



KENYA RURAL ROADS AUTHORITY

KWALE REGION

UPGRADING TO CABRO STANDARDS OF

ROAD NUMBER: URF

ROAD NAME: KINONDO – CHALE ROAD

CONTRACT NUMBER: KeRRA/011/KWL/39/001/2019-2020

CONTRACT DOCUMENT FOR SPOT IMPROVEMENT

- INVITATION FOR TENDERS
- INSTRUCTIONS TO BIDDERS
- QUALIFICATION CRITERIA
- CONDITIONS OF CONTRACT
- APPENDIX TO FORM OF AGREEMENT
- STANDARD FORMS
- SPECIFICATIONS, DRAWINGS AND BILLS OF QUANTITIES

NOVEMBER 2019

The Engineer

**DEPUTY DIRECTOR,
KENYA RURAL ROADS AUTHORITY
KWALE REGION,
P.O. BOX 139-80403,
KWALE**

The Employer

**DIRECTOR GENERAL,
KENYA RURAL ROADS AUTHORITY,
P.O. BOX 48151-00100,
NAIROBI.**

STANDARD TENDER DOCUMENT FOR PROCUREMENT OF WORKS

- SPOT IMPROVEMENT WORKS

TABLE OF CONTENTS

CONTENTS	PAGE NO.
SECTION I: INVITATION FOR TENDERS.....	3
SECTION II: INSTRUCTIONS TO TENDERERS.....	4
SECTION III: QUALIFICATION CRITERIA.....	13
SECTION IV: CONDITIONS OF CONTRACT.....	18
SECTION V: APPENDIX TO FORM OF AGREEMENT	29
SECTION VI: STANDARD FORMS	32
SECTION VII: CONTRACTOR’S EVALUATION CHECKLIST	58
SECTION VIII: SPECIFICATIONS, DRAWINGS AND BILLS OF QUANTITIES.....	58

SECTION I: INVITATION FOR TENDERS

Tender reference No. KeRRA/011/KWL/39/001/2019-2020

- 1.1 The Kenya Rural Roads Authority invites sealed tenders for upgrading to cabro standard of Kinondo Road - Chale. The scope of works is as follows:
- i. Preliminaries
 - ii. Heavy grading
 - iii. Natural Gravel for subbase
 - iv. Installation of kerbstones
 - v. Installation of Paving blocks (Cabro)
- 1.2 Interested eligible candidates may obtain further information and inspect tender documents at **Kenya Rural Roads Authority, P.O Box 139, Kwale** located at **Kwale Town** opposite **Kwale Boys High School** during normal working hours **8.00 am to 5.00 pm Monday to Friday**.
- 1.3 A complete set of tender documents may be downloaded from KeRRA website www.kerra.go.ke or Suppliers Portal www.ifmis.go.ke
- 1.4 Prices quoted should be net inclusive of all taxes, must be in Kenya shillings and shall remain valid for **120** days from the closing date of tender.
- 1.5 Completed tender documents are to be enclosed in plain sealed envelopes marked with Tender name and reference number and deposited in the Tender Box at the **KeRRA Regional offices - Kwale** or to be addressed to the **Deputy Director, Kenya Rural Roads Authority, P.O Box 139, Kwale** so as to be received on or before the date stated in the Tender notice.
- 1.6 Tenders will be opened immediately thereafter in the presence of the Bidders or their representatives who choose to attend at Kenya Rural Roads Authority offices, Kwale Region.

SECTION II: INSTRUCTIONS TO TENDERERS

TABLE OF CONTENTS

CLAUSE	PAGE.
1 . GENERAL	6
2. TENDER DOCUMENTS	8
3. PREPARATION OF TENDERS	8
4. SUBMISSION OF TENDERS	9
5. TENDER OPENING AND EVALUATON	10
6. AWARD OF CONTRACT	12

INSTRUCTIONS TO TENDERERS.

1. General

- 1.1 The Employer as defined in the Appendix to Conditions of Contract invites tenders for Works Contract as described in the tender documents. The successful Tenderer will be expected to complete the Works by the Intended Completion Date specified in the said Appendix.
- 1.2 Tenderers shall include the following information and documents with their tenders, unless otherwise stated:
- a. **Certified** copy of Certificate of Incorporation
 - b. **Certified** copy of **valid** practicing license as a contractor (Roads & Civil Works NCA 8 and above)
 - c. **Certified** copy of VAT & PIN registration certificate
 - d. Copy of **Valid** Tax compliance certificate (Will be verified on the KRA TCC Checker)
 - e. **Certified** copy of CR 12 (Issued within the last 12 months from the tender opening date)
 - f. **Certified** copies of National Identity Cards / Passports of Directors
 - g. **Certified** copy of **Valid** Single Business Permit
 - h. **Certified** copy of **Valid** Certificate of Registration for Access to Government Procurement Opportunities (AGPO) from the National Treasury (For Disadvantaged groups, Women, Youth and Persons With Disability – Category Small Works & Engineering.
 - i. Contractors bidding for **PWD** tenders should attach **Certified** copies of their Identity Cards issued by the National Council for Persons with Disability.
 - j. **Certified** copies of Log books for ownership of Machines and Equipment. Those hiring **MUST** provide **certified** copies of Lease Agreements and **certified** copies of Log books, **valid** not more than three months from the date of tender opening.
 - k. **Current** Sworn Affidavit not more than 3 months from the tender opening date
 - l. **Proof** of having opened a bank account in the contractor's name, provide a current/ recent 2 months bank statement
 - m. Authority to seek reference from bank
 - n. Form of tender correctly filled, signed & stamped
 - o. Confidential Business Questionnaire correctly filled, signed & stamped
 - p. Bidders **Must Serialize sequentially** all pages of their tender documents submitted – using serialization machine
 - q. Submit a brief Work Methodology

NOTE:

- 1. All certification of documents shall be original and executed by Commissioner for Oaths or Notaries Public.
- 2. Certificates / Licenses may be verified from or with the Issuing Authorities or Agencies

Other Requirements

As specified in the respective tender documents covering the following:

- 1. Similar previous experience where applicable

2. Professional and Technical Personnel
 3. Turnover and liquid Assets Supported by Audited Accounts for the previous two (2) years
 4. Current work load
 5. Litigation History (Provide sworn Affidavit) – executed within 3 months of the tender opening date
-
- 1.3 The Tenderer shall bear all costs associated with the preparation and submission of his tender, and the Employer will in no case be responsible or liable for those costs.
 - 1.4 The Tenderer, at the Tenderer's own responsibility and risk, is encouraged to visit and examine the Site of the Works and its surroundings, and obtain 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 Tenderer's own expense.
 - 1.5 The procurement entity's employees, committee members, board members and their relative (spouse and children) are not eligible to participate in the tender.
 - 1.6 The price to be charged for the tender document shall not exceed **Kshs.1,000/=** for those who may not have downloaded the document from KeRRA website.
 - 1.7 The procuring entity shall allow the tenderer to review the tender document free of charge before purchase.
 - 1.8 The estimated budget for these works is Four Million Shillings only. **(4,000,000.00)**

2. Tender Documents

- 2.1 The complete set of tender documents comprises the documents listed here below and any addenda issued in accordance with clause 2.4 herebelow:-
- (a) These instructions to Tenderers
 - (b) Form of Tender
 - (c) Conditions of Contract and Appendix to Form of Agreement
 - (d) Specifications
 - (e) Drawings
 - (f) Bills of Quantities
 - (g) Other materials required to be filled and submitted in accordance with these Instructions and Conditions
- 2.2 The Tenderer shall examine all instructions, forms and specifications in the tender documents. Failure to furnish all information required by the tender documents may result in rejection of his tender.
- 2.3 A prospective Tenderer making inquiries of the tendering documents may notify the Employer in writing or by cable, telex or facsimile at the address indicated in the letter of invitation to tender. The Employer will respond to any request for clarification received earlier than seven [7] days prior to the deadline for submission of tenders. Copies of the Employer's response will be forwarded to all persons issued with tendering documents, including a description of the inquiry, but without identifying its source.
- 2.4 Before the deadline for submission of tenders, the Employer may modify the tendering documents by issuing addenda. Any addendum thus issued shall be part of the tendering documents and shall be communicated in writing or by cable, telex or facsimile to all Tenderers. Prospective Tenderers shall acknowledge receipt of each addendum in writing to the Employer.
- 2.5 To give prospective Tenderers reasonable time in which to take an addendum into account in preparing their tenders, the Employer shall extend, as necessary, the deadline for submission of tenders in accordance with clause 4.2 herebelow.

3. Preparation of Tenders

- 3.1 All documents relating to the tender and any correspondence shall be in English Language.
- 3.2 The tender submitted by the Tenderer shall comprise the following:-

- (a) The Tender;
 - (b) Tender Security;
 - (c) Priced Bill of Quantities for lump-sum Contracts
 - (d) Any other materials required to be completed and submitted by Tenderers.
- 3.3 The Tenderer shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items for which no rate or price is entered by the Tenderer will not be paid for when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities. All duties, taxes and other levies payable by the Contractor under the Contract, as of 30 days prior to the deadline for submission of tenders, shall be included in the tender price submitted by the Tenderer.
- 3.4 The rates and prices quoted by the Tenderer shall not be subject to any adjustment during the performance of the Contract.
- 3.5 The unit rates and prices shall be in Kenya Shillings.
- 3.6 Tenders shall remain valid for a period of **One Twenty (120)** days from the date of submission. However in exceptional circumstances, the Employer may request that the Tenderers extend the period of validity for a specified additional period. The request and the Tenderers' responses shall be made in writing.
- 3.7 The Tenderer shall prepare one original of the documents comprising the tender documents as described in these Instructions to Tenderers.
- 3.8 The original shall be typed or written in indelible ink and shall be signed by a person or persons duly authorised to sign on behalf of the Tenderer. All pages of the tender where alterations or additions have been made shall be initialed by the person or persons signing the tender.
- 3.9 Clarification of tenders shall be requested by the tenderer to be received by the procuring entity not later than 7 days prior to the deadline for submission of tenders.
- 3.10 The procuring entity shall reply to any clarifications sought by the tenderer within **7 days** of receiving the request to enable the tenderer to make timely submission of its tender.

4. Submission of Tenders

- 4.1 The tender duly filled and sealed in an envelope shall;-
- (a) be addressed to the Employer at the address provided in the invitation to tender;
 - [b] bear the name and identification number of the Contract as defined in the invitation to tender; and
 - [c] provide a warning not to open before the specified time and date for tender opening.
- 4.2 Tenders shall be delivered to the Employer at the address specified above not later than the time and date specified in the invitation to tender.
- 4.3 The tenderer shall not submit any alternative offers unless they are specifically required in the tender documents.
- Only one tender may be submitted by each tenderer. Any tenderer who fails to comply with this requirement will be disqualified.
- 4.4 Any tender received after the deadline for opening tenders will be returned to the tenderer un-opened.
- 4.5 The Employer may extend the deadline for submission of tenders by issuing an amendment in accordance with sub-clause 2.5 in which case all rights and obligations of the Employer and the Tenderers previously subject to the original deadline will then be subject to the new deadline.

5. Tender Opening and Evaluation

- 5.1 The tenders will be opened in the presence of the Tenderers' representatives who choose to attend at the time and in the place specified in the invitation to tender.
- 5.2 The Tenderers' names, the total amount of each tender and such other details as may be considered appropriate, will be announced at the opening by the Employer . Minutes of the tender opening, including the information disclosed to those present will also be prepared by the Employer.
- 5.3 Information relating to the examination, clarification, evaluation and comparison of tenders and recommendations for the award of the Contract shall not be disclosed to Tenderers or any other persons not officially concerned with such process until the award to the successful Tenderer has been announced. Any effort by a Tenderer to

influence the Employer's officials, processing of tenders or award decisions may result in the rejection of his tender.

5.4 Tenders determined to be substantially responsive will be checked for any arithmetic errors. Errors will be corrected as follows:

- (a) where there is a discrepancy between the amount in figures and the amount in words, the amount in words will prevail; and
- (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's representative, there is an obvious typographical error, in which case the 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 Bill of Quantities/Quotation, 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 P.C. 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 valuation 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 forfeited.

5.5 The tender evaluation committee shall evaluate the tender within 30 days of the validity period from the date of opening the tender.

5.6 Contract price variations shall not be allowed for contracts not exceeding one year (12 months)

5.7 Where contract price variation is allowed, the valuation shall not exceed 25% of the original contract price.

5.8 Price variation requests shall be processed by the procuring entity within 30 days of receiving the request.

- 5.9 To assist in the examination, evaluation, and comparison of tenders, the Employer at his discretion, may request [in writing] any Tenderer for clarification of the tender, including breakdowns of unit rates. The request for clarification and the response shall be in writing or by cable, telex or facsimile but no change in the tender price or substance of the tender shall be sought, offered or permitted.
- 5.10 The Tenderer shall not influence the Employer on any matter relating to his tender from the time of the tender opening to the time the Contract is awarded. Any effort by the Tenderer to influence the Employer or his employees in his decision on tender evaluation, tender comparison or Contract award may result in the rejection of the tender.

