level of Performance Standard, the Procurement Entity may consider termination of the Contract, pursuant to GCC Sub-Clause 59.2.2.</p> <p>40.2 If, for reasons attributable to the Contractor, the Performance Standards relating to Rehabilitation and Improvement Works specified in the corresponding Specifications are not attained either in whole or in part, the Contractor shall, at the Contractor’s choice, either</p> <p>40.3 (a) make such changes, modifications and/or additions to the Works and Services or any part thereof that are necessary to attain the Performance Standards at its cost and expense, and shall request the Procurement Entity to repeat the Test, or</p> <p>(b) pay liquidated damages to the Procurement Entity in respect of the Works and Services which fail to meet the Performance Standards in accordance with the provisions in the corresponding Specifications.</p> <p>The payment of liquidated damages under GCC Sub-Clause 40.3, up to the limitation of liability specified in the PARTICULAR CONDITION OF</p>
40	Performance Guarantee and Liability	

- 40.4** CONTRACT, shall completely satisfy the Contractor's guarantees under GCC Sub-Clause 40.1, and the Contractor shall have no further liability whatsoever to the Procurement Entity in respect thereof. Upon the payment of such liquidated damages by the Contractor, the Project Manager shall issue the Certificate of Completion for the Works or any part thereof in respect of which the liquidated damages have been so paid.
- 41.1** The Contractor warrants that the Works and Services or any part thereof shall be free from defects in the design, engineering, materials and workmanship of the Works and Services executed.
- 41.2** The Defect Liability Period shall begin from the date of substantial Completion of the Contract, or such a date specified from the date of Certificate of Completion of the Works (or any part thereof), whichever occurs first, unless specified otherwise in the PARTICULAR CONDITION OF CONTRACT.
- If during the Defect Liability Period any defect should be found in the design, engineering, materials and workmanship of the Works and Services executed by the Contractor, the Contractor shall promptly, in consultation and agreement with the Procurement Entity regarding appropriate remedying of the defects, and at its cost, repair, replace or otherwise make good (as the Contractor shall, at its discretion, determine) such defect as well as any damage to the Road caused by such defect. The Contractor shall not be responsible for the repair, replacement or making good of any defect or of any damage to the Road arising out of or resulting from improper operation or maintenance of the Road by the Procurement Entity after taking over.
- 41.3** The Contractor's obligations under this GCC Clause 41 shall not apply to (a) any works or materials that have a normal life shorter than the Defect Liability Period stated herein;(b) any designs, specifications or other data designed, supplied or specified by or on behalf of the Procurement Entity or any matters for which the Contractor has disclaimed responsibility herein;(c) any other materials supplied or any other work executed by or on behalf of the Procurement Entity, except for the work executed by the Procurement Entity under GCC Sub-Clause 41.6.
- 41** **Defect Liability**
- 41.4** The Procurement Entity shall give the Contractor a notice stating the nature of any such defect together with all available evidence thereof, promptly following the discovery thereof. The Procurement Entity shall afford all reasonable opportunity for the Contractor to inspect any such defect.
- 41.5** The Procurement Entity shall afford the Contractor all necessary access to the Site to enable the Contractor to perform its obligations under this GCC Clause 41. The Contractor may remove from the Site any Plant and Equipment that are defective if the nature of the defect is such that repairs cannot be expeditiously carried out at the Site.
- 41.6** If the Contractor fails to commence the work necessary to remedy such defect or any damage to the Road caused by such defect within a reasonable time (which shall in no event be considered to be less than fifteen (15) days), the Procurement Entity may, following notice to the Contractor, proceed to do such work, and the reasonable costs incurred by the Procurement Entity in connection therewith shall be paid to the Procurement Entity by the Contractor or may be deducted by the Procurement Entity from any monies due the Contractor or claimed under the Performance Security.
- 41.7** If the Road or any part thereof cannot be used by reason of such defect and/or making good of such defect, the Defect Liability Period of the Road or such part, as the case may be, shall be extended by a period equal to the period during which the Road or such part cannot be used because of any of the aforesaid reason.

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- 41.8** Except as provided in GCC Clauses 40 and 41, the Contractor shall be under no liability whatsoever and howsoever arising, and whether under the Contract or at law, in respect of defects in the Road or any part thereof, the Plant and Equipment, design or engineering or work executed that appear after Completion of the Works and Services, except where such defects are the result of the gross negligence, fraud, criminal or wilful action of the Contractor
- 42.1** Except in cases of criminal negligence or willful misconduct, (a) the Contractor shall not be liable to the Procurement Entity, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs provided that this exclusion shall not apply to any obligation of the Contractor to pay liquidated damages to the Procurement Entity and (b) the aggregate liability of the Contractor to the Procurement Entity whether under the Contract, in tort or otherwise, shall not exceed the limit specified in the PARTICULAR CONDITION OF CONTRACT
- 42** **Limitation of Liability**
- 43.1** The Contractor cannot be held liable for losses or damages of any kind arising out of traffic accidents on the roads included in the Contract, unless those traffic accidents have been caused directly by potholes or other major defects of the Road covered by the Contract he failed to repair in a timely manner, criminal acts, wilful misconduct or gross negligence of the Contractor.
- 43** **Liability for Damages through Traffic Accidents and Traffic Interruptions**
- 43.2** Under no circumstances can the Contractor be held liable for losses or damages of any kind and to anyone arising out of interruptions of traffic or traffic delays on the road included in the Contract, including any indirect or consequential loss or damage, loss of use, loss of production or loss of profits or interest costs.

		F	PAYMENT
		44.1	The Contract Price shall be as specified in the Form of Contract Agreement to be paid in the currencies indicated in the PARTICULAR CONDITION OF CONTRACT.
		44.2	Unless indicated otherwise in the PARTICULAR CONDITION OF CONTRACT, and except in the event of a Change as provided for in the Contract, the Contract Price shall be:
44	Contract Price		(a) For Rehabilitation Works, a firm lump sum not subject to any alteration, to be paid according to work progress;
			(b) For Maintenance Services, a firm lump sum to be paid in monthly
			(c) For Improvement Works, the total price stated in the Bill of Quantities for this item;
			(d) For Emergency Works, the Provisional Sum reserved for this purpose.
		44.3	The Contractor shall be deemed to have satisfied itself as to the correctness and sufficiency of the Contract Price, which shall, except as otherwise provided for in the Contract, cover all its obligations under the Contract.
		45.1	The Procurement Entity shall make advance payment to the Contractor of the amounts and by the date stated in the PARTICULAR CONDITION OF CONTRACT, against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a bank acceptable to the Procurement Entity in amounts and currencies equal to the advance payment. The Guarantee shall remain effective until the advance payment has been repaid, but the amount of the Guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest will not be charged on the advance payment.
45	Advance Payment	45.2	The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for the execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Project Manager.
		45.3	The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works and Services on a payment basis as indicated in the PARTICULAR CONDITION OF CONTRACT
		46.1	The Bill of Quantities shall contain items for Groups of Activities which include the provision of Services (measured by performance standards) and Works (measured by unit of outputs or of products). The Bill of Quantities for Works shall include, where applicable, the lump-sum and unit price for Rehabilitation Works, and unit rates for Improvement Works and for Emergency Works
		46.2	Maintenance Services shall be measured and billed separately and will be remunerated by lump-sum amount for the period of the contract, and paid in fixed monthly payments during the entire Contract period. The values for remuneration of the Maintenance Services are those stated in the Bill of Quantities.
46	Bill of Quantities	46.3	Rehabilitation Works will be remunerated by Lump-Sum amount for the period of the contract, however, indicating the quantities of measurable outputs to be executed in order that the Road achieves the performance standards specified in the tendering documents. Payments will be made in accordance with the execution of those measured outputs paid by executed works output. The prices shall be those stated in the Bill of Quantities.
		46.4	Improvement Works will be remunerated after acceptance by the Procurement Entity and shall be paid according to the product unit price using the prices included in the Bill of Quantities.
		46.5	Each Emergency Work Order issued by the Project Manager will include a lump-sum price for the works to be performed. The Lump-Sum price for the Emergency Works will be submitted by the Contractor to the Project Manager in each emergency pursuant to GCC Clauses 29

			29 and 61 and will be prepared based on the Specifications and on the unit prices included in the Bill of Quantities for Emergency Works, and will remunerate all Emergency Activities. The prices include compliance with all Performance Indices described in the Specifications. Once approved, Emergency Works will be paid as lump sum in accordance with the schedule of payment proposed by the Contractor for the specific Emergency and approved by the Procurement Entity.
		46.6	The Bill of Quantities is used to calculate the Contract Price. The amounts for Maintenance Services and Rehabilitation Works are the Lump-Sum prices offered in the Contractor's Bid. The Improvement Works amount included in the Contract is an estimate on the basis of the unit prices included in the Contractor's Bid. The Provisional Sum included in the Contract Price is an estimate for use when authorized by the Procurement Entity for Emergency Works and contingencies.
47	Measurement	47.1	Maintenance Services will not be measured in volume; however its payment will be affected by compliance with the Performance Standards pursuant to GCC Clause 24. Maintenance Services shall be billed in fixed monthly amounts as per the Bill of Quantities Lump-Sum amount for Maintenance Services, beginning from the Start Date. Payments will be made with Reductions if the Performance Standards are not achieved, as defined in the Specifications. The Reductions for non-compliance with the Performance Standards will be applied on a daily basis for the period under which the Road does not achieve the Performance Standards, in accordance with the methodology specified in the Specifications.
		47.2	Rehabilitation Works will be measured on the basis indicated in the PARTICULAR CONDITION OF CONTRACT, based on the quantity of actual work outputs as defined in the Specifications, concluded by the Contractor and approved by the Project Manager. The prices shall be those stated in the Bill of Quantities.
		47.3	Improvement Works will be measured on the basis indicated in the PARTICULAR CONDITION OF CONTRACT and in accordance with the unit of measurement used for product unit price included in the Bill of Quantities. The prices shall be those stated in the Bill of Quantities.
		47.4	Emergency Works will not be measured and shall be billed in accordance with the Schedule of Payments agreed for each specific Emergency Work as approved by the Procurement Entity.
48	Price Adjustments	48.1	Price adjustment shall not be applicable within the contract period
		48.2	If the value of the index is changed after it has been used in a calculation, the calculation shall be corrected and an adjustment made in the next payment certificate. The index value shall be deemed to take account of all changes in cost due to fluctuations in costs.
		49.1	The Contractor shall submit to the Project Manager monthly statements in the format indicated in the Specifications, of the estimated value of Maintenance Services, Rehabilitation Works, Improvement Works, and Emergency Works in separated items covering the Works and Services for the corresponding month.
49	Monthly Statements and Payments	49.2	The Project Manager shall check the Contractor's monthly statement and certify within fourteen (14) days the amount to be paid to the Contractor.
		49.3	The value of Services executed shall be certified by the Project Manager taking into account the monthly amount included in the Bill of Quantities for Maintenance Services and the achievement of the Performance Standards for the Maintenance Services adjusted for any payment reductions in accordance with GCC Sub-Clause 47.1.
		49.4	The value of Works executed shall be certified by the Project Manager taking into account the value of the quantities of products executed and the prices in the Bill of Quantities.

- 49.5** The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.
- 50.1** Payments shall be adjusted for deductions for advance payments, retention, and reductions for not achieving Performance Standards for Maintenance Services. The Procurement Entity shall pay the Contractor the amounts certified by the Project Manager in accordance with GCC Clause 49, within twenty-eight (28) days of the date of each certificate. If the Procurement Entity makes a late payment, the Contractor shall be paid interest on the late payment in the next payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the prevailing rate of interest for commercial borrowing for each of the currencies in which payments are made.
- 50.2** If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute. The interest rate shall be determined as per Sub-Clause 50.1.
- 50.3** Unless otherwise stated, all payments and deductions will be paid or charged in the proportions of currencies comprising the Contract Price.
- 50.4** Items of the Works for which no rate or price has been entered in the Bill of Quantities will not be paid for by the Procurement Entity and shall be deemed covered by other rates and prices in the Contract.
- 51.1** The Procurement Entity shall retain the percentage indicated in the PARTICULAR CONDITION OF CONTRACT from each payment due to the Contractor for Rehabilitation Works and Improvement Works, except for the types of works specified in the PARTICULAR CONDITION OF CONTRACT. The regular monthly lump-sum payments for performance-based Maintenance Services will not be subject to retentions, unless indicated in the PARTICULAR CONDITION OF CONTRACT.
- 51.2** On completion of the Rehabilitation and Improvement Works, half the total amount retained shall be repaid to the Contractor and the other half after the end of the defect liability and the Project Manager has certified that all Defects notified by the Project Manager to the Contractor have been corrected before the end of this period.
- 51.3** On completion of the whole Works and Services, the Contractor may substitute retention money with an “on demand” Bank guarantee.
- 51.4** Reduction of monthly payments for Maintenance Services due to non compliance with the Service Levels will be made as indicated in GCC Sub-Clause 47.1. The amount of Reduction for the days in which the Road was not complying with the Performance Standards will not be paid or repaid, even after the Contractor re-establishes the quality levels to the standards required by the contract
- 52.1** Except as otherwise specifically provided in the Contract, the Contractor shall bear and pay all taxes, duties, levies and charges assessed on the Contractor, its Subcontractors or their employees by all municipal, state or national government authorities in connection with the Works and Services in and outside of the country where the Site is located.
- 52.2** If any tax exemptions, reductions, allowances or privileges may be available to the Contractor in the country where the Site is located, the Procurement Entity shall use its best endeavors to enable the Contractor to benefit from any such tax savings to the maximum allowable extent.
- 52.3** For the purpose of the Contract, it is agreed that the Contract Price specified in the Form of Contract Agreement is based on the taxes, duties, levies and charges prevailing at the date twenty-eight (28) days prior to the date of tender submission in the country where the Site is located (hereinafter called “Tax”).

- If any rates of Tax are increased or decreased, a new Tax is introduced, an existing Tax is abolished, or any change in interpretation or application of any Tax occurs in the course of the performance of the Contract, which was or will be assessed on the Contractor, Subcontractors or their employees in connection with performance of the Contract, an equitable adjustment of the Contract Price shall be made to fully take into account any such change by addition to the Contract Price or deduction there from, as the case may be, in accordance with GCC Clause 37 hereof.
- 53.1 Issuance of Securities**
The Contractor shall provide the securities specified below in favor of the Procurement Entity at the times, and in the amount, manner and form specified below.
- 53.2 Performance Security**
- 53.2.1** The Contractor shall, within twenty-eight (28) days of the notification of contract award, provide a security for the due performance of the Contract in the amount specified in the PARTICULAR CONDITION OF CONTRACT.
- 53.2.2** The security shall be denominated in the currency or currencies of the Contract, and shall be in form of the forms of guarantee provided in the tendering documents, as stipulated by the Procurement Entity in the PARTICULAR CONDITION OF CONTRACT.
- 53.2.3** The security shall automatically become null and void, 30days after Completion of all Works and Services under the Contract, provided however, that if the Defects Liability Period has been extended on any part of the Works pursuant to GCC Sub-Clause 41.8 hereof, the Contractor shall issue an additional security in an amount proportionate to the Contract Price of that part. The security shall be returned to the Contractor immediately after its expiration.
- 54 Certificate of Completion**
- 54.1** The Contractor shall request the Project Manager to issue a Certificate of Completion of the Rehabilitation Works, Improvement Works and Emergency Works, or parts thereof, as applicable, and the Project Manager will do so upon deciding that the work is completed.
- 55 Final Statement**
- 55.1** The Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within fifty-six (56) days of receiving the Contractor's account if it is correct and complete. If it is not, the Project Manager shall issue within fifty-six (56) days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Project Manager shall decide on the amount payable to the Contractor and issue a payment certificate.
- 56 Discharge**
- 56.1** Upon submission of the Final Statement, the Contractor shall give to the Project Manager, a written discharge confirming that the total of the Final Statement represents full and final settlement of all monies due to the Contractor arising out of or in respect of the Contract. Provided that such discharge shall become effective only after payment due under the Final Payment Certificate issued pursuant to Sub-Clause 55 has been made and the performance security referred to in Sub-Clause 53.3, if any, has been returned to the Contractor.
- 57.1** If "as built" Drawings and/or manuals are required, the Contractor shall supply them by the dates stated in the PARTICULAR CONDITION OF CONTRACT.
- 57.2** If the Contractor does not supply the Drawings and/or manuals by the dates stated in the PARTICULAR CONDITION OF CONTRACT, or they do not receive the Project Manager's approval, the Project Manager shall withhold the amount stated in the PARTICULAR CONDITION OF CONTRACT from payments due to the Contractor.

G. REMEDIES

- 58.1** The Procurement Entity may request the Project Manager, by notice to the Contractor, to order the Contractor to suspend performance of any or all of its obligations under the Contract. Such notice shall specify the obligation of which performance is to be suspended, the effective date of the suspension and the reasons therefore. The Contractor shall thereupon suspend performance of such obligation (except those obligations necessary for the care or preservation of the Site and Works) until ordered in writing to resume such performance by the Project Manager. If, by virtue of a suspension order given by the Project Manager, other than by reason of the Contractor's default or breach of the Contract, the Contractor's performance of any of its obligations is suspended for an aggregate period of more than ninety (90) days, then at any time thereafter and provided that at that time such performance is still suspended, the Contractor may give a notice to the Project Manager requiring that the Procurement Entity shall, within twenty-eight (28) days of receipt of the notice, order the resumption of such performance or request and subsequently order a change in accordance with GCC Sub-Clause 63.1, excluding the performance of the suspended obligations from the Contract. If the Procurement Entity fails to do so within such period, the Contractor may, by a further notice to the Project Manager, elect to treat the suspension as termination of the Contract under GCC Sub-Clause 59.1.
- 58.2** If:
- (a) the Procurement Entity has failed to pay the Contractor any sum due under the Contract within the specified period, has failed to approve any invoice or supporting documents without just cause pursuant to the Contract, or commits a substantial breach of the Contract, the Contractor may give a notice to the Procurement Entity that requires payment of such sum, with interest thereon as stipulated in GCC Sub-Clause 50.1, requires approval of such invoice or supporting documents, or specifies the breach and requires the Procurement Entity to remedy the same, as the case may be. If the Procurement Entity fails to pay such sum together with such interest, fails to approve such invoice or supporting documents or give its reasons for withholding such approval, or fails to remedy the breach or take steps to remedy the breach within fourteen (14) days after receipt of the Contractor's notice; or
 - (b) the Contract for any reason attributable to the Procurement Entity, including but not limited to the Procurement Entity's failure to provide possession of or access to the Site, or failure to obtain any governmental permit under the Procurement Entity's responsibility and necessary for the execution and/or completion of the Works and Services, then the Contractor may by fourteen (14) days' notice to the Procurement Entity suspend performance of all or any of its obligations under the Contract, or reduce the rate of progress.
- 58.3** If the Contractor's performance of its obligations is suspended or the rate of progress is reduced pursuant to this GCC Clause 58, then the Time for Completion shall be extended in accordance with GCC Sub-Clause 64, and any and all additional costs or expenses incurred by the Contractor as a result of such suspension or reduction shall be paid by the Procurement Entity to the Contractor in addition to the Contract Price, except in the case of suspension order or reduction in the rate of progress by reason of the Contractor's default or breach of the Contract.
- 58.4** During the period of suspension, the Contractor shall not remove from the Site any Plant and Equipment or any Contractor's Equipment, without the prior written consent of the Procurement Entity.
- 59.1** Termination for Procurement Entity's Convenience
- 58** **Suspension**
- 59** **Termination**

- 59.1.1** The Procurement Entity may at any time terminate the Contract for any reason by giving the Contractor a notice of termination that refers to this GCC Sub-Clause 59.1.
- 59.1.2** Upon receipt of the notice of termination under GCC Sub-Clause 59.1.1, the Contractor shall either immediately or upon the date specified in the notice of termination:
- (a) cease all further work, except for such work as the Procurement Entity may specify in the notice of termination for the sole purpose of protecting that part of the Works and Services already executed, or any work required to leave the Site in a clean and safe condition,
 - (b) terminate all subcontracts, except those to be assigned to the Procurement Entity pursuant to paragraph (d) (ii) below,
 - (c) remove all Contractor's Equipment from the Site, repatriate the Contractor's and its Subcontractors' personnel from the Site, remove from the Site any wreckage, rubbish and debris of any kind, and leave the whole of the Site in a clean and safe condition.
 - (d) In addition, the Contractor, subject to the payment specified in GCC Sub-Clause 59.1.3, shall
 - i) deliver to the Procurement Entity the parts of the Works executed by the Contractor up to the date of termination,
 - ii) to the extent legally possible, assign to the Procurement Entity all right, title and benefit of the Contractor to the Works and Services and to the Plant and Equipment as of the date of termination, and, as may be required by the Procurement Entity, in any subcontracts concluded between the Contractor and its Subcontractors
 - iii) deliver to the Procurement Entity all non-proprietary drawings, specifications and other documents prepared by the Contractor or its Subcontractors as at the date of termination in connection with the Works.
- 59.1.3** In the event of termination of the Contract under GCC Sub-Clause 59.1.1, the Procurement Entity shall pay to the Contractor the following amounts:
- (a) the Contract Price, properly attributable to the parts of the works and services executed by the Contractor as of the date of termination,
 - (b) the costs reasonably incurred by the Contractor in the removal of the Contractor's Equipment from the Site and in the repatriation of the Contractor's and its Subcontractors' personnel,
 - (c) any amounts to be paid by the Contractor to its Subcontractors in connection with the termination of any subcontracts, including any cancellation charges,
 - (d) the costs incurred by the Contractor in protecting and leaving the Site in a clean and safe condition pursuant to paragraph (a) of GCC Sub-Clause 59.1.2,
 - (e) the cost of satisfying all other obligations, commitments and claims that the Contractor may in good faith have undertaken with third parties in connection with the Contract and that are not covered by paragraphs (a) through (d) above.
- 59.2** Termination for Contractor's Default
- The Procurement Entity, without prejudice to any other rights or remedies it may possess, may terminate the Contract forthwith in the following circumstances by giving a notice of termination and its reasons therefore to the Contractor, referring to this GCC Sub-Clause 59.2:
- 59.2.1** a) if the Contractor becomes bankrupt or insolvent, has a receiving order issued against it, compounds with its creditors, or, if the Contractor is a corporation, a resolution is passed or order is made for its winding up (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), a receiver is appointed over any part of its undertaking or assets, or if the Contractor takes or suffers any other analogous action in consequence of debt;

- b) if the Contractor assigns or transfers the Contract or any right or interest therein in violation of the provision of GCC Clause 13;
- c) If the Contractor, in the judgment of the Procurement Entity has engaged in corrupt, fraudulent, collusive or coercive practices in competing for or in executing the Contract.

For the purpose of this Sub-Clause:

- (i) “corrupt practice” is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
- (ii) “fraudulent practice” is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
- (iii) “collusive practice” is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
- (iv) “coercive practice” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
- (v) “obstructive practice” is
 - a) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or
 - b) acts intended to materially impede the exercise of the Bank’s inspection and audit rights provided for under Sub-Clause 1.15 [Inspections and Audits by the Bank].

59.2.2 If the Contractor:

- a) has abandoned or repudiated the Contract
- b) has without valid reason failed to commence work on the Road promptly or has suspended (other than pursuant to GCC Sub-Clause 58.2) the progress of Contract performance for more than twenty-eight (28) days after receiving a written instruction from the Procurement Entity to proceed,
- c) persistently fails to execute the Contract in accordance with the Contract, such failure being defined in the PARTICULAR CONDITION OF CONTRACT, or persistently neglects otherwise to carry out its obligations under the Contract without just cause,
- d) refuses or is unable to provide sufficient materials, services or labour to execute and complete the Works and Services in the manner specified in the program furnished under GCC Clause 17 at rates of progress that give reasonable assurance to the Procurement Entity that the Contractor can attain completion of the works and services by the Time for Completion as extended, then the Procurement Entity may, without prejudice to any other rights it may possess under the Contract, give a notice to the Contractor stating the nature of the default and requiring the Contractor to remedy the same. If the Contractor fails to remedy or to take steps to remedy the same within fourteen (14) days of its receipt of such notice, then the Procurement Entity may terminate the Contract forthwith by giving a notice of termination to the Contractor that refers to this GCC Sub- Clause 59.2.

59.2.3 Upon receipt of the notice of termination under GCC Sub-Clauses 59.2.1 or 59.2.2, the Contractor shall, either immediately or upon such date as is specified in the notice of termination,

- a) cease all further work, except for such work as the Procurement Entity may specify in the notice of termination for the sole purpose of protecting that part of the Works and Services already executed, or any work required to leave the Site in a clean and safe condition
- b) terminate all subcontracts, except those to be assigned to the Procurement Entity based on the Procurement Entity's written request,
- c) deliver to the Procurement Entity all drawings, specifications and other documents prepared by the Contractor or its Subcontractors as of the date of termination in connection with the Works and Services.

59.2.4 The Contractor shall be entitled to be paid the Contract Price attributable to the Works and Services executed as of the date of termination, and the costs, if any, incurred in protecting and in leaving the Site in a clean and safe condition pursuant to paragraph (a) of GCC Sub-Clause 59.2.3. Any sums due the Procurement Entity from the Contractor accruing prior to the date of termination shall be deducted from the amount to be paid to the Contractor under this Contract.

59.3 Termination by Contractor

59.3.1 If:

- a) the Procurement Entity has failed to pay the Contractor any sum due under the Contract within the specified period, has failed to approve any invoice or supporting documents without just cause pursuant to GCC Clause 50, or commits a substantial breach of the Contract, the Contractor may give a notice to the Procurement Entity that requires payment of such sum, with interest thereon as stipulated in GCC Sub-Clause 50.2, requires approval of such invoice or supporting documents, or specifies the breach and requires the Procurement Entity to remedy the same, as the case may be. If the Procurement Entity fails to pay such sum together with such interest, fails to approve such invoice or supporting documents or give its reasons for withholding such approval, fails to remedy the breach or take steps to remedy the breach within fourteen (14) days after receipt of the Contractor's notice, or
- b) the Contractor is unable to carry out any of its obligations under the Contract for any reason attributable to the Procurement Entity, including but not limited to the Procurement Entity's failure to provide possession of or access to the Site or other areas or failure to obtain any governmental permit under the Procurement Entity's responsibility and necessary for the execution and/or completion of the Works and Services, then the Contractor may give a notice to the Procurement Entity thereof, and if the Procurement Entity has failed to pay the outstanding sum, to approve the invoice or supporting documents, to give its reasons for withholding such approval, or to remedy the breach within twenty-eight (28) days of such notice, or if the Contractor is still unable to carry out any of its obligations under the Contract for any reason attributable to the Procurement Entity within twenty-eight (28) days of the said notice, the Contractor may by a further notice to the Procurement Entity referring to this GCC Sub-Clause 59.3.1, forthwith terminate the Contract.

59.3.2 The Contractor may terminate the Contract forthwith by giving a notice to the Procurement Entity to that effect, referring to this GCC Sub-Clause 59.3.2, if the Procurement Entity becomes bankrupt or insolvent, has a receiving order issued against it, compounds with its creditors, or, being a corporation, if a resolution is passed or order is made for its winding up (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), a receiver is appointed over any part of its undertaking or assets, or if the Procurement Entity takes or suffers any other analogous action in consequence of debt

59.3.3 If the Contract is terminated under GCC Sub-Clauses 59.3.1 or 59.3.2, then the Contractor shall immediately

- a) cease all further work, except for such work as may be necessary for the purpose of protecting that part of the Road already executed, or any work required to leave the Site in a clean and safe condition,

- b) terminate all subcontracts, except those to be assigned to the Procurement Entity pursuant to paragraph (d) (ii),
- c) remove all Contractor's Equipment from the Site and repatriate the Contractor's and its Subcontractors' personnel from the Site.
- d) In addition, the Contractor, subject to the payment specified in GCC Sub-Clause 59.3.4, shall
 - i) deliver to the Procurement Entity the parts of the Road executed by the Contractor up to the date of termination,
 - ii) to the extent legally possible, assign to the Procurement Entity all right, title and benefit of the Contractor to the Road and to the Plant and Equipment as of the date of termination, and, as may be required by the Procurement Entity, in any subcontracts concluded between the Contractor and its Subcontractors,
 - iii) deliver to the Procurement Entity all drawings, specifications and other documents prepared by the Contractor or its Subcontractors as of the date of termination in connection with the Works and Services.

59.3.4 If the Contract is terminated under GCC Sub-Clauses 59.3.1 or 59.3.2, the Procurement Entity shall pay to the Contractor all payments specified in GCC Sub-Clause 59.1.3 and reasonable compensation for all loss, except for loss of profit, or damage sustained by the Contractor arising out of, in connection with or in consequence of such termination.

59.4 In this GCC Clause 59, in calculating any monies due from the Procurement Entity to the Contractor, account shall be taken of any sum previously paid by the Procurement Entity to the Contractor under the Contract, including any advance payment paid pursuant to the Contract.

	H.	PROVISIONAL SUM
60	Provisional Sum	60.1 “Provisional Sum” means a sum included in the Contract for use when authorized by the Procurement Entity for Emergency Works and for contingencies, which sum may be used, in whole or in part, or not at all, on the instructions of the Procurement Entity. The Contractor shall be entitled to only such amounts in respect of the work, supply or contingencies to which such Provisional Sums relate as the Engineer or Project Manager shall determine in accordance with this Clause.
		61.1 After detecting a situation which in the opinion of the Contractor justifies the execution of Emergency Works or otherwise as defined in GCC Clause 29, the Contractor shall submit a Technical Report to the Project Manager characterizing the situation, and state estimated works quantities to correct the emergency situation, and a Lump Sum price quotation for the Emergency Works to be carried out. The price quotation should be based on the Specifications stated in Section VII using the unit prices included in the Bill of Quantities.
61	Use of Provisional Sum for Emergency Works	61.2 If the execution of the Emergency Works require any activity not priced in the Bill of Quantities, the Contractor will use the price breakdowns included in the Contractor’s Tender in order to form the unit prices of the un priced items to be included in the Price Quotation of the Emergency Works, all in accordance with agreed methodology for approving new prices.
		61.3 Upon receiving the request for Emergency Works including a Price Quotation, the Project Manager may issue a Work Order in accordance with GCC Sub-Clause 29.2 for execution of the Emergency Works for a Lump-Sum amount with a payment Schedule agreed with the Contractor. The cost of these Works will be covered by the amounts included in the Provisional Sum
62	Use of Provisional Sum for Contingencies	62.1 The use of the Provisional Sum to cover for Contingencies will be done under the control and initiative of the Project Manager in accordance with the conditions of the Contract.

I CHANGE IN CONTRACT ELEMENTS

63.1 Introducing a Change

63.1.1 If so indicated in the PARTICULAR CONDITION OF CONTRACT, the Procurement Entity shall have the right to propose, and subsequently require, that the Project Manager order the Contractor from time to time during the performance of the Contract to make any change, modification, addition or deletion to, in or from the Assignments to the Contractor (hereinafter called "Change"), provided that such Change falls within the general scope of the Assignment and does not constitute unrelated work and that it is technically practicable, taking into account both the state of advancement of the Works and Services and the technical compatibility of the Change envisaged with the nature of the Works and Services as specified in the Contract.

63.1.2 If so indicated in the PARTICULAR CONDITION OF CONTRACT, the Contractor may from time to time during its performance of the Contract propose to the Procurement Entity (with a copy to the Project Manager) any Change that the Contractor considers necessary or desirable to improve the quality, efficiency or safety of the Works and Services. The Procurement Entity may at its discretion approve or reject any Change proposed by the Contractor

63.1.3 Notwithstanding GCC Sub-Clauses 63.1.1 and 63.1.2, no change made necessary because of any default of the Contractor in the performance of its obligations under the Contract shall be deemed to be a Change, and such change shall not result in any adjustment of the Contract Price or the Time for Completion.

63.1.4 The procedure on how to proceed with and execute Changes is specified in GCC Sub-Clauses 63.2 and 63.3, further details and sample forms are provided in the Sample Forms and Procedures section in the tendering documents.

63 Change in Assignments to Contractor

63.2 Changes Originating from Procurement Entity

63.2.1 If the Procurement Entity proposes a Change pursuant to GCC Sub-Clause 63.1.1, it shall send to the Contractor a "Request for Change Proposal," requiring the Contractor to prepare and furnish to the Project Manager, as soon as reasonably practicable, a "Change Proposal," which shall include the following:

- a) brief description of the Change
- b) effect on the Time for Completion
- c) estimated cost of the Change
- d) effect on Functional Guarantees (if any)
- e) effect on any other provisions of the Contract

63.2.2 Prior to preparing and submitting the "Change Proposal," the Contractor shall submit to the Project Manager an "Estimate for Change Proposal," which shall be an estimate of the cost of preparing and submitting the Change Proposal. Upon receipt of the Contractor's Estimate for Change Proposal, the Procurement Entity shall do one of the following:

- a) accept the Contractor's estimate with instructions to the Contractor to proceed with the preparation of the Change Proposal,
- b) advise the Contractor of any part of its Estimate for Change Proposal that is unacceptable and request the Contractor to review its estimate,
- c) advise the Contractor that the Procurement Entity does not intend to proceed with the Change.

63.2.3 Upon receipt of the Procurement Entity's instruction to proceed under GCC Sub-Clause 63.2.2 (a), the Contractor shall, with proper expedition, proceed with the preparation of the Change Proposal, in accordance with GCC Sub-Clause 63.2.1.

- 63.2.4** The pricing of any Change shall, as far as practicable, be calculated in accordance with the rates and prices included in the Contract. If such rates and prices are inequitable, the parties thereto shall agree on specific rates for the valuation of the Change.
- 63.2.5** If before or during the preparation of the Change Proposal it becomes apparent that the aggregate effect of compliance therewith, and with all other Change Orders that have already become binding upon the Contractor under this GCC Clause 63, would be to increase or decrease the Contract Price as originally set forth in the Contract Agreement by more than fifteen percent (15%), the Contractor may give a written notice of objection thereto prior to furnishing the Change Proposal as aforesaid. If the Procurement Entity accepts the Contractor's objection, the Procurement Entity shall withdraw the proposed Change and shall notify the Contractor in writing thereof. The Contractor's failure to so object shall neither affect its right to object to any subsequent requested Changes or Change Orders herein, nor affect its right to take into account, when making such subsequent objection, the percentage increase or decrease in the Contract Price that any Change not objected to by the Contractor represents.
- 63.2.6** Upon receipt of the Change Proposal, the Procurement Entity and the Contractor shall mutually agree upon all matters therein contained. Within fourteen (14) days after such agreement, the Procurement Entity shall, if it intends to proceed with the Change, issue the Contractor with a Change Order. If the Procurement Entity is unable to reach a decision within fourteen (14) days, it shall notify the Contractor with details of when the Contractor can expect a decision. If the Procurement Entity decides not to proceed with the Change for whatever reason, it shall, within the said period of fourteen (14) days, notify the Contractor accordingly. Under such circumstances, the Contractor shall be entitled to reimbursement of all costs reasonably incurred by it in the preparation of the Change Proposal, provided that these do not exceed the amount given by the Contractor in its Estimate for Change Proposal submitted in accordance with GCC Sub-Clause 63.2.2.
- 63.2.7** If the Procurement Entity and the Contractor cannot reach agreement on the price for the Change, an equitable adjustment to the Time for Completion, or any other matters identified in the Change Proposal, the Procurement Entity may nevertheless instruct the Contractor to proceed with the Change by issue of a "Pending Agreement Change Order." Upon receipt of a Pending Agreement Change Order, the Contractor shall immediately proceed with effecting the Changes covered by such Order. The parties shall thereafter attempt to reach agreement on the outstanding issues under the Change Proposal. If the parties cannot reach agreement within sixty (60) days from the date of issue of the Pending Agreement Change Order, then the matter may be referred to the Adjudicator in accordance with the provisions of GCC Sub-Clause 6.1.
- 63.3** Changes Originating from Contractor
- 63.3.1** If the Contractor proposes a Change pursuant to GCC Sub-Clause 63.1.2, the Contractor shall submit to the Project Manager a written "Application for Change Proposal," giving reasons for the proposed Change and including the information specified in GCC Sub-Clause 63.2.1. Upon receipt of the Application for Change Proposal, the parties shall follow the procedures outlined in GCC Sub-Clauses 63.2.6 and 63.2.7. However, should the Procurement Entity choose not to proceed, the Contractor shall not be entitled to recover the costs of preparing the Application for Change Proposal.

-
- 64** **Extension
Time for
Completion**
- 64.1** The Time(s) for Completion specified in the PARTICULAR CONDITION OF CONTRACT shall be extended if the Contractor is delayed or impeded in the performance of any of its obligations under the Contract by reason of any of the following:
- a) any Change in the Works and Services as provided in GCC Clause 63,
 - b) any occurrence of Force Majeure as provided in GCC Clause 38 and unforeseen conditions as provided in GCC Clause 36,
 - c) any suspension order given by the Procurement Entity under GCC Clause 58,
 - d) any changes in laws and regulations as provided in GCC Clause 37, or
 - e) any default or breach of the Contract by the Procurement Entity, or any activity, act or omission of any other contractors employed by the Procurement Entity, or
 - f) any other matter specifically mentioned in the Contract by such period as shall be fair and reasonable in all the circumstances and as shall fairly reflect the delay or impediment sustained by the Contractor.
- 64.2** Except where otherwise specifically provided in the Contract, the Contractor shall submit to the Project Manager a notice of a claim for an extension of the Time for Completion, together with particulars of the event or circumstance justifying such extension as soon as reasonably practicable after the commencement of such event or circumstance. As soon as reasonably practicable after receipt of such notice and supporting particulars of the claim, the Procurement Entity and the Contractor shall agree upon the period of such extension. In the event that the Contractor does not accept the Procurement Entity's estimate of a fair and reasonable time extension, the Contractor shall be entitled to refer the matter to an Adjudicator, pursuant to GCC Sub-Clause 6.1.
- 64.3** The Contractor shall at all times use its reasonable efforts to minimize any delay in the performance of its obligations under the Contract.
- 65** **Release from
Performance**
- 65.1** If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Procurement Entity or the Contractor, the Project Manager shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made.

**SECTION X:
Particular Conditions of Contract (PCC)**

Section IX: Particular Conditions of Contract (PCC)

The following Particular Conditions shall supplement the GCC. They are to be completed by the Procurement Entity and presented as part of the Tendering Documents. Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

Reference to GCC clauses

1	The site is the area the road reserves of all the roads as stated in ITT 1.1 The name of the Project Manager is The General Manager Maintenance .			
2	The following documents are also part of the Contract: <i>Standard Specification for Roads and Bridges Constructions, RDM Part 1, and III, Supervision and Contract Evaluation Manual For Road Maintenance.</i>			
	The language of the Contract and the law governing the Contract is English			
	The address of the Procurement Entity is: Kenya Wildlife Service Attention: Director General, Street Address: P.O.BOX 40241, Langata Road Floor/Room number: Ndovu Court, City: Nairobi Postal Code:00100 Country: Kenya Telephone:0726610508/9,0735663421 Facsimile number: Electronic mail address: kws@kws.go.ke, hps@kws.go.ke			
6	Dispute Resolution Method used: DRE.			
6.1.2	The Appointing Authority is: Chartered Institute of Arbitrators (Kenya)			
6.1.3	Arbitration Proceedings shall be conducted in accordance with the following rules of procedure: The Laws of Kenya and the Rules of the Chartered Institute of Arbitrators (Kenya)			
8.4.1	The Contractor is obliged to prepare and to furnish to the Project Manager for Approval any works on the road that would relate to Rehabilitation, Improvement or Emergency works.			
10.1	The Start Date shall be not later than 28 days after the issuance of the Letter of Commencement by the Procurement Entity.			
	Contract Month	Road Usability Compliance required on % of contract road	Road Safety Compliance required on % of contract road	Durability Compliance required on % of contract road
	1		50	50
	2		100	75
	3		100	100
	4 until end of Contract		100	100
12.1	The Contractor is specifically not allowed to sub-contact the any of the activities			
12.2	The Contractor Shall not subcontract under his own responsibility and without prior approval of the Procurement Entity any Works and Services			
14.2	The Procurement Entity shall give full possession of and access to the Site not later than 14 (Fourteen days) after issuing a letter of commencement.			
19.2 (h) i	The provisions concerning HIV-AIDS prevention shall apply			
21	There shall be Rehabilitation works in this contract.			

22	There shall be no Improvement works in this contract.
25.2	The Contractor shall establish a Self Control Unit
35.1	<p>The Contractor shall take out and maintain in effect insurance on the following:</p> <p>(a) <i>Loss of or damage to the Plant and Materials</i> Covering loss or damage occurring prior to Completion.</p> <p>(b) <i>Third Party Liability Insurance</i> Covering bodily injury or death suffered by third parties (including the Procurement Entity's personnel) and loss of or damage to property occurring in connection with Works and Services.</p> <p>(c) <i>Automobile Liability Insurance</i> Covering use of all vehicles used by the Contractor or its Subcontractors (whether or not owned by them) in connection with the execution of the Contract.</p> <p>(d) <i>Workers' Compensation</i> In accordance with the statutory requirements applicable in any country where the Contract or any part thereof is executed.</p> <p>(e) <i>Procurement Entity's Liability</i> In accordance with the statutory requirements applicable in any country where the Contract or any part thereof is executed.</p> <p>(f) <i>Other Insurances</i> Such other insurances as may be specifically agreed upon by the parties</p>
39.1	The Time for Completion is 30 (Thirty) Months.
39.3	For Rehabilitation and Emergency Works, the liquidated damages Kshs 5,000.00 per day of delay, of the payment normally due for the specific Works for which completion is delayed. The limit of liquidated damages under this is 10 percent of the Contract sum.
41.2	The aggregate liability of the Contractor to the Procurement Entity, excluding payment reductions defined in GCC 47.1, shall not exceed 15% the amount of the Contract amount.
44.1	The payment of the Contract Price will be made in Kenya shillings (Kshs)
45.1	No Advance payment Shall be made
45.3	No Advance payment Shall be made
47.2	Rehabilitation Works,
47.3	No Improvement Works,
48	Price adjustment does not apply.
51	The procurement Entity shall retain 5% of all the payment as retention fees due to the Contractor and shall be refunded to the contractor on completion of the contract.
53.3.1	No Advance payment Shall be made
53.3.2	The form of guarantee is a bank Guarantee.
59.2.2(c)	The condition of persistent failure to execute the contract is given if and when the total amount of payment reductions and liquidated damages applied under the contract reaches 20 percent of the total contract amount.
61.3	<p>Provided that if the nature or amount of any varied work relative to the nature or amount of the whole of the Works or to any part thereof, is such that, in the opinion of the Engineer, the rate or price contained in the Contract for any item of the Works is, by reason of such varied work, rendered inappropriate or inapplicable, then, after due consultation by the Engineer with the Employer and the Contractor, a suitable rate or price shall be agreed upon between the Engineer and the Contractor. In the event of disagreement the Engineer shall fix such other rate or price as is, in his opinion, appropriate and shall notify the Contractor accordingly, with a copy to the Employer. Until such time as rates or prices are agreed or fixed, the Engineer shall determine provisional rates or prices to enable on-account payments to be included in certificates issued in accordance with Clause 60.</p>
63.1.1	The Procurement Entity has the right to propose a change in the contract.
63.1.2	Contractor's right to propose a change in the contract: Yes

**SECTION XI:
Standard Contract Forms**

Forms of Agreement

FORM OF AGREEMENT

THIS AGREEMENT is made on the.....day ofbetween the **Kenya Wildlife Service** of P. O. Box 40241-00100, Nairobi, Kenya hereinafter called "the Procurement Entity" of the one part
And

hereinafter called "the Contractor" of the other part.

WHEREAS the Procurement Entity is desirous that certain works should be executed, viz. **Performance Based Routine Maintenance of National Park**

and has accepted a Contract by the Contractor for the execution completion and maintenance of such works

NOW THIS AGREEMENT WITNESSES as follows:

In this agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.

The following documents shall be deemed to form and be read and construed as part of this Agreement, viz:

- i) The Contract Agreement;
- ii) The Letter of award by the Procurement Entity
- iii) The Letter of Acceptance by the Contractor;
- iv) The Form of Contract and Appendix to the Form of Contract;
- v) The Conditions of Contract Part I;
- vi) The Conditions of Contract Part II;
- vii) The Standard Specification for Road and Bridge Construction, 1986;
- viii) The Special Specifications;
- ix) The Drawings;
- x) The priced Bill of quantities;
- xi) Conditions to the Contract and instructions to the Contractor; All aforesaid documents are hereinafter referred to as "The Contract".

In consideration of the payment to be made by the Procurement Entity to the Contractor, the Contractor hereby covenants with the Procurement Entity to execute, complete and maintain the works in conformity in all respects with the provisions of the Contract.

The Procurement Entity hereby covenants to pay the Contractor in consideration of the execution, completion and maintenance of the works for the Contract Price at the times and in the manner prescribed by the Contract.

IN WITNESS HEREOF the parties that have caused this Agreement to be executed thisday of
SEALED with the Common Seal of **Kenya Wildlife Service (KWS)**.

By the said Employer:

.....
.....
(Director General, Kenya Wildlife Service)
For and on behalf of the said Employer

In the presence of:

.....
.....
(Name and Designation of Witness)

.....
.....
(Signature of Witness)

.....
.....
(Address of witness)

SEALED with the Common Seal of
(Insert the Name of Tender)

By the said Contractor:
(Managing Director)

In the presence of:
(Name and Designation of Witness)

.....
(Signature of Witness)

.....
(Address of witness)

FORM OF PERFORMANCE BANK GUARANTEE (UNCONDITIONAL)

To:
Kenya Wildlife Service (KWS)
P. O. Box 40241-
00100, Nairobi,
Kenya

WHEREAS

.....
(hereinafter called the Contractor) has undertaken in pursuance of contract No. RD:
.....dated..... to execute the
..... (hereinafter called the
“Contract”)

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified in the Appendix to Form of Tender as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee;

NOW THEREFORE we (name of Bank)

.....
(hereinafter called “the Bank”) hereby affirm that we are the Guarantor and responsible to you on behalf of the Contractor up to a total of Kshs.....

Amount in words.....

.....and we undertake to pay to you, upon your first written demand and without cavil or argument, any sum or sums within and up to the limits as aforesaid without your needing to prove or show grounds or reasons for the sum specified therein.

We hereby waive the necessity of you demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed thereunder or of any of the Contract Documents which may be made between you and the Contractor shall in any way release us from any liability under this Guarantee and we hereby waive notice of any such change, addition or modification

This Guarantee shall be valid until 28 days after issuing of the Defects Liability Certificate.

AUTHORISED SIGNATORY FOR THE

BANK.....

Name of
bank.....

Address.....

Date

**SECTION XII:
Standard Specification**

SECTION XII: Standard Specifications

The contractor must familiarize himself with General specification for Road works as contained in. "**Standard Specification for Road and Bridge Construction**" Published by the Ministry of Transport and Communications of the Republic of Kenya, 1986.

Work shall be carried out in accordance with the Standard Specification except as supplemented, modified or revised in the Special Specification.

**SECTION XIII:
Special Specification**

SECTION 1 - GENERAL**100 SPECIAL SPECIFICATIONS.**

Special specification is supplementary to the Standard Specifications and the two must be read in conjunction. In any case where there appears to be conflict between the two then the Special Specifications will take precedence

When the term “Period of Maintenance” has been used in the Standard Specifications, it shall be changed to “Defects Liability Period”.

101 LOCATION AND EXTENT OF THE CONTRACT.

The project road is situated in **Tsavo East National Park**. Which is approximately 355Km from Nairobi and 160Km from Mombasa.

The project road begins at Manyani gate, and passes through Signage’s no. **167-172-171-111-150-170-169** and **168**. The road measures approximately **100 Km** long. Manyani gate is approximately 40Km from Voi town along Voi-Mtito- Andei road (Part of A109)

The road condition is currently earth/gravel standard and traverses through a relatively flat terrain sloping towards Galana River with most of the area characterised by rock outcrops at the surface and numerous depressions of seasonal rivers collecting water to Galana River. The road and is in a fair to bad condition. The road has failed in most sections and requires to be upgraded to gravel standard

The site of the works shall be the area within the road reserve and any other places as may be designated in the Contract. The works involve construction to gravel standard, drainage structures such as culverts/drifts and any other works as shall be as directed by the Engineer.

102 EXTENT OF CONTRACT.

The major works to be executed under the Contract comprise mainly of but are not limited to the following:

1. Site clearance and top soil removal.
2. Earthworks; fill/ cut and grading as per the design and specifications (The road carriageway shall be 4.5m wide with shoulders of 1.0m width. The side ditch shall be trapezoidal with its invert level being at least 0.4m below the bottom of the road formation level).
3. Gravel wearing course, 150mm thick over width of 4.5m or as otherwise specified by the Engineer.
4. Construction of a drainage structures, standard pipe culverts, reinforced concrete drifts/slabs and other drainage works
5. Installation of road furniture
6. Works auxiliary to the main works.
7. Maintenance of passage of traffic through and around the works.
8. Maintenance of the works during construction.
9. PBC Routine Maintenance Contract shall be 24 months.

103 CONTRACT DRAWINGS

Standard contract drawings have been bound in a book of drawings accompanying these Contract Documents as a separate volume. Additional copies of these drawings that may be required by the Contractor can be obtained from the Engineer, in which case the Contractor will be required to reimburse the cost of producing such additional copies.

The Engineer may from time to time, in order to enable the satisfactory completion of the works, revise, amend or supersede any of these drawings. It shall be the Contractor's responsibility to construct all works in conformity with the latest revision, amendment or superseding drawings, provided that the Engineer has given to the Contractor in writing such reasonable prior notices of intention to revise, amend or supersede as the nature of the intended change requires, and the relevant drawings have been issued to the Contractor.

The changed drawings shall entitle the Contractor such reasonable additional payments as provided for in the Contract, including any abortive work carried out by the Contractor prior to notice of intent to undertake changes having been given. The Contractor may be required to demolish, alter and/or correctly rebuild at his own expense any part of the Works not in conformity with the current drawings issued to him within a reasonable prior notice.

Documents

The following manuals that are important and relevant to the contract, will not be issued with the tender documents but will be available for inspection during normal working hours at the offices of the Head of Roads & Fleet Management, Kenya Wildlife Service, P.O. Box 40241 - 0100, Nairobi, Kenya.

Road Design Manual:

- Part 1: Geometric Design of Rural Roads
- Part 3: Materials and Pavement Design for New Roads
- Kenya Wildlife Service, Protected areas and Wildlife Service Projects, Final Road Guidelines and Standards of 1999

Manual for Traffic Signs:

- Part 1: Road Markings
- Part 2: Traffic Signs.

104 PROGRAMME OF EXECUTION OF THE WORKS

The contractor shall provide the works programme, required under clause 14 of the Conditions of Contract, within 14 days of receipt of the Engineer's Order to commence work.

The programme shall be co-ordinated with climatic and other conditions to provide for the completion of the works in the order and by the time specified.

The Contractor shall carry out the contract in accordance with the programme agreed with the Engineer, but he shall in no manner be relieved by the Engineer's approval of the programme, of his obligation to complete the works in the prescribed order and by the prescribed completion date and he shall from time to time review his progress and make such amendments to his rate of execution of the works as may be necessary to fulfil his obligations.

The Contractor shall allow in his programme for construction of trial sections and carrying out tests upon them as directed by the Engineer in accordance with the provisions of Clause 129 of the

Standard Specification. The time for completion of the Contract shall not be extended because of the time taken to carry out tests and evaluate trial sections.

105 ORDER OF EXECUTION OF WORKS

In addition to Clause 105 of the Standard Specification the Contractor shall carry out the Works such that a continuous and consecutive output of fully completed work is achieved.

107 TAKING OVER CERTIFICATE

The minimum length of the road for which a certificate will be issued is the whole length of the project road when substantially completed.

109 NOTICE OF OPERATIONS

Add the following sub- Clause.

Notification Terms

It shall be the Contractor's responsibility to notify the Engineer when any item of works scheduled are completed and ready for approval, and the contractor shall give sufficient notice to allow control test to be performed.

Explosive and Blasting

- (a) The requirements of the Laws of Kenya governing explosives and other requirements and regulations of Government of Kenya and other authorities shall be complied with.
- (b) No explosives of any kind shall be used without prior written consent of the Engineer.
- (c) The Contractor shall be solely responsible for the provision, handling, and storage and transporting of all explosives, ancillary materials and all other items of related kind whatsoever required for blasting.

111 NATIONAL SPECIFICATIONS

Add the following at the end of this clause

“The Contractor shall provide all such specifications not more than 60 days after commencement of contract and at least 14 days before the execution of work to which the specification is applicable.”

117 HEALTH, SAFETY AND ACCIDENTS

Add the following:

In addition to providing, equipping and maintaining adequate first aid stations throughout the works in accordance with the laws of Kenya, the contractor shall provide and maintain on site during the duration of the Contract, a fully equipped dispensary. This shall be with a qualified Clinical Officer / Nurse who shall offer the necessary medical advice on HIV and related diseases to the Engineer's and Contractor's Site staff. The Contractor shall allow for this in the rates and be responsible for all site welfare arrangements at his own cost.

121 DIVERSION OF SERVICES

- (a) The Contractor shall acquaint himself with the location of all existing services such as telephone lines, electricity cables, water pipes, fences, fragile ecosystems, sewers etc., before execution of any works that may affect the services. The cost of determining the location of the existing services together with making good or repairing of any damage caused all to the satisfaction of the Engineer shall be included in the BID rates.

- (b) Subject to the agreement with the Engineer, the Contractor shall be responsible for removal of alteration and relocation of existing services.
- (c) The Contractor shall indemnify the Employer against claims originating from damage to existing services or works.

123 LIAISON WITH PARKMANAGEMENT, COUNTY GOVERNMENT AND POLICE OFFICIALS

The Contractor shall keep in close touch with the park management and the other Government officials of the area regarding their requirements in the control of traffic, or other matters, and shall provide all assistance or facilities, which may be required by such officials in the execution of their duties.

124 LAND FOR ALL CAMPS SITES AND FOR THE CONTRACTOR'S OWN PURPOSES, INCLUDING TEMPORARY WORKS.

Notwithstanding Clause 124 of the Standard Specification all requirements of land for temporary works and construction purposes shall be to the approval of the Engineer but the Contractor will make all necessary arrangements with the property owners concerned parties and pay all charges arising there from. On or before completion of the Contract, the Contractor shall remove all temporary works and shall restore all such land to the condition in which it was immediately prior to the occupation thereof as far as is reasonable and practicable. No separate payment will be made to the Contractor on account of these items and the Contractor must make due allowance for them in his rates.

Notwithstanding Clause 120 of the Standard Specifications, the Contractor shall be required to appoint competent surveyors who will liaise with the Engineer on matters related to the demarcation of the existing road reserve, site measurements, removal and reinstatement of existing services.

127 INFORMATION FROM EXPLORATORY BORINGS AND TEST PITS

Omit the content of Clause 127 and substitute the following Sub-Clauses: -

127.1 Material site

Any information of on materials sites does not form part of the Contract Documents. However, the factual details that shall be made available for the Contractor's information only, and any conclusions on issues such as suitability of materials, location of borrow pits, material quantities etc., made by the Contractor on basis of the factual details, will be at his own risk.

127.2 Trial Sections

The Contractor shall allow in his programme for constructing trial sections and carrying out tests upon them as directed by the Engineer. Trials would normally be required at the start of each pavement layer and if changes of materials, method or equipment deem it necessary as directed by the Engineer. The time for completion of the Contract shall not be extended because of the time needed to construct trial sections and evaluate the tests on them.

At least fourteen days before the work of laying any pavement layer is commenced, the contractor shall construct trial sections of at least 100 m in length and to the full construction width and the specified pavement layer thickness. For each trial section, the Contractor shall use the materials, mix proportions, mixing, laying, compaction plants and construction procedure that he proposes to use for the main work. The main work of laying the pavement layer shall not be commenced until this trial has been tested and approved by the Engineer.

No variation in the construction procedure, mix proportions, size, grading or source of any of the constituents shall be made without the agreement of the Engineer who may first require new trial sections to be carried out.

Trial sections, if found satisfactory, will be paid for under the rates in the Bill of Quantities for the appropriate items, as if the trial sections were part of the normal work. No separate payment will be made for trial sections and testing and the Contractor shall be deemed to have provided for this in his rates. The Contractor shall make good, at his own expense, any trial sections that fail to meet the specified standards. The standards shall include, but not be limited to, material quality, layer thickness, levels and compaction.