6. Award of Contract

- 6.1 The award of the Contract will be made to the Tenderer who has offered the lowest evaluated tender price.
- 6.2 Notwithstanding the provisions of clause 6.1 above, the Employer reserves the right to accept or reject any tender and to cancel the tendering process and reject all tenders at any time prior to the award of Contract without thereby incurring any liability to the affected Tenderer or Tenderers or any obligation to inform the affected Tenderer or Tenderers of the grounds for the action.
- 6.3 The Tenderer whose tender has been accepted will be notified of the award prior to expiration of the tender validity period in writing or by cable, telex or facsimile. This notification (hereinafter and in all Contract documents called the “Letter of Acceptance”) will state the sum [hereinafter and in all Contract documents called the “Contract Price” which the Employer will pay the Contractor in consideration of the execution, completion, and maintenance of the Works by the Contractor as prescribed by the Contract. The contract shall be formed on the parties signing the contract. At the same time the other tenderers shall be informed that their tenders have not been successful.
- 6.4 The Contract Agreement will incorporate all agreements between the Employer and the successful Tenderer. It will be signed by the Employer and sent to the successful Tenderer, within 30 days following the notification of award. Within 21 days of receipt ,the successful Tenderer will sign the Agreement and return it to the Employer.

6.5 Within 21 days after receipt of the Letter of Acceptance, the successful Tenderer shall deliver to the Employer a Performance Security amount stipulated in the Appendix to Conditions of Contract.

6.6 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.

6.7 The procuring entity may at any time terminate procurement proceedings before contract award and shall not be liable to any person for the termination.

6.8 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.

7. Corrupt and fraudulent practices

7.1 The procuring entity requires that the tenderer observes the highest standard of ethics during the procurement process and execution of the contract. A tenderer shall sign a declaration that he has not and will not be involved in corrupt and fraudulent practices.

7.2 The procuring entity will reject a tender if it determines that the tenderer recommended for award has engaged in corrupt and fraudulent practices in competing for the contract in question. Due Diligence will be conducted in case of doubt on fictitious documents provided

7.3 Further a tenderer who is found to have indulged in corrupt and fraudulent practices risks being debarred from participating in public procurement in Kenya.

SECTION III: QUALIFICATION CRITERIA

Qualification Criteria			Compliance Requirements	Documentation
No.	Subject	Requirement	Single Entity	Submission Requirements
1. Eligibility				
1.1	Eligibility	Nationality in accordance with confidential business Questionnaire in the standard forms Forms should be properly filled and stamped	Must meet requirement	Refer to standard form section 7
1.4	Incorporation & Registration	Pursuant to sub clause 1.2 the following shall be provided; Certified Copy of Certificate of incorporation to show that the applicant is a registered company and legally authorised to do business in Kenya Proof of registration with the National Construction Authority Category 8 and above for Road Works. The bidder to provide a certified copy of NCA certificate and Licence - Certified copy of AGPO certificate for bidders registered in the small works & Engineering category from National Treasury -Copy of Valid Tax Compliance Certificate -Copy of PIN/VAT Certificates -Proof of having opened a Bank account in Firm's name provide current 2 months bank statement -Sworn Affidavit -Duly filled power of Attorney.	Must meet requirement	Refer to standard form section 7

Qualification Criteria			Compliance Requirements	Documentation
No.	Subject	Requirement	Single Entity	Submission Requirements
		-Dully filled Anti-corruption pledge form -Duly filled and signed Environmental and social commitment form - Duly signed and stamped Bills of Quantities page -Sequential serialization of Bid documents -Certified Copy of recent CR 12 form – 12 months -Copy of National Identity Cards (IDs)/valid passports for all Directors -ID from National Council for Persons living with disability for PWD		
2.3	Authority to seek reference from the Bank	Append written authority to seek reference from bidders' bankers. The Authority should be signed & stamped by the bank signatories.	Must meet requirement	Refer to standard form section 7
2.4	Physical Address	Provide copy of single Business permit	Must meet requirement	Refer to standard form section 7
2.1	History of Non-Performing Contracts	Non-performance of a contract did not occur within the last three (3) 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.	Must meet requirement by itself or as party to past	
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.	Must meet requirement by itself or as party to past	Refer to standard form section 7

Qualification Criteria			Compliance Requirements	Documentation
No.	Subject	Requirement	Single Entity	Submission Requirements
3.1	Financial Performance	Submission of audited balance sheets or if not required by the law of the applicant's country, other financial statements acceptable to the Employer, for the last two [2] years to demonstrate: (a) the current soundness of the applicants financial position and its prospective long term profitability, and (b) Capacity to have a cash flow amount of minimum KShs 2 Million (KShs Two Million) for equivalent working capital	Must meet requirement (a) Must meet requirement (b) Must meet requirement	Refer to standard form section 7
3.2	Average Annual Construction Turnover	Minimum average annual construction turnover of KShs 2 million [Two million], calculated as total certified payments received for contracts in progress or completed, within the last two years	Must meet requirement	Refer to standard form section 7
4.1	General Construction Experience	Experience under construction contracts in the role of contractor, subcontractor, or management contractor for at least the last Three (3) prior to the applications submission deadline	Must meet requirement	Refer to standard form section 7
4.2(a)	Specific Construction Experience	Participation as contractor, management contractor or subcontractor, in at least Two (2) contracts within the last Three (3) years, each with a value of at least Kshs.2,000,000 (two million) that have been successfully and substantially completed and that are similar to the proposed works. The similarity shall be based on the physical size, complexity, methods/technology or other characteristics as described in Scope of Works	Must meet requirement	Refer to standard form section 7

Qualification Criteria			Compliance Requirements	Documentation
No.	Subject	Requirement	Single Entity	Submission Requirements
4.2(b)		b) For the above or other contracts executed during the period stipulated in 4.2(a) above, a minimum construction experience in at least one (1) of: - Routine maintenance - Spot improvement & rehabilitation works. The Contractor should provide Notification of Awards and completion certificates for the said projects	Must meet requirements	Refer to standard form section 7
4.3	Work Methodology	Submission of a brief work methodology	Should demonstrate understanding of the scope of works and other general requirements	Refer to standard form section 7
5. Equipment Holding				
5.1	Minimum number of Equipment	The bidder must indicate a minimum of (2) core plant and equipment considered by the company to be necessary for undertaking the project.	Must meet the requirement	Refer to standard form section 7
6. Current Commitment				
6.1	On-going contracts	The total value of current works on the on-going contracts must not exceed Kshs. 3 million	Must meet requirements	
7. Site Staff				
1	Site Agent	The site staff shall possess minimum levels set below; Qualification = Diploma in Civil Engineering General Experience = 1yrs Specific Experience = 1 Yrs	Must meet requirements	Refer to guideline notes

Qualification Criteria			Compliance Requirements	Documentation
No.	Subject	Requirement	Single Entity	Submission Requirements
2	Foreman	Qualification = Cert. from KIHBT/Recog inst. Or grade 1 artisan in the relevant works from Ministry of Labour. General Experience = 2 yrs Specific Experience = 1 Yrs - Bidder must provide CVs, Academic Certificates and Testimonials		

SECTION IV: CONDITIONS OF CONTRACT

	Table of Clauses	Page
1.	DEFINITIONS.....	20
2.	CONTRACT DOCUMENTS.....	21
3.	EMPLOYER’S REPRESENTATIVE’S DECISIONS.....	21
4.	WORKS, LANGUAGE AND LAW OF CONTRACT.....	22
5.	SAFETY, TEMPORARY WORKS AND DISCOVERIES.....	22
6.	WORK PROGRAM AND SUB-CONTRACTING.....	22
7.	THE SITE.....	22
8.	INSTRUCTIONS.....	23
9.	EXTENSION OF COMPLETION DATE.....	23
10.	MANAGEMENT MEETINGS.....	24
11.	DEFECTS.....	24
12.	BILLS OF QUANTITIES.....	25
13.	VARIATIONS.....	25
14.	PAYMENT CERTIFICATES AND FINAL ACCOUNT	26
15.	INSURANCES	27
16.	LIQUIDATED DAMAGES.....	27
17.	COMPLETION AND TAKING OVER.....	27
18.	TERMINATION.....	27
19.	PAYMENT UPON TERMINATION.....	28
20.	CORRUPT GIFTS AND PAYMENTS OF COMMISSION.....	28
21.	SETTLEMENT OF DISPUTES.....	29

CONDITIONS OF CONTRACT

1. Definitions

1.1 In this Contract, except where context otherwise requires, the following terms shall be interpreted as indicated;

“Bills of Quantities” means the priced and completed Bill of Quantities forming part of the tender[where applicable].

“Schedule of Rates” means the priced Schedule of Rates forming part of the tender [where applicable].

“The Completion Date” means the date of completion of the Works as certified by the Employer’s Representative.

“The Contract” means the agreement entered into by the Employer and the Contractor as recorded in the Agreement Form and signed by the parties.

“The Contractor” refers to the person or corporate body whose tender to carry out the Works has been accepted by the Employer.

“The Contractor’s Tender” is the completed tendering document submitted by the Contractor to the Employer.

“The Contract Price” is the price stated in the Letter of Acceptance.

“Days” are calendar days; “Months” are calendar months.

“A Defect” is any part of the Works not completed in accordance with the Contract.

“The Defects Liability Certificate” is the certificate issued by Employer’s Representative upon correction of defects by the Contractor.

“The Defects Liability Period” is the period named in the Appendix to Conditions of Contract and calculated from the Completion Date.

“Drawings” include calculations and other information provided or approved by the Employer’s Representative for the execution of the Contract.

“Employer” Includes Central or Local Government administration, Universities, Public Institutions and Corporations and is the party who employs the Contractor to carry out the Works.

“Equipment” is the Contractor’s machinery and vehicles brought temporarily to the Site for the execution of the Works.

“Site” means the place or places where the permanent Works are to be carried out including workshops where the same is being prepared.

“Materials” are all supplies, including consumables, used by the Contractor for incorporation in the Works.

“Employer’s Representative” is the person appointed by the Employer and notified to the Contractor for the purpose of supervision of the Works.

“Specification” means the Specification of the Works included in the Contract.

“Start Date” is the date when the Contractor shall commence execution of the Works.

“ A Subcontractor” is a person or corporate body who has a Contract with the Contractor to carry out a part of the Work in the Contract, which includes Work on the Site.

“Temporary works” are works designed, constructed, installed, and removed by the Contractor which are needed for construction or installation of the Works.

“ A Variation” is an instruction given by the Employer’s Representative which varies the Works.

“The Works” are what the Contract requires the Contractor to construct, install, and turnover to the Employer.

2. Contract Documents

2.1 The following documents shall constitute the Contract documents and shall be interpreted in the following order of priority;

- (1) Agreement,
- (2) Letter of Acceptance,
- (3) Contractor’s Tender,
- (4) Conditions of Contract,
- (5) Specifications,
- (6) Drawings,
- (7) Bills of Quantities

3. Employer’s Representative’s Decisions

3.1 Except where otherwise specifically stated, the Employer’s Representative will decide contractual matters between the Employer and the Contractor in the role representing the Employer.

4. Works, Language and Law of Contract

- 4.1 The Contractor shall construct and install the Works in accordance with the Contract documents. The Works may commence on the Start Date and shall be carried out in accordance with the Program submitted by the Contractor, as updated with the approval of the Employer's Representative, and complete them by the Intended Completion Date.
- 4.2 The ruling language of the Contract shall be English language and the law governing the Contract shall be the law of the Republic of Kenya.

5. Safety, Temporary works and Discoveries

- 5.1 The Contractor shall be responsible for design of temporary works and shall obtain approval of third parties to the design of the temporary works where required.
- 5.2 The Contractor shall be responsible for the safety of all activities on the Site.
- 5.3 Any thing of historical or other interest or significant value unexpectedly discovered on the Site shall be the property of the Employer. The Contractor shall notify the Employer's Representative of such discoveries and carry out the Employer's Representative's instructions for dealing with them.

6 Work Program and Sub-contracting

- 6.1 Within seven days after Site possession date, the Contractor shall submit to the Employer's Representative for approval a program showing the general methods, arrangements, order and timing for all the activities in the Works.
- 6.2 The Contractor may sub-contract the Works (but only to a maximum of 25 percent of the Contract Price) with the approval of the Employer's Representative. However, he shall not assign the Contract without the approval of the Employer in writing. Sub-contracting shall not alter the Contractor's obligations.

7 The site

- 7.1 The Employer shall give possession of all parts of the Site to the Contractor.

7.2 The Contractor shall allow the Employer's Representative and any other person authorized by the Employer's Representative, access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.

8 Instructions

8.1 The Contractor shall carry out all instructions of the Employer's Representative which are in accordance with the Contract.

9 Extension of Completion Date

9.1 The Employer's Representative shall extend the Completion Date if an occurrence arises which makes it impossible for completion to be achieved by the Intended Completion Date. The Employer's Representative shall decide whether and by how much to extend the Completion Date.

9.2 For the purposes of this clause, the following occurrences shall be valid for consideration;

- Delay by:-(a) force majeure, or
- (b) reason of any exceptionally adverse weather conditions, or
 - (c) reason of civil commotion, strike or lockout affecting any of the trades employed upon the Works or any of the trades engaged in the preparation, manufacture or transportation of any of the goods or materials required for the Works, or
 - (d) reason of the Employer's Representative's instructions issued under these Conditions, or
 - (e) reason of the contractor not having received in due time necessary instructions, drawings, details or levels from the Employer's Representative for which he specifically applied in writing on a date which having regard to the date for Completion stated in the appendix to these Conditions or to any extension of time then fixed under this clause was neither unreasonably distant from nor unreasonably close to the date on which it was necessary for him to receive the same, or
 - (f) delay on the part of artists, tradesmen or others engaged by the Employer in executing work not forming part of this Contract, or
 - (g) Reason of delay by statutory or other services providers or similar bodies engaged directly by the Employer, or
 - (h) Reason of opening up for inspection of any Work covered up or of the testing or any of the Work, materials or goods in accordance with these conditions unless the inspection or test showed that the Work, materials or goods were not in accordance with this Contract, or

- (i) Reason of delay in appointing a replacement Employer's Representative, or
- (j) Reason of delay caused by the late supply of goods or materials or in executing Work for which the Employer or his agents are contractually obliged to supply or to execute as the case may be, or
- (k) Delay in receiving possession of or access to the Site.

10 Management Meetings

10.1 A Contract management meeting shall be held regularly and attended by the Employer's Representative and the Contractor. Its business shall be to review the plans for the remaining Work. The Employer's Representative shall record the business of management meetings and provide copies of the record to those attending the meeting and the Employer. The responsibility of the parties for actions to be taken shall be decided by the Employer's Representative either at the management meeting or after the management meeting and stated in writing to all who attend the meeting.

10.2 Communication between parties shall be effective only when in writing.

11 Defects

11.1 The Employer's Representative shall inspect the Contractor's work and notify the Contractor of any defects that are found. Such inspection shall not affect the Contractor's responsibilities. The Employer's Representative may instruct the Contractor to search for a defect and to uncover and test any Work that the Employer's Representative considers may have a defect. Should the defect be found, the cost of uncovering and making good shall be borne by the Contractor. However if there is no defect found, the cost of uncovering and making good shall be treated as a variation and added to the Contract Price.

11.2 The Employer's Representative shall give notice to the Contractor of any defects before the end of the Defects Liability Period, which begins

at Completion, and is defined in the Appendix to Form of Agreement.

- 11.3 Every time notice of a defect is given, the Contractor shall correct the notified defect within the length of time specified by the Employer's Representative's notice. If the Contractor has not corrected a defect within the time specified in the Employer's Representative's notice, the Employer's Representative will assess the cost of having the defect corrected by other parties and such cost shall be treated as a variation and be deducted from the Contract Price.

12 Bills of Quantities

- 12.1 The Bills of Quantities shall contain items for the construction, installation, testing and commissioning of the Work to be done by the Contractor. The Contractor will be paid for the quantity of the Work done at the rates in the Bills of Quantities for each item. Items against which no rate is entered by the Tenderer will not be paid for when executed and shall be deemed covered by the rates for other items in the Bills of Quantities.
- 12.2 Where Bills of Quantities do not form part of the Contract, the Contract Price shall be a lump sum (which shall be deemed to have been based on the rates in the Schedule of Rates forming part of the tender) and shall be subject to re-measurement after each stage.

13 Variations

- 13.1 The Contractor shall provide the Employer's Representative with a quotation for carrying out the variations when requested to do so. The Employer's Representative shall assess the quotation and shall obtain the necessary authority from the Employer before the variation is ordered.
- 13.2 If the Work in the variation corresponds with an item description in the Bill of Quantities, the rate in the Bill of Quantities shall be used to calculate the value of the variation. If the nature of the Work in the variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of Work.
- 13.3 If the Contractor's quotation is unreasonable, the Employer's Representative may order the variation and make a change to the Contract Price, which shall be based on the Employer's Representative's own forecast of the effects of the variation on the Contractor's costs.

14 Payment Certificates and Final Account

- 14.1 The Contractor shall be paid after each of the following stages of Work listed here below (subject to re-measurement by the Employer's Representative of the Work done in each stage before payment is made). In case of lump-sum Contracts, the valuation for each stage shall be based on the quantities so obtained in the re-measurement and the rates in the Bill of Quantities.
- (i) Advance payment _____ (percent of Contract Price,
[after Contract execution] to be inserted by the Employer).
 - (ii) First stage (define stage) _____
 - (iii) Second stage (define stage) _____
 - (iv) Third stage (define stage) _____
 - (v) After defects liability period .
- 14.2 Upon deciding that Works included in a particular stage are complete, the Contractor shall submit to the Employer's Representative his application for payment. The Employer's Representative shall check, adjust if necessary and certify the amount to be paid to the Contractor within 21 days of receipt of the Contractor's application .The Employer shall pay the Contractor the amounts so certified within 30 days of the date of issue of each Interim Certificate.
- 14.3 The Contractor shall supply the Employer's Representative with a detailed final account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Employer's Representative shall issue a Defect Liability Certificate and certify any final payment that is due to the Contractor within 30 days of receiving the Contractor's account if it is correct and complete. If it is not, the Employer's Representative shall issue within 21 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 Employer's Representative shall decide on the amount payable to the Contractor and issue a Final Payment Certificate. The Employer shall pay the Contractor the amount so certified within 60 days of the issue of the Final Payment Certificate.
- 14.4 If the period laid down for payment to the Contractor upon each of the Employer's Representative's Certificate by the Employer has been exceeded, the Contractor shall be entitled to claim simple interest calculated pro-rata on the basis of the number of days delayed at the

Central Bank of Kenya's average base lending rate prevailing on the first day the payment becomes overdue. The Contractor will be required to notify the Employer within 15 days of receipt of delayed payments of his intentions to claim interest.

15. Insurance

15.1 The Contractor shall be responsible for and shall take out appropriate cover against, among other risks, personal injury; loss of or damage to the Works, materials and plant; and loss of or damage to property.

16. Liquidated Damages

16.1 The Contractor shall pay liquidated damages to the Employer at the rate 0.001 per cent of the Contract price per day for each day that the actual Completion Date is later than the Intended Completion Date except in the case of any of the occurrences listed under clause 9.2. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.

17. Completion and Taking Over

17.1 Upon deciding that the Work is complete the Contractor shall request the Employer's Representative to issue a Certificate of Completion of the Works, upon deciding that the Work is completed.

The Employer shall take over the Site and the Works within seven days of the Employer's Representative issuing a Certificate of Completion.

18. Termination

18.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract. These fundamental breaches of Contract shall include, but shall not be limited to, the following;

- (a) the Contractor stops Work for 30 days continuously without reasonable cause or authority from the Employer's Representative;
- (b) the Contractor is declared bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
- (c) a payment certified by the Employer's Representative is not paid by the Employer to the Contractor within 30 days after the expiry of the payment periods stated in sub clauses 14.2 and 14.3 hereinabove.

- (d) the Employer's Representative gives notice that failure to correct a particular defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time.

18.2 If the Contract is terminated, the Contractor shall stop Work immediately, and leave the Site as soon as reasonably possible. The Employer's Representative shall immediately thereafter arrange for a meeting for the purpose of taking record of the Works executed and materials, goods, equipment and temporary buildings on Site.

19. Payment Upon Termination

19.1 The Employer may employ and pay other persons to carry out and complete the Works and to rectify any defects and may enter upon the Works and use all materials on Site, plant, equipment and temporary works.

19.2 The Contractor shall, during the execution or after the completion of the Works under this clause, remove from the Site as and when required within such reasonable time as the Employer's Representative may in writing specify, any temporary buildings, plant, machinery, appliances, goods or materials belonging to him, and in default thereof, the Employer may (without being responsible for any loss or damage) remove and sell any such property of the Contractor, holding the proceeds less all costs incurred to the credit of the Contractor.

19.3 Until after completion of the Works under this clause, the Employer shall not be bound by any other provision of this Contract to make any payment to the Contractor, but upon such completion as aforesaid and the verification within a reasonable time of the accounts therefor the Employer's Representative shall certify the amount of expenses properly incurred by the Employer and, if such amount added to the money paid to the Contractor before such determination exceeds the total amount which would have been payable on due completion in accordance with this Contract, the difference shall be a debt payable to the Employer by the Contractor; and if the said amount added to the said money be less than the said total amount, the difference shall be a debt payable by the Employer to the Contractor.

20. Corrupt Gifts and Payments of Commission

20.1 The Contractor shall not;

- (a) Offer or give or agree to give to any person in the service of the Employer any gifts or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this or any other contract with the Employer or for

showing or forbearing to show favour or disfavour to any person in relation to this or any other contract with the Employer.

- (b) Any breach of this Condition by the Contractor or by anyone employed by him or acting on his behalf (whether with or without the knowledge of the Contractor) shall be an offence under the Laws of Kenya.

21. Settlement of Disputes

- 21.1 Any dispute arising out of the Contract which cannot be amicably settled between the parties shall be referred by either party to the arbitration and final decision of a person to be agreed between the parties. Failing agreement to concur in the appointment of an Arbitrator, the Arbitrator shall be appointed by the chairman of the Chartered Institute of Arbitrators, Kenya branch, on the request of the applying party.

SECTION V: APPENDIX TO FORM OF AGREEMENT

This Appendix to Form of Agreement forms part of the Agreement.

Item	Data
Time for Completion	3 Months,
Priority of Documents	The documents forming the Contract shall be interpreted in the following order of priority: • the Contract Agreement and Appendix to form of agreement • the Letter of Acceptance • the Form of Tender • the Conditions of Contract, Part II - Conditions of Particular Application • the Conditions of Contract, Part I - General Conditions of Contract • the Specifications • the Drawings, • the Priced Bill of Quantities
Law of Contract	Laws of the Republic of Kenya
Language	English
Provision of Site	On Commencement Date
Name and Address of Employer	Director General Kenya Rural Roads Authority P.O. Box 48151-00100 Nairobi
Authorised Person	Director (Road Asset Management), Kenya Rural Roads Authority P.O. Box 48151-00100 Nairobi
Name and Address of the Engineer	Deputy Director, Kenya Rural Roads Authority P. O. Box 139-80403 Kwale

Item	Data
Penalty to the Contractor for Employer paying workers on his behalf	10% of the amount paid to the workers.
Performance Security	(Refer to guideline Notes)
Amount	5% of sum stated as the Contract Price
Form	Bank Guarantee or Insurance Bond issued by PPOA approved insurance companies
Requirements of Contractors Design	Not applicable
Programme ⇒ Time of Submission	Within 14 days of Commencement Date
⇒ Form of Programme	Bar Chart
⇒ Interval Updates	As requested by the RM
Liquidated Damages Amount payable due to failure to complete	0.01% of Contract Price per Day to a limit of 1% of Contract Price.
Defects Liability	Refer to guideline Notes
Period of notifying defects	90 days calculated from the date stated in the notice under sub clause 11.2
Percentage of Retention	Refer to guideline Notes
Maximum Amount of Advance Payment	Refer to guideline Notes
Form of Guarantee for Advance Payment	Bank Guarantee
Valuation of Works	Remeasurements with Bills of Quantities
Repayment Schedule for Advance Payment	33 % instalments from 1 st three certificates.
Minimum Amount of Interim Payment	Ksh.1,500,000.00
Currency of Payment	Kenya Shilling
Rate of Interest	Simple Interest at a rate of 2% above mean Base

Item	Data
	Lending Rate as issued by the Central Bank of Kenya.
Insurance	Required/ Not required
Insurance	Amount of Cover
⇒ The Works, materials plants & fees- Contractor's All risks	The Contract Price stated in the Agreement +15%+replacement cost of equipment on site.
⇒ Third party injury to persons and damage to property	As per work injury benefits act 2007 laws of Kenya
⇒ Workers compensation (WIBA- workers injury benefits policy)	
Arbitration	
⇒ Rules	CAP 49 of the Laws of Kenya
⇒ Appointing Authority	Chairman Chartered Institute of Arbitrators, Kenya Branch.
⇒ Place of Arbitration	Kenya Rural Roads Authority, Headquarters

SECTION VI: STANDARD FORMS

Table of Contents

CONTENTS:	PAGE
FORM OF INVITATION FOR TENDERS.....	33
FORM OF TENDER.....	34
LETTER OF AWARD	35
FORM OF TENDER SECURITY	36
PERFORMANCE BANK GUARANTEE	37
BANK GUARANTEE FOR ADVANCE PAYMENT	38
QUALIFICATION INFORMATION.....	39
CONFIDENTIAL BUSINESS QUESTIONNAIRE	42
SCHEDULE OF LABOUR: - BASIC RATES.....	44
CERTIFICATE OF TENDERER'S VISIT TO SITE	45
FORM OF WRITTEN POWER-OF-ATTORNEY.....	46
KEY PERSONNEL	47
SCHEDULE OF THE PROPOSED APPROPRIATE EQUIPMENT.....	48
SCHEDULE OF COMPLETED CIVIL WORKS CARRIED OUT IN THE PREVIOUS YEARS	
SCHEDULE OF ONGOING PROJECTS	50
OTHER SUPPLEMENTARY INFORMATION.....	51
ADJUDICATOR'S AGREEMENT	52
FRAUD & CORRUPTION.....	54
ENVIRONMENTAL AND SOCIAL COMMITMENT.....	55
PUBLIC PROCUREMENT ADMINISTRATIVE REVIEW BOARD	56
DECLARATION FORM	ERROR! BOOKMARK NOT DEFINED.