128 STORAGE OF MATERIALS

All materials shall be stored on Site in a manner approved by the Engineer and the Contractor shall carefully protect from the weather all work and materials which may be affected thereby.

129 TEST CERTIFICATES

When instructed by the Engineer the Contractor shall submit certificates of test from the suppliers of materials and goods required in connection with the works as the Engineer may require.

Such certificates shall certify that the materials or goods concerned have been tested in accordance with the requirements of the specifications and shall give the results of all the tests carried out. The Contractor shall provide adequate means of identifying the materials and goods delivered to the site with the corresponding certificates.

130 PROGRESS PHOTOGRAPHS

Notwithstanding the provision of Clause 130 of the Standard Specifications, the Contractor shall be responsible for taking of progress photographs. Progress Photographs taken by the Engineer's Representative and relevant costs charged will be responsibility of the Contractor who will be reimbursed under Miscellaneous Accounts

131 SIGNBOARDS

The Contractor shall provide and erect **two (2)** publicity signboards on the site as directed. The Engineer shall, as shown in the Drawings, direct the minimum dimensions of the boards. The boards shall be prepared, primed and painted cream and lettered in black. The boards shall be of stout construction, resistant to the effects of weather.

132 HOUSING ACCOMMODATION FOR THE RESIDENT ENGINEER AND HIS STAFF, OFFICE AND LABORATORY INCLUDING FURNITURE

132.4 ENGINEER'S STAFF MAIN OFFICE

The contractor shall furnish and equipped the office will shall be shown by the Engineer at the park head quarter or any other suitable facility with the park for use by the Engineer's personnel. This office occupied by the Engineer's Representative personnel. All other floors shall be given a PVC tile finish using approved adhesive including 150mm wood skirting or superior finish. The windows shall be fitted with curtains and blinders.

The Contractor may be instructed by the Engineer under clause 58 of the General Conditions of Contract to make payments of general receipted accounts for such items as stationery, stores, furniture and equipment, claims and allowances for supervision personnel and any miscellaneous claims or the Engineer may direct the Contractor to purchase or pay for the above. The Contractor will, on provision of receipts, be paid under appropriate bill items in the BoQ.

The Contractor, when instructed, shall provide and install at the Engineer's office the Equipment specified below with a dealer's certificate and warranty:

a) All in one Laserjet Color Printer: 1No.

SPECIFICATION	REQUIREMENT
Print Speed, black	Up to 21 ppm
Print speed, color	Up to 21 ppm
Monthly duty cycle	40000 pages
Rec. monthly page volume	Up to 1,000 to 2,500 pages
First page out	17 sec.
Processor Speed	600 Mhz
Print Technology	Laser
Print Resolution	600 x 600 dpi
Display	3.5" (8.89 cm) touchscreen,
Cartridges	4 (Black, Cyan, Magenta and Yellow)
Paper try	2
Input Capacity, standard	Up to 250 sheets
Envelope input, Standard	Up to 10 envelopes
Output Capacity	150 sheets
Media sizes (standard)	Multipurpose tray
Memory (standard)	192 MB
Typefaces	80 Font set (true type internal scalable)
Scanner type	Flatbed, ADF
Scan solution	Up to 19200 dpi
Scan resolution	1200 x 1200 dpi
Bit depth	24 bit
Levels of Gray scale	256
Automatic document	Standard, 50 sheets
Maximum scan size	8.5 x 11.7 in
Copy reduce/enlarge	25 to 400%
Copy speed	Up to 21 cpm
Maximum copies	Up to 99 copies
Fax memory	Up to 250 pages
Fax Transmission speed	3 sec per page
Fax resolution (Black)	Up to 300 x 300 dpi
Polling	Yes
Fax/phone interface	Yes
Speed dial	Up to 120 numbers
Warranty	1 year

b) Type: Desktop (Personal Computer (PC)) 1 No.

The rate inserted for the PCs shall include for the provision of the UPS, a Printer and the software specified below for each PC.

Specification	Requirement
a) Form Factor	Micro tower
b) Processor	Intel Core i3 (3.10 GHz, 3 M cache, 2 cores)
c) Memory	4 GB, 1333 MHz DDR3 memory
d) Hard Disk	500GB HDD SATA, DVDRW
e) CD	DVDRW Drive
f) Ports	8 USB ports, speed 2.0
g) Keyboard	HID-compliant USB standard keyboard
h) Mouse	HID-compliant USB mouse
i) Graphics Output	21-inch Wide TFT Screen
j) Network Card	Integrated network controllers with IPSec, 10/100/1000 Mbps, RJ-45 sockets,
k) Operating System and Application support	Microsoft Windows 10 Professional (certified through Microsoft HCL), MS Office 2010 Professional
l) Media	Documentation for all pre-installed software
m) Warranty	Three (3) Years

b) UPS 1.5 KVA Specifications.

Specification	Requirement
Configured Power	980 Watts / 1500VA
Nominal Output Voltage	220-240 Volts AC, 50/60 Hz
Output Frequency	47 - 53 Hz for 50 Hz nominal
Nominal Input Voltage	230V
Input Frequency	50/60 Hz +/- 3 Hz (auto sensing)
Battery Type	Maintenance-free sealed Lead-Acid battery with suspended electrolyte : leak proof
Power Interfaces	Standard 3-pin British
Control Software	Yes
Serial Cables	Yes
Warranty	1 Year

(c) Laptop 1No.

The rate inserted for the Laptop shall include for the provision of a Printer and the software specified below for each laptop.

Specifications	Requirement
a. Processor/ chipset	Intel Core i5
b. Memory	4G, 1066Mhz, DDR3 Memory
c. Hard Disk	500GB or More
d. Display	14.1'' WXGA high resolution (1024 x 768) TFT
e. Drives	DVD/RW drive
f. Network Support	RJ 45 connection port
g. Sound System	Integrated stereo, MIDI support, Built in speakers
h. Ports	2 x USB ports, speed 2.0 and above, HDMI ports
i. Docking	Docking/Expansion Slots, Docking Station and extra 21'' monitor
j. Battery	Lithium ion or NiMH Technology, up to 2.9Hrs standby
k. Operating System	Microsoft Windows 10 <u>Professional</u> , MUST HAVE OEM LICENSE for operating system
l. Application	Installed MS Office 2010
m. Power supply	100-240 VAC,
n. Warranty	3 Years warranty
o. Carry Case	Targus Black Deluxe case (part No CBT400)
p. Mouse/Keyboard	External wireless mouse and Keyboard

Software

1. Autodesk Civil3D 2014 or later version with licence
2. Antivirus: McAfee Virus Scan Professional (Latest Version)

Prior to purchase of the computers, laptops and printers, the contractor shall submit the specifications of the same to the Engineer for approval. The Personal Computers, Laptops, printers, UPSs and Photocopying Machine shall revert to the Employer at the end of the Contract. The contractor shall be paid for these items under appropriate bill items in the BoQ.

132.2 ENGINEER'S SURVEY EQUIPMENT

The Contractor shall identify government or any other accredited Engineering Laboratory that is closer to the project to be used by his staff and the Engineer's Representative staff to ensure that, for the duration of the contract, quality control and assurance is carried as required by the Engineer. The Contractor shall be paid on a prime cost basis plus a percentage for overheads and profits under appropriate bill items in the Bills of Quantities or on provision of receipts as required by the Engineer.

The survey equipment to be provided would include:

- | | |
|---|------|
| 1. Engineer's automatic level Wild NAK 2 or similar | 1No |
| 2. Levelling staff 5m. with levelling bubble Wild GNLE or similar | 2No |
| 3. 50m. steel band measuring tape | 2No |
| 4. 30m. linen measuring tape | 2No. |

5.	3m. aluminium straight edge	2No
6.	1m. stainless steel straight edge	2No
7.	100m. steel band tape	2No.
8.	Draughtsman's stool	2No.
9.	Complete set of highway curves	1No
10.	Programmable scientific calculators FX 880P or	
11.	Equivalent	2No
12.	Survey umbrella	2No.
13.	Graph paper A3 size	100No
14.	Erasing shield	4No.
15.	3m. ranging rods	9No
16.	Marker pens	30No.
17.	Rise and Fall Book	10No.

The contractor may be directed to pay for stationery, equipment or reagents that are foresaid and also pay for servicing and repair of the laboratory equipment being used on the project.

The equipment shall be of approved manufacture, and shall be made available to the Engineer for the Engineer's exclusive use throughout the Contract, not later than three (3) weeks after the Engineer's order to supply. All equipment shall be ready to use and complete to perform the tests. The equipment shall revert to the Employer on completion of the Contract

Any delays to the Contractor or the Contractor's activities caused by the Engineer being unable to perform survey work, field or laboratory tests due to the contractor's failure to supply an/or maintain the said equipment shall be deemed to have been caused entirely by the Contractors own actions, and any consequences of such delays shall be interpreted as such.

The payment to comply with this requirement is provided in the Bill of Quantities and ownership of all equipment shall revert to the contractor after the completion of the Works.

Failure by the Contractor to provide or maintain the equipment shall make him responsible to bear all costs that may be incurred as a result of the Engineer's staff using alternative means of communication, including delays in supervision and approval of Works by the Engineer.

132.9 MOBILE PHONES FOR ENGINEER'S STAFF AND OFFICE

The Contractor shall, if so instructed by the Engineer provide, connect and maintain mobile phones for the exclusive use by the Engineer and for the duration of the contract. The Contractor shall provide air-time for these mobile phones as directed by the Engineer and be reimbursed under appropriate items in the Bills of Quantities.

135 MAINTENANCE OF THE ENGINEER'S OFFICES LABORATORIES, FURNITURE AND EQUIPMENT

In 1st paragraph, delete "until the end of the Period of Maintenance" and substitute "till the issue of the Taking-over certificate for the whole of the Works, and if required for a period thereafter until the Contractor has completed any outstanding work."

Add the following at the end: -

135.1 Provision of Maintenance and Security

The Contractor shall maintain all furniture and equipment provided by him in a useable state of repair and shall replace promptly any item that becomes unserviceable or is lost. The Contractor shall provide cleaners and groundsmen for camp and offices, the cost of which shall be included in the rates for providing offices.

In addition, the contractor shall also arrange with the park management for day and or night security (rangers), for the workers during execution of works in the park at all time as shall be directed or instructed by the Engineer. The Contractor shall be paid on a prime cost basis plus a percentage for overheads and profits under appropriate bill items in the Bills of Quantities or on provision of receipts or schedules as shall be required by the Engineer.

137 ATTENDANCE UPON THE ENGINEER AND HIS STAFF

The Contractor shall pay wages (including all overtime) and house all attendant staff to fulfil the requirements of Clause 137 of the Standard Specification. The number of staff required for these duties shall be about: One (1) No. Office attendants, Two (2) No chainmen, One (1) No. Surveyor One (1) Materials Technician and One (1) No. Road Inspector. The Contractor will be paid on a prime cost basis plus a percentage for overheads and profits under appropriate items in the Bills of Quantities.

138 VEHICLES AND DRIVERS FOR THE ENGINEER AND HIS STAFF AND METHOD OF PAYMENT

The Contractor shall, subject to the Engineer's approval and as indicated in the Bill of quantities, provide and maintain in good condition one (1) serviceable double cabin four-wheel-drive diesel powered pick -up with a driver for exclusive use of the Engineer and his staff. The pick-up shall have a minimum engine capacity of 2800cc.

The Contractor shall licence and comprehensively insure the vehicle for use within Kenya by authorised passengers and for the carriage of goods and samples, during working hours and whenever required by Engineer thereafter. The contractor shall pay all tools; provide fuel, oil, maintenance including replacing defective parts, tyres and tubes whenever required, in conformity with the vehicle manufacturer's recommendations or as may be instructed. The vehicles shall be fuelled, oiled, maintained throughout the 9-month rehabilitation contract including the Defects Liability Period and serviced regularly until released by the Engineer upon the end of the Contract.

The Contractor shall provide similar temporary replacements for the vehicle when being repaired, serviced or otherwise not at the disposal of the Engineer. Any delays or costs caused by the vehicle not being available to the employer shall be borne by the contractor. The shall provide competent drivers during normal working hours and whenever required by the Engineer.

Should any vehicle supplied not be in road worthy condition, the Contractor shall provide an acceptable equivalent replacement vehicle until such time as the original vehicle is repaired to the satisfaction of the Engineer and returned for use.

Payment for the vehicles (up to 4,000Km per veh.month), shall be by vehicle months. Payment for mileage above 4,000Km per vehicle month, shall be made at a rate per Kilometre. These payments shall be inclusive of all fuels, lubricants, servicing, insurance, maintenance, drivers and repairs. The rate shall include any overtime the drivers might be due or any other allowances in addition to the normal working hours. Payment shall be made under appropriate items in the Bills of Quantities.

The vehicles shall revert to the Contractor at the end of the contract.

139 RECEIPTED ACCOUNTS

The Contractor may be instructed by the Engineer to make payments of general miscellaneous accounts for such items as stationary, stores and equipment and miscellaneous supervision personnel and claims or the Engineer may direct the Contractor to purchase or pay for the above. The Contractor will be paid on a prime cost basis plus a percentage for overheads and profits under appropriate items in the Bills of Quantities.

140 PAYMENT OF OVERTIME FOR ENGINEER'S JUNIOR STAFF

In the last line delete the words "shall be at the Contractor's expense" and substitute with "including the approved percentage for administrative overheads shall be paid by the Contractor to the Engineer".

If the Contractor wishes to execute permanent works outside the Engineer's normal working hours as stated in Clause 108 of the Standard Specification, then the payment for overtime for the Engineer's junior staff shall be reimbursed in full by the Contractor to the Engineer plus a 20 percent additional amount to cover for the Engineer's administrative overheads.

In addition to the support staff provided by the contractor, the following shall also constitute part of the Engineer's junior staff:

Designation	Number
Material Technician	1
Chainmen	2
Office Administrator	1

If the Contractor wishes to execute the works on regular basis outside the Engineer's normal working hours as given in Clause 108, over a prolonged period, the Engineer may, if he deems it necessary, employ additional supervisory staff for which the required salaries, plus twenty (20%) percent additional amount to cover for the Engineer's administrative overheads shall be reimbursed in full by the Contractor to the Engineer. In addition, the Contractor shall provide the required accommodation for such staff at his own cost. The Contractor shall not be reimbursed any of these costs.

142 LIQUIDATED DAMAGES

Liquidated Damages at the rate equivalent of 0.025% of the contract sum per day shall apply in the event of the work not being completed within the time for completion plus any extension of time which may be determined by the Engineer.

141 MEASUREMENT AND PAYMENT

Delete Sub-Clause 141 (a) entirely and substitute with:-

- a) No Preliminary item has been included in this Contract. All Contractor's mobilisation and general costs shall therefore be included in relevant rates in the Bill of Quantities.

Item: Progress Photographs

Delete this Sub-Clause

Item: Cost of Rectification of Title Deeds.

Unit: Prime cost sum

Reimbursement for the payment of the cost of rectification of title deeds of acquired land shall be on a prime cost basis plus a percentage for overheads and profit.

This percentage shall be deemed to include for all costs of complying with Clause 143 of this specification.

142 ENVIRONMENTAL PROTECTION

Further to the requirements of Clause 19.1 of the Conditions of Contract, the Contractor shall be responsible for the following measures to protect the environment:

- 1) Compliance with national and local statutes and regulations relating to protection of the environment. The Contractor will be responsible for familiarizing himself with all existing national and local legislation in this regard.
- 2) All construction activities shall be carried out using the best possible means to reduce environmental pollution such as noise, dust and smoke. All vehicles and plant shall be regularly serviced in accordance with the manufacturer's recommendations to ensure that they operate efficiently and without excessive noxious emissions. The Engineer will have the authority to instruct the Contractor to temporarily cease operations and/or remove from the site vehicles or plant which do not comply with this requirement, until such time that he is satisfied that best practicable means to reduce environmental pollution to a minimum are being used.
- 3) The Contractor shall at all times maintain all sites under his control in a clean and tidy condition and shall provide appropriate and adequate facilities for the temporary storage of all waste prior to proper approved disposal.
- 4) The Contractor shall be responsible for the safe transportation and disposal of all waste generated as a result of his activities in such a manner as will not give rise to environmental pollution in any form, or hazard to human or animal health. In the event of any third party being employed to dispose of waste, the Contractor shall be considered to have discharged his responsibilities under this clause from the time at which waste leaves sites under his control, providing that he has satisfied himself that the proposed transportation and disposal arrangements are such as will not give rise to pollution or health hazard.
- 5) The Contractor shall be responsible for the provision of adequate sanitary facilities for his workforce, and that of his sub-contractors, at all construction and ancillary sites. The Contractor shall not allow the discharge of any untreated sanitary waste to groundwater or any surface watercourse.
- 6) Prior to the mobilization of the workforce the Contractor shall provide details of proposed sanitary arrangements to the Engineer for approval, such as will allow him to assess whether or not the proposed facilities are adequate and are unlikely to pollute water resources, and also that the facilities will be properly operated and maintained.
- 7) All concrete and asphalt plants shall be operated and maintained in accordance with the original manufacturer's specifications and manuals, and in such a manner as to minimize emissions of hydrocarbons and particulates. If, in the opinion of the Engineer, the operation of such plant is causing, or is likely to cause nuisance or health problems to site staff or the general public, the Contractor shall carry out such work as is necessary to reduce emissions to an acceptable level within a time-scale agreed with the Engineer.
- 8) The Contractor shall regularly douse with water all exposed dirt surfaces to reduce dust levels.

- 9) The Contractor shall take all reasonable measures, at all sites under his control, to prevent spillage and leakage of materials likely to cause pollution of water resources. Such measures shall include, but not be limited to the provision of bunds around fuel, oil and bitumen storage facilities, and provision of oil and grease traps for servicing and fuelling areas. Prior to construction of such facilities, the Contractor shall submit details of pollution prevention measures to the Engineer for his approval.
- 10) The Contractor shall be responsible for ensuring that exposed surfaces are re-vegetated as construction progresses, all to the satisfaction of the Engineer.
- 11) The removal of trees shall be kept to the minimum necessary to accommodate the Permanent Works.

Prior to the removal of any trees the Contractor shall inform the Engineer of the intended operation and obtain the permission of the Engineer for the removal of the trees. If any tree is removed without permission the Contractor shall replant another approved tree at no additional cost to the Employer.

- 12) The Contractor shall ensure that fires, except for controlled fires for burning rubbish, do not start within the Site or in the environs thereto as a result of the works or from the actions of his employees. The burning of waste, such as vehicle tyres causing noxious emissions is prohibited. The Contractor shall have available at all times trained fire-fighting personnel provided with adequate fire-fighting equipment to deal with all fires. The Contractor shall additionally at all times provide sufficient fire protection and fighting equipment local to parts of the Works which constitute particular fire hazards.
- 13) The contractor shall as instructed by the Engineer carry out off – road mitigation measures to the approval and satisfaction of the Engineer and to the required standards. The contractor shall obtain Environmental mitigation licence for the same and also comply with Environmental Management Coordination Act (EMCA) 1999, and Environmental Impact Assessment (EIA) and Environmental Audit (EA) Regulations 2003.

No separate payment shall be made in respect of this Clause 142 and the Contractor shall be deemed to have allowed in his general rates and prices for the cost of complying with the requirements of this Clauses.

143 RECTIFICATION OF TITLE DEEDS

Properties acquired during construction of the road will need to have their title deeds rectified with the Commissioner of Lands. The Contractor shall pay, on instruction from the Engineer, the cost of rectification of title deeds of the affected properties. Contractor will be reimbursed under the Prime Cost sum allowed for land acquisition in Bill 1.

Contractor's overhead shall cover his administration and liaison with the Commissioner of Lands.

Payment will be under appropriate items in the BoQ.

144 COPIES OF ORDERS AND REQUISITIONS

The Contractor shall provide the Engineer with copies of all orders for supply of materials and goods required in connection with the works as the Engineer may require.

145 SHORTAGE OF BITUMEN AND OTHER MATERIALS

The Contractor shall make provisions for obtaining bitumen and other materials required for the Contract if they are not available locally. In particular, the Employer shall not be liable for any additional costs due to local lack of bitumen or any other materials.

146 GENERAL STD AND HIV/AIDS ALLEVAITION MEASURES

The Contractor shall advise all Site staff and labour (including all the Contractor's employees, all Sub-Contractors' and Consultants' employees, and all truck drivers and crew making deliveries to Site) of the dangers and impact of Sexually Transmitted Diseases (STD) in general and HIV/AIDS in particular. To this end, the Contractor shall conduct Information, Education and Consultation (IEC) campaigns at least every other month, addressed both to the aforementioned Site staff and labour and to the immediate local communities.

The Contractor shall throughout the Contract (including the Defects Liability Period) also provide, maintain and operate at least one STD, HIV/AIDS clinic on each Site or make alternative arrangements with an existing suitably qualified and equipped local clinic. Each clinic shall be suitably staffed and equipped for the screening, diagnosis and counselling of STD, HIV/AIDS cases within the Site staff and labour (as defined above). Each clinic shall also provide free treatment of the general STD cases, while the HIV/AIDS cases shall be put in touch with/referred to the local National HIV/AIDS programme coordinated by the Ministry of Health.

The Contractor shall also make available at least 100 condoms per year for each member of the above-mentioned Site staff and labour.

The Contractor shall, throughout the Contract, liaise with the Ministry of Health (MOH) and their designated local representatives or agents, to report progress.

SECTION 2 - MATERIALS AND TESTING OF MATERIALS

All materials testing shall be in accordance with Section 2 of the Standard Specifications.

205 SOILS AND GRAVEL

Whenever in the Contract Document a minimum California Bearing Ratio (CBR) is specified, the CBR of the material shall be determined at the specified state of compaction;

- a) After four days soaking in the case of neat materials and
- b) After seven days curing plus seven days soaking in the case of cement/lime improved materials

SECTION 3 - SETTING OUT & TOLERANCES**301 SETTING OUT**

- a) In addition to the provisions of clause 3.01(a) if the traverse points to be used for the setting out are close to the existing carriageway and interfere with construction works then the Contractor will have to relocate them to a location where they will not be disturbed. The co-ordinates and heights of all traverse points so located shall be listed and provided to the Engineer for checking and/or approval. Contractor shall also monument the new centreline every 200m along straight and all salient points along curves by a pin in the concrete beacon before commencement of any works.

The road reserve boundary posts shall have 12mm diameter steel pins embedded in concrete, 200mm long with 25mm exposed to the air, sticking out from its top surface. This pin shall be co-ordinated and heighted and result of the same shall be provided to the Engineer for approval. Cost of these works shall be included in the rates as no separate item has been provided.

Commencement of the works shall not be permitted until this basic survey data has been provided and approved by the Engineer for at least 5 Kms of the road.

- b) Detailed Setting Out

Reference pegs shall be 50mm by 50mm in section 600mm long driven 400mm firmly into ground and painted white above the ground. The offset from centre line shall be indicated by small nail 20mm to 25mm long with its head driven flush with the top of the peg. Chainages, offset and reference elevation shall be clearly indicated to the sides of the peg to the satisfaction of the Engineer.

After cutting of benches and prior to commencement of earthworks or subgrade works, Contractor shall take cross-sections again and submit the copy of the same to Engineer for agreement. These cross-sections shall then be used as basis of measurement for all subsequent layers, unless otherwise stated.

302 TOLERANCES

Add the following:

(e) Pavement Widths

For Pavement widths for subbase, base and wearing course, the allowable tolerances shall be 0 to +50 mm.

(f) Pipe Culverts

The maximum deviation from the specified line of a drainage pipe shall be: -

Horizontal	-	25mm in 3.0 m
Vertical	-	30 mm in 10.0 m

SECTION 4- SITE CLEARANCE AND TOP SOIL STRIPPING

401 SITE CLEARANCE

Site Clearance shall be carried out as directed by the Engineer.

Add the following as the last paragraph in Sub-clause (a):

Site clearance is not required over the gravelled width of existing road and shoulders. No measurement and payment for site clearance will be made for this width. The remaining area within the road reserve including sides of existing embankments and cuttings shall be cleared as instructed by the Engineer. This operation shall also include the removal of all trees, except for some trees as directed by the Engineer. The Contractor shall provide paint and all the assistance the Engineer may require to mark the trees which **should not** be removed during site clearance.

The Contractor shall take care not to uproot or damage trees which are within the road reserve but outside the construction width. After the Contractor has staked out the extent of the road, the Engineer, with the assistance of the Contractor, shall mark out the trees to be removed. After removal, the trunks and branches of these trees shall be cut up into pieces not more than 2.0m in length, transported and neatly stored at the nearest Ministry of Roads camp or otherwise in a position to be indicated by the Engineer. No additional payment shall be made for complying with this requirements and it is deemed the Contractor will have included its cost in the rates for site clearance.

402 REMOVAL OF TOPSOIL

Topsoil shall include up to 200mm depth of any unsuitable material encountered in existing or newly constructed drains, drainage channels, and accesses.

403 REMOVAL OF STRUCTURES, FENCES AND OBSTRUCTIONS

When instructed by the Engineer, the Contractor shall demolish or remove any structure and payment for this shall be made on day works basis.

SECTION 5 - EARTHWORKS

504 PREPARATION PRIOR TO FORMING EMBANKMENT

In cuttings, the contractor shall excavate to a level that would accommodate the 300mm subgrade and the existing ground below this MUST be processed and compacted in accordance with clause 504 of the standard specifications.

505 CONSTRUCTION OF EMBANKMENTS

Only material approved by the Engineer shall be used for fill in embankments.

Material with high swelling characteristics or high organic matter content and any other undesirable material shall not be used, unless specifically directed by the Engineer. Unsuitable material shall include:

- (i) All material with CBR Values of less than 2%
- (ii) All material containing more than 5% by weight of organic matter (such as topsoil, material from swamps, mud, logs, stumps and other perishable material)
- (iii) All material with a swell of more than 3% (such as black cotton soil)
- (iv) All clay of plasticity index exceeding 50.
- (v) All material having moisture content greater than 105% of optimum moisture content (Standard Compaction)

Where Such material occurs and **if** the Engineer considers that the cutting to spoil of the expansive clay soil is expensive, he may instead instruct for the mechanical stabilisation by placing a **Tensar TX 160G** geocomposite material on the ground before dumping and processing the subgrade. The geocomposite shall be measured by the square metres instructed and placed and payments made under appropriate item in the bills of quantities.

Subgrade

Subgrade shall mean upper 300mm of earthworks either *in situ* or in fill and subgrade shall be provided for as part of earthworks operation and payment shall be made as “fill in soft material”.

The material for subgrade for a road section shall have an average CBR of not less than 14% with no value being less than 10% measured after a 4 day soak in a laboratory mix compacted to a dry density of 100% MDD (AASHTO T99) and a swell of less than 1%. Where the *in situ* material does not meet this criterion, it shall be excavated and cart to spoil to a depth that can accommodate a new 300mm improved subgrade.

No extra payment will be made for haulage of suitable material from borrow pits as the overhaul costs shall be deemed to have been factored in the rates inserted in the Bills of Quantities

508 COMPACTION OF EARTHWORKS

At pipe culverts, all fill above ground level around the culverts shall be compacted to density of 100% MDD (AASHTO T.99) up to the level of the top of the pipes or top of the surround(s), if any and for a width equal to the internal diameter of the pipe on either side of the pipe(s) or surround(s) as applicable.

At locations adjacent to structures (up to 100m away from structure), all fill above ground level upto the underside of the subgrade shall be compacted to density of 105% MDD (AASHTO T.99). In case of fill around box culverts this should be carried out for the full width of the fill and for a length bounded by the vertical plane passing through the ends of the wingwalls.

Notwithstanding the provision of clause 503 of the standard Specification, Compaction of subgrade material (i.e. material immediately below formation) in cut areas shall not be carried out by the contractor in areas where the formation is formed in hard material, unless specific instructions to the contrary are issued by the Engineer.

Where improved sub-grade material shall be required, the material shall have a CBR greater than 14% and this shall be compacted and finished to the same standards and tolerances as those required for normal subgrade and clauses in the specifications applying to normal subgrade shall also apply.

509 MASS-HAUL DIAGRAM

Delete Clause 509 entirely and substitute “No Mass-Haul diagram has been provided with the Documents. The Contractor shall be responsible for locating suitable materials for constructing earthworks along the alignment and elsewhere and shall include in his rates for fill, spoil and for the cost of haulage”.

511 BORROW PITS

The first part of the Standard Specification is amended as follows:-

Fill material which is required in addition to that provided by excavation shall be obtained from borrow pits to be located and provided by the Contractor but to the approval of the Engineer contrary to what has been stated.

515 SIDE DRAINS

Whenever excavation works in side drains constitutes a separate operation from the bulk earthworks, such excavation shall be classified as catchwater drains under Section 8 of the Specifications

517 MEASUREMENT AND PAYMENT

Notwithstanding the provisions of clause 517 of the standard specifications, the rate for compaction of fill in soft material shall allow for the requirements of clause 508 of the special specification and no extra payment shall be made for compaction around pipe culverts (100% MDD AASHTO T.99).

SECTION 6 - QUARRIES, BORROW PITS, STOCKPILES AND SPOIL AREAS

601 GENERAL

Notwithstanding any indications to the contrary in the Standard specification the Engineer will not make available to the Contractor any land for quarries, borrow pits, stockpiles and spoil areas, except for those areas in road reserves specifically approved by him.

The contractor will be entirely responsible for locating suitable sources of materials complying with the Standard and Special Specifications, and for the procurement, Wining, haulage to site of these materials and all costs involved therein. Similarly the contractor will be responsible for the provision and costs involved in providing suitable areas for stockpiling materials and spoil dumps. Should there be suitable sites for spoil dumps or stockpiles within the road reserve forming the site of the works the Contractor may utilise these subject to the approval of the Engineer.

No additional payment will be made to the Contractor to cover costs arising from the requirements for this Clause and the Contractor must include these costs in the rates inserted into the Bills of Quantities.

SECTION 7 - EXCAVATION AND FILLING FOR STRUCTURES**703 EXCAVATION OF FOUNDATIONS FOR STRUCTURES**

Unless otherwise instructed by the Engineer, all excavated surfaces in material other than hard material, on which foundations for structures shall be placed, shall be compacted to 100% MDD (AASHTO T.99) immediately before structures are constructed.

Paragraph 4, last line: - Replace "95%" with "100%".

707 BACKFILLING FOR STRUCTURES

Unless otherwise instructed by the Engineer, all backfilling material shall be compacted to a minimum of 100% MDD (AASHTO T.99).

709 EXCAVATIONS FOR RIVER TRAINING AND NEW WATER COURSES

Payments for river training and establishment of new watercourses shall only be made where such work constitute permanent works. Works done for road deviation or other temporary works shall not qualify for payment.

710 STONE PITCHING

Stone pitching to drains, inlets and outlets of culverts to embankments and around structure shall consist of sound unweathered rock approved by the Engineer. The stone as dressed shall be roughly cubical in shape with minimum dimensions of 150 x 150mm for normal thickness of stone pitching. Cement mortar Grouting will be done for all stone pitching areas and the top line of the stone pitching should be grouted/sealed with concrete class 15/20. The cement shall be mixed with sand in the ratio of 1:3 by volume to form the grout.

The surface to receive the pitching shall be compacted and trimmed to slope and the stone laid, interlocked and rammed into the material to give an even finished surface. Soil erosion is rampant along the project location and this can be minimised by ensuring that proper protection works is carried out along the drains using stone pitching. Most of the sections shall be stone pitched especially areas where we have steep slopes to minimise undermining of the road by rain water or as may be instructed by the Engineer.

In areas where stone pitching has been damaged, the Contractor shall identify such areas and notify the Engineer for his agreement of the extent of the Works required and his approval and instructions to proceed with the Works. Stone Pitching Repair and reconstruction shall be carried out in accordance with Clause 710 of the Standard Specifications.

711 GABIONS

Where instructed by the Engineer the Contractor will install gabions as protection works to washout areas or bridge Piers and or Abutments. Gabions shall be constructed in accordance with Clause 711 of the Standard Specification.

In cases where existing gabions have been damaged, the Contractor shall identify them and notify the Engineer for his agreement of the extent of the Work required and his approval and instructions to proceed with the Works.

The Works shall involve removal of the damaged gabions / rocks, excavation to the correct levels and grades as directed by the Engineer, and in accordance with Clause 711 of the Standard Specifications and reconstruction with new gabions and other necessary materials as necessary. The damaged gabions shall be recovered and transported **to the KWS park headquarter offices at National Park.**

712 RIP-RAP PROTECTION WORK

Quarry waste or similar approved material shall be used to backfill scoured and eroded side, outfall and cut-off drain. The material shall be compacted to form a flat or curved surface preparatory to stone pitching of drainage channels, existing and new scour checks as directed by the Engineer.

The surface to receive the pitching shall be compacted and trimmed to slope and the stone hand laid, interlocked and rammed into the material to give an even finished surface. The interstices of the Pitching shall be rammed with insitu material. The insitu material immediately behind the pitching shall be compacted to minimum density of 100% MDD compaction (AASHTO T.99)

714 BACKFILL BELOW STRUCTURES

Where instructed this shall be carried out in compliance with the requirements of Clause 507 and 804 of the Standard Specification.

SECTION 8 - CULVERTS AND DRAINAGE WORKS**804 EXCAVATION FOR CULVERTS AND DRAINAGE WORKS**

In the Standard Specifications, make the following amendments: -

- (a) In paragraph 6, line 3, and in paragraph 7, line 5 and in paragraph 11, line 6, delete "95%" and insert "100%".
- (b) Removal and replacement of Existing Pipe Culverts
- (c) Installation of 600mm and 900mm pipe culverts in new location
- (d) Widening of existing culverts to be compatible with the new road width
- (e) Provision of access to culverts
- (f) Desilting and cleaning of the existing pipe and drainage facilities to make them free flowing

Where instructed by the Engineer, the Contractor shall excavate and remove all existing blocked or collapsed culvert pipes of 450mm, 600mm and 900mm diameter including concrete surround, bedding, inlet and outlet structures.

The void left after removal of culvert pipes shall be widened as necessary to accommodate new concrete bedding, pipe and haunching.

The payment of this work shall be per linear metre of pipes removed. The void left by removal of these pipes shall be carefully preserved in order to accommodate replacement 600mm or 900mm diameter pipe culverts as shall be directed by the Engineer.

- (g) Removal of Other Existing Drainage Structures

When instructed by the Engineer, the Contractor shall demolish or remove any other structure and payment for this shall be made on day work basis.

- (h) Excavation for Culverts and Drainage Works

The Contractor shall carry out all excavations for new culverts and drainage works to the lines, levels, inclinations, and dimensions shown on the drawings or as instructed by the Engineer.

805 EXCAVATION IN HARD MATERIAL

In the Standard Specifications, Sub-clauses 805(a) and 805 (b) delete "95%" and insert "100%".

In sub-clause 809(a), paragraph 1, line 1, substitute "95%" with "100%".

In sub-clause 809(c), paragraph 2, line 4, between the words "compacted" and "and shaped" insert the words "to 100% MDD (AASHTO T.99)".

Hard material is material that can be excavated only after blasting with explosives or boring and wedging or the use of a mechanical breaker fitted with a rock point in good condition and operated correctly. Boulders of more than 0.2m³ occurring in soft material shall be classified as hard material.

807 CONCRETE PIPE CULVERTS

Precast concrete pipe where used shall comply with the requirement of AASTO M170

809 BEDDING AND LAYING OF PIPE CULVERTS

The rate inserted shall allow for corruption of the bottom of excavation to 100% MDD (AASHTO T. 99). Concrete pipes shall be laid on a 100mm thick concrete bed of class 15/40 and the pipes shall be bedded on 1:3 cement: sand mortar at least 50mm thick, 150mm wide and extending the full length of the barrel.

The rates inserted shall allow for compaction of the bottom of excavation to 100% MDD (AASHTO T.99).

In addition to the requirements of the Standard Specification, where inflatable balloon method of casting culverts in-situ is used, it is essential that thorough pre-construction trials are carried out to ensure, to the satisfaction of the engineer, that the contractor provides a suitable alternative to the provisions of precast concrete pipe culvert, and necessary adjustments made to ensure that:-

- a) All concrete used for surround and bedding shall be Class 25/20.
- b) The inner concrete barrel surface immediately in contact with the inflated balloon form during placing shall achieve Class F3 finish.
- c) The pipe trench shall be excavated to the exact width required by the drawings and concrete surrounds and bedding shall extend to this width.
- d) Any over-excavation shall be filled with surround or bedding concrete, as appropriate, at the contractor's expense.

The installation of the pipes shall be done prior to commencement of any earthworks

The rates entered in the bills shall be for the length of pipe culvert constructed either by inflatable balloon method to class 25/20 concrete or by laying, jointing of precast pipes including bedding, surround and haunching to class 15/20 concrete and cost all formwork required. The rate shall allow for backfilling to pipe culverts and compacting to 100% MDD (AASHTOT.99)

Payments for the bedding, pipe culvert and surround shall be made as specified in the standard specifications. No additional payments shall be made for complying with these requirements where the balloon method is adopted.

810 JOINTING CONCRETE PIPES

Where precast concrete are used, these shall have ogee joints and will be jointed by 1:2 cement: sand mortar and provided with fillets on the outside as described in clause 810 of the Standard Specification.

812 BACKFILLING OVER PIPE CULVERTS

In the Standard Specifications, clause 812

- 1). Delete paragraph 6 "for pipe culverts depth of 150mm", entirely.
- 2). Wherever the expression "dry density of 95% MDD (AASHTO T. 99)" occurs delete and replace with "dry density of 100% MDD (AASHTO T.99)".

All material for backfilling shall be of a base quality material, in case where the backfilling thickness of pipe culverts is above the gravel wearing course, and complying with the requirement of clause 505. However where the required depth of backfilling can be achieved below the gravel wearing course the material for backfilling shall be a subgrade quality material complying with requirements of clause 505.

The rates entered for laying of pipe culverts shall allow for backfilling to pipe culverts and compacting to 100% MDD (AASHTO T.99) and these works shall **not** be measured and paid for separately.

814.1 SUBSOIL DRAINS

In the event of excavation for repairs exposing local seepage, springs or unacceptably high water table, the Engineer may instruct the provision of counter fort or French drains.

These drains shall consist of a trench excavated to the alignment, width, depth and gradient instructed by the Engineer, and backfilled with approved compacted clean hard crushed rock material as specified in clause 815 of the standard specification.

Where these drains lie within the carriageway the carriageway shall be constructed only after the subsoil drain has been completed and approved by the Engineer. The backfill for the subsoil and road carriageway drainage blanket shall be clean, uniform, sand or crushed aggregate with d50 between 0.4mm and 12mm and less 5% particle finer than 75 micron sieve. The d100mm must be lower than 5mm.

814.2 FILTER FABRIC TO SUBSOIL DRAINS

A filter fabric shall be placed under, around and over rock fill of the subsoil drains. The provisions and placing of the fabric shall be in accordance with manufacture's instructions and complying with Clause 804 and 814 of the Standard Specification. Payment shall be in metre square of the fabric used.

815 INVERT BLOCK DRAINS AND HALF ROUND CHANNELS

Invert Block Drains and Half Round Channels shall be constructed as shown in the drawings provided in accordance with the Standard Specifications where directed by the Engineer.

816 MINOR DRAINAGE STRUCTURES

The surface finish shall be UF2 for unformed surfaces and class F2 for formed surfaces

817.1 DESILTING OF PIPE CULVERTS

Where instructed, the contractor shall desilt the existing pipe culverts by removing all the material from the pipe to make them clean.

817.2 CLEAN EXISTING DRAINS

In areas of existing side drains, mitre or outfall drains where such are blocked, the Engineer shall instruct the contractor to clean and clear the drains to free flowing.

The work shall consist of:

- a) Stripping and removal of any extraneous material to spoil including vegetation and roads in the drains to the satisfaction of the Engineer
- b) Spreading of any spoil to the satisfaction of the Engineer
- c) Shaping the drains to free flowing conditions as directed by the Engineer.

Payments for desilting of pipe culverts and cleaning drains shall be by cubic metre of pipe or drained cleaned, measured as the product of plan area and vertical depth of extraneous material instructed to be removed. No extra payment will be made for removal of vegetation and roots.

817.3 CHANNELS

The Engineer may instruct that the contractor provides open channels in place of existing sub-drains where the latter may be damaged or in any other place. The rates entered by the contractor in the bills of quantities must include for the removal and disposal of any sub drain materials, excavation to line

and level, backfilling and compaction as directed by the Engineer. The channels shall be constructed of precast class 20/20 concrete of minimum 80mm thickness and lengths or widths no exceeding 1000mm. The Joins shall be at least 15mm wide filled with 1:2 cement sand mortar.

818 SCOUR CHECKS

Scour checks are to be constructed in mass concrete in accordance with clause 818 of the standard Specifications and the drawings as shall be provided.

SECTION 9 - PASSAGE OF TRAFFIC

901 SCOPE OF THE SECTION

The Contractor shall so arrange his work to ensure the safe passage of the Traffic at all times and if necessary construct and maintain an adequate diversion for traffic complete with all the necessary road traffic signs.

The contractor shall provide to the satisfaction of the Engineer adequate warning signs, temporary restriction signs, advance warning signs, barriers, temporary bumps and any other device and personnel equipped with two way radios to ensure the safe passage of traffic through the works.

When carrying out the Works the Contractor shall have full regard for the safety of all road users.

The Contractor shall also provide sign posts and maintain to the satisfaction of the Engineer all deviations necessary to complete the works. The contractor should allow for the costs of complying with the requirements of this clause in his rates.

The contractor will be deemed to have inspected the site and satisfied himself as to the adequacy of his bid for these works and no additional payments will be made to the contractor for any expenditure on traffic control or the provision of deviations. The employer shall not be liable for inadequate prior investigations of this nature by the contractor.

903 MAINTENANCE OF EXISTING ROAD

The Employer shall hand-over the existing road to the Contractor at the commencement of the Contract. The Contractor shall be responsible for all repairs and maintenance during the duration of the Contract. The existing road is gravel and the Contractor shall maintain it with suitable approved gravel of minimum CBR 20%. The Contractor shall regularly inspect the road and carry out such repairs and maintenance to the satisfaction of the Engineer. If at any time, the Engineer draws the Contractor's attention to a road section which requires maintenance, the Contractor shall promptly repair the section. The Contractor shall be legally responsible for any accident or damage attributable to his failure to maintain the road.

904 CONSTRUCTION OF DEVIATIONS

a) General

In addition to requirement of this clause, the maximum length of deviation road shall be restricted to 5 Kms at any given time unless otherwise instructed. The Contractor shall construct and complete deviations to the satisfaction of the Engineer before commencing any permanent work on the existing road. Also during these works the contractor is supposed to provide a detour of adequate pipe culverts for pedestrian and traffic crossing where there is bridge works.

Contractor will be allowed to open further 5 Km of the deviation road only when 80% of the permanent work has been completed on first one and he will not be allowed to open further 5 Km till he has completed first 10 Km of the road and has it opened to traffic.

Where the old road exists near the main road, Contractor shall use this road as deviation road.

b) Geometry

The carriageway width of the deviations shall not be less than 6.5m wide and suitable for 2-way lorry traffic unless otherwise specified.

c) **Construction**

Unless otherwise instructed gravel wearing course for the deviation shall be 150 mm compacted thicknesses complying with section 10 of the Standard Specification. The Contractor shall allow in his rate for removal of any unsuitable material before placing of gravel wearing course, as this will not be paid for separately.

In addition to provision of this clause, Contractor is required to sprinkle water at least 4 times a day at the rate of 1 - 1.4 litres/m² in regular interval to minimise the effects of dust. Latest sprinkling time shall be one hour before the sunset.

906 PASSAGE OF TRAFFIC THROUGH THE WORKS

The Contractor shall arrange for passage of traffic through the works during construction whenever it is not practicable to make deviations. The contractor shall be reimbursed in accordance with the standard specifications.

Any damage caused by passing traffic through the works shall be made good at the contractor's own cost.

907 SIGNS, BARRIERS AND LIGHTS

Contractor shall provide signs, barriers and lights as shown in the drawings at the locations where the traffic is being carried off the existing road to the deviation and back again to existing road. The Contractor shall provide ramps and carry out any other measures as instructed by the Engineer to safely carry traffic from the road to deviation.

Contrary to what has been specified in this clause the road signs provided shall be fully reflectorised and in conformity with clause 9.1 of the "Manual for Traffic Signs in Kenya Part II".

909 ASSISTANCE TO PUBLIC

In addition to provision of clause 909, Contractor shall maintain close liaison with the relevant authorities to clear any broken down or accident vehicles from the deviations and the main road, in order to maintain smooth and safe flow of the traffic.

912 MEASUREMENT AND PAYMENT

(a) **Passage of traffic through the works**

Payment shall be made on Lump Sum basis.

(b) **Maintenance of existing road**

The Contractor will be paid by the cubic metre of compacted gravel used to maintain existing road.

(c) **Construct Deviation**

(i) **Road Deviation**

The Contractor shall be paid only 50% of the rate for this when he completes deviation road to the satisfaction of the Engineer. The balance shall be paid in equal monthly instalments over the contract period, as he satisfactorily maintains the deviation (as per clause 904 and 905 above) when it is in operation.

(ii) **Deviation using Pipe Culverts**

The Contractor shall be paid only 50% of the rate for this when he completes deviation to the satisfaction of the Engineer. The balance shall be paid in equal monthly instalments over the contract period, as he satisfactorily maintains the deviation when it is in operation. The Contractor shall be paid full amount when the bridge under construction will be in use.

(d) Assistance to Public

The Contractor will be deemed to have included cost of this item in other items and no separate payment shall be made.

SECTION 11 – SHOULDERS TO PAVEMENT

1101 GENERAL

Shoulders shall be constructed to a width of 1.0m, to the same standard as the carriageway in accordance with sections 12, 14, 15 and 16 of the specifications as appropriate.

SECTION 12 - NATURAL MATERIAL SUBBASE AND BASE

1203 MATERIAL REQUIREMENTS

Natural materials for base and subbase shall conform to the specifications given in Section 12 of the Standard Specifications for cement or lime improved base and subbase.

1209 MEASUREMENT AND PAYMENT

Natural material for subbase and base shall be measured by the cubic metre placed and compacted upon the road calculated as the product of the compacted sectional area laid and the length.

The method of measurement shall be “method - A” as in the standard specifications.

No extra payment will be made for haulage of gravel material as the overhaul costs shall be deemed to have been factored in the rates inserted in the Bills of Quantities.

SECTION 14 : CEMENT TREATED MATERIALS

1401 CEMENT TREATMENT**a) Cement**

Cement for stabilisation will be **Ordinary Portland Cement** complying with clause 207 of the Standard Specifications. The cement content of the treated material shall be as indicated by the Engineer and will normally be about 2-4%. The Engineer shall exercise his discretion to any variation in the rate of application of the cement, which he may see fit to order from time to time.

b) Lime treatment

Lime treatment will be as outlined in the Standard Specifications for road and bridge construction. The lime content of the stabilized material shall be as indicated by the Engineer and will normally be about 1.5 - 3%.

c) Moisture content

The moisture content of the treated material shall be as directed by the Engineer but nevertheless within the range of 95% to 105% of the Optimum Moisture Content (AASHTO T180).

d) Mixing and Placing

The material to be treated and the cement shall be mixed by an approved mixing plant (pulvimixer).

1409 PROTECTION AND CURING

Protection and curing shall be carried out in accordance with the provisions of Clause 1409(i) of the Standard Specification but provision shall be made to wet the surface from time to time as directed by the Engineer.

1412 MEASUREMENT AND PAYMENT**Stabilizer**

The provision of the stabilizer shall be measured by the tonne calculated as the specific weight of stabilizer added to the material.

Mix-in stabilizer

Mixing stabilizer into the material shall be measured by the cubic metre of treated material calculated as the product of the compacted sectional area treated and the length.

SECTION 15 - BITUMINOUS SURFACE TREATMENTS**PART A - GENERAL****1501A GENERAL**

Details of the spray rates for bitumen and the spread rates for chippings will be directed by the Engineer but the under listed is anticipated and can be used for guidance purpose i.e.

a) Chippings

14/20mm size chippings .

PART B - PRIME COAT AND TACK COAT**1502B MATERIALS FOR PRIME COAT AND TACK COAT.**

For prime coat, the binder shall be a medium-curing cutback MC 30 unless otherwise directed by the Engineer.

The rate of spray of bituminous prime coat refers to the gross volume of the cutback bitumen, that is to say the volume of the bitumen plus dilutants.

The rates of spray of the prime coat shall be as instructed by the Engineer and shall generally be within the range 1.0-1.2 litres/square metre

Prime coat shall be applied to all gravel areas that are to receive double seal surface dressing or bituminous mixes as directed by the Engineer.

The tack coat shall consist of bitumen emulsion K1-60 unless otherwise directed by the Engineer.

The rates of spray of the tack coat shall be as instructed by the Engineer and shall generally be within the range 0.5-0.8 litres/square metre.

SECTION 16 - BITUMINOUS MIX BASES, BINDER COURSES AND WEARING COURSES**PART B - ASPHALT CONCRETE FOR SURFACING****1601B DEFINITION**

Asphalt concrete shall be of Type I (High Stability).

1602B MATERIALS FOR ASPHALT CONCRETE TYPE 1**a) Type of bituminous material**

The type of material to be used on severe sites will be of the continuously graded type similar to Asphaltic Concrete or Close Graded Macadam. It is essential that these materials are sealed with a single or double surface dressing or a Cape seal.

b) Penetration Grade Bitumen

Bitumen shall be 80/100 penetration grade.

c) Aggregate

Coarse aggregate shall be entirely crushed, of class c and it shall comply with the requirements given in Table 16B-1 (b) below for 0/14mm asphalt concrete type I wearing course

TABLE 16B-1(b) - REQUIREMENTS FOR COARSE AGGREGATE

Coarse Aggregate (Retained on a 6.3mm Sieve)	
Test	Maximum Value
LAA	40
ACV	30
SSS	12
FI	25

d) Mineral Filler

Mineral Filler shall consist of Ordinary Portland Cement or hydrated lime

1603B GRADING REQUIREMENTS

The grading of the mixture of coarse and fine aggregate shall be within and approximately parallel to the grading envelopes given in Table 16B-1 for 0/14mm asphalt concrete type I wearing course in the standard specification

1604B REQUIREMENTS FOR ASPHALT CONCRETE TYPE 1

The mixture shall comply with the requirements given in Table 16B-2 for type 1 binder course as specified in the Standard Specification. In addition, minimum Marshall Stability for 2 x 75 blows shall be 9 kN and maximum 18 kN and at compaction to refusal shall have 3% VIM.

The proportion, by weight of total mixture, of bitumen shall be 4.5 – 6.5 % for 0/14mm. This shall be termed the nominal binder content. The binder content of the working mix will be instructed by the Engineer following laboratory and site trials.

1605B MIXING AND LAYING HEAVY DUTY ASPHALT

The temperature of the bitumen and aggregates when mixed shall be 110+/-3°C above the softening point (R&B) of the bitumen.

Compaction should commence as soon as the mix can support the roller without undue displacement of material and completed before the temperature of the mix falls below 90°C.

The minimum thickness of individual layers shall be 25mm

1606B COMPACTION

Rolling shall be continued until the voids measured in the completed layer are in accordance with the requirement for a minimum density of 98% of Marshall optimum, or, a minimum mean value of 95% of refusal density (no value less than 93%) as appropriate.

1607B MEASUREMENT AND PAYMENT

- a) Item : Asphalt Concrete type 1
Unit : m³ of Asphalt Concrete Used

Asphalt concrete shall be measured by the cubic metre compacted on the road calculated as the product of the length instructed to be laid and the compacted cross-sectional area shown on the Drawings or instructed by the Engineer.

The rate for asphalt concrete shall include for the cost of providing, transporting, laying and compacting the mix with the **instructed** binder content and complying.

SECTION 17 - CONCRETE WORKS

1703 MATERIALS FOR CONCRETE

All materials shall comply with the requirements of section 1703 of the standard specifications.

Cement for all concrete works shall be **Ordinary Portland Cement**.

1703 DESIGN OF CONCRETE MIXES

The following classes of concrete shall be designed and mix proportions approved for use as follows:

- Class 15/20 for all blinding to structures and precast pipe culvert beds and surrounds
- Class 25/20 for all culvert headwalls, wingwalls, aprons, toewalls, and bridge members; abutments, piers and Deck
- Class 30/20 for bridge superstructure beams

Specifications for construction materials and quality control shall be in accordance with the standard specifications.

1713 FINISHES ON UNFORMED SURFACES

All unformed surfaces shall be finished to class UF 3 Finish in accordance with the standard specifications

1725 SURFACE FINISHES

All surfaces shall be finished to class F3 finish in accordance with the standard specifications.

1728 REINFORCEMENT FOR CONCRETE

All reinforcement to concrete shall be hot rolled high yield deformed bars complying with BS 4449 and steel mesh fabric to BS 4483

1741 MEASUREMENT AND PAYMENT

a) Item: Concrete

Amend clause 1741 (a) (iv) of standard specifications to read “class UF 3 finish”

b) Item: formwork for formed surface finishes

Amend the following to Clause 1741 (e) of the Standard Specification:

Unit m² of formwork shall cover inclined formwork of all slopes and angles.

SECTION 20 - ROAD FURNITURE

2001 ROAD RESERVE BOUNDARY POSTS

Road reserve boundary posts shall be provided as directed by the Engineer and in compliance with Standard Specification clause 2001. They shall be placed at 100m intervals along the boundary of the road reserve.

2003 EDGE MARKER POSTS

Edge marker posts shall be Verge Master MK 111 plastic posts manufactured by Glasdon Ltd. of Blackpool UK. They shall be provided as directed by the Engineer and in compliance with the requirements of Standard Specification clause 2003

2004 PERMANENT ROAD SIGNS

Permanent Road Signs shall be provided as directed by the Engineer and in compliance with the requirements of the "Manual for Traffic Signs in Kenya" Part II and standard Specification clause 2004.

The posts for the signs shall be cylindrical galvanised wrought iron tubes of minimum 75mm diameter and vandal-proofed by in-filling with concrete class 15/20.

The sign plates shall be made from approved metal or plastic sheet 3mm thick and vandal-proofed by the drilling of 3mm diameter holes at 100mm centres

The rate inserted for the signs shall include for all the costs of complying with this clause.

2004B EXISTING ROAD SIGNS

Where directed by the Engineer, the Contractor shall take down road signs including all posts, nuts, bolts and fittings, and remove and dispose of the concrete foundation and backfill the post holes. The signs shall be stored as directed by the Engineer.

Measurement and payment for taking down road signs shall be made by the number of signs of any type and size taken down, cleaned and stored as directed.

2005 ROAD MARKING

Paint for road marking shall be internally reflectorised hot applied thermoplastic material in accordance with Clause 219 of the Standard Specification.

The rates inserted in the Bills of Quantities for road marking shall include for prior application of approved tack coat.

2006 GUARDRAILS

Guardrail posts shall be concrete 210 x 210 mm set vertically at least 1.2m into the shoulder as per the drawings and as directed by the Engineer.

Beams for guardrails shall be "Armco Flexbeam" or similar obtained from a manufacturer approved by the Engineer.

“Swareflex” ART 3240 or similar approved guardrail reflectors two way reflective one side red and another white shall be installed on the flex beams every 4m.

The rate inserted shall include for provision of the flex beams, posts, swareflex reflectors, flex beam end bits and installation in accordance with the standard specifications and drawings.

2007 KERBS AND GUTTER

Works included under this Section shall comprise the provision and installation of precast -concrete kerbs at locations and of dimensions shown on the Drawings or as instructed by the Engineer, all in accordance with the requirements specified or referred to herein and to the Engineer's satisfaction.

20.07.1 MATERIALS

20.07.1.1 KERBS

Precast concrete kerbs shall comply with the requirements of Section 5.2: PRECAST CONCRETE and BS 340. Concrete Class 25 shall be used.

20.07.1.2 BEDDING AND BACKING CONCRETE

Bedding and backing concrete shall be Class 15, complying with the requirements of Section 5.1 : CONCRETE, and the kerbs shall be jointed with a 1:3 cement/sand mortar, of materials and preparation in accordance with the requirements of Section 5.3 ; CEMENT MORTAR.