FORM OF INVITATION FOR TENDERS

_____ [Date]

To: _____ [Name of Contractor]
_____ [Address]

Dear Sirs:

Reference: _____ [Contract Name]

You are qualified to tender for the above Contract.

We hereby invite you and other qualified Tenderers to submit a Tender for the execution and completion of the Works.

A complete set of Tender documents may be purchased from _____

[Mailing address, cable/telex/facsimile numbers].

Upon payment of a non-refundable fee of Kshs _____

All Tenders shall be accompanied bynumber of copies of the same and a Tender Security in the form and amount of Kshs..... and shall be delivered to:

[Address and location]

at or before _____ (time and date). Tenders will be opened immediately thereafter, in the presence of those Tenderers' representatives who choose to attend.

Please confirm receipt of this letter and your intention to Tender in writing.

Yours faithfully,

_____ Authorised Signature

_____ Name and Title

FORM OF TENDER

TO: _____[Name of Employer] _____[Date]

_____ [Name of Contract]

Dear Sir,

1. In accordance with the Conditions of Contract, Specifications, Drawings and Bills of Quantities for the execution of the above Works, We, the undersigned offer to construct, install and complete such Works and remedy any defects therein for the sum of Kshs. _____[Amount in figures]Kenya Shillings _____[Amount in words]
2. We undertake, if our Tender is accepted, to commence the Works on the commencement date and to complete the whole of the Works comprised in the Contract within the time stated in the Appendix.
3. We agree to abide by this Tender until _____[Insert date], and it shall remain binding upon us and may be accepted at any time before that date.
4. Unless and until a formal Agreement is prepared and executed this Tender together with your written acceptance thereof, shall constitute a binding Contract between us.
4. We understand that you are not bound to accept the lowest or any Tender you may receive.

Dated this _____ day of _____ 20_____

Signature _____ in the capacity of _____

duly authorized to sign Tenders for and on behalf of
_____ [Name of Tenderer] of

_____ [Address of Tenderer]

Witness: Name _____

Address _____

Signature _____

Date _____

LETTER OF AWARD

[Letterhead paper of the Employer]

_____ [Date]

To: _____
[Name of the Contractor]

[Address of the Contractor]

Dear Sir,

This is to notify you that your Tender dated _____

for the execution of _____

[name of the Contract and identification number, as given in the Tender documents] for the Contract

Price of Kshs. _____ [amount in figures][Kenya

Shillings _____ (amount in words)] in accordance with the Instructions
to Tenderers is hereby accepted.

You are hereby instructed to proceed with the execution of the said Works in accordance with the
Contract documents.

Authorized Signature

Name and Title of Signatory

Attachment :

FORM OF TENDER SECURITY

WHEREAS(hereinafter called “the Tenderer”) has submitted a Tender dated for the Rehabilitation/Spot Improvement of
..... (Name of Contract)

KNOW ALL PEOPLE by these presents that WE having our registered office at(hereinafter called “the Bank”), are bound unto(hereinafter called “the Employer”) in the sum of Kshs..... for which payment well and truly to be made to the said Employer, the Bank binds itself, its successors and assigns by these presents sealed with the Common Seal of the said Bank this Day of20.....

THE CONDITIONS of this obligation are:

1. If after Tender opening the Tenderer withdraws his Tender during the period of Tender validity specified in the Instructions to Tenderers
Or
2. If the Tenderer, having been notified of the acceptance of his Tender by the Employer during the Period of Tender validity:
 - (a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to Tenderers, if required; or
 - (b) fails or refuses to furnish the Performance Security, in accordance with the Instructions to Tenderers;

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

This guarantee will remain in force up to and including thirty (30) days after the Period of Tender validity, and any demand in respect thereof should reach the Bank not later than the said date.

[Date]

[Signature of the Bank]

[Witness]

[Seal]

PERFORMANCE BANK GUARANTEE

To: _____(Name of Employer) _____(Date)

_____(Address of Employer)

Dear Sir,

WHEREAS _____(hereinafter called “the Contractor”) has undertaken, in pursuance of Contract No. _____ dated _____ to execute _____ (hereinafter called “the Works”);

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognised bank for the sum specified therein 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 hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of Kshs. _____ (amount of Guarantee in figures) Kenya Shillings _____ (amount of Guarantee in words), and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of Kenya Shillings _____ (amount of Guarantee in words) as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

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

We further agree that no change, addition 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 change, addition, or modification.

This Guarantee shall be valid until the date of issue of the Employer’s notice under Sub-Clause 8.2 (Taking-Over Notice), of the Conditions of Contract.

SIGNATURE AND SEAL OF THE GUARANTOR _____

Name of Bank _____

Address _____

Date _____

BANK GUARANTEE FOR ADVANCE PAYMENT

To: _____ [Name of Employer] _____ (Date)
_____ [Address of Employer]

Gentlemen,

Ref: _____ [name of Contract]

In accordance with the provisions of the Conditions of Contract of the above-mentioned Contract, **We**, _____ [name and Address of Contractor] (hereinafter called “the Contractor”) shall furnish you with a Bank guarantee by a recognised Bank for the sum specified therein as a security for compliance with his obligations in accordance with the Contract in an amount of Kshs. _____ [amount of Guarantee in figures] Kenya Shillings _____ [amount of Guarantee in words].

We, the _____ [bank or financial institution], as instructed by the Contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to _____ [name of Employer] on his first demand without whatsoever right of objection on our part and without his first claim to the Contractor, in the amount not exceeding Kshs _____ [amount of Guarantee in figures] Kenya Shillings _____ [amount of Guarantee in words].

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 _____ [name of Employer] 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 remain valid and in full effect from the date of the Advance Payment under the Contract until _____ (name of Employer) receives full payment of the same amount from the Contract.

Yours faithfully,
Signature and Seal _____

Name of the Bank or financial institution _____

Address _____

Date _____

Witness: Name: _____

Address: _____

Signature: _____

Date: _____

FORM OF AGREEMENT

This **AGREEMENT** is made on the ----- day of ----- 20-----between the **Kenya Rural Roads Authority**, represented by the **Deputy Director, Kenya Rural Roads Authority of P.O. Box 139,Kwale** or his representative (*Hereinafter called "The Employer"*) on the one part and -----(*Hereinafter called "The Contractor"*) of P.O. Box -----of the other part.

WHEREAS the Employer is desirous that certain works should be executed as follows:-

Routine Maintenance and Spot Improvement of-----
-----and has accepted a Tender by the Contractor to execute the works on the road sections as defined.

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract.
2. The following documents form part of this Agreement, viz:
 - (a) Letter of Notification of Award
 - (b) Letter of Acceptance;
 - (c) Form of Tender
 - (d) Appendix to the Form of Agreement
 - (e) Conditions of Contract; Parts I and II
 - (f) Specifications;
 - (g) Drawings;
 - (h) Priced Bill of Quantities;
 - (i) Other Documents/Materials/Conditions agreed and documented.
3. In consideration of the payment to be made by the Employer to the Contractor, the Contractor covenants with the Employer to execute and complete the Works in conformity with the provisions of the Contract.
4. The Employer covenants to pay the Contractor in consideration of the execution and completion of the Works, the Contract Price or such other sum as may become payable under the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS WHEREOF the parties have hereto caused this Agreement to be executed the day and year first before written at....., Kenya

Signed and dated for and on behalf of the Employer

.....
(The Deputy Director)

.....
(Date)

.....
(Name of the Employer's Representative)

In the Presence of
(Signature of Witness)

.....
(Date)

Designation.....

.....
(Name of witness)

.....
(Address of Witness)

Signed for and on behalf of the Contractor

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

.....
(Date)

.....
(Name of the Contractor's Representative)

In the Presence of
(Signature of witness)

.....
(Date)

.....
(Name of witness)

.....
(Address of Witness)

QUALIFICATION INFORMATION

TENDER QUESTIONNAIRE

Please fill in block letters.

1. Full name of Tenderer;
.....
2. Full address of Tenderer to which Tender correspondence is to be sent (unless an agent has been appointed below);
.....
3. Telephone number (s) of Tenderer;
.....
4. Facsimile of Tenderer;
.....
5. Name of Tenderer's representative to be contacted on matters of the Tender during the Tender period;
.....
6. Details of Tenderer's nominated agent (if any) to receive Tender notices (name, address, telephone, telefax);
.....
.....

Signature of Tenderer

Make copy and deliver to: _____ (Name of Employer) (The Tenderer shall leave one copy at the time of purchase of the Tender documents)

CONFIDENTIAL BUSINESS QUESTIONNAIRE

You are requested to give the particulars indicated in Part 1 and either Part 2 (a) or 2 (b) whichever applies to your type of business.

You are advised that it is a serious offence to give false information on this Form.

Part 1 – General

Business Name

Location of business premises; Country/Town.....

Plot No..... Street/Road

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

Nature of Business.....

Current Trade Licensee No..... Expiring date.....

Maximum value of business which you can handle at any time: Kshs

Name of your Bankers.....

Branch.....

Part 2 (b) – Partnership

Give details of partners as follows:

Name in full	Nationality	Citizenship Details	Shares
1.....			
2.....			
3.....			

Part 2(c) – Registered Company:

Private or public.....

State the nominal and issued capital of the Company-

Nominal Kshs.....

Issued Kshs.....

Give details of all directors as follows:

Name in full	Nationality.	Citizenship Details*.	Shares.
1.....			
2.....			
3.....			
4.....			

Part 2(d) – Interest in the Firm:

Is there any person / persons in (Name of Employer) who
has interest in this firm? Yes/No..... (Delete as necessary)

I certify that the information given above is correct.

.....		
(Title)	(Signature)	(Date)

* Attach proof of citizenship

SCHEDULE OF LABOUR: - BASIC RATES

(Reference: Clause 4 of Conditions of Particular Application)

LABOUR CATEGORY	UNIT (MONTH/SHIFT/HOUR)	RATES

Categories to be generally in accordance with those used by the Kenya Building Construction and Engineering and Allied Trades Workers' Union.

I certify that the above information is correct.

.....
(Title)

.....
(Signature)

.....
(Date)

CERTIFICATE OF TENDERER'S VISIT TO SITE

This is to certify that

[Name/s].....

.....

Being the authorized representative/Agent of [Name of Tenderer]

.....

.....

participated in the organized inspection visit of the site of the works for **URF: Kinondo Road - Chale**

held on day of.....20.....

Signed.....

(Employer's Representative)

.....

NOTE: This form is to be completed when the site visit is made

FORM OF WRITTEN POWER-OF-ATTORNEY

The Tenderer consisting of a joint venture shall state here below the name and address of his representative who is authorised to receive on his behalf correspondence in connection with the Tender.

.....

(Name of Tenderer's Representative in block letters)

.....

(Address of Tenderer's Representative)

.....

(Signature of Tenderer's Representative)

KEY PERSONNEL

DESIGNATION	NAME	NATIONALITY	SUMMARY OF QUALIFICATIONS AND EXPERIENCE
Headquarters: 1. Managing Director 2. 3. 4. 5. etc.			
Site Office: 1. Site Supervisor 2. 3. 4. 5. 6			

I certify that the above information is correct.

.....
(Title)

.....
(Signature)

.....
(Date)

SCHEDULE OF THE PROPOSED APPROPRIATE EQUIPMENT.

The Bidder must provide proof of ownership of equipment or valid executed Lease agreement for such equipment necessary to undertake the specified works. Certified copies of Logbooks in bidders names and/or certified copy of executed Lease agreement supported by certified copies of Logbooks in lessors names.

Item No.	Equipment Details	Minimum Number Required	No of Equipment Owned by the Bidder	No. of equipment to be hired
1	Roller (Vibratory)	1		
2	Mobile concrete mixers	1		
3	Excavator/loader	1		
4	Tipper payload 7 – 10 tonnes	1		
5	Motor grader	1		

The Bidder must attach certified copies of log books or lease agreement of the following

I certify that the above information is correct.