20.07.2 CONSTRUCTION REQUIREMENTS

- a) Precast concrete kerbs shall comply with BS 340 and shall be constructed, in accordance with Section 5.2: PRECAST CONCRETE, to the sizes shown on the Drawings.
- b) Kerbs shall be laid true to the required line and level as directed by the Engineer and shall be bedded and jointed with a 1:2 cement mortar on a base of concrete Class 15, 300 mm wide by 20 mm deep.
- c) Kerbs shall be backed by a 150 mm by 150 mm fillet of concrete Class 15. Any unit which is found to be more than 5 mm out of the required line or level shall be lilted and relaid at the Contractor's expense.

(a) Vertical Joints

Vertical joints between adjacent kerbs shall not be greater than 5 mm in width and shall mortar consisting of 1:3 cement: sand by volume.

(b) Transition between flush and raised kerbs

The transition between flush and raised kerbs (e.g. at bus bays) shall be termed as ramped kerbs and shall occur within a length of 2.0m

2008 KILOMETRE MARKER POSTS

Kilometre marker posts shall be provided as directed by the Engineer and in compliance with Standard Specification Clause 2008.

2011 BOLLARDS

Where directed by the Engineer, the contractor shall provide and install class 20/20 200mm diameter reinforced concrete bollards concreted 300mm into the ground.

SECTION 21 – MISCELLANEOUS BRIDGE WORKS**2102 BRIDGE BEARINGS**

Bridge bearings shall be elastomeric bearings as shown on the drawings and installed in accordance with the manufacturer's details and the standard specifications.

2103 BRIDGE BEARINGS

These shall be done as shown in the drawings and in accordance with the Standard Specifications

SECTION 22-DAYWORKS

2202 MEASUREMENTS AND PAYMENT

(a) Plant

Where items of major plant listed in the schedule of Dayworks are specified by type (e.g. Concrete mixer etc.) the power rating of such items of plant provided by the Contractor shall not be lower than the power ratings of such plant manufactured within the last two years prior to the date of BID. Any item of major plant employed upon Dayworks that has a power rating lower than specified above shall be paid for at rates lower than those in the schedule of Dayworks. The reduction in the rate payable shall be in proportion to the reduction in power rating below that specified above.

SECTION 22-DAYWORKS

23.01 INTERLOCKING CONCRETE BLOCK PAVEMENT

A This item shall consist of interlocking concrete blocks of the type and dimension indicated on the drawings, furnished and placed at the locations and areas as shown on the drawings or required by the Engineer, in accordance with this specification.

23.01.1 Reference

A Standard Test Method

ASTM C 33 Standards for Concrete Aggregates

BS 1881 Method of Testing Concrete - Part 4

23.02 Concrete Blocks

- A The concrete blocks shall be hydraulically pressed in accordance with the cement and concrete association specifications for precast concrete paving blocks. The aggregates used shall conform to ASTM C-33 or equivalent.
- B The blocks shall have a chamfered edge and shall be of the type, dimensions and colour as shown on the applicable drawings.
- C Laying pattern of the blocks shall be as shown on the drawings including the use of starter and half paving blocks.

23.03 Bedding Sand

- A Sand for bedding below shall be well graded. Not more than 10%, consisting of sharp sand or crushed rock shall retain on ASTM sieve No.4 (4.75 mm). Clay, silt and fine dust content shall be not more than 3% by mass. Sand shall be free from deleterious salts and contaminants.
- B The following grading has been found to give satisfactory results.

ASTM Sieve % Passing

No. 4 (4.75 mm) 90 – 100

No. 8 (2.36 mm) 75 – 100

No. 16 (1.18 mm) 55 - 90

No. 50 (.30 mm) 8 - 30

No.100 (.15 mm) 0 – 10

- C Sand for joints must be clean and dry, 100% passing ASTM sieve no. 16 and not more than 10% passing ASTM sieve no. 200.

23.04 Testing

- A Before delivery 10 blocks of each lot of 5000 blocks shall be tested.
- B The mean compressive strength of the blocks shall be not less than 45 N/mm², no single value shall be less than 40 N/mm². Testing shall comply with BS 1881.

The compressive strength is:

1.18 x max. applied load (N) plan area, including chamfers (mm²)

- C Prior to testing the blocks shall be stored in water at a temperature of 20°C ± 5°C for at least 24 hours.
- D Load increase of stress during test shall be 15 N/mm² per minute. Blocks shall be packed in 4 mm thick plywood.
- E Water absorption, when tested according BS 1881 shall be not more than:
 - 2% absorption after 10 minutes;
 - 5% absorption after 24 hours.
- F Maximum permissible variations in dimensions are as follows:
 - length: ±2 mm of the nominal specified length
 - width: ±2 mm of the nominal specified width
 - thickness: ±3 mm of the nominal specified thickness.

23.05 Construction Method

- A The blocks shall be laid and embedded on approved and compacted sandfill to the correct level, grade and crossfall, so that when tested with a 3 metre straight edge, placed in any direction of the paving, the maximum deviation shall not exceed 10 mm.

The difference in level between two adjacent blocks shall not exceed 2 mm.
- B Deviation from the specified level shall not exceed 6 mm.
- C Deviation from the specified level of the top of the granular subbase shall not exceed 20 mm.
- D Edge restraints must be complete, adequately bedded and haunched and must be to the required level. Hunching to gullies, manholes and the inside face of edge restraints must be vertical so that pavings do not "ride-up" when compacted.
- E The first part of the bedding shall consist of a compacted layer with a thickness of approximately 35 mm. The second part shall be a uniformly loose layer with sufficient surcharge to give the required finished levels and an overall bedding thickness of 50 mm.

Subject to approval of accuracy and regularity of the finished paving, the bedding may be laid in a single layer.

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- F Bedding sand must not be delivered to the working area over the uncompacted paving. Pedestrian or wheeled traffic is not allowed over the bedding course.
- G Stockpiled bedding material must be protected against saturation by heavy rainfall.
- H Starting from an edge restraint blocks must be laid handtight with a joint width of 2-5 mm, mechanical force to obtain tight joints is not allowed. Blocks must be placed squarely with a minimum disturbance to the bedding.
- I Blocks must be supplied at least 1 metre back from the laying face. Plant is not allowed to traverse areas of uncompacted paving.
- J The alignment of pavers must be checked continually with string lines to ensure maintenance of an accurate bond.
- K Wherever the type of bond and angle of edging permit, small infill pieces at edges must be avoided by breaking bond on the next course on from the edge using cut blocks not less than 1/3 full size.
- L Non-compacted areas of paving must be protected from heavy rainfall.
- M Paving must be thoroughly compacted with a vibrating plate compactor as laying proceeds but after infilling of edges. Complete area except 1 m of any unrestrained edge must be compacted at the end of a working day.
- N Vibrating compactor to be used:
Plate area: 0.35 to 0.5 m²;
Force range: 75 to 100 kN/m²;
Frequency range: 75 to 100 Hz.
- O Paving must be checked after compacting the first few metres and at regular intervals to ensure that surface levels are as specified, if not, pavers must be lifted and relaid.
- P Sand for joints must be brushed-in

**SECTION XIV:
Performance Specification**

14 Performance based Routine Maintenance Services

14.1 Scope of Services to be provided

The services to be provided by the Contractor include all activities, physical and others, which the Contractor needs to carry out in order to comply with the Service Levels and other output and performance criteria indicated in the contract, or with any other requirements of the contract. In particular, they include management tasks and physical works associated with the following road-related assets and items:

- Inspect road, identify and remove all obstructions
- Clear side drains, mitre drains, cut-off drains
- Repair and replace scour checks
- Repair eroded ditches
- Clean cross culverts, access culverts, outlets and inlets
- Headwall repairs
- Clear stream channels
- Vegetation control: grass slashing, bush clearing, tree pruning
- Maintenance and minor repairs to box culvert.
- Light Grading
- Spot gravelling

Performance based routine maintenance services will be paid for as a fixed **lump sum per km per month, with payment reductions made for non-compliance**, if appropriate.

14.1.2 Description of Project Road

The project road is Located in Meru National Park. The road surface is to gravel/earth standards. The road traverses generally flat terrain for the section around the lake .The road is served with several cross drainage structures i.e box culvert and several concrete pipe culverts.

14.1.3 Rehabilitation and improvement works

Repairs and Maintenance works will be carried out by the Contractor when specifically instructed by the Project Manager. Activities include:

- Drainage works: replacing and installation of pipe culvert rings, constructions of drifts and box culverts etc
- Earthworks
- Gravelling Works
- Heavy Grading and formation of lost camber.
- Road furniture maintenance
- Installation of Gabion boxes

Repairs and maintenance works will be paid for as measured items in accordance with the unit rates in the Bill of Quantities

14.1.4 Emergency Works

Emergency works, by definition, are unforeseen at the time of preparing the contract. Severe weather conditions such as unusually high rainfall can lead to flash floods which may cause wash-outs and other damage to the carriageway and other features of the road and its corridor. While specific items of work are not known at the start of the Contract it is prudent to include some general items which are indicative of the type of works that may be required. These have been included in the Bill of Quantities for Repairs, Maintenance and Emergency Works as they will probably be the same items, e.g. repairs and maintenance under an emergency situation. The

quantities are nominal as they cannot be defined in advance.

In the event of an emergency the Contractor should draw to the attention of the project manager that certain works need to be carried out to repair the carriageway and other road features to restore the safe passage of traffic along the road and ensure the integrity of the road and its corridor. The Contractor shall give the project manager an estimate of the extent of the required activities and an estimate of the costs based on the unit rate provided in the Bill of Quantities at the time of tender. The project manager will consider the information and instruct the Contractor to carry out such works as are necessary.

Emergency works will be paid for as measured items/day works in accordance with the unit rates in the Bill of Quantities.

14.2 Quality of Materials to be used

Notwithstanding the provisions of Clause 30 of the General Conditions, the materials used by the Contractor shall comply with or exceed the following quality criteria:

*The contractor shall source for himself all the **different types of materials** likely to be needed by the Contractor such as for concrete and steel used in structures, gravel, laterites, asphalt, paint, etc., and the minimum **quality criteria** for each of those materials]*

The Contractor is informed of there exist any previously used borrowing pits and or extraction sites in or outside the park which may be used to extract materials:

*The location of such gravel borrowing pits and other sites where suitable materials are known to exist which may be extracted by contractor shall be shown. If available, **qualities** of materials will have to be determined against the specification and approved by the Engineer for its suitability for use for con before , with disclaimer. Indicate the **conditions for extraction**, especially the type of additional permits needed, if any, and payments to be made, if any.]*

Prior to the extraction of materials for use on the roads included in the contract, the contractor is obliged (i) to carry out the laboratory tests necessary to determine the quality of the materials, and (ii) to satisfy himself that the quality of the materials is sufficient for the purpose intended.

The Contractor may also utilize materials from other sources, in conformity with the GC, provided that (i) the extraction is in conformity with the legislation, (ii) he has informed the Employer of his intention to utilize the material, and (iii) he has satisfied himself as to the sufficiency of the technical characteristics and the quality of the materials he intends to use for the intended purposes. Under no circumstances may the Contractor make any claims based on the insufficient quality of any of the materials he has used.

14.3 Establishment of Self-Control Unit

In PBC, the maintenance work is not performed based on the instruction of the Engineer's Representative.

Instead, under clause 25.2 of GCC, the contractor is obliged to establish within its organization a Self-Control Unit SCU staffed with qualified personnel to support the Road Manager in gathering the information needed by the contractor to manage the works and services, and prepare the Monthly Statement as well as having a complete knowledge of the road condition, both on and off carriageway, at all times. The contractor must establish the Self-Control Unit after the award of the contract.

The Self-Control Unit is a team within a contractor responsible for supervision of service levels of the roads while the execution unit is responsible for implementation of the work on site. The unit will also be responsible for carrying out, in close cooperation with the project manager, the formal and scheduled inspections of Service Levels which will take place regularly. The compliance (or non-

compliance) of the Contractor with the service level requirements will be reported by the Self-Control Unit to the Project manager in the form of Table 2.3, given below.

The Road Manager can be the Self-Control Unit leader in small contracts. However in cases of large contracts SCU is independent of Road Manager.

14.3.1 Communications Equipment

The Contractor is to provide and maintain in operation permanently a mobile phone for himself and his road manager on site, whereby the project manager may contact them at any time.

14.3.2 Site Regulations, Health and Safety Measures and Work Procedures

The Contractor shall prepare and submit to the project manager, for approval, his proposed site regulations, health and safety measures (including HIV/AIDS mitigation measures), and Environmental Mitigation Plan and work procedures.

14.3.3 Functions of Key Personnel

The Contractor will provide as a minimum the following permanent key personnel:

- **Project director** – the owner, director or senior manager of the company to oversee all contractual and operational functions of the contract.
- **Road manager** – site agent to head the self-control unit and direct and oversee the day-to-day planning and site operations of the contract including staff and public safety issues, the free flow of traffic, liaising with the public and reporting to the project manager. He will also decide what works have to be carried out and supervise the labour force to ensure quality and adherence to the service levels, as well as other the duties
- **Self-Control Unit**

The roles of the SCU are;

Self-inspection to verify the degree of compliance with the required service levels and preparation of PBC inspection record

Patrol

Assessment of the road

Generation and presentation of the information requested by the Road Manager for the documentation required for the monthly statement.

Formal Inspection together with Road Manager and Project Manager

Table 14-1: Typical Tasks of Self-Control Unit

Stage	Tasks	Reports
Plan	Site condition assessment Development of Work Execution Plan	Report for site condition assessment of the road
Do	Data Collection/ Reporting/ Communication with the client Communication with road users	Daily Work Record (Appendix7 of the PBC Guideline) Patrol Record (Appendix8 PBC Guideline) Photo Record (Appendix 9 PBC Guideline) Incident Report (Appendix10 PBC Guideline)

Check	Self-inspection Formal and Ad hoc inspection Development of Draft Monthly Statement	Defect Detection and Rectification List(Appendix 11 PBC Guideline) Self-Inspection Result Report(Appendix 12,13 PBC Guideline) Draft Payment Reduction Calculation Table(Appendix 14,15 PBC Guideline) Draft Monthly Statement(Appendix 16 PBC Guideline)
Action	Remedy action to Non-compliance	Remedial work report

The roles could be done by the same person, depending on the size of the firm.

- Execution Unit

The roles of execution unit include;

- ◆ Execution of works
- ◆ Quality control testing required for the rehabilitation works, improvement works and emergency works
- ◆ Progress control
- ◆ Executing BoQ works

14.4 Program of Performance

In accordance with clause 17.2 of the General Conditions (GC), the Contractor shall submit a Program of Performance within Fourteen (14) days after the signing the contract agreement. The program shall include, but not be limited, to the following items:

14.4.1 Contractor's Quality Assurance Plan

The purpose of the Contractor's Quality Assurance Plan is to integrate the requirements of the contract and the Contractor's quality assurance systems to deliver the Services.

The Contractor's Quality Assurance Plan describes the methods and procedures which the Contractor will apply for the execution of the Contract, including how the contractor will:

- a) identify the quality requirements specific to the contract,
- b) plan and execute the work to satisfy those requirements
- c) inspect and/or test the work to ensure compliance with the quality requirements
- d) record and monitor the results as evidence of compliance, and
- e) ensure that prompt action is taken to correct non-compliance.

The Contractor's Quality Assurance Plan must clearly describe the systems, procedures and methods that will be used to deliver and monitor compliance of the Services.

14.4.2 Health and Safety Management Plans

If required in the Special Conditions of Contract (PC) the Program of Performance shall include a Health and Safety Management Plan.

The purpose of the Health and Safety Management Plan is to foster a responsible attitude towards occupational health and safety and to comply with the provisions of the *Public Health Act Cap.242, Occupational Safety and Health Act, No. 15 of 2007 and the Work Injury Benefits Act, No. 13 of 2007 and* Hospital insurance fund

Because of the nature of the Services, the Contractor may occasionally be exposed to hazardous situations which could involve risk of various degrees of harm, to the contracting staff and/or the public. Situations will arise when it is not practical to eliminate or isolate significant hazards. In these situations the hazards must be minimized by ensuring planned protection systems (e.g. equipment, clothing) are actually used.

The Health and Safety Management Plan must be complied with by the Contractor's personnel and all subcontractors at all times. The Health and Safety Management Plan shall, when implemented in accordance with the plan requirements:

- a) Ensure the systematic identification of existing and new hazards on the work site(s)
- b) Ensure the minimization of significant hazards, where elimination and isolation are both impractical
- c) Ensure the provision and use of appropriate protective measures
- d) Include emergency procedures for dealing with accidental spillage, pollution or imminent danger
- e) Ensure regular review and assessment of each hazard identified and monitor employees exposure to these hazards
- f) Ensure reporting and recording of work site safety incidents so health and safety problems can be addressed quickly and regularly. It is a requirement of this Contract that any such incident be advised promptly to the Project Manager.

The Delivery Time for the initial Health and Safety Program shall be not later than **14** days after the Start Date.

14.4.3 Emergency Procedures and Contingency Plan

The Program of Performance shall include an Emergency Procedures and Contingency Plan which shall establish the roles, practices and procedures during specific types of emergency events identified in the plans and contingency plans associated with the closure of roads. The Emergency Procedures and Contingency Plan must be developed by the Contractor and agreed with the Project Manager and any other stakeholders the Project Manager may identify.

The purpose of the Emergency Procedures and Contingency Plan is to ensure the safety of the contractor's personnel and road users in the case of emergency and/or road closure. It should include:

- a) an effective communication and event recording system
- b) the name, contact number and specific duties of the contractor's personnel nominated to respond to an emergency event
- c) the contact number of other parties who need to be notified in cases of emergency events, e.g. police
- d) detailed response procedures for all emergency events
- e) possible detour routes in the event of road closure

The Delivery Time for the initial Emergency Procedures and Contingency Plan shall be not later than 14 days after the Start Date.

14.4.4 Traffic Management Plan

If required in the Particular Conditions (PC) the Program of Performance shall include a Traffic Management Plan. The Traffic Management Plan establishes the practices for traffic management at work sites. The Traffic Management Plan must be developed by the Contractor and agreed with the Project Manager. The objectives of the Traffic Management Plan are to:

- a) clearly define and document the responsibilities and chain of command for the development, implementation and management of traffic control measures and systems
- b) establish the minimum requirements for temporary traffic control
- c) establish the minimum geometric, cross section and surfacing standards for temporary works
- d) provide appropriate transitions and enable safe and efficient traffic flow into, through and out of work sites
- e) protect the Contractor's personnel at all times
- f) protect the Assets and the Contractor's resources at all times.
- g) meet the operational requirements for the road

The Traffic Management Plan must include at least the following:

- a) A documented process for preparation, review and approval of the Traffic Management Plan
- b) A document tracking and control system to ensure that only the latest operative copy of the Traffic Management Plan is in circulation
- c) Contact details for Contractor, Road Manager, emergency services and other stakeholders
- d) Layout diagrams, method statements etc for implementation of traffic control while undertaking each aspect of the Services (including site specific layout diagrams and method statements if the Services require traffic control measures not covered by standard codes of practice)

14.4.5 Updating of Road Administration Databases

The Road Administration currently operates the following data associated with the assets being maintained under this contract, either electronically or on paper. The employer has attached as *a minimum the road condition survey data collected for the preparation of the PBC part of the bidding document.*

The Contractor shall supply all information necessary to maintain this data in a condition of accuracy, currency and completeness appropriate to the users for which the data is intended.

The Contractor shall provide hard and/or electronic copies of the information to the Road Administrator as reasonably requested.

The delivery times and updating frequencies shall be every 3months

14.4.6 Handover Report

Immediately prior to the completion of the contract the Contractor shall prepare a *Handover Report*. The purpose of the Handover Report is to provide a smooth transition to the next contract and ensure that the next contractor is aware of any outstanding issues. The Report will:

- (a) Summarize any unresolved issues;
- (b) Include the most recent complete set of data on the roads covered by the contract, and
- (c) Provide the following details:
 - (i) A schedule of outstanding defects and liabilities
 - (ii) Any unresolved issues, especially those that may impact on the next Contractor
 - (iii) Details of any sensitive issues
 - (iv) Any ongoing special monitoring/maintenance needs.

14.5 Specification for Service Levels for Road durability and User Comfort

The Contractor is responsible for ensuring that the road roughness is below the threshold values, given in the table below, must ensure that all drainage elements and structures are without any obstructions which may reduce their normal cross-section and impede the free flow of water.

Table 14-2: Specification for Service Levels

ITEMS	Standard		
	Service Levels	Time allowed for repairs and others	Permissible Tolerances
ROAD USABILITY			
A) Road Usability			
1. Passability	The Contractor must ensure the entire road length provides passability of traffic	Maximum non passability of 24hours after detection	No tolerance permitted
2. Traffic Regulatory Control Signs	Not applied	Not applied	Not applied
3. Road Works Advance warning signs	- Warning signs must be placed when cleaning works are required to be undertaken	within 12 hours after detection of defects or materials washed on to the road	No tolerance permitted
4. Average Traffic Speed or Roughness (only used if	- Average Traffic Speed 45km/hr (Equivalent to IRI of 15) using a 4WD pickup (TOYOTA Hilux*)	5 days after detection.	*The Contractor must ensure that the standard vehicle defined in the Specifications is

ITEMS	Standard		
	Service Scope	Service Levels	Time allowed for repairs and others
Roughness is measured, and bump integrator is not available) Note –Roughness represents an average value of road surface levels which is in effect also measured through a number of other Service Levels	comfortably without causing any damage. (The road must at all times be kept to an acceptable level of smoothness. The IRI shall not exceed the specified level. For each one-km section the IRI shall not exceed 15 *Definition of a standard vehicle for use in checking compliance should be specified in the contract.		able to circulate in a safe manner on the road at a specified minimum average speed. The section will then be travelled in a normal and safe fashion, in a vehicle provided by the Contractor and driven by a driver provided by the Contractor. The driver must at all times respect the traffic regulations, in particular a maximum speed limit. The time for unforeseen stops which are unrelated to the road condition (such as checkpoints, breakdowns or other incidents) is to be deducted from the overall travel time.
5.Minimum Traffic Speed	-Minimum traffic speed 30km/hr The Contractor has to ensure that the standard vehicle (with the 4WD disengaged) is able to circulate in a safe manner on the road and such that the road surface conditions never constrain the vehicle speed to fall below the specified minimum speed on any point on the road surface in a one-km section.	5 days after detection.	No tolerance permitted
ROAD USER COMFORT			
B) Pavement, Shoulders and ROW			
1. Cleanliness of the Road	The road must always be clean and free of soil, debris, trash and other objects, which must be removed within the time given if:	within 2 hours after detection	i) No tolerance permitted in respect of objects posing danger to traffic safety.
	- they pose a danger to traffic; such as rocks, fallen trees, dead animals, abandoned vehicles, fly tipping and other large obstacles etc. material washed on to the road after storms/slides	within 2 hours after detection within 1 week after detection	ii) In case of no danger to traffic safety, the permitted maximum length of the road below the defined service level does not exceed more than 5 percent in any sub-section of 200 m length Example. [Say A sub-section is 200 m long The length below the defined service level must not exceed 10m in the sub-section.

ITEMS	Standard		
	Service Levels	Time allowed for repairs and others	Permissible Tolerances
ROAD USER COMFORT			
B) Pavement, Shoulders and ROW			
2. Corrugation amplitude	Maximum amplitude = 3.0 cm Maximum amplitude at any single point of the road measured anywhere in a one-km section shall not exceed the stated value.	-within 2 weeks after detection	The permitted corrugated area does not exceed 5 percent of the area in any sub-section of 200m length.
			Example [Say area of sub-section of 200 m length=7m x200m =1,400 sqm. Area of corrugation not to exceed 70 sqm in the sub-section.
3. Rut Depth	All rutting of more than 10cm must be repaired.	-within 2 weeks after detection	The permitted maximum rutted area does not exceed 5 percent of the area in any sub-section of 200m length..
	The maximum rut depth measured anywhere on a one-km section shall not exceed the stated value.		Example [Say area of sub-section of 200 m length=7m x200m =1,400 sqm. Area of rutting not to exceed 70 sqm in the sub-section.
4. Potholes	Maximum permitted area of any single degradation in a one-km section of dia 35cm, depth 5cm. Maximum permitted area in a one-km section measured in any 30m road length selected by the Project Manager = 1.0 m ² . For each one-km section of road i) no individual degradation shall have an area greater than the value specified and/or ii) the total area of degradations in any 30m section selected by the Project Manager shall be less than the value specified	-within 2 weeks after detection	The permitted maximum area does not exceed 5 percent of the area in any sub-section of 200m length.

ROAD DURABILITY			
C) Drainage			
1. Side Drains, Mitre Drains, Cut off drains	Must be clean and free of obstructions to ensure free flowing conditions at all times	Siltation/Obstruction must be cleared within 2 weeks after detection - Tolerance; Minimum depth of drains of 30cm. - Damage which jeopardize functionality or safety of structure or poses danger to traffic must be repaired within 4 weeks	The permitted maximum tolerance is 5 percent of the length of drains below the defined Service Level together with descriptions indicated in Time Allowed for Repairs in any sub-section of 200 m length of the road.
		- Replace damaged drain covers and drain lining within 4 weeks after detection	
ROAD DURABILITY			
2. Culverts and Access Drifts	Must be clean and free of obstacles and without structural damage. Must be firmly contained by surrounding soil or material	-Siltation/Obstruction must be cleared within 2 weeks after detection - Damages including headwalls which jeopardizes functionality or safety of structure or poses danger to traffic must be repaired within 4 wks after detection - Tolerance; Siltation and obstruction must be less than 50mm in depth - broken culverts to be replaced in 4 weeks after detection	The permitted maximum tolerance is 10 percent of the length of culverts and access drifts below the defined Service Level together with descriptions indicated in Time Allowed for Repairs in any sub-section of 200 m length of the road.
3.Scour Checks, Gabions and other erosion protection structures	Erosion protection works must be fully functional with no serious defects that can endanger the structure, roadway or pose safety hazard to road users	Damage which jeopardizes functionality or safety of structure or poses safety hazard to road users must be repaired within 2 weeks after detection Other minor repair works to be repaired within 4 weeks after detection	
D) Vegetation			
1. Vegetation free zone	Carriageway, shoulders and structures must be kept with no vegetation.	- Height: 0mm at all times	The permitted maximum affected length does not exceed 5 percent of the any sub-section of 200 m length of the road
2. Outer/inner vegetation	-Inner veg zone, edge of road to back of side drain/ditch or 2m away from edge of shoulder on straights and outside of curves, and 5m on the inside of curves. Also control of veg around street furniture and other features.	Height: 25mm (min) to 300mm (max) at all times	The permitted maximum affected length does not exceed 5 percent of the any sub-section of 200 m length of the road.

	-outer veg zone, excluding inner zone	Height: 25mm (min) to 500mm (max) at all times	
3. Growth encroaching into vegetation free zone from the side or top	Must be removed if within 5.5m above the road surface and/or the minimum sight distance of 240m is not maintained The level applies to vegetation control including trees, scrub or branches hanging over the zone.	-within 2 weeks after detection	The permitted maximum affected length does not exceed 5 percent of the any sub-section of 200 m length of the road Ex. [Say sub-section of 200 m length and. The affected length of growth approaching into vegetation free zone from the side or top does not exceed 10m in the sub-section.
4. Trees within ROW	Trees within ROW must be protected as necessary.	At the end of the month	The permitted maximum tolerance is 5 percent of the number of trees below the defined Service Level in any sub-section of 200 m length of the road.
E Structures.			
1. Concrete structures	The concrete structures including beams must be in good condition and fully functional. Any drainage system (e.g. weep holes) forming a part of the concrete structure will be kept the same	The location and condition detected must be reported to the Client at Formal Inspection for further action.	Not Applicable
		Concrete structures pending repairs of the damaged portion maybe left on site with proper signs and safety arrangements.	
2. Expansion joints	All expansion joints must be clean and in good condition	In case of any condition which threatens structural integrity of the expansion joint, the Contractor must immediately notify the Project Manager.	No tolerance permitted
		Repairable damages and defects must be repaired within 2 weeks after detection.	However, expansion joints pending repairs of the damaged portion maybe left on site with proper signs and safety arrangements.
3. Riverbeds	1) Riverbeds must be maintained to ensure free flow of water under the bridge and up to 50 meters upstream and downstream of the river at all times	In case of any condition which threatens structural stability of the riverbed and water flow movement, the Contractor must immediately notify the Project Manager.	No tolerance permitted
	2) The design clearance of the river under the bridge must be maintained at all times	Causes for non-compliance must be eliminated within 4 weeks after water has sufficiently receded to allow working conditions	However, the damaged portion pending repairs maybe left on site with proper signs and safety arrangements.
	3) Erosion around bridge abutments and piers must be controlled with all reasonable measures at all times.		

F) Road Furniture			
1.Warning signs / Mandatory signs	All signage must be present, complete, clean, legible, reflective and firmly installed	Missing or defective signs must be replaced within 2 weeks after detection	The permitted maximum tolerance is 5 percent of the number of warning/mandatory signs below the defined Service Level in any sub-section of 200 m length of the road.
2. Information Signs, Edge marker Post, Guidance Post, Kilometre post	All signage must be present, complete, clean, legible, reflective and firmly installed	-Information signs; Missing or defective signs must be replaced within 4 weeks after detection -Edge marker post, guidance post, Kilometre post:	The permitted maximum tolerance is 5 percent of the number of information signs, edge marker posts and guide posts below the defined Service Level in any sub-section of 200 m length of the road.
		Missing or defective signs must be replaced within 4 weeks after detection	
3. Guardrails and Pedestrian rails	Guardrails must be in good condition and fully functional.	In case of any condition which threatens structural integrity of the guardrails, the Contractor must immediately notify the Project Manager. Damage and defects must be repaired within 2 weeks after detection.	No tolerance permitted
G) Profile and Road Width			
1. Gravel Thickness	The gravel thickness along the road centre-line must be equal to the design thickness.	-within 6 months after detection (1 trial hole every 50m to check the thickness)	No tolerance permitted
2. Camber	The camber must be kept at 5.0%.	-within 2 weeks after detection	±1.0%
3. Usable Road Surface Width	The road width must be kept as per the design and to the minimum width of 5.4m.	-within 2 weeks after detection	The permitted maximum length of the road, the road width of which is narrower than 5.4m does not exceed 5 percent of the length in any sub-section of 200m length. Ex. [Say sub-section of 200 m length and the length of the section narrower than 5.4m does not exceed 10m in the sub-section
H) Embankment and Slopes			
1. Embankment slopes	All embankment slopes must be without deformations and erosions	-within 2 weeks after detection	The permitted maximum tolerance is 10 percent of the length of the road with embankment slopes is below the defined Service Level at any sub-section of 200 m length of the road.
2. Slopes in Cuts	All slopes in cuts must either be stable or are equipped with adequate retaining walls	Any of observed location must be reported to the Project Manager by the contractor at earliest possible time.	Not Applicable

14.6 Timetable for Measuring Compliance with Service Level Requirements

In order to respect the Contractor's initial mobilization period, compliance with the service levels will be introduced gradually as shown in Table 9.1.

Table 14-3: Timetable for Compliance with Service Level Requirements

Contract Month	Road Safety Compliance required on %	Durability Compliance required on %
1	50	50
2	100	75
3	100	100
4 until end of Contract	100	100

14.7 Procedures for Inspection

The visual inspection will be undertaken as part of the Formal and Informal inspections. The criteria for Service Levels will be checked at sections selected by the Project Manager based on visual appearance. The Project Manager shall be the sole judge of compliance. If a specified criterion is not met, the one-kilometre section in which the deficit occurs will be judged non-compliant.

14.7.1 Formal Inspections

Formal inspections will be carried out jointly by the Project Manager and the Road Manager at the end of each month. The main purpose of the formal inspections is to enable the Project Manager to verify the information presented in the Contractor's Monthly Statement with the actual observed and measured conditions on the site. The Project Manager will prepare a brief Memorandum describing (i) the general circumstances of the site visit, including date, road sections visited, persons present, etc., (ii) any non-compliance which may have been detected, and (iii) the time granted by the Project Manager to the Contractor to remedy the detected defects. Based on the outcome of the formal inspection, the Project Manager will correct any possible errors or misrepresentations in the Contractor's statement, countersign it and present it to the Procurement Entity for payment, and to the Contractor for information.

Formal inspections will also be scheduled for the follow-up site visits, whose purpose is to verify if the Contractor has remedied the causes of earlier non-compliance, within the time frame granted by the Project Manager and specified in the Memorandum.

14.7.2 Ad-hoc Inspections of Service Levels

The Project Manager may carry out informal inspections of Service Levels as part of his general mandate given to him by the Procurement Entity. He may do so on his own initiative, at anytime and anywhere on the roads included in the contract. If he detects any road sections where the Service Level criteria are not met, he is obliged to inform the Contractor within 24 hours in writing, in order to enable the Contractor to take remedial action as soon as possible. The results of informal inspections may not be used by the Project Manager for purposes of correcting the Contractor's monthly statements or applying penalties, except for cases in which the traffic flow on the road has been completely interrupted.

14.8 Means of inspection of compliance with the service level

For the formal inspections of compliance with Service Levels, the Contractor's Self-control Unit will work in close collaboration with, and under supervision of the Project Manager. The physical means needed for the inspections will be provided by the Contractor; they are the same which are normally used by the Self-control Unit for the continuous self-evaluation of the Contractor's compliance, in particular:

- a) Vehicles of the following type: The vehicle(s) must be in good condition and must be in conformity with its original factory specifications, without any alterations which would change its driving characteristics. *[Note: The vehicle(s) should be of the type most typically used by road users. Different types of vehicles may need to be specified for different groups of roads].*
- b) Qualified and support staff *[specify number and type of staff, normally it should include as a minimum the qualified staff of the Self-control Unit plus two helpers].*
- c) All tools and instruments needed, as indicated in the paragraphs describing the methodologies for inspection.

14.9 Methodologies to be used for Assessing Service Levels on Unpaved Roads Usability of Road

The criteria is tested by driving on the road in a normal manner, utilizing the type of vehicle indicated in the previous paragraph. The condition is not complied with if the road is interrupted at any point. The condition is however complied with if it is possible to continue to drive on the road, and without the vehicle suffering any damage caused by the bad condition of the road.

[Note: For example, if the vehicle hits an obstacle on the road surface which causes damage to the exhaust system, the conditions is obviously not complied with. On the other hand, if there is a landslide which covers one half of the road, but it is easily possible to pass the area on the other side of the road, the condition is complied with.] The criteria is tested by driving on the road in a normal manner, utilizing

a) **Average traffic Speed**

The first step is to define the road sections to be tested. The lengths of the test sections should be equivalent to at least one half hour driving time (e.g. 30 km lengths for a required average speed of 40 km/h). The second step is to travel on the defined test section in a normal and safe fashion, in the vehicle provided by the Contractor and driven by a driver provided by the Contractor. The driver must at all times respect the traffic regulation, in particular speed limits. The time of unforeseen stops which are unrelated to the road condition (such as checkpoints, breakdowns or other incidents) is to be deducted from the overall travel time. Except for normal and obligatory slowdowns and stops (at intersections, speed limits, stop signs, pedestrian crossings, village crossings, etc.), the travel speed should never be constrained by road conditions to less than a certain minimum speed given in the contract, and the average travel speed which can be maintained on the defined road section should be above the threshold value which is given in the Summary Table further below in the Technical Specifications.

In any case, the safety of the passengers of the test vehicle, as well as the safety of other road users, must never be put in danger. The judgment of whether a speed is safe or not is left to the Project Manager.

At the end of the test, the vehicle used must not have suffered any mechanical damage due to the speed of travel, which may have been excessive given the condition of the tested road section. If the vehicle has suffered such damages, the test is negative and the service level has not been complied with.

b) **Road Corrugation amplitude**

The road corrugation amplitude is one of the criteria for “Road User Comfort”. It will be checked at road sections selected by the Project Manager based on visual appearance. Measurement is carried out by placing a ruler or straight edge (three meters long) on the road, parallel to the road

axis, at a place determined by the Project Manager using (Dynamic Response Intelligence Monitor). The maximum amplitude of the corrugation will be recorded and if this exceeds the value for corrugation height stated in the Summary Table below the one-kilometer section in which the corrugations are located will be judged non-compliant.

c) Rut Depth- road user comfort

Rut depth is one of the criteria for “Road User Comfort”. It will be checked at road sections selected by the Project Manager based on visual appearance. Measurement is carried out by placing a ruler or straight edge (three meters long) on the road surface, perpendicularly to the road axis, at a place determined by the Project Manager, and measuring the space between the ruler/straight edge and the lowest point of the rut.

The maximum rut depth will be recorded and if this exceeds the criteria for rut depth stated in the Summary Table below the one-kilometer section in which the ruts are located will be judged non-compliant.

d) Other surface degradation

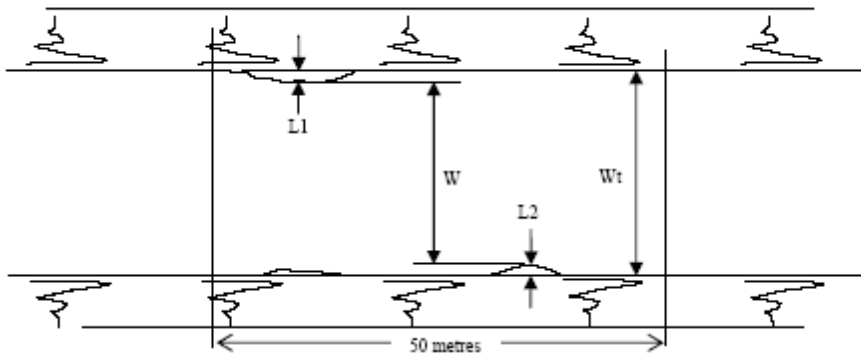
Other surface degradations are part of the criteria for “Road User Comfort”. They will be measured at road sections selected by the Project Manager based on their visual appearance. Individual surface degradations (such as potholes) are measured by using a standard ruler. The “equivalent diameter” is defined as the average of the greatest dimension of the degradation and a second measurement taken at right angles to the first.

For any one km of road, compliance with this criterion requires that (i) no individual surface degradation (other than ruts and corrugation) has an “equivalent diameter” of more than the maximum value specified and (ii) the number of individual degradations on a one km section is less than the threshold specified value shown in the Summary Table below.

e) Useable road surface width:

The useable road surface width is part of the criteria for the “Durability of the Road”. It will be measured at road sections selected by the Project Manager based on their visual appearance, in particular at places where erosions or other degradations exist which restrict the useful width of the road. The useful width is measured by using a measuring tape and/or rulers.

For any one km section of the road, the Project Manager will select one 50-meter subsection where the measurement will take place. Within that subsection, the Project Manager will select on each side of the road the individual degradation which constitutes the largest restriction of the useable surface. For each of those two points, he will then measure the distance (L) between the theoretical edge of the useable road surface (based on the useable road width specified in the contract) and the innermost point of the degradation, obtaining two values (L1 and L2). The actual useable road surface width is obtained by subtracting (L1 + L2) from the theoretical road surface width specified in the contract.



For any one km section of road, compliance with this criterion requires that there is no sub-section of 50 metres in which the actual useful width (shown as W in the drawing) is less than the width specified..

f) Cleanliness and condition of drainage structures

The cleanliness and condition of the structure (including side ditches/catch water drains, mitre drains, culverts and all other types of drainage facilities) is part of road durability. It is to be verified regularly, particularly before, during, and after the rainy seasons. The drainage structures to be verified are to be determined by the project manager before tendering. The principle used to determine the cleanliness of the drainage is the percentage of the theoretical cross-section of the structure which is unobstructed. For a one Km road section, cleanliness of the drainage must be clean as per the defined setting.

14.10 Payment Method (Monthly Statement)

The Monthly Statement to be submitted by the Contractor shall have the format shown in Table 14.4, which gives an example of how the statement is filled out. The compliance or non-compliance is reported in the table and is used to determine the degree of compliance and the payment reduction to be made in a particular month.

Table 14.4: Sample of Monthly Statement

Contract Road:	A to B to C	Contract No:
Road Section:	From km: 5.00 To km: 25.00	Length of contract road:	20.00 km
District:	Nyandarua	Region:	Central
Contract Month:	2, October 2010		

Service Level Criteria	Required Compliance Target	Compliance km	Actual Compliance Compliance criteria	Total Length (km) Compliant	Non-compliance Length	% Reduction	Payment Reduction km
1. Road Safety	100%	20.00	Cleanliness of carriageway	18.00	2.00	20%	0.40
2. Durability	75%	15.00	Drainage	13.00	2.00	30%	0.60
	75%	15.00	Vegetation height	13.00	2.00	20%	0.40
	75%	15.00	Vegetation clearance	13.00	2.00	10%	0.20
	75%	15.00	Structures and river beds	13.00	2.00	20%	0.40
						Total	2.00
Length of road for payment this month	=	'Length of contract road' minus	'Payment reduction length'				
	=	20.00 -	2.00 =	18.00	km		
Less reductions for non-rectified previous non-compliance (Tab 2.8)	=	18.00 -	1.00 =	17.00			
Total payment due this month	=	'Rate per km per month' multiplied by	'Length of road for payment this month'				
	=	xKsh/km x	17.00 km				
	=	x	Ksh				

14.10.1 Payment Reductions and Liquidated Damages to be applied on Non-Compliance

In accordance with the relevant clauses of the Conditions of Contract, Payment Reductions are applied in case of non-compliance with Service Level requirements, while Liquidated Damages are applied in the case of non-compliance with required Repair, Maintenance and Emergency Works.

The results of each formal inspection of the Service Levels and other performance criteria will be recorded by the Project Manager in the form of a Memorandum. The Memorandum will state the type and location of any non-compliance detected, in particular those non-compliances already shown in the standard tables provided by the Contractor as part of the monthly statement. For each individual case of non-compliance, the Project Manager will determine a date by which the Contractor must have completed the necessary measures in order to remedy the cause of the non-compliance. A follow-up site visit is therefore necessary at the date fixed by the Project Manager, or soon thereafter, in order to verify that the Contractor has indeed remedied the cause of non-compliance.

If at the date indicated in the Memorandum, the Contractor has not remedied the cause for non-compliance, independent of the reason given for their failure to do so, the Contractor is subject to Payment Reductions in accordance with the relevant clauses of the Conditions of Contract.

Payment Reductions are variable over time. If the Contractor fails to remedy a cause of non-compliance for which a payment reduction has already been applied, the amount of the payment reduction increases month by month for that particular cause of non-compliance, without a ceiling being applied, until compliance is established. The calculation of the initial (first month) amounts of payment reductions, and the formula for their adjustment over time, is to be based on the following rules given in Table 14.5.

Table 14.5: Amounts of Payment Reductions, and the Formula for Their Adjustment over Time,

CRITERIA	CONDITIONS FOR APPLICATION OF PAYMENT REDUCTIONS	UNIT RATES FOR NON COMPLIANCE
Road Safety	<i>Cleanliness of road: observed anywhere in a one km section does not comply with the service levels</i>	20% of the monthly lump sum for one km applied to each one-km section which does not comply
Drainage	<i>Cleanliness and condition of drainage structures (lateral ditches):</i> For a one-km section, to be determined for subsections of 50 m each. If unacceptable obstructions exist in more than one subsection, the one-km section does not comply <i>Cleanliness and condition of drainage structures (CULVERTS):</i> <i>Cleanliness and condition of drainage structures (MANHOLES):</i> <i>Cleanliness and condition of drainage structures (GULLEYS):</i>	30% of the monthly lump sum for one km, applied to each one-km section which does not comply
Vegetation	<i>Vegetation height (maximum):</i> The maximum height measured anywhere in a one- km section is above the threshold value	20% of the monthly lump sum for one km, applied to each on-km section which does not comply
	<i>Vegetation (clearance above road):</i> The vertical clearance between the road surface and the lowest point of tree or other plan is less than the threshold value	10% of the monthly lump sum for one km, applied to each on-km section which does not comply.
Structures and River Beds	<i>Steel, concrete, expansion joints, retention walls, river beds:</i> For a one km of section, to be determined for each structure. If non-compliant on more than one structure, the one km does not comply	20% of the monthly lump sum for one km, applied to each one-km section which does not comply

Note: (i) The Unit Rates of payment reductions (“PR_u”) shown in the above table are applicable during the first 30 days of non-compliance.

(ii) If the non-compliance has not been remedied within thirty days, liquidated damages for periods beyond

30 days are calculated based on the following formula: $PR = 2^n PR_u$ considering:

J = number of days of non-compliance, and $n = \{ J-1/30 \}$ rounded up to full number

14.10.2 Determination of Liquidated Damages

For **Repair Works**, the liquidated damages are **0.05% of the contract price bill item for repair works, for the particular item delayed**, per calendar day of delay, of the payment normally due for the specific Works for which completion is delayed, the liquidated damages are up to a limit of 10% of the contract price for the Repair Works.

14.11 Contract Evaluation

The concept of contract evaluation is in general to streamline the cyclic management process for contracted road works. The system allows a road authority as the procuring entity to evaluate the work performance of a contractor by a scoring system and utilize the result of such evaluation for the future tender process. By adopting a new scoring system, priority may be given to high performing contractors in new contracts and elimination of poor performing contractors may be possible.

However, the authority still needs to check item (8) Work Safety Management and (9) Environment and Social Management since the contractor can execute their work and achieve the required service level irrespective of these items. Moreover, the safety and environment issues are becoming more significant in Kenya and such issues need careful mitigation actions to avoid any negative consequences that may arise.

14.11.1 Evaluation Items

At Formal Inspection, service level compliance is checked and “Reduction rate for non-compliance” is verified (refer to “Part 3”). In addition to that, the work process with respect to performance of self-control unit, safety, environment and statutory compliance listed in Table 14- is checked. Pass/fail criteria (case of fail) is also shown in Table 14-. Use form shown in Appendix 18 to record the check result and utilize it at evaluation scoring later.

Table 14-6: Evaluation Items at formal inspection

Scope	item		Pass/Fail Criteria
Self-control unit performance	1	Self-control unit is organized by proper contractor’s member	Registered self-control unit member doesn’t inspect their roads
	2	Self-control unit operates properly	Inspection record is not submitted to the client before formal inspection
Work Safety Management	1	Workers and operators wear proper safety gear	Workers and operators don’t wear reflective jackets. Helmet is also needed in case of work using machinery.
	2	Traffic control is conducted properly	No traffic control in case of work affecting traffic or without proper safety devices (e.g. sign board, cone, flag man) and no tapered edge at the approach

Table 14-6: Evaluation Items at formal inspection cont’

Environment and social management	1	Environmental consideration is properly conducted	Mitigation efforts against noise, emission, or dust at residential area is not taken and complaint is received
	2	Waste material generated from the site is properly disposed	Waste material is left at the site
	3	Transportation by vehicles is properly controlled	Overloading , material falling, leakage, or spillage is found
Corrective order	1	No corrective order is made by authority	No remedy is made for instruction by the client so that corrective order is issued
Accidents occurrence	1	No accidents to workers, operators attribute to contractor	Worker or operator is injured and have to be hospitalized for more than or equal to 3 days
	2	No accidents to third-parties attribute to contractor	Third-party person is injured or their property is damaged (any level of the accident is not allowed)
Statutory compliance	1	Contractor complies with the relevant statutory regulations	Contractor violates relevant statutory regulations and sanction is enforced

For the evaluation item of “compliance with statutory regulations”, the authority will deduct the score if the contractor violates a relevant regulation of the Republic of Kenya. The relevant regulations are referred from “Republic of Kenya, Supervision and Contract Evaluation Manual for Road Works, 2012, P-69, 3.5.3(2)” and listed below;

1. Tax compliance (VAT registration, PIN registration)

1. Income Tax Act Cap.470 (PAYE)
2. Values Added Tax Act Cap.476
3. Stamp Duty Cap. 486

2. Registration of business

- 1) Companies Act Cap. 486
- 2) Registration of Business Names Act Cap.499

3. Environmental law

- 1) Environment Management and Coordination Act No.8 of 1999
- 2) Environmental Impact Assessment and Audit Regulations - Legal Notice No.121 of 2003

4. Traffic/Axle load regulations

- 1) Traffic Act Cap. 403
- 2) Kenya Roads Act, 2007

5. Labour law

- 1) Employment Act Cap. 226
- 2) Regulation of Wages and Conditions of Employment Act Cap. 229
- 3) Workmen's Compensation Act Cap. 236 (Workman's Compensation)
- 4) The Labour Relations Act, 2007
- 5) Industrial Training Act Cap. 237

6. Engineers
 - 1) The Engineers Registration Act, No.43 of 2011
7. Social security
 - 1) National Social Security Fund Act Cap.258 (currently being amended)
 - 2) Retirement Benefits Authority Act Cap. 197
 - 3) Pensions Act Cap. 189
8. Hospital insurance fund
 - 1) National Hospital Insurance Fund Act, No. 9 of 1998
9. Local government
 - 1) Local Government Act Cap. 265 to be repealed upon Commencement of the Act in (2) below
- 2) Urban Areas and Cities Act, 2011 (shall come into operation after the first elections under the constitution of Kenya 2010
 10. Water resource management act
 - 1) Water Act.2002
 11. Insurance
 - 1) Insurance Act Cap.487
 12. Safety
 - 1) Public Health Act Cap.242
 - 2) Occupational Safety and Health Act, No. 15 of2007
 - 3) The Work Injury Benefits Act, No. 13 of 2007
 13. Procurement laws
 - 1) Public Procurement and Disposal Act, 2005
 - 2) The Public Procurement and Disposal (Reference and Reservations Regulations. 201 1)
 - 3) The Public Procurement and Disposal Regulations. 2006
 - 4) The Public Procurement and Disposal (Public Private Partnerships) Regulations, 2009
 - 5) The Public Procurement and Disposal (Amendment) Regulations, 2009
 14. Others
 - 1) Constitution of Kenya 2010
 - 2) Any other relevant laws that will come into effect after issuance of this document.

14.11.2 Evaluation Scoring

During Substantial Completion Inspection, an evaluation score is calculated according to the results of the Formal Inspection. The Evaluator shall complete a Tally Sheet which will be provided to the contract upon signing of the contract. The evaluator will fill “1” as “Pass” or “0” as “Fail” for each item in all months in the tally sheet. For evaluation item of “Service level compliance”, less than 5.0% of reduction rate for service level non-compliance in each month is considered as “Pass=1”.

The score of each item will be calculated by multiplying a weight of each item that shall be indicated in the evaluation table against the percentage of completed months over the total months. A penalty of minus 20 points is given for any non-compliance in “Accidents occurrence” or “Statutory compliance” even if the non-compliance occurred in a month.

14.11.3 Contract Management using Evaluation Scores

Contract evaluation result will in future be used by the employer during the selection of capable

contractors for construction services and is also to assist the contractors to improve their ability and develop a sustainable and self-motivated system. Especially in PBC, work performance highly relies upon on the contractor's ability. Hence, incorporation of the evaluation result in contract management cycle such as illustrated in PBC Guideline of 2015 is proposed to be used in this tender.

14.15 Emergency Works

1. Definition of "Unforeseen Natural Phenomena"
2. Procedure for requesting Emergency Works
3. Remuneration of Emergency Works
4. Provision for Emergency Works
5. Obligations of Contractor during Emergencies and Emergency Works
6. Minor repairs made necessary by "Unforeseen Natural Phenomena"

14.16 Definition of “Unforeseen Natural Phenomena”

Emergency Works are designed to repair those damages to the roads under contract which are caused directly by unforeseen natural phenomena with imponderable consequences occurring either in the area of the roads or elsewhere, but with a direct impact on the roads. “Unforeseen Natural Phenomena” are defined as follows: *[indicate the type of phenomena and thresholds values]*

[Note: “Unforeseen Natural Phenomena” are normally defined as (i) rainfalls and winds of an extraordinary intensity and/or duration, (ii) major landslides which have their origin outside the right-of-way of the road, (iii) floods during which water levels rise above a certain maximum, (iv) earthquakes above a certain intensity, etc. The definition of those phenomena and events is necessarily country-specific, and even specific for different areas within one country. They must be specified in such a way as to exclude “normal” damages, such as trees falling on the road, minor erosions of the road and embankments, and damages caused by traffic accidents; those must be remedied by the Contractor as a part of his normal obligations under the contract.]

Without being limitative, the following is a list of damages requiring Emergency Works: *[Indicate list.]*

[Note: Examples of how eligible damages can be defined are: (i) complete destruction of a culvert as a result of exceptional rainfall quantities, which lead to an interruption of road traffic, (ii) interruption of a road following washouts equivalent of more than 100 (one hundred) cubic meter of material on a road section of 500 meters length, (iii) submersion of the road along more than 100 meters, provided that the submersion is not the result of deficiencies in the drainage system or of insufficient maintenance of drainage structures, etc.]

14.17 Procedure for Requesting Emergency Works

If damages clearly caused by “Unforeseen Natural Phenomena” result in a reduction of Service Levels below the normal threshold values specified in this contract, the Contractor may make a formal request to the Project Manager to carry out Emergency Works designed specifically to remedy those damages. If the Contractor decides to make a request for Emergency Works, he must (i) immediately inform the Project Manager of his intention to do so, by telephone, radio or other means, (ii) document the circumstances of the Force Majeure event and the damages caused, through photographs, video and other suitable means, (iii) prepare a written request, stating the type of works he intends to carry out, their exact location and the estimated quantities and costs, including photographic documentation. In any case, a request for Emergency Works must be made immediately after the Contractor gains knowledge of the existence of damages caused by “Unforeseen Natural Phenomena”.

The Project Manager, upon receipt of the request and not later than 24 hours thereafter, will evaluate the request made by the Contractor based on a site visit, and issue an order to carry out the Emergency Works. The order will specify the type of works, their estimated quantities, the remuneration to be paid to the Contractor, and the time allowed for their execution. The order may indicate a requirement for an engineering/geotechnical assessment of the options for the permanent repairs to the site.

14.18 Remuneration of Emergency Works

Emergency works are remunerated by the Employer on a lump sum for each work order established on the basis of estimated quantities, the unit prices being stated in the Bill of Quantities, and in accordance

with the relevant clauses of the GC. The work items and the unit prices to be applied are specified in Section IV (Bidding Forms - Bills of Quantities) of this bidding document.

14.19 Provision for Emergency Works

The total contract amount will include a Lump Sum for provisional quantities of Emergency Works during the contract period, in accordance with the bidding data. The actual payments for emergency work will be based on the tendered rates

14.20 Obligations of Contractor during Emergencies and Emergency Works

Given the nature of this contract and the fact that Emergency Works are remunerated separately, the Contractor will, during the execution of Emergency Works, continue to be responsible for assuring the normal Service Levels on all roads included in the contract. In particular, the Contractor will do everything reasonably possible in order to ensure the normal use of all the roads under contract, including the sections affected by emergencies.

If road traffic has been interrupted because of an emergency, the Contractor will take the measures necessary (i) to reopen the road to traffic in the shortest time possible, and (ii) maintain the road open during emergency works, without being entitled to a specific compensation for those measures. This is valid specifically for trees or other objects which may have fallen on the road, damage to access ramps to bridges, erosion of embankments, collapse of slopes, traffic accidents, flooding, etc.

14.21 Minor repairs made necessary by “Unforeseen Natural Phenomena”

If the works necessary to remedy damages caused by an “Unforeseen Natural Phenomena” are below certain threshold values, the Contractor will carry out those works as part of his normal obligations and without having the right to invoke the provision of the contract concerning emergencies and the remuneration of emergency works. In these cases the consent of the Project Manager is not needed and the Contractor will simply carry out the works on his own initiative. He will nevertheless inform the Project Manager of the damages occurred and the remedial measures taken.