.....
(Title)

.....
(Signature)

.....
(Date)

SCHEDULE OF COMPLETED CIVIL WORKS CARRIED OUT IN THE PREVIOUS YEARS

DESCRIPTION OF WORKS AND CLIENT	TOTAL VALUE OF WORKS (KSHS)	CONTRACT PERIOD (YEARS)	YEAR COMPLETED

I certify that the above Civil Works were successfully carried out and completed by ourselves.

.....
(Title)

.....
(Signature)

.....
(Date)

SCHEDULE OF ONGOING PROJECTS

DESCRIPTION OF WORK AND CLIENT	CONTRACT PERIOD	DATE OF COMMEN- CEMENT	DATE OF COMPLETION	TOTAL VALUE OF WORKS (KSHS.)	% COMPLETED TODATE

I certify that the above Civil Works are being carried out by ourselves and that the above information is correct.

.....
(Title)

.....
(Signature)

.....
(Date)

OTHER SUPPLEMENTARY INFORMATION

1. Financial reports for the last three years, balance sheets, profit and loss statements, auditors' reports etc. List them below and attach copies.

.....

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

.....

3. Name, address , telephone, telex, fax numbers of the Tenderer's Bankers who may provide reference if contacted by the Employer.

.....

4. Information on current litigation in which the Tenderer is involved.

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

I certify that the above information is correct.

.....
 Title

.....
 Signature

.....
 Date

ADJUDICATOR’S AGREEMENT

Identification of Project:

.....
(the “Project”)

Name and address of the Employer:

.....
(the “Employer”)

Name and address of the Contractor:

.....
(the “Contractor”)

Name and address of the Adjudicator:

.....
(the “Adjudicator”)

Whereas the Employer and the Contractor have entered into a Contract (“the Contract”) for the execution of the Project and wish to appoint the Adjudicator to act as adjudicator in accordance with the Rules for Adjudication [“the Rules”].

The Employer, Contractor and Adjudicator agree as follows:

1. The Rules and dispute provisions of the Contract shall form part of this Agreement.
2. The Adjudicator shall be paid:

A retainer fee of per calendar month(where applicable)

A daily fee of

Expenses (including the cost of telephone calls, courier charges, faxes and telexes incurred in connection with his duties; all reasonable and necessary travel expenses, hotel accommodation and subsistence and other direct travel expenses).

Receipts will be required for all expenses.

3. The Adjudicator agrees to act as Adjudicator in accordance with the Rules and has disclosed to the Parties any previous or existing relationship with the Parties or others concerned with the Project.
4. This Agreement shall be governed by the laws of.....
5. The Language of this Agreement shall be

SIGNED BY

For and on behalf of the Employer in the presence of

Witness
Name
Address
Date

SIGNED BY

For and on behalf of the Contractor in the presence of

Witness
Name
Address
Date

SIGNED BY

For and on behalf of the Adjudicator in the presence of

Witness
Name
Address
Date

FRAUD & CORRUPTION

- 1 If the Employer determines that the Contractor has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices, in competing for or in executing the Contract, then the Employer may, after giving 14 days notice to the Contractor, terminate the Contractor's employment under the Contract and expel him from the Site.
- 2 Should any employee of the Contractor be determined to have engaged in corrupt, fraudulent, collusive, coercive, or obstructive practice during the execution of the Works, then that employee shall be removed.
- 3 For the purposes 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.
- 4 The Contractor declares that:
 - a) They did not engage in any action to influence the Project implementation process to the detriment of the Employer, in particular no collusive practice took place nor will take place, and

The bidding proceedings, contract award, and execution have not and will not be subject to any corrupt practice as defined in the United Nations Convention to combat corruption dated 31 October 2003.

Dated this _____ day of _____ 20_____

Signature _____ in the capacity of _____

duly authorized to sign Tenders for and on behalf of

_____[Name of Tenderer] of

_____[Address of Tenderer]

_____[Seal or Stamp of Tenderer]

ENVIRONMENTAL AND SOCIAL COMMITMENT

I have taken due note of the importance to comply with environmental and social standards and regulations.

I, the undersigned, [.....] acting as the duly authorized representative of [.....],

With respect to the submission of a bid for [.....] in accordance with the invitation to tender No [.....], I undertake to comply, and ensure that our subcontractors, if any, comply with international environmental and labour standards consistent with applicable law and regulations in the country of implementation of the Project, including the fundamental conventions of the International Labour Organisation (ILO) and international environmental treaties

In addition, I also undertake to adopt any environmental and social risk mitigation measures as defined in the environmental and social management plan or the notice of environmental and social impact issued by the Employer.

Dated this _____ day of _____ 20_____

Signature _____ in the capacity of _____

duly authorized to sign Tenders for and on behalf of
_____ [Name of Tenderer] of

_____ [Address of Tenderer]

_____ [Seal or Stamp of Tenderer]

REPUBLIC OF KENYA
**PUBLIC PROCUREMENT ADMINISTRATIVE
REVIEW BOARD**

APPLICATION NO.....OF.....20.....

BETWEEN

.....APPLICANT

AND

.....RESPONDENT (Procuring Entity)

Request for review of the decision of the..... (Name of the Procuring Entity) of
.....dated the...day of20.....in the matter of Tender No.....of
.....20...

REQUEST FOR REVIEW

I/We.....,the above named Applicant(s), of address: Physical
address.....Fax No.....Tel. No.....Email, hereby request the Public
Procurement Administrative Review Board to review the whole/part of the above mentioned decision
on the following grounds , namely:-

- 1.
- 2.
- etc.

By this memorandum, the Applicant requests the Board for an order/orders that: -

- 1.
- 2.
- etc

SIGNED(Applicant)

Dated on.....day of/...20...

FOR OFFICIAL USE ONLY

Lodged with the Secretary Public Procurement Administrative Review Board on day of
.....20.....

SIGNED
Board Secretary

DECLARATION FORM

Date _____

To _____

The tenderer i.e. (Name and address) _____

_____ declare the following:

- a) Has not been debarred from participating in public procurement.
- b) Has not been involved in and will not be involved in corrupt and fraudulent practices regarding public procurement.

_____	_____	_____
Title	Signature	Date

(To be signed by authorized representative and officially stamped)

SECTION VII: CONTRACTOR'S EVALUATION CHECKLIST

Supervision Check List (1/2)

Project Title:	
Contractor:	

1. This check list is for Resident Engineer to check contractor's work execution process.
 2. Fill in date of checking as (day/month), mark as indicated in Filling Example, and state remarks.
 3. Put this check list in the Monthly Progress Report.

	Date	Name	Signature
The Engineer's Representative (Project Engineer)			
Resident Engineer			

Item	Check Point		before	During execution										after	Remarks
			Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	
			/	/	/	/	/	/	/	/	/	/	/	/	
1	Execution system in general	1-1	Works Execution Programme (including its revised version if any) is submitted before the date specified in contract document		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
		1-2	Works Execution Programme properly reflects the given specifications and site conditions		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
		1-3	Execution procedures are in accordance with Works Execution Programme		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
2	Equipment holding	2-1	All equipment used are properly mobilized in accordance with Works Execution Programme		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
		2-2	All equipment used is well maintained during the execution of works		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
3	Contractor's in-house staff	3-1	Qualified technical staff of contractor are properly assigned as specified in Works Execution Programme		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
		3-2	Contractor's in-house key staff understand work process and schedule properly		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
		3-3	Contractor's in-house staff give technical guidance and direction to workers and operators properly and timely		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
		3-4	Communications with authority in writing is properly and timely		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
4	Personnel employment	4-1	Workers and operators are deployed in accordance with Works Execution Programme		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
		4-2	Wage payment is properly made on time		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
5	Site base facilities	5-1	Office and stockyard are prepared in accordance with Works Execution Programme		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
		5-2	Site is well maintained during the work execution and cleared on completion		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
		5-3	Material stored on site is properly managed during the work execution		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
6	Quality and quantity management	6-1	Material testing, structural examination, and measurements are properly and routinely conducted based on specifications and Works Execution Programme		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	

Filling Example : ✓ Check point is satisfactory ■ Check point is unsatisfactory N/A Not applicable

Supervision Check List (2/2)

Project Title:	
Contractor:	

1. This check list is for Resident Engineer to check contractor's work execution process.
 2. Fill in date of checking as (day/month), mark as indicated in Filling Example, and state remarks.
 3. Put this check list in the Monthly Progress Report.

The Engineer's Representative (Project Engineer)	Signature
Resident Engineer	

Item		Check Point		before	During execution										after	Remarks
				Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Reason for unsatisfactory performance (Site diary No.) Corrective order by authority (Date) Excellent point to be specified	
				/	/	/	/	/	/	/	/	/	/	/		
6	Quality and quantity management	6-2	Results of material testing, structural examination and measurements are within the specifications.		☐	☐	☐	☐	☐	☐	☐	☐	☐			
		6-3	Results of material testing, structural examination, and measurements are properly compiled as reports for confirmation		☐	☐	☐	☐	☐	☐	☐	☐	☐			
7	Work scheduling	7-1	Understanding of critical path and its reflection on scheduling are proper		☐	☐	☐	☐	☐	☐	☐	☐	☐			
		7-2	Actual proceedings are periodically compared to the planned schedule described in Works Execution Programme		☐	☐	☐	☐	☐	☐	☐	☐	☐			
		7-3	Changes caused by site conditions are properly handled to keep Works on schedule		☐	☐	☐	☐	☐	☐	☐	☐	☐			
		7-4	All works are completed within the contract term or within the extended term as allowed											☐		
8	Work safety management	8-1	No accident occurs to workers, operators, or third-parties.		☐	☐	☐	☐	☐	☐	☐	☐	☐			
		8-2	Safety of workers and operators is considered		☐	☐	☐	☐	☐	☐	☐	☐	☐			
		8-3	Accident prevention efforts for third-parties are proper		☐	☐	☐	☐	☐	☐	☐	☐	☐			
		8-4	Traffic and site safety devices are properly installed and managed		☐	☐	☐	☐	☐	☐	☐	☐	☐			
		8-5	Temporary facilities (e.g. scaffolding) are constantly checked		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
9	Environmental and social management	9-1	Environmental and social mitigation efforts (e.g. against noise, vibration, emission, and dust) are conducted		☐	☐	☐	☐	☐	☐	☐	☐	☐			
		9-2	Waste material from site is properly disposed		☐	☐	☐	☐	☐	☐	☐	☐	☐			
		9-3	Damage to existing roads, works and services is avoided or are repaired when it occurs		☐	☐	☐	☐	☐	☐	☐	☐	☐			
		9-4	Transportation by vehicles is properly done with no overloading, and neither material falling, leakage, nor spillage.		☐	☐	☐	☐	☐	☐	☐	☐	☐			

Filling Example : ✓ Check point is satisfactory ■ Check point is unsatisfactory N/A Not applicable

SECTION VIII: SPECIFICATIONS, DRAWINGS AND BILLS OF QUANTITIES

I. SPECIFICATIONS

Contents:

SECTION 01:	PRELIMINARY AND GENERAL ITEMS.....	E-1
01-40-001:	Mobilisation and Establishment of the Site.....	E-1
01-40-002:	Clearance on Completion.....	E-1
01-40-003:	Insurances and Securities.....	E-1
0140-004:	Quality Control Tests.....	E-2
01-40-005:	Publicity Sign Boards.....	E-2
01-40-006:	Traffic Control.....	E-2
01-40-007:	Drinking Water.....	E-3
SECTION 10	GRADING AND GRAVELLING.....	E-29
10-80-007	Excavation; Free hand; Spreading and Compaction of Gravel-Labour.....	E-32
10-80-008	Excavation; Free Haul, Spreading and Compaction of Gravel-Equipment.....	E-34

SECTION 01 : PRELIMINARY AND GENERAL ITEMS

Introduction

This section comprises those items that are required at the Commencement and Completion of the Works or that are Provisional Items applicable for the duration of the Works.

01-40- 001 Mobilisation and Establishment of the Site

The Contractor shall provide all equipment, tools, materials, temporary offices, stores and housing required to carry out the Works.

The Contractor shall ensure that all possible means of protection are given to the labour force at all times. Such protection shall include provision of high visibility clothing or vests, goggles and masks for workers in potentially dangerous locations or dealing with potentially harmful materials. The Contractor shall also maintain first aid kits with a minimum of the following items:-

- Non Stick wound dressing
- Selection of plaster/band aids
- Crepe bandages
- Gauze and cotton wool
- Antiseptic solution (washing wounds)
- Antiseptic cream – Betadine, Burnol
- Pain killers Panadol, Disprin
- Anti diarrhoea – Immodium, Diadis, Charcoal
- Anti histamine – Piriton, Triludan
- Anti nausea – Stemetil
- Eye ointment
- Oral re-hydration sachets
- Surgical gloves

Measurement and Payment:

No separate payment shall be made for this item. The Contractor shall include the costs in the rates for other measured items.

01-40- 002 Clearance on Completion

On Completion of the Works, all temporary housing, equipment, signs and tools shall be removed from the site, and the site left in good order to the satisfaction of the Engineer.