SECTION XV:

CONTRACT DRAWINGS

FIGURE C.1 - CROSS SECTION A (MINOR STANDARD CROSS-SECTION)

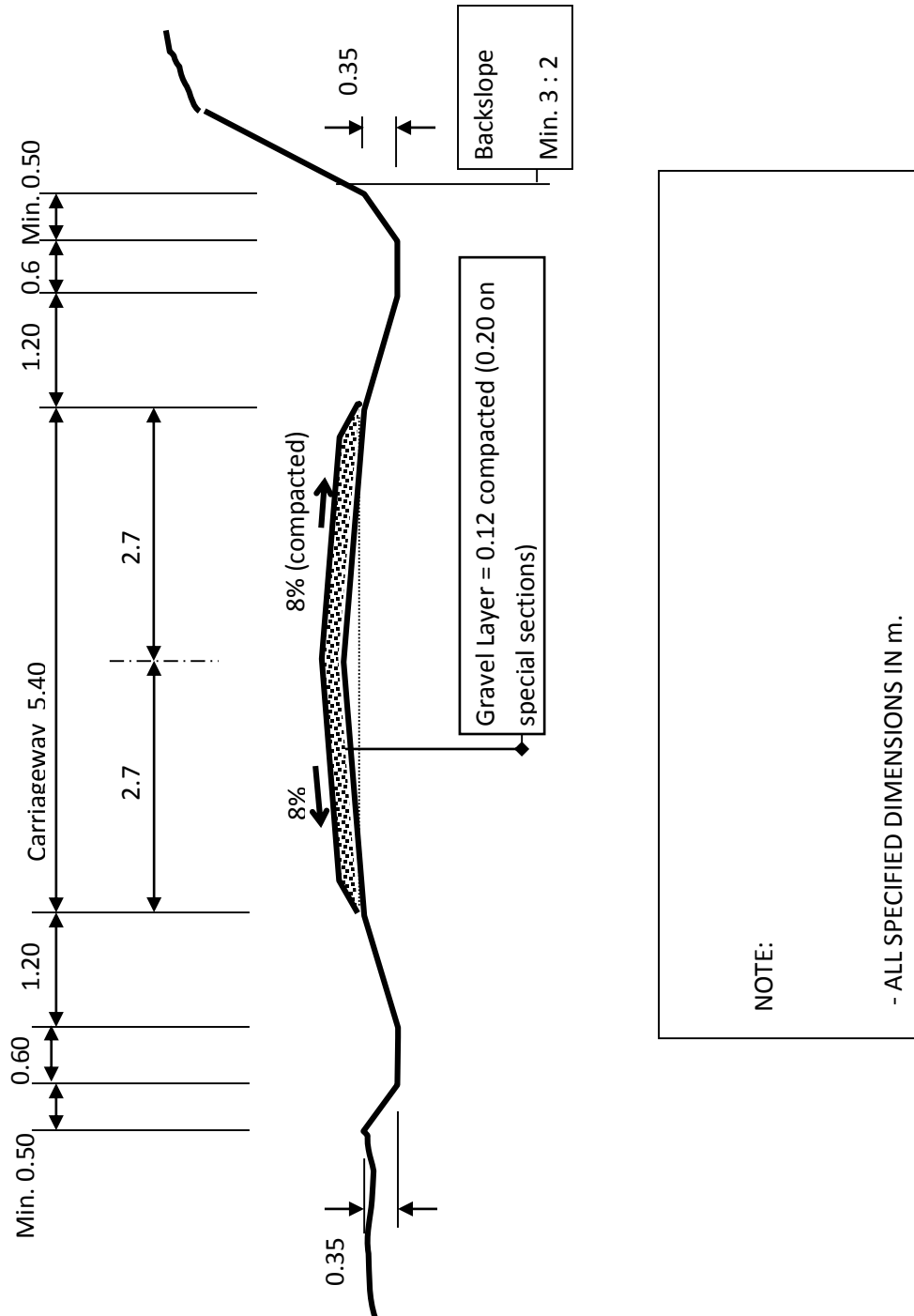


FIGURE C.2 - CROSS SECTION B (REDUCED CROSS-SECTION)

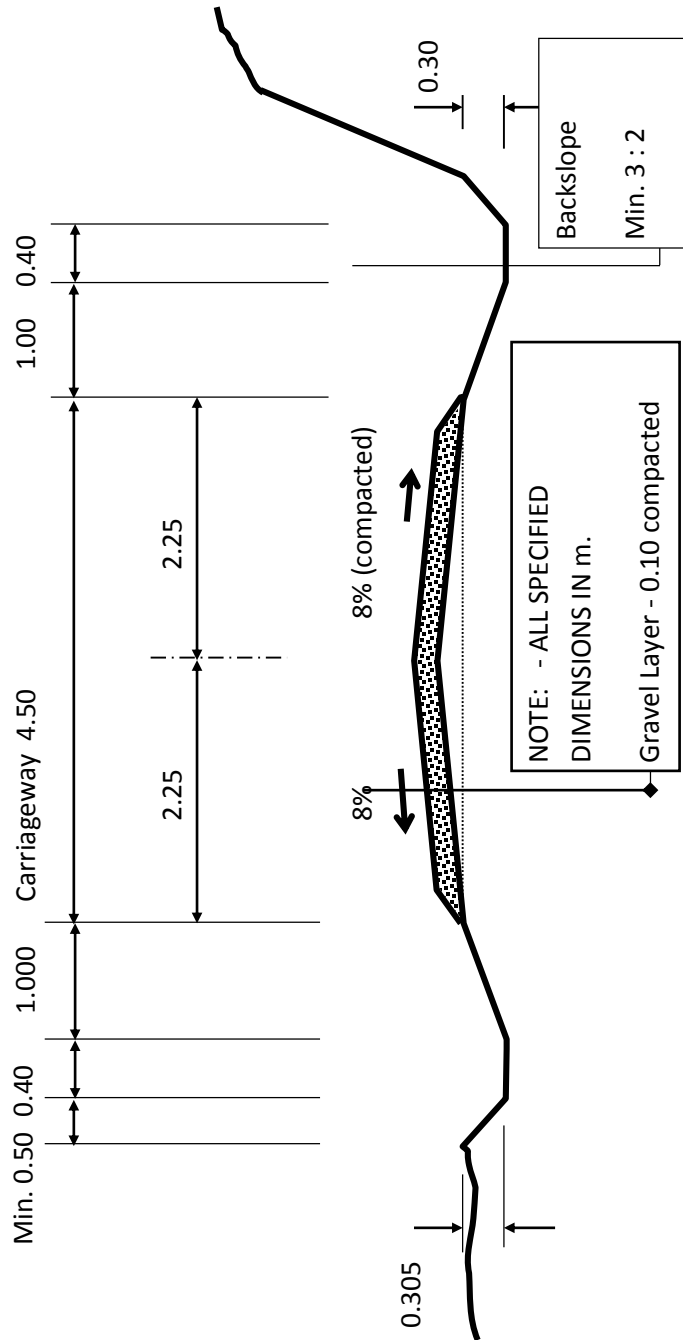


FIGURE C.3 - MITRE DRAINS

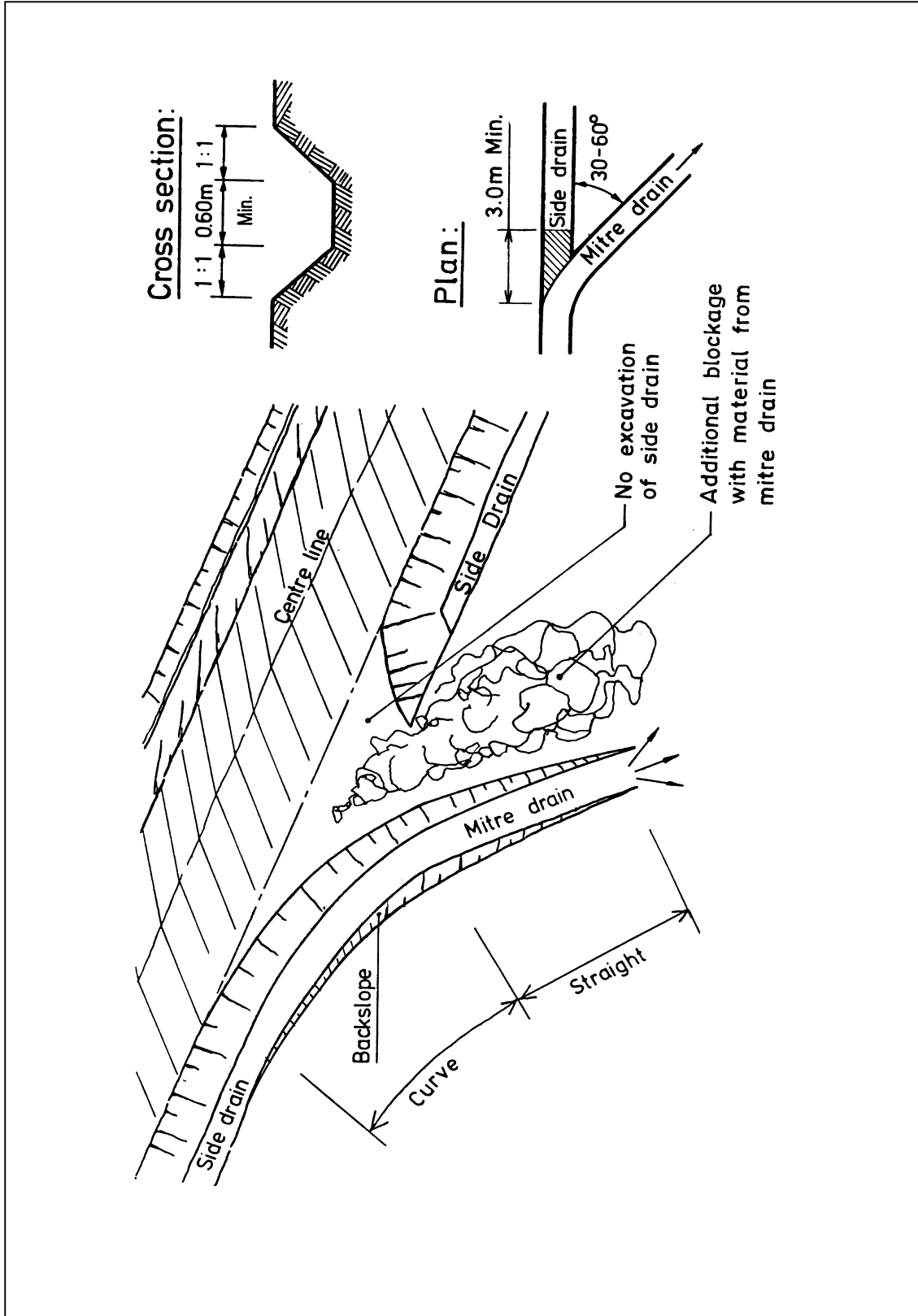
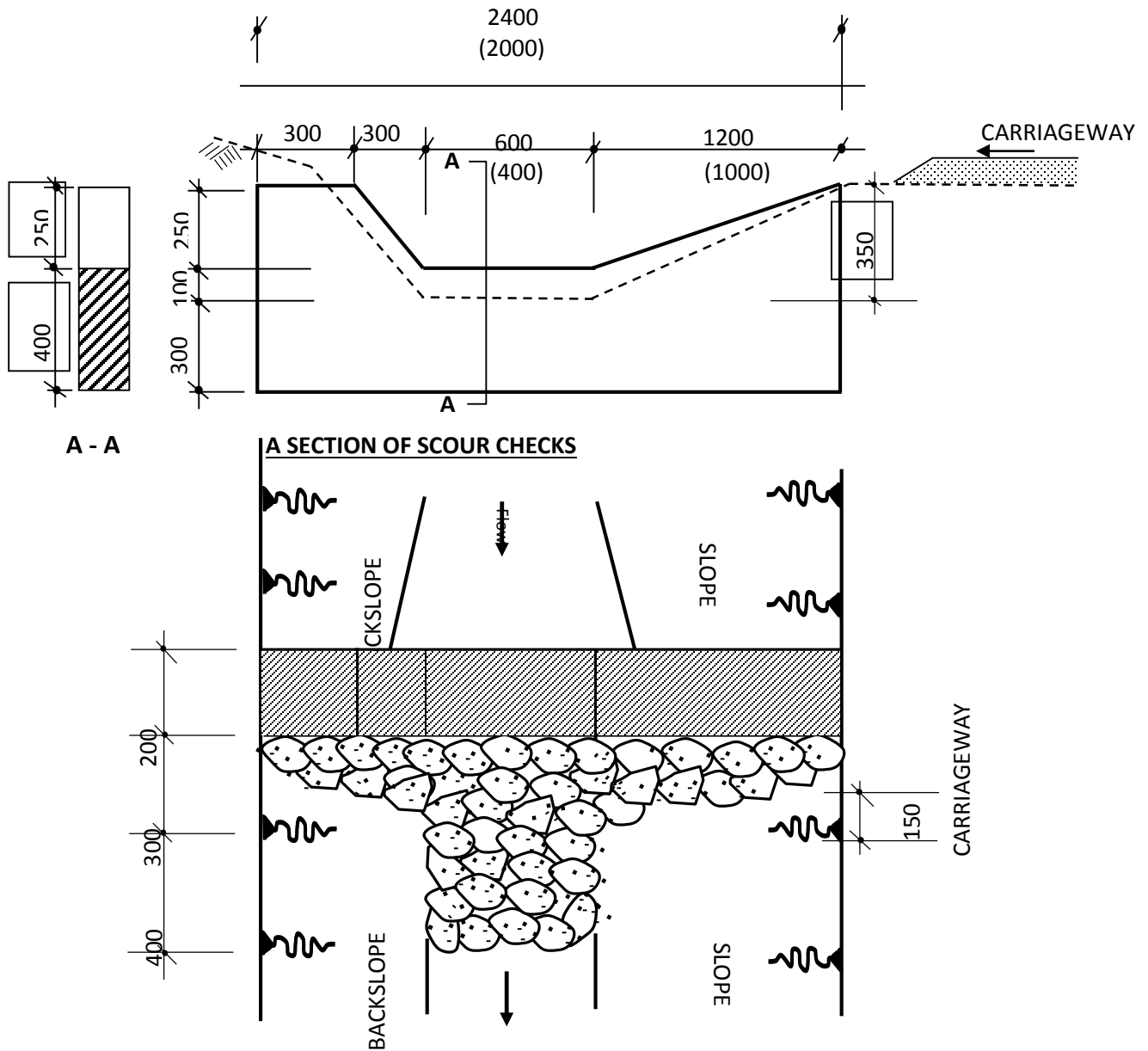


FIGURE C.6 - CONCRETE SCOUR CHECKS



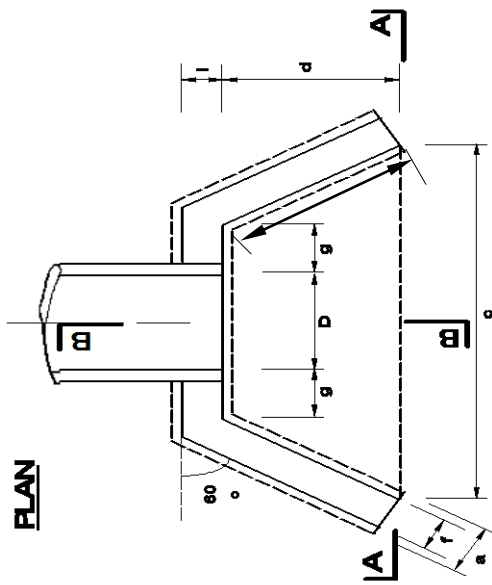
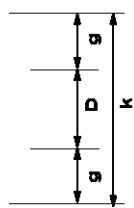
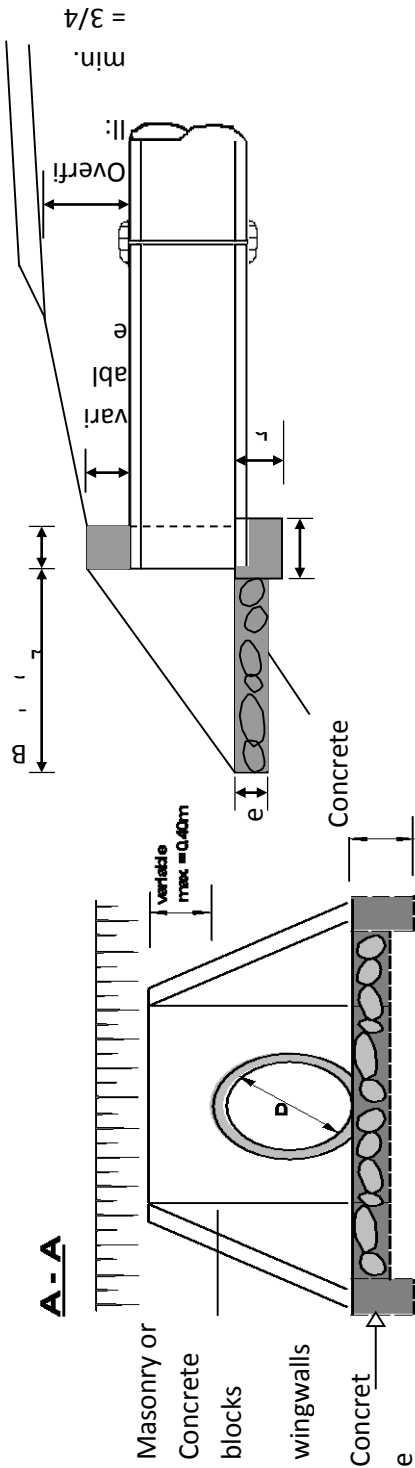
PLAN OF DRAIN WITH EROSION CHECKS

QUANTITIES TABLE

Cross-Section	Sizes in mm			Excav. (m ³)	Stone masonry (m ³)	Apron stone pitching (m ³)
	Length	Width	Depth			
A	2400	200	550	0.22	0.25	0.18
B	2000	200	500	0.18	0.2	0.14
A	2400	200	550	0.22	0.25	0.18
B	2000	200	500	0.18	0.2	0.14

**FIGURE C.8 -
HEADWALL TYPE 1**

(HEAD AND WINGWALLS)



CULVERT PIPES	
X-SECTION WIDTH	No. of Pipes
4.50	6.00
5.50	7.00
6.50	8.00

PIPE DIAMETER IN (M)		TYPE A (CONCRETE BLOCKS)			TYPE B (STONE MASONRY)		
DIMENSION	UNIT	450	600	900	450	600	900
a	FOUNDATION	m	0.30	0.30	0.30	0.40	0.60
b	FOUNDATION	m	0.30	0.30	0.40	0.30	0.40
c	FOUNDATION		2.20	2.35	2.89	2.20	2.89
d	APRON	m	1.00	1.00	1.20	1.00	1.20
e	APRON	m	0.20	0.20	0.20	0.20	0.20
f	WALL	m	0.20	0.20	0.20	0.40	0.40
g	WALL	m	0.30	0.30	0.30	0.30	0.30
h	WALL	m	1.15	1.15	1.39	1.15	1.39
i	WALL	m	0.20	0.20	0.20	0.40	0.40
k	APRON	m	1.05	1.20	1.50	1.05	1.50
MATERIAL REQUIREMENT							
FOUNDATION							
(Concrete)	m ³	0.3	0.32	0.51	0.4	0.42	1.03
HEAD/WINGWALL							
(Concrete/Masonry)	m ³	0.4	0.47	0.67	0.8	0.93	1.35
APRON							
(Concrete)	m ³	0.33	0.36	0.53	0.33	0.36	0.53

FIGURE C.9 - HEADWALL TYPE 2 (DROP INLET)

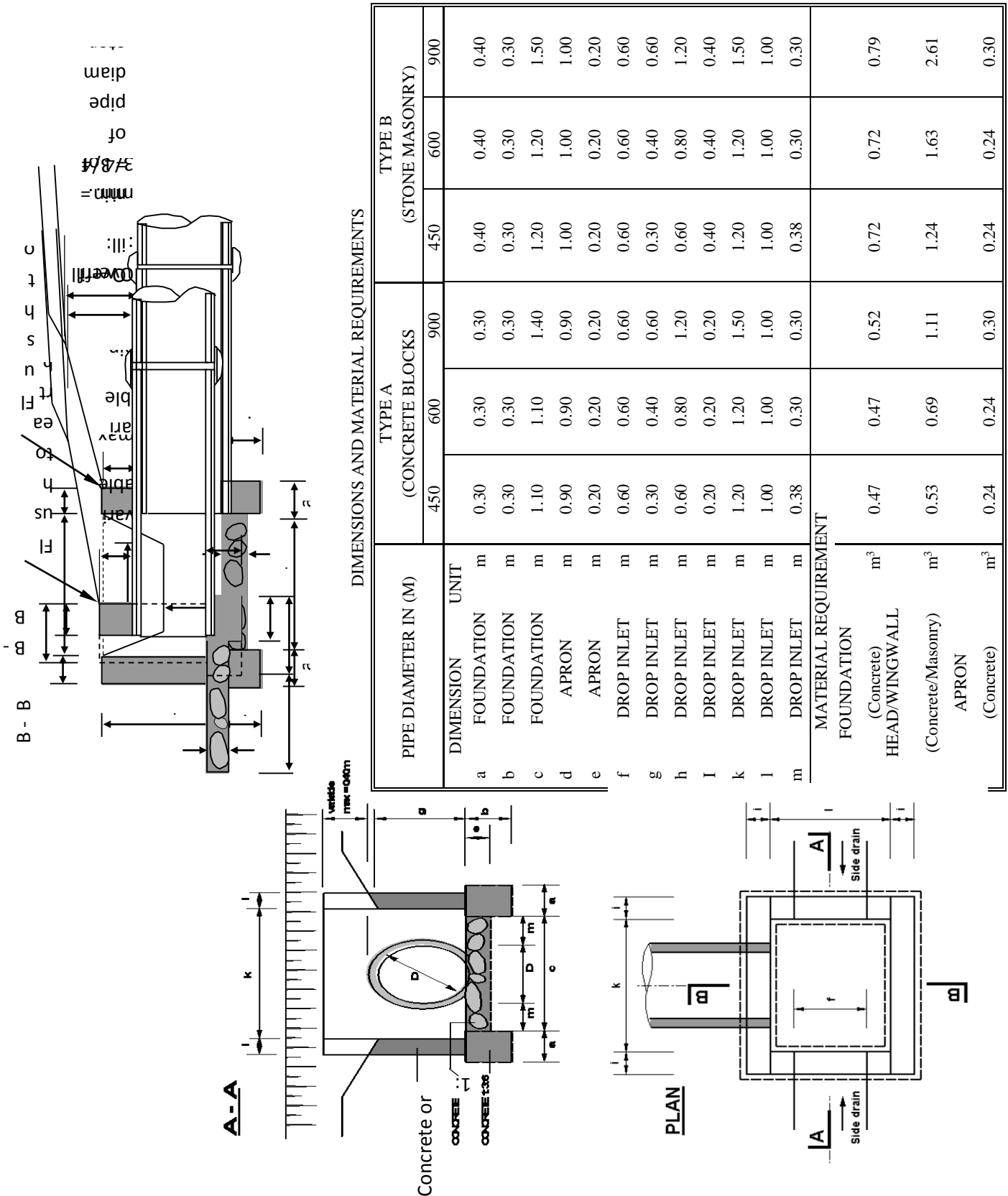
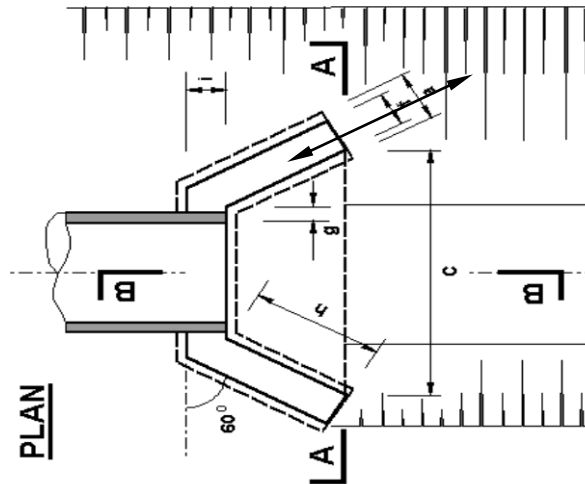
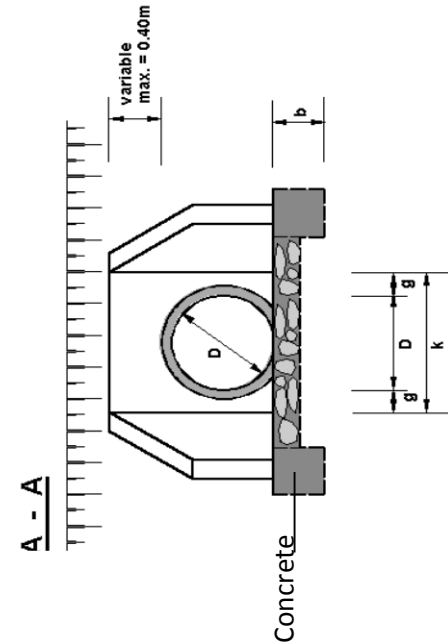
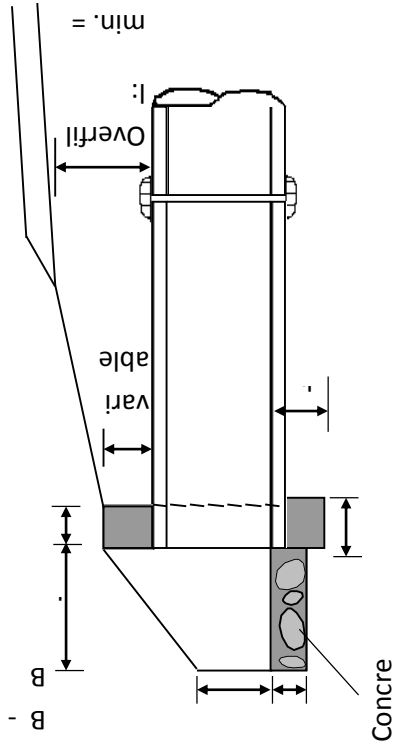


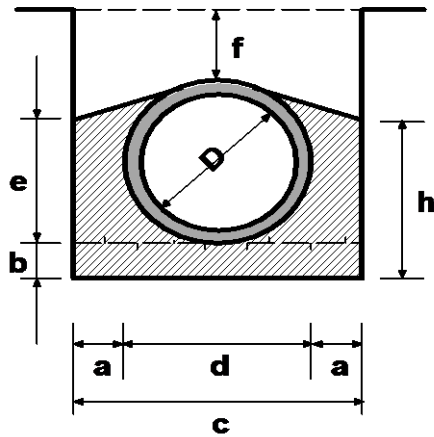
FIGURE C.12 - HEADWALL TYPE 4 (FOR ACCESS CULVERTS)



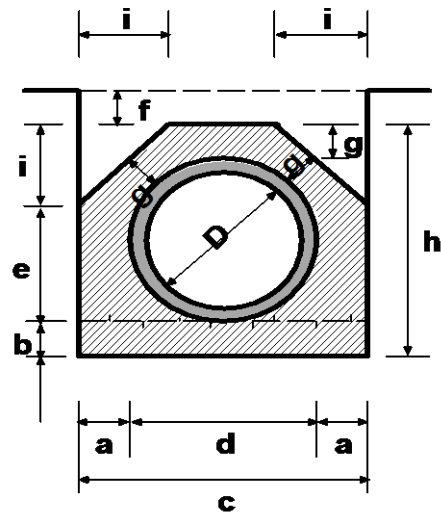
DIMENSIONS AND MATERIAL REQUIREMENTS

PIPE DIAMETER IN (M)	TYPE A (CONCRETE BLOCKS)		TYPE B (STONE MASONRY)	
	450	600	450	600
DIMENSION	UNIT			
a	0.30	0.30	0.40	0.40
b	0.30	0.30	0.30	0.30
c	1.34	1.49	1.34	1.49
d	0.60	0.60	0.60	0.60
e	0.20	0.20	0.20	0.20
f	0.20	0.20	0.40	0.40
g	0.10	0.10	0.10	0.10
h	0.69	0.69	0.69	0.69
i	0.20	0.20	0.40	0.40
k	0.65	0.80	0.65	0.80
l	0.40	0.40	0.40	0.40
MATERIAL REQUIREMENT				
FOUNDATION (Concrete 1:2:4, 1:3:6)	0.18	0.2	0.24	0.26
HEAD/WINGWALLS (Concrete/Masonry)	0.25	0.29	0.50	0.58
APRON (Concrete)	0.12	0.14	0.12	0.14