Measurement and Payment

The Lump Sum payment will be made upon approval by the Engineer that the Clearance has been satisfactorily carried out.

01-40-003 Insurance and Bonds

The Contractor shall provide Insurance and Sureties in accordance with relevant Clauses in the Conditions of Contract.

Measurement and Payment

Lump Sum payment for this item will be made upon the production of satisfactory evidence by the Contractor that Insurances and Securities have been effected.

01-40-004 Quality Control Tests

The Engineer may instruct the Contractor during the progress of the Works to carry out quality control tests to check materials and standards of workmanship, against the Specifications.

Where such tests indicate defective standards the Engineer shall instruct the Contractor to rectify the defects to the Engineer's satisfaction and at the Contractor's expense.

Measurement and Payment

The Engineer shall include a Provisional Sum for this item to be expended only as and when the Contractor is instructed to carry out tests.

01-40-005 Publicity Sign Boards

The Contractor shall provide Sign Boards as specified on the Drawings or as directed by the Engineer. The Sign Boards shall be placed at the beginning and end of the road or road section covered by this Contract.

Sign Boards shall be maintained for the duration of the Works, and removed on completion.

Quality Control

The Engineer shall check that Sign Boards have been erected in accordance with Drawings and Specifications.

Measurement: Number

The unit of measurement shall be number of Sign Boards erected

Payment

The unit rate shall be the full compensation for labour, tools, materials and incidental costs required for carrying out the work.

01-40- 006 Traffic Control

The Contractor shall provide warning signs, fences, barriers, detours, which shall be properly positioned in advance of the Works to ensure that traffic is well and safely accommodated for the duration of the Works.

Traffic signs and other traffic control facilities shall be kept in good condition and located in positions where they are visible to road users.

Quality Control

The Engineer shall check regularly that traffic control measures are satisfactory.

Measurement and Payment

A Lump Sum shall be paid on a Monthly basis upon the approval of the Engineer that satisfactory control measures are in place.

01-40- 007 Drinking Water

The Contractor shall provide safe drinking water on site for workers at a reasonable distance from all work locations, for the duration of the Works.

Quality Control

The Engineer shall check regularly that adequate supplies of water are available throughout the Site.

Measurement and Payment

A Lump Sum shall be paid on a Monthly basis upon the approval of the Engineer that adequate supplies have been provided.

SECTION 08: CULVERT AND DRAINAGE WORKS

Scope

This section covers all Works in connection with the installation of concrete pipe culverts; inlet and outlet structures; drifts and drainage protection Works; and the construction of Scour Checks

08-60-016/035 Concrete Pipe Culverts

08-60-020 600 mm haunched (Type II)

The Contractor shall supply, lay and joint concrete pipes to form culverts, including the concrete bedding; haunching or surrounds; and backfilling, in accordance with the Drawings for the Type and diameter specified in the Contract or directed by the Engineer.

The pipes shall be of Class 20/20 concrete, at least 28 days cured, and manufactured on site or procured from a supplier approved by the Engineer. The pipes shall be laid on a bedding of Class 15/20 concrete of dimensions as shown on the Drawings and jointed with cement mortar 1:4.

The culvert gradient including the outlet shall be a minimum 2%.

The pipes shall be haunched or surrounded, according to the Type specified, with Class 15/20 concrete to the dimensions shown on the Drawings or as directed by the Engineer.

Backfilling shall be carried with approved material and compacted in layers not exceeding 150 mm loose depth and placed evenly on each side of the pipe. Ramps shall be shaped to achieve a minimum overfill of 75% of the pipe diameter, and shall be tapered back on the carriageway to provide a gradual approach, as directed by the Engineer.

If the Contractor wishes to construct culverts in-site, using inflatable or collapsible forms the Engineer's approval shall first be sought for the proposed working method.

On completion the inside of the culvert shall be smooth, without displaced joints or other obstructions and true to line and level.

Work Method

The Contractor shall use **Labour** and appropriate **Equipment** to carry out this item work

Quality Control

- Concrete quality shall be checked for cracks, honey combing, and other defects.
- Before the pipes are laid, the gradient of the concrete bedding shall be checked and shall not be less than 2%
- The joints shall be checked to see that they have been properly made.

Measurement Unit: m

The measurement shall be in linear metres of the installed Type and size of culvert specified,

measured net according to the Drawings.

Payment

The unit rate shall be the full compensation for labour, tools, materials, equipment and any other incidentals that may be required in carrying out the work.

Minor Drainage Structures – Concrete

08-70-004 Type I

08-70-021 Type 3(a)

08-70-022 Type 3(b)

08-70-023 Type 4

The Contractor shall construct inlet and outlet structures for culverts in concrete to the dimensions and levels shown on the Drawings or as directed by the Engineer.

Concrete shall be Class 20/20 unless otherwise specified. The formwork for the walls shall be erected on the concrete foundations, to the correct dimensions, and shall be approved by the Engineer before concrete is poured. Concrete shall be poured in a single lift and the top surface shall be kept moist for 3 days. Formwork may be struck after 2 days or as directed by the Engineer.

The Contractor shall use a concrete vibrator or other means approved by the Engineer to ensure full compaction of the concrete.

Work Method

The Contractor shall use both **Labour** and appropriate **Equipment** to carry out this item.

Quality Control

- The dimensions of the structures shall have a maximum tolerance of + 20mm / - 10mm
- The workability and mix of concrete shall be checked using the slump test and shall have a slump limit as directed by the Engineer. The frequency of testing shall be determined by the Engineer
- The concrete shall be checked for cracks, honey combing and other defects at the time of striking the formwork.

Measurement Unit: m³

The measurement shall be the volume of concrete in the completed structure, measured net in accordance with the Drawings.

Payment

The unit rate shall be the full compensation for labour, tools, materials, formwork, equipment and other incidentals that may be required in carrying out the work.

SECTION 10: GRADING AND GRAVELLING

Scope:

Grading covers the work of the reinstating of the road carriageway to the correct camber by removing the high points and filling gullies, corrugations, and wheel ruts to restore a smooth running surface. Graveling consists of the excavation, loading, hauling, dumping and spreading of gravel wearing course material on the formation of the road carriageway. Gravel shall include lateritic gravel, quartzitic gravel, calcareous gravel, decomposed rock, soft stone coral rag, clayey sand and crushed rock.

The material may be obtained from quarries, borrow pits or excavation in cuttings as directed by the Engineer. Gravel material shall conform to the requirement given in Table 10.1

Table 10.1: Requirement for Gravel Wearing Course

GRADING REQUIREMENTS	
Sieve (mm)	% by Weight Passing
40	100
28	95 - 100
20	85 - 100
14	65 - 100
10	55 - 100
5	35 - 92
2	23 - 77
1	18 - 62
0.425	14 - 50
0.075	10 - 40

For “Quarry Waste” gravel stones of maximum dimension 80mm may be permitted

PLASTICITY INDEX REQUIREMENTS PI		
Zone	Min	Max
WET: Mean annual rainfall > 500 mm	5	20
DRY: Mean annual rainfall < 500 mm	10	30

BEARING STRENGTH		
Traffic VPD	CBR	DCP Equivalent mm/Blow
>15	20	11
<15	15	14
CBR at 95 % MDD, Modified AASHTO and 4 days soaking		
Lower quality material (CBR 15) may be accepted if no better material can be found		

The Engineer shall approve quarries and the extent of their exploitation. The quarries shall be shown to the Contractor prior to commencement of the Works. The Contractor shall be responsible for the acquisition of the quarry rights and shall conduct respective negotiations with landowners and affected communities.

Alternative sources of gravel material whose quality can be shown to be in compliance with the

specification requirements may be used, with the approval of the Engineer and at no extra cost to the Employer. The Contractor is deemed to have included in his rates for the provision of the gravel material.

Excavation, Free haul, Spreading and Compaction of Gravel

10-80-007 - Labour

10-80-008 - Equipment

Excavation of Gravel - Labour - Equipment

Gravel shall be excavated from quarries approved by the Engineer, and the Contractor shall inform the Engineer if the quality/availability of the gravel changes during the course of excavation. Excavation and loading shall normally be by labour unless, at the request of the Contractor, the Engineer allows the use of equipment.

Stones and boulders with one dimension greater than 80mm shall be removed from the excavated gravel and deposited outside the quarry at locations approved by the Engineer. Such stones and boulders may be reused in other parts of Works with the approval of the Engineer.

Work Method

The Contractor shall use **Labour** and/or **Equipment** to carry out this work, as directed by the Engineer.

Quality Control:

- Oversize stones and boulders shall not be loaded for haulage to the road.
- Areas containing deleterious material shall not be excavated.

Free haul, spreading and Compaction of Gravel

The Contractor shall spread and compact gravel material, in a manner to ensure a uniform thickness of the layer across the full width of the carriageway and shaped to the specified camber. Spreading also includes the removal of any oversized stones or boulders, which cannot be broken down to the required size, to spoil dumps. Gravel shall be spread within 24 hours of off-loading.

Compaction of the gravel material shall be carried out from the carriageway edges to the centerline by overlapping passes of the compaction equipment. The number of passes shall be as directed by the Engineer dependent upon the equipment used and the material being compacted. Unless otherwise instructed the moisture content of the material shall be within $\pm 2\%$ of optimum

Where additional moisture is required water shall be applied in an even manner and the rate of application shall be such that no transverse or longitudinal flows occur.

The Engineer may instruct the Contractor to carry out density tests on the compacted material to ensure that an acceptable standard has been achieved.

Work Method:

The Contractor shall use **Labour** and/or appropriate **Equipment** to carry out this item.

Quality Control:

- The gravel surface width shall be checked at 100m intervals and shall have a tolerance of + / - 50mm
- Trial holes shall be dug as directed by the Engineer to check the gravel thickness and shall have a tolerance of + 5mm / - 0mm
- The camber shall be checked at 50m intervals and the maximum tolerance shall be + / - 1 %
- The longitudinal profile shall be checked after the compaction of each load to ensure a smooth surface with no corrugations or depressions

Measurement Unit: m³

The measurement shall be the volume of compacted gravel surfacing measured net according to the Drawings and shall include the excavation and the 1.5km 'free' haul distance

Payment

The unit rate shall be the full compensation for labour, tools, equipment and incidental costs required for carrying out the work.

BILL 12: NATURAL MATERIAL BASES AND SUBBASE

12-50-002: Provide, place, spread and compact natural gravel

12-60-002: Base Repair – Hand packed Stone

12-60-002: Base Repair – Stabilised Gravel

These activities should be done in accordance with Bill 12 in the Standard Specifications for Roads and Bridges 1986.

12-60-003: Base repair – Neat Gravel

This activity involves the repair of localised failures of the pavement layers, including the removal of the deformed areas and reconstructing the pavement and surfacing layers including treatment of the bottom of the excavation prior to backfilling.

The areas to be repaired shall be marked and cut out into rectangular shapes. All failed area shall be cut back to sound road material. The sides shall be dressed so that they are at 60o to the horizontal,

and the bottom of the hole shall be compacted to a density of 93 % AASHTO T180. All unsuitable material shall be removed and deposited away from the road as directed by the Engineer.

For a bituminous base a prime coat of 60% cationic spray grade emulsion shall be applied to all vertical surfaces and on the bottom of the prepared hole.

The material for the base repair shall be graded neat gravel, according to the original base material, and shall be compacted in layers as directed by the Engineer. "Gravel" includes lateritic gravel, quartzitic gravel, calcareous gravel, soft stone, coral rag, clayey sands, decomposed rock, crushed rock or a combination of any of these materials.

The Contractor shall use **Labour** and **Equipment** to carry out this item of work

Work method **LB - MB**

Quality Control

- The repair shall be carried out to the approval of the Engineer.
- The repair shall be checked with a straight edge and shall be flush with other parts of the carriageway laterally and longitudinally.
- Compaction of the patch shall be checked such that no imprint of the compaction equipment shall be visible.

Measurement Unit: m³

The measurement shall be the volume of gravel compacted on the road measured in-situ.

Payment

The unit rate for this item shall include the full compensation for the materials, labour, tools, equipment, and incidental costs required to carry out the work. *Spot improvement and upgrading of Galu – Neptune to Cabro Standard 68*

BILL 20: ROAD FURNITURE

20-50-012: Kerbs

These activities should be done in accordance with Bill 20 sub section 20.01 to 20.11 of the Standard Specifications for Roads and Bridges 1986.

a) Excavate, lay and place 100x25mm 25/20 precast concrete raised and ramped kerbs haunched in 100mm thick class 15/20 concrete base bedding and mortar joined in support to carriage way as directed by the Engineer.

b) Vertical joints

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

BILL 23: CONCRETE PAVING BLOCKS

This works shall consist of providing, laying and fixing of concrete paving blocks and concrete paving slabs on a sand base on the drive way and walkways and other areas as directed by the Engineer.

a) Concrete Paving blocks

The paving blocks shall be of type S of any shape fitting within a 295mm SQUARTER coordinating space and a work out size thickness of at least 60mm. The blocks shall conform to the requirements of BS 6717:Pt. 1:1986 or Kenya Standard equivalent.