**PROFILE III
(CONCRETE)**

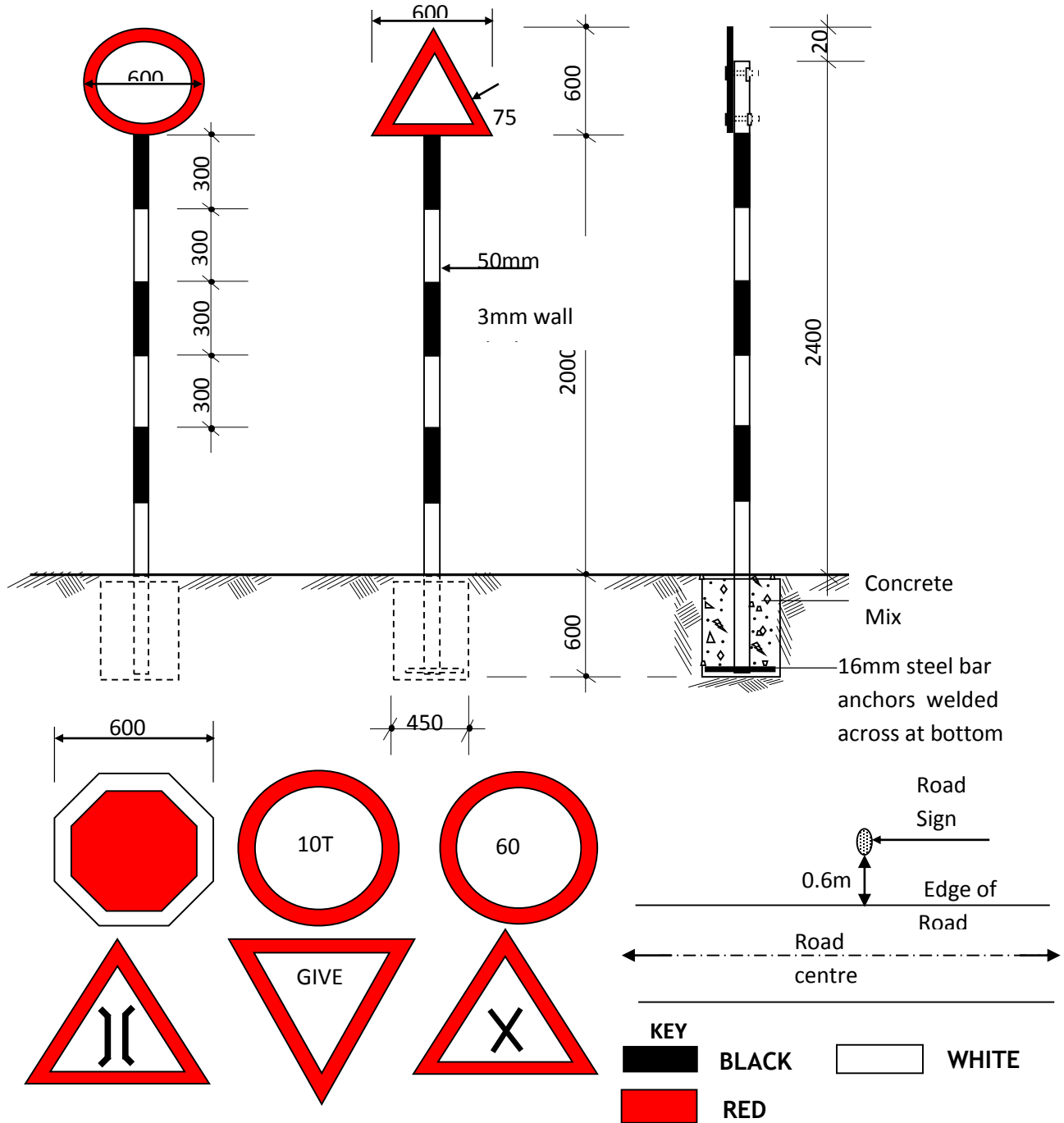


**PROFILE IV
(CONCRETE)**



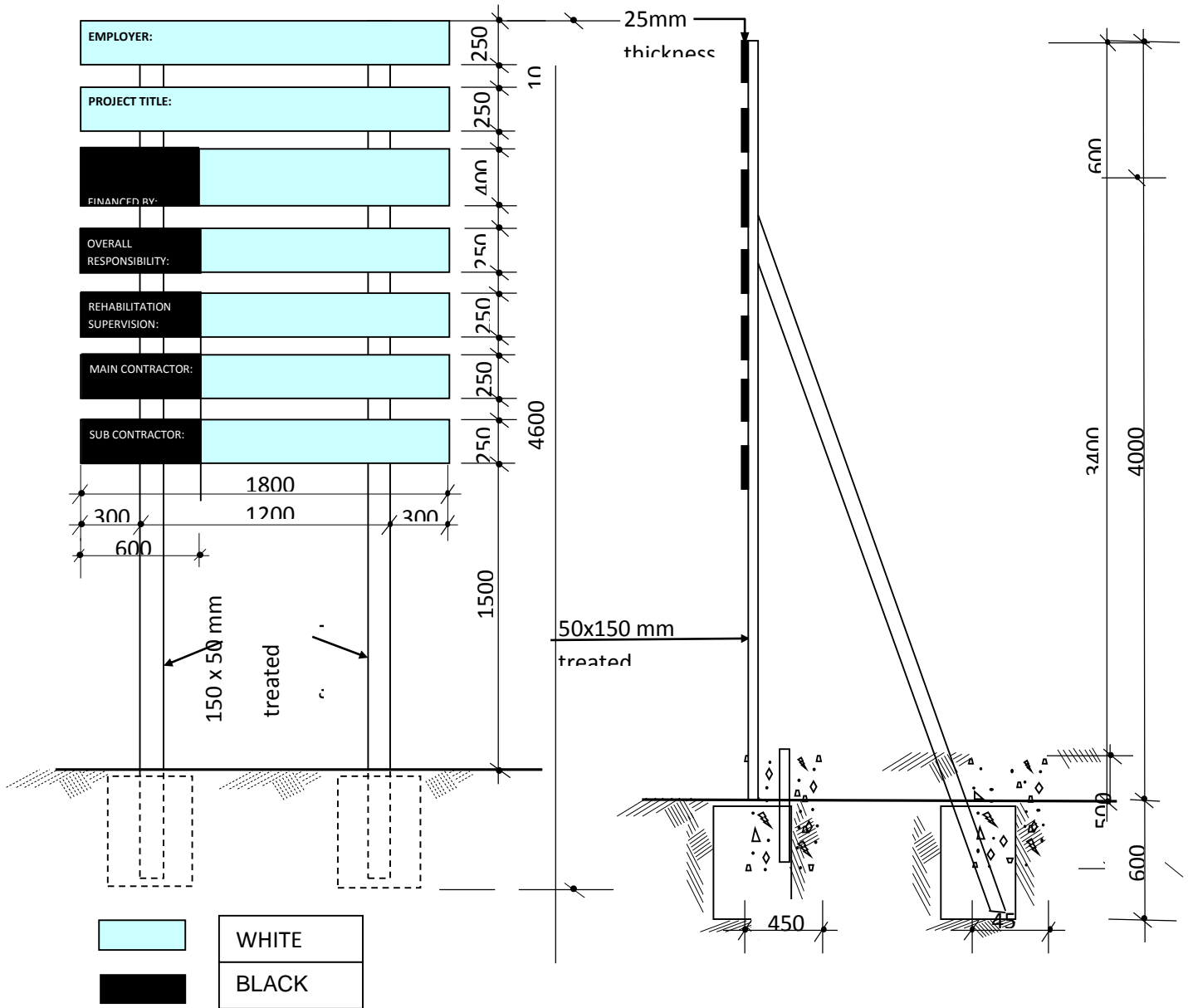
Diameter (D)	450 (mm)	600 (mm)	900 (mm)
	Dimensions in (m)		
a	0.15	0.2	0.2
b	0.1	0.15	0.15
c	0.86	1.12	1.48
d	0.56	0.72	1.08
e	0.42	0.54	0.81
f (min.)	0.23	0.3	0.45
g	-	-	-
h	0.52	0.69	0.96
i	-	-	-
Concrete	Volume in (m3/m)		
	0.26	0.47	0.71
Application	- Fair subgrade condition; - Overfill > ¾ Diameter; - Seasonal waterflow only.		
Remarks	- Use gravel material for back/ overfill.		

	450 (mm)	600 (mm)	900 (mm)
	Dimensions in (m)		
	0.15	0.2	0.2
	0.1	0.15	0.15
	0.86	1.12	1.48
	0.56	0.72	1.08
	0.46	0.52	0.78
	0.15	0.15	0.15
	0.15	0.15	0.15
	0.81	1.02	1.38
	0.28	0.35	0.45
	Volume in (m3/m)		
	0.37	0.61	0.92
	- Fair to poor subgrade Condition; - Overfill > ¾ Diameter; - Seasonal waterflow only.		
	- Use gravel material for back/ overfill.		



1. The type of sign required and their location shall be as shown on the improvement plan and as directed by the Engineer
2. Sign plate to be 2 mm thick mild steel plate
3. Sign post to be 50 mm internal diameter steel pipe with wall thickness of 3 mm.
4. Sign plate to be fixed to steel tube by 4 Nos M10 bolts and 2 Nos 50 mm fixing clamps/brackets.
5. Sign paints shall be reflective.

FIGURE C.17 - PUBLICITY SIGNBOARD



NOTES

1. The wording of the project signboard and the location to be installed to be as directed by the Engineer
2. Materials to be used for fabrication of signboard shall be pressure impregnated treated softwood timber sizes as indicated in the drawing
3. Wording boards to be nailed to the posts using nails.
4. Project board posts and struts to be embedded in concrete ratio 1:2:4

SECTION XI

BILLS OF QUANTITIES

(These are attached separately)

BILL OF QUANTITIES

1. The Bills of Quantities forms part of the Contract Documents and are to be read in conjunction with the Instructions to Bidders, Conditions of Contract Parts I and II, Specifications and Drawings.
2. The brief description of the items in the Bills of Quantities is purely for the purpose of identification, and in no way modifies or supersedes the detailed descriptions given in the conditions of Contract and Specifications for the full direction and description of work and materials.
3. The Quantities set forth in the Bills of Quantities are estimated , representing substantially the work to be carried out, and are given to provide a common basis for bidding and comparing of Bids. There is no guarantee to the Contractor that he will be required to carry out all the quantities of work indicated under any one particular item or group of items in the Bill of Quantities. The basis of payment shall be the Contractor's rates and the quantities of work actually done in fulfilment of his obligation under the Contract.
4. The prices and rates inserted in the Bills of Quantities will be used for valuing the work executed, and the Engineer will only measure the whole of the works executed in accordance with this Contract.
5. A price or rate shall be entered in ink against every item in the Bills of Quantities with the exception of items that already have Provisional sums affixed thereto. The bidders are reminded that no “nil” or “included” rates or “lump-sum” discounts will be accepted. The rates for various items should include discounts if any. Bidders who fail to comply will be disqualified.
6. Provisional sums (including Dayworks) in the Bills of Quantities shall be expended in whole or in part at the discretion of the Engineer in accordance with Sub-Clause 52.4 and Clause 58 of Part I of the Conditions of Contract.
7. The price and rates entered in the Bills of Quantities shall, except insofar as it is otherwise provided under the Contract, include all Constructional plant to be used, labour, insurance, supervision, compliance testing, materials, erection, maintenance of works, overheads and profits, taxes and duties together with all general risks, liabilities and obligations set out or implied in the Contract, transport, electricity and telephones, water, use and replenishment of all consumables, including those required under the contract by the Engineer and his staff.
8. Errors in the pricing of the Bills of Quantities will be corrected in accordance with Clause 29 of instructions to bidders.
9. The whole cost of complying with the provisions of the Contract shall be included in the Items provided in the priced Bill of Quantities, and where no Items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.
10. General directions and descriptions of work and materials are not necessarily repeated or summarized in the Bill of Quantities. References to the relevant sections of the Contract documentation shall be made before entering prices against each item in the priced Bill of Quantities.
11. The method of measurement of completed work for payment shall be in accordance with *Standard Specification for Road and Bridge Construction* of the Ministry of Transport and Communications, 1986.

12. "Authorised" "Directed" or "Approved" shall mean the authority, direction or approval of the Engineer.
13. Unless otherwise stated, all measurements shall be net taken on the finished work carried out in accordance with the details shown on the drawings or instructed, with no allowance for extra cuts or fills, waste or additional thickness necessary to obtain the minimum finished thickness or dimensions required in this contract. Any work performed in excess of the requirements of the plans and specifications will not be paid for, unless ordered in writing by the Engineer.
14. Units of Measurement and abbreviations used herein shall have the following meanings:

Unit	Abbreviation	Unit	Abbreviation
cubic meter	m ³ or cu m	millimeter	mm
hectare	ha	month	mth
hour	hr	number	No.
kilogram	kg	provisional sum	P.S.
kilometre	km	square meter	m ² or sq m
lump sum	L.S.	square	mm ² or sq mm
meter	m	millimeter	veh
metric ton (1,000 kg)	t	vehicle	wk
		week	

Bill of Quantities for Rehabilitation Works (Instructed Works)

General

1. The Bill of Quantities for Emergency Works shall be read in conjunction with the Instructions to Bidders, Conditions of Contract, Special Specifications, Ministry of Roads and Transport Standard Specification for Roads and Bridges and the Drawings.
2. The quantities given in the Bill of Quantities are hypothetical and provisional, and are given to provide a common basis for tendering. Actual quantities for Emergency Works will be specified in Work Orders, issued by the Project Manager in accordance with the General Conditions of Contract. The basis of payment for Emergency Works will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Project Manager and valued at the unit rates and prices tender in the priced Bill of Quantities, where applicable, and otherwise at such unit rates and prices as may be agreed or determined by the Project Manager under the provisions of the Contract.
3. The unit rates and prices tender in the priced Bill of Quantities shall, except insofar as is otherwise provided under the Contract, include all plant, equipment, labour, supervision, materials, erection, maintenance, insurance, profit, taxes and duties, together with all general risks, liabilities and obligations set out or implied in the Contract.
4. The unit rates and prices shall be quoted entirely in Kenya Shillings.
5. A unit rate or price shall be entered against each item in the Bill of Quantities. The cost of items against which the Contractor has failed to enter a unit rate or price shall be deemed to be covered by other unit rates and prices entered in the Bill of Quantities.
6. General directions and descriptions of work and materials are not repeated or summarized in the Bill of Quantities. References to the relevant sections of the Contract documentation shall be made before entering rates or prices against each item in the Bill of Quantities.
7. The method of measurement of completed work for payment shall be in accordance with the measurement and payment provisions of the relevant section of the Specifications.
8. Arithmetical errors discovered prior to award of the Contract will be corrected by the Procurement Entity pursuant to the Instructions to Bidders

REHABILITATION OF MANYANI AND RHINO CIRCUIT ROADS					
BILL NO.1 GENERAL ITEMS		Unit	Quantity	Rate (Kshs)	Amount (Kshs)
Item	Description				
1.01	Allow a P.C sum of ksh.1,350,000 for R.E attendance upon his staff including overtime in accordance with clause 137 of special specification	P.C Sum	1	1,350,00	
1.02	Include percentage of P.C sum in item 1.01 for contractor's overheads and profit.	%			
1.03	Provide and maintain 1No. three in one laser jet colour printer as per clause 132.4 of the special specification to the approval of the engineer to revert to his office at the end of the project	NO.	1		
1.04	Provide and maintain one personal computer (PC) as per clause 132.4 of the special specification complete with specified UPS to the approval of the engineer to revert to his office at the end of the contract.	NO.	1		
1.05	Allow a prime cost (PC) sum of Kshs 250,000 for material investigation and laboratory testing for use by the Engineer's representative for the entire duration of the contract.	PC Sum	1	250,000	
1.06	Include percentage of P.C sum in item 1.05 for contractor's overheads and profit.	%			
1.07	Provide for the duration of the contract the survey equipment listed in the specifications	L.S			
1.08	Purchase and provide one No. laptop computer as per clause 134.2 of the special specification to the approval of the engineer to revert to his office at the end of the contract.	LS			
1.09	Provide, fuel and maintain with driver new 4WD double cabin pick up of 2800cc minimum engine capacity of equivalent approved by the Engineer, inclusive of the first 4000km per vehicle month	V.mth	9		
1.10	E.O Item1.09 for mileages over 4000km vehicle month	Km	9000		
	Sub-total Carried forward				

	Sun total Carried Brought forward	Unit	Quantity	Rate (Kshs)	Amount (Kshs)
1.11	Allow Prime Cost (P.C.) sum of Kshs 250,000 for the Resident Engineer's Miscellaneous account to be spent in whole or part as directed by the Resident Engineer against receipts.	PC Sum	1	250,000	
1.12	E.O. item 1.12 for the contractor's overheads and profit.	%			
1.13	Provide, erect and maintain publicity signs as directed by the Engineer.	No.	2		
1.14	PC sum of Kshs 100,000 for provision of HIV/AIDS promotions and awareness campaigns and distribution of STD devices such as condoms to workers(VCT)	PC Sum	1	100,000	
1.15	Include percentage of P.C sum in item 1.14 for contractor's overheads and profit.	%			
1.17	Allow for prime cost P.C sum of Kshs.100,000 For resident engineer and staff mobile phone airtime	PC Sum	1	100,000	
1.18	E.O item 1.17 for contractor's overheads and profits				
1.19	Prime cost (PC) sum of Kshs 250.000 for environmental mitigation measures as directed by the engineer.	PC Sum	1	250,000	
1.20	Include percentage of P.C sum in item 1.19 for contractor's overheads and profit.	%			
1.21	Allow for provision of security for contractor's staff during construction as specified in clause 131.5 of special specification	L.S			
1.22	Demolish and cart away existing drift(10m)	No.	1		
	Total Carried Forward to Bill Summary Page				

Bill No.4	SITE CLEARANCE				
Item No.	Description	Units	Quantity	Rate (Kshs)	Amount (Kshs)
401	Light Bush Clearing of not more than one and half meters from the edge of side drains or as instructed by Engineer	m ²	186,200		
402	Remove top soil on the road way, junctions and accesses to an approved depth and cart away to spoil or stock pile for re-use as directed by the engineer.	m ³	22,800		
	Total Carried Forward to Summary:				

Bill No.5	EARTHWORKS				
Item No.	Description	Units	Quantity	Rate (Kshs)	Amount (Kshs)
5.01	<p><u>Grading of formation where no gravel is laid</u></p> <p>Grade, shape formation, water and compact to 95% MDD to restore road profile and side drainage, all in accordance with the specifications and in conformity with the instructions of the Engineer see clause 517(m)</p>	M ²	594,000		
	Total Carried Forward to Summary:				

Bill No.7	EXCAVATION AND FILLING FOR STRUCTURES				
Item No.	Description	Units	Quantity	Rate (Kshs)	Amount (Kshs)
7.01	Excavation for the foundation of the structures in soft material partly to spoil and partly return to compact to 95% MDD (AASHTO T99 and as instructed by the Engineer.	M ³	1,301.63		
7.02	Provide, place and compact rock fill to specifications below structure	m ³	366.00		
	Total Carried Forward to Summary:				

Bill No.8	CULVERT AND DRAINAGE WORKS				
Item No.	Description	Units	Quantity	Rate (Kshs)	Amount (Kshs)
8.01	Excavate in soft material for pipe culverts, head walls, wing walls, apron, toe walls and drop inlets and compact invert of excavation and backfilling of excavated material or removing excavated material to spoil as specified or as directed by the engineer.	m ³	250		
8.02	Provide , lay and join 600mm inner dia concrete pipes	m	63		
8.03	Provide , lay and join 900mm inner dia concrete pipes	m	91		
	a)Provide, place, compact and cure class 15/20 concrete to beds, and surround	m ³	144.8		
	b) Provide, place and cure class 20/20 concrete to aprons,wingwalls headwalls and toewalls	m ³	42.94		
8.04	Excavate and remove existing 600mm culvert and dispose as directed by the Engineer	m	16		
	Total Carried Forward to Summary:				

Bill No.10	GRADING AND GRAVELLING WORKS					
Item No.	Description	Units	Quantity	Rate (Kshs)	Amount (Kshs)	
12.01	Prepare formation, provide, process and compact approved gravel wearing course to 95% MDD(AASHTO T180) 3 km free haul on 4.5m average road widths	M ³	12,625			
Total Carried Forward to Summary:					-	

Bill No.17	CONCRETE WORKS (Major Structures)				
Item No.	Description	Units	Quantity	Rate (Kshs)	Amount (Kshs)
	Reinforced concrete drifts of length totaling 180m, works entailing excavations, hardcore packing (450mm thick), and 50mm thick concrete blinding to hard core, formwork and concreting. For more information refer to drift schedule and detailed drawing.				
	<u>FORMWORK</u>				
	Provide, erect and afterwards dismantle and remove all the FORMWORK as specified by the engineer.				
17.01	Provide vertical formwork to achieve class F3 finish	M ²	912		
	<u>REINFORCEMENT</u>				
	Provide, bend and fix into positions high yield reinforcement as directed or as specified in the drawings.				
17.02	Reinforcement bars of high yield strength to BS 4461, Size 16mm and below.	Ton	8.24		
17.03	Mesh reinforcement - A142 mesh	M ²	2,500		
	<u>CONCRETE</u>				
	Provide, place and compact the following classes of concrete as specified.				
17.04	Class 25/20 concrete	M ³	314.08		
17.05	Class 15/20 concrete	M ³	20		
	Total Carried Forward to Summary:				

Bill No.20	ROAD FURNITURE				
Item No.	Description	Units	Quantity	Rate (Kshs)	Amount (Kshs)
20.01	Provide and install 100mm diameter x 1200mm long steel pipes as edge marker posts to sides of the slabs and paint as directed by the Engineer	No.	46		
	Total Carried Forward to Summary:				

Summary of BOQ for Old Murera Gate-Kindani-Jn 22 Road		
Item No.	Description	Amount (Kshs)
1	GENERAL:	
4	SITE CLEARANCE	
5	EARTHWORKS	
7	EXCAVATION AND FILLING FOR STRUCTURES	
8	CULVERT AND DRAINAGE WORKS	
12	GRAVELLING WORKS	
17	CONCRETE WORKS (MAJOR STRUCTURES)	
20	ROAD FURNITURE	
22	DAYWORKS/EMERGENCY WORK	
	Carried to page on the form of Tender	

Bills of Quantities for Emergency Works

General

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3. The unit rates and prices tender in the priced Bill of Quantities shall, except insofar as is otherwise provided under the Contract, include all plant, equipment, labour, supervision, materials, erection, maintenance, insurance, profit, taxes and duties, together with all general risks, liabilities and obligations set out or implied in the Contract.
4. The unit rates and prices shall be quoted entirely in Kenya Shillings.
5. A unit rate or price shall be entered against each item in the Bill of Quantities. The cost of items against which the Contractor has failed to enter a unit rate or price shall be deemed to be covered by other unit rates and prices entered in the Bill of Quantities.
6. General directions and descriptions of work and materials are not repeated or summarized in the Bill of Quantities. References to the relevant sections of the Contract documentation shall be made before entering rates or prices against each item in the Bill of Quantities.
7. The method of measurement of completed work for payment shall be in accordance with the measurement and payment provisions of the relevant section of the Specifications.
8. Arithmetical errors discovered prior to award of the Contract will be corrected by the Procurement Entity pursuant to the Instructions to Bidders

EMERGENCY/DAY WORKS					
ITEM	DESCRIPTION	Unit	Nominal Quantity	Rate Kshs	Amount Kshs
	PLANT AND EQUIPMENT				
	The rates included herein are to include all operational and maintenance costs, fuel, oil, grease, operator charges, wages, supervision, overheads and profits. Only time employed upon the work will be measured and the rates shall include for idle time spent travelling and overtime in accordance with clause 2202(a) of the specifications. All items of the plants must be priced				
22.02	Mortor graders complete with scarifier				
	a - 80 -110 kw rated flywheel power	hr	96		
22.04	Rollers - Vibratory Single Roll Rubber Tyred				
	a - 8.3 - 10.5t unballasted weight	hr	24		
22.05	Compressor rated by normal delivery of free air per min at about 7kg/cm ² , complete with all tools, hoses, steel etc				
	a - 7.5 - 19.7m ³ /min	hr	12		
22.06	Crawler dozers with dozers and hydraulic attachment.				
	(a) 136 - 185 kw rated flywheel power.	hr	36		
22.07	Water Pumps (inclusive of all hoses);				
	a - 77 - 101mm delivery	hr	16		
22.08	Tractors - Rubber Tyred Including Trailer				
	a - 50 - 76kw rated flywheel power	hr	16		
	Loaders				
22.09	Crawler Loaders;				
	a- 1.31 - 1.90m ³ SAE rated capacity	hr	12		
22.10	Concrete Mixers (wet capacity)				
	a - 201 - 400 litres	hr	24		
22.11	Diesel Concrete vibrator - Poker Type	hr	24		
22.12	Tipper (dump) truck				
	a -10-15 tonne gross weight	hr	60		
22.13	Van, Pick-up or Similar Utility Vehicle				
	a - upto 1.0 t carrying capacity	hr	32		
22.14	Water - Self Propelled				
	a - 4551 - 7000 litre capacity	hr	28		
22.15	Labour:				
	Note:The rate included herein shall include all costs of labour, as well as overtime, travelling time and cost of accomodation ,social security contributions ,use and maintenance of small tools of trade ,supervision insurance,overheads ,profits and any other cost.				
	a - Labourer	hr	224		
	b - Artisan	hr	224		
	c - Plant Operator	hr	112		
	d - Driver	hr	112		
	e - Foreman	hr	112		
Total carried forward to next page					

C/F from previous page					!
ITEM	DESCRIPTION	Unit	Nominal Quantity	Rate Kshs	Amount Kshs
	B/F from previous page				
	a - Labourer	hr	224		
	b - Artisan	hr	224		
	c - Plant Operator	hr	112		
	d - Driver	hr	112		
	e - Foreman	hr	112		
	MATERIALS				
	All items of materials must be priced in accordance with the requirements of clause 2202 © of the specifications				
22.16	Shuttering timber				
	a - Class F2 finish	m ²	50		
	b - Class F3 finish	m ²	50		
22.17	High yield steel				
	a - Upto and including 16 mm diameter	ton	2.0		
22.18	Ordinary Portland Cement				
	a - Ordinary Portland Cement	ton	3		
22.19	Aggregates for Concrete				
	a - fine	ton	30.0		
	b - course	ton	15.0		
22.20	Precast Concrete Pipe Culverts				
	a - 600mm diameter pipe	m	50		
	b - 900 diameter pipe	m	30		
22.21	Gravel (Including processing)	m ³	3,000		
22.22	Gabion mesh				
	a (2.0 x 1.0 x 1.0m)	m ²	500		
22.23	Rock fill to gabions	m ³	100		
22.24	Removal of cracked pipe culvert Dia 600mm and below: Excavate, remove and dispose cracked pipe culverts 600mm in diameter	m	14		
22.25	Removal of cracked pipe culvert Dia 600mm and above Excavate, remove and dispose cracked pipe culverts 600mm in diameter	m	14		
22.26	Demolition and disposal of cracked pipe culverts	m ³	100		
Total for bill No 22 carried forward to summary of Instructed works					

Bill of Quantities for Performance based Maintenance Services					
Item No	Description	Unit	Nominal Quantity	Rate Kshs	Amount Kshs
Bill 4 Site Clearance/Vegetation control					
04.50.004	<u>Light Bush clearing:</u>	m ²	600,000		
	Cut grass from shoulders, slopes, inlet ditches, and side ditches including back slopes turnouts and culvert outlets				
04.50.008	<u>Clearing of obstruction:</u>	m ²	180		
	Clear any obstruction including debris or boulders out of the road carriage way.				
Bill 8 Culverts and Drainage Works					
08.50.001	<u>Ditch cleaning</u>	m ³	2000		
	Mechanically excavate/desilt, grade to shape inlets and outfalls, side drains/catch water drains to free flow.				
08.60.001	Cleaning and desilting partially blocked culvert of 600mm and below to free flow	m	378		
08.60.002	Cleaning and desilting partially blocked culvert of 900mm and above to free flow	m	546		
10.50.003	<u>Light Grading</u>	m ²	3,600,000		
	Trim with motor grader existing carriageway to camber, including slopes and ditches				
Sub- total to summary page					
TOTAL PBC WORKS					
Duration of the PBC contract(months)		24	COST/MONTH		
Length of Road/s (km)		100	COST/MONTH/KM		

Description of Service and Price			
This price is the remuneration to the Contractor (Exclusive of VAT) to carry out the services and works required in order to reach and maintain the service levels described in the Specifications and elsewhere in the contract. It further includes the activities of the Contractor related to self-control, quality assurance and material testing.			
The Unit Price(Exclusive of VAT) per month and kilometer is			
Sno.	Road	Length (Km)	Unit Price (Kshs)
	Rhino and Manyani Circiut Roads	100	
Total Unit Price Per Month Per Kilometre			
<i>[Note: There may either be one unit price for all roads or road sections included in the contract, or different prices for different roads.]</i>			

[To be completed by the tenderer]