The blocks shall be laid on a 30mm minimum sand base or quarry dust.

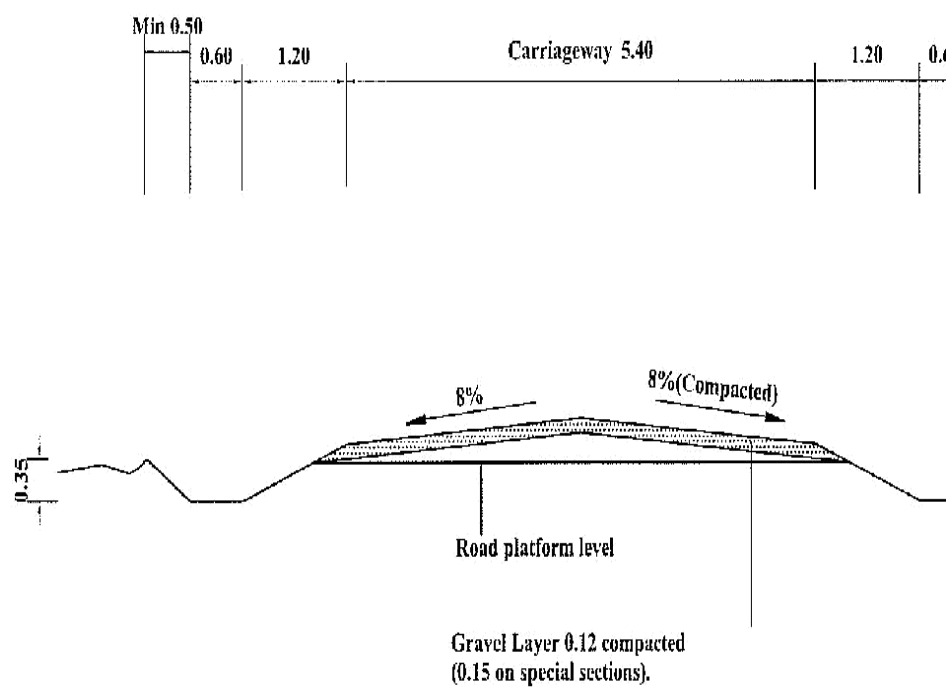
b) Sand for the sand base or quarry dust base.

Sand used as bedding for paving blocks and slab shall be natural sand either pit or river sand. The grading shall conform and be parallel as much as possible to KS02-95 Parts 1 & 2: 1984 for zones 1, 2 or 3.

c) Measurement and Payment

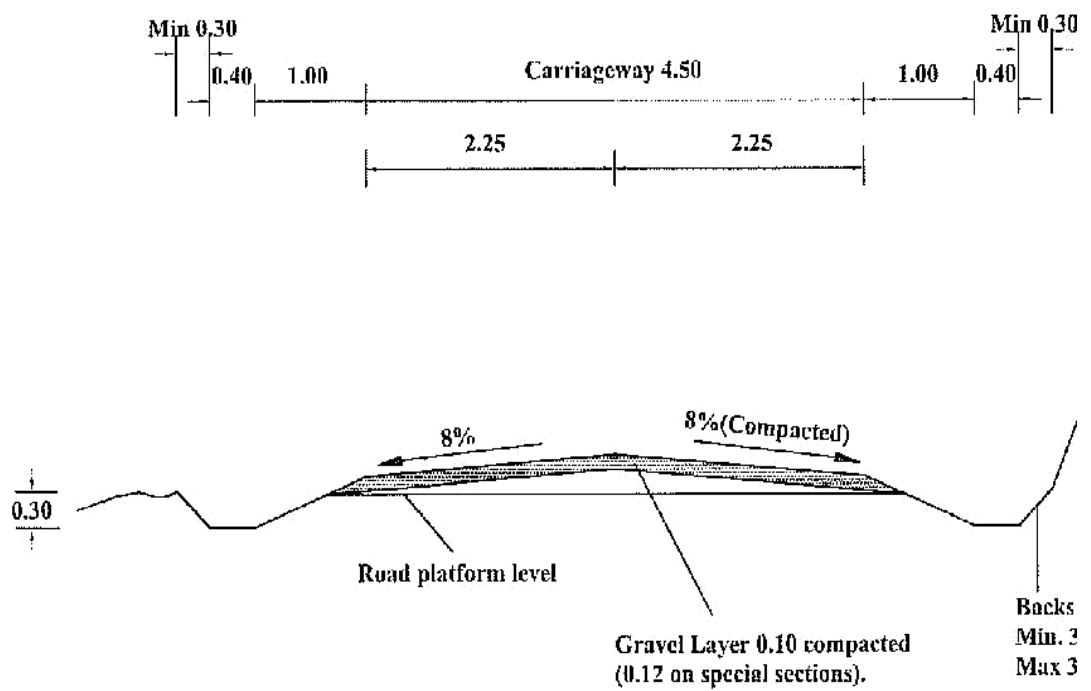
Payments for paving blocks and paving slab shall be by SQUARE metre laid. The rate quoted would include cost of haulage to site of the blocks, slabs and sand as no extra payments shall be made for haulage.

DRAWINGS



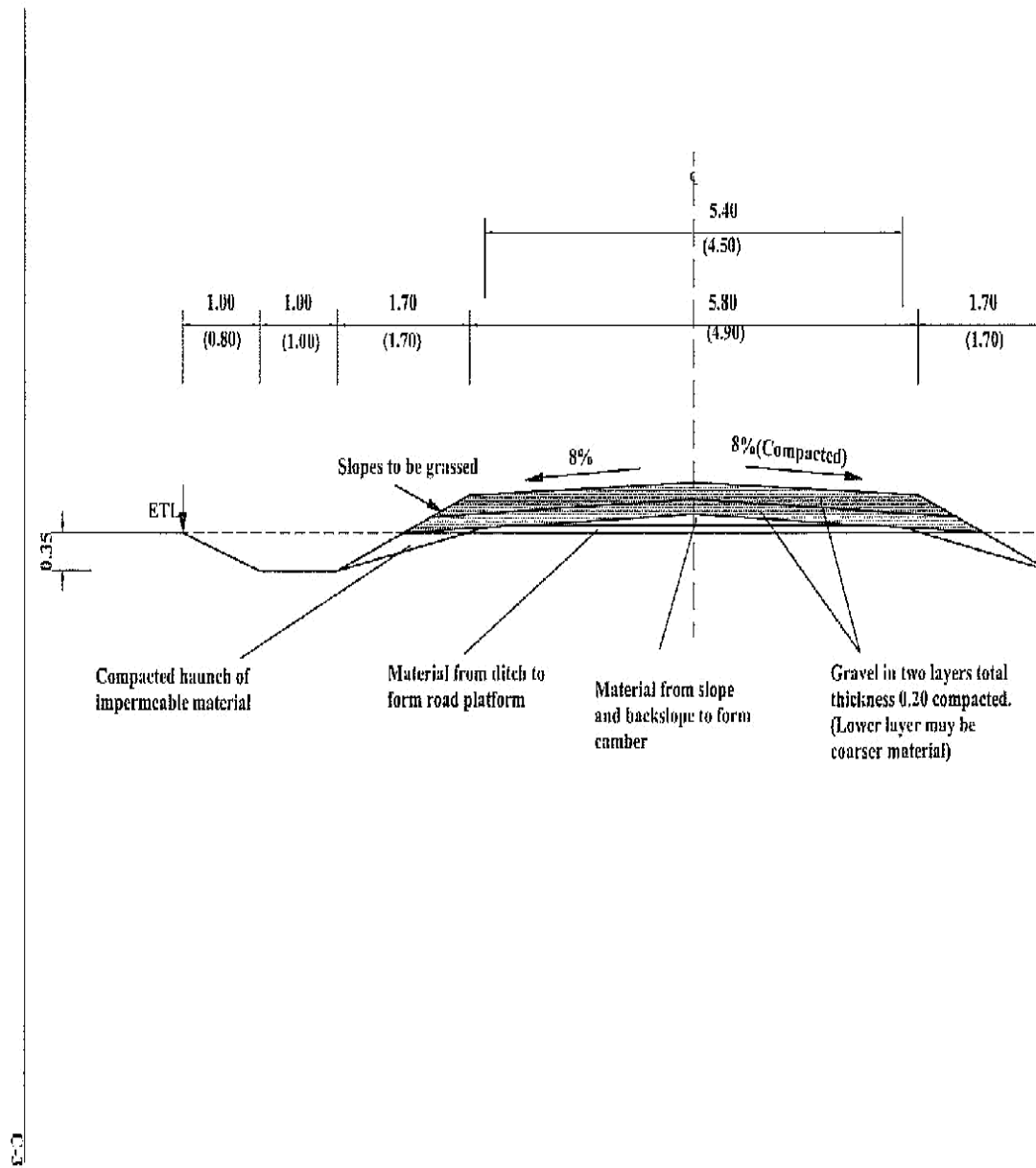
Notes:

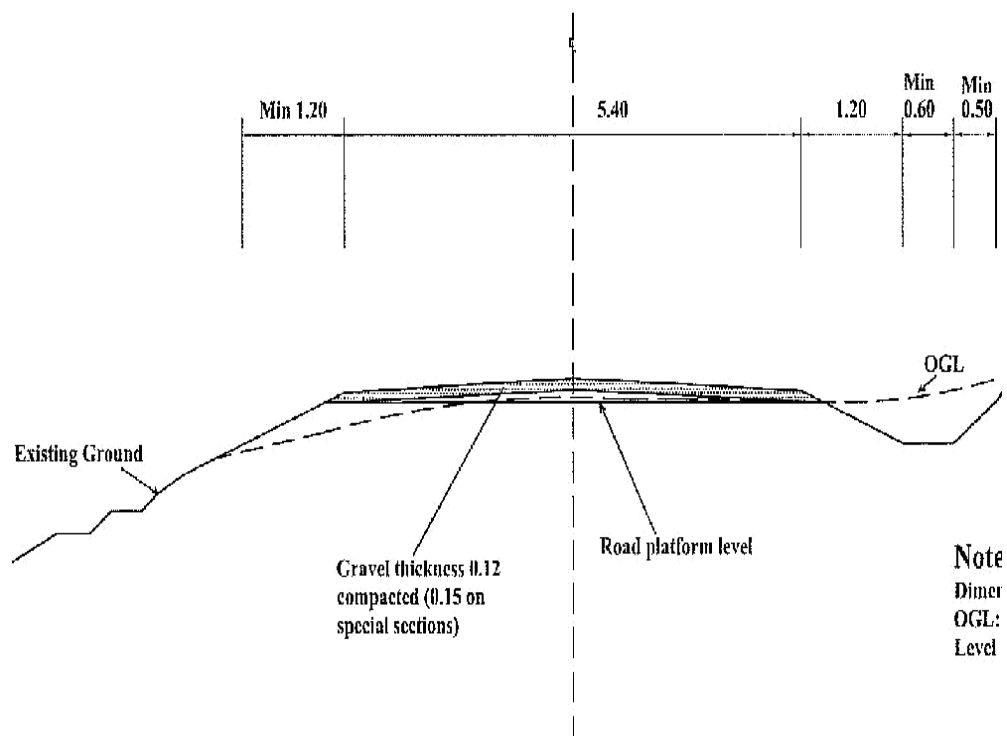
- 1.All dimensions in metres
- 2.Traffic levels of > 200vpd may justify a carriageway width of 6.0m
- 3.Gravel thickness may be increased as directed by the Engineer

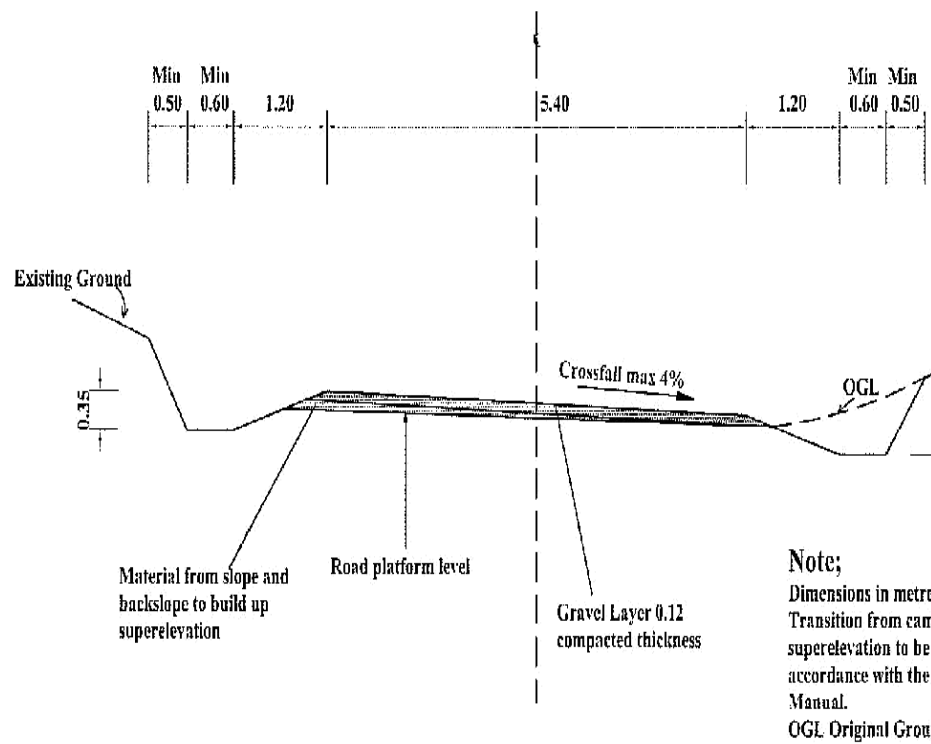


Notes:

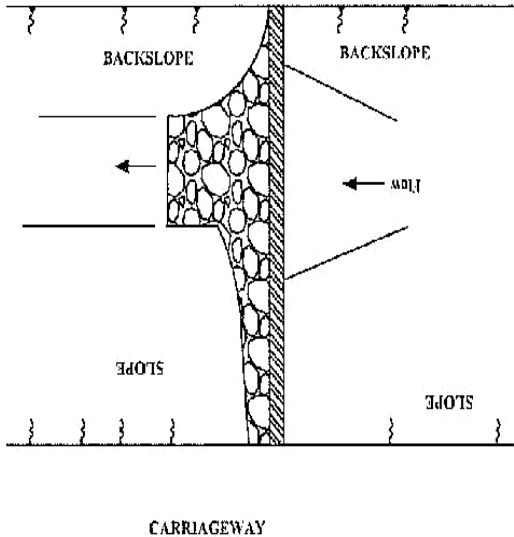
1. All dimensions in metres
2. Gravel thickness may be increased as directed by the Engineer







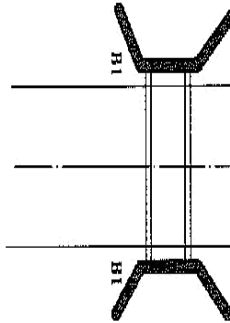
SECTION OF CONCRETE SCOUR CHECK



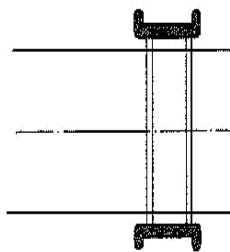
NOTE
1. Dimensions in mm

PLAN OF DRAIN WITH SCOUR CHECK

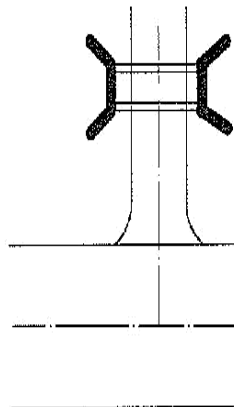
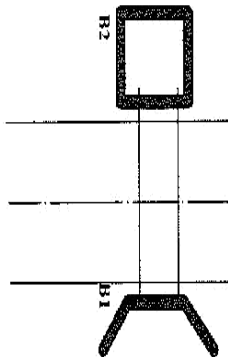
Cross- Section	Sizes in mm			Excav (m ³)	Concrete (m ³)	Apron stone pitching (m ³)
	Length	Width	Depth			
A	2400	100	550	0.13	0.15	0.18
B	2000	100	500	0.10	0.09	0.14



TYPE 2(ENTRY ONLY)

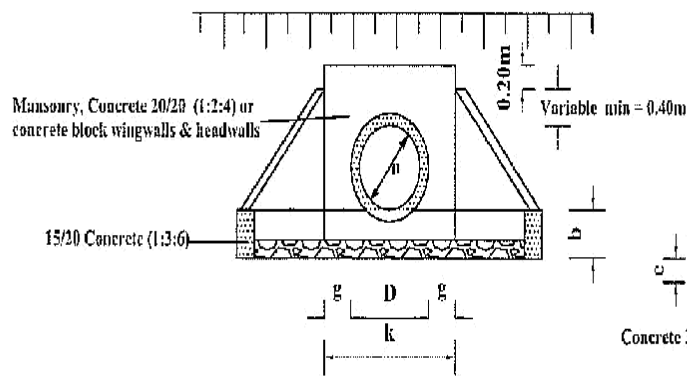


TYPE 4(ENTRY AND EXIT ON ACCESS)

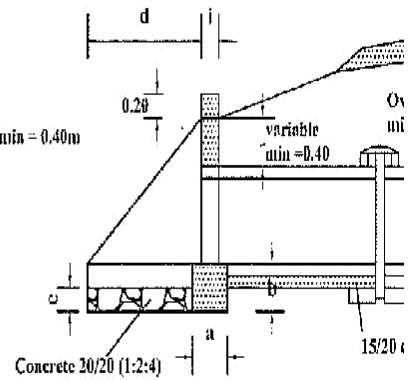


NOTE
1. The code numbers specify the shape and function and the code letter denotes the material:
A =Concrete block
B =Stone masonry
C =Concrete

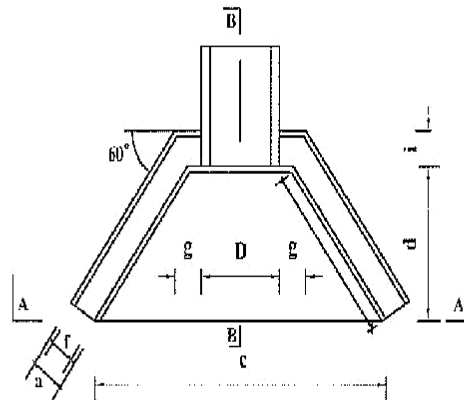
SECTION A-A



SECTION B-B



PLAN



CULVERT TYPES	
X-SECTION WIDTH m	No. of pipes
4.50	6
5.50	7
6.50	8

PIPE DIAMETER IN M		TYPE A and C CONCRETE BLA	
		450	600
DIMENSION	UNIT		
a FOUNDATION	m	0.30	0.30
b FOUNDATION	m	0.30	0.30
c FOUNDATION	m	2.20	2.35
d APRON	m	1.00	1.00
e APRON	m	0.20	0.20
f WALL	m	0.20	0.20
g WALL	m	0.30	0.30
h WALL	m	1.15	1.15
i WALL	m	0.20	0.20
k APRON	m	1.05	1.20
MATERIAL REQUIREMENT			
FOUNDATION			
(concrete)	m ³	0.30	0.32
HEAD/WINGWALLS			
(Concrete/Masonry)	m ³	0.42	0.49
APRON			
(concrete)	m ³	0.33	0.36

Side drain level

Masonry, concrete block, or 20/20 concrete (1:2:4)

Stone Pitching in slopes

Stone Pitching to slopes

20/20 concrete (1:2:4)

15/20 concrete (1:2:4)

Variable Min 0.40

0.20

D

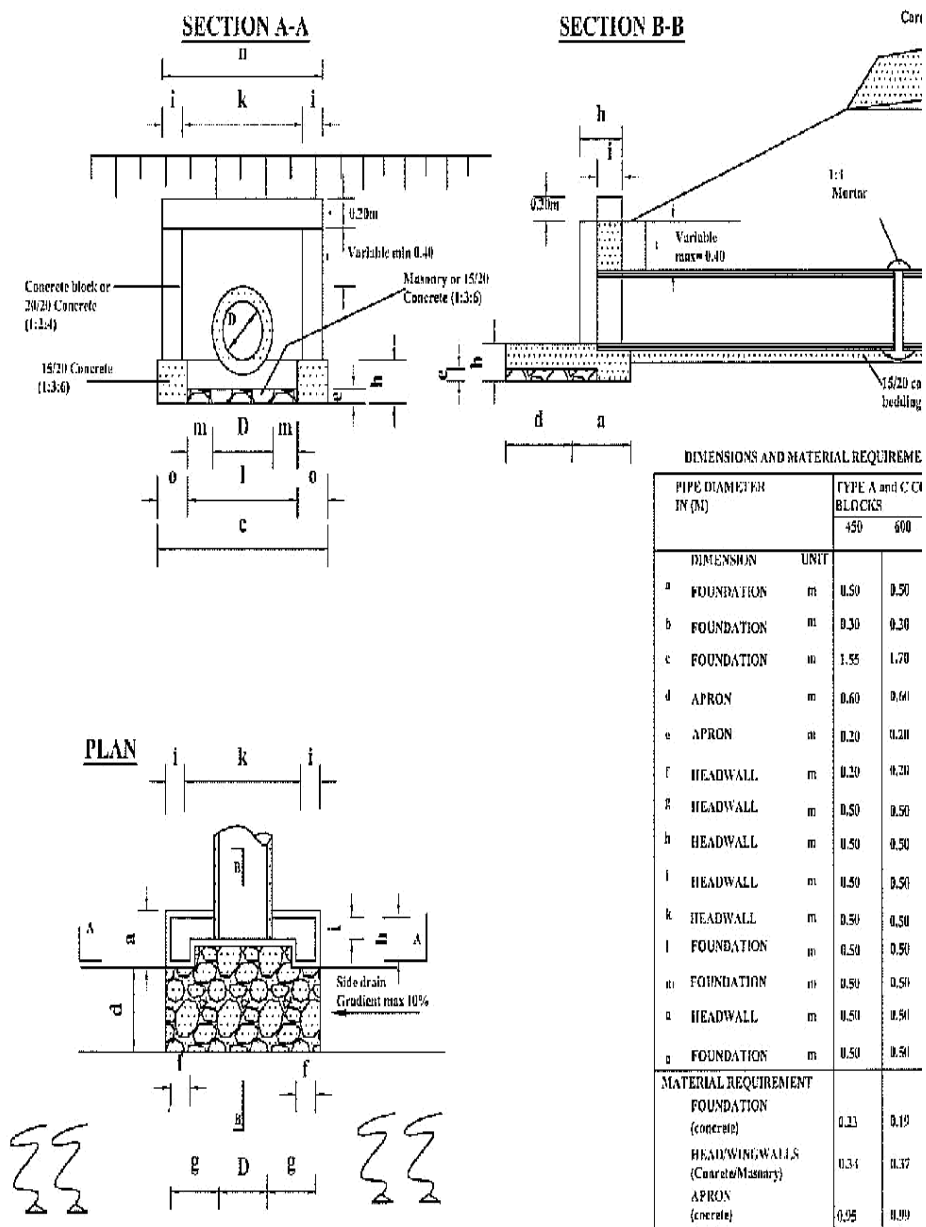
a b c

PLAN

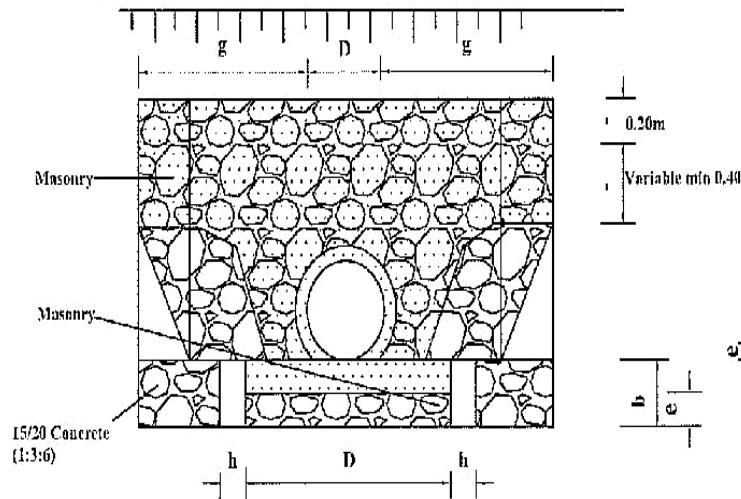
The plan view shows a rectangular manhole structure. At the top, a horizontal dimension line indicates the width of the central shaft as B . Above the shaft, a horizontal dimension line shows the width of the concrete frame, divided into three segments: i , k , and i . The central shaft is a vertical rectangle with width B . The concrete frame is a larger rectangle surrounding the shaft. The frame's width is divided into three parts: i (inner width), k (middle width), and i (outer width). The frame is supported by 'Stone Pitching to slopes' on both sides. The plan view is labeled 'PLAN' at the top.

DIMENSIONS AND MATERIAL REQUIREMENTS

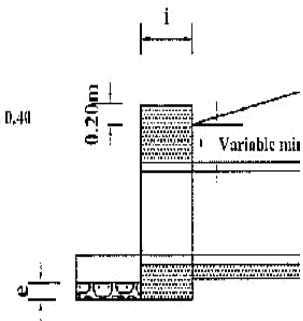
PIPE DIAMETER IN (M)		TYPE A CONCRETE BLOCKS				TY M ³
DIMENSION		UNIT	450	600	900	45
a	FOUNDATION	m	0.30	0.30	0.30	0.4
b	FOUNDATION	m	0.30	0.30	0.30	0.3
c	FOUNDATION	m	1.10	1.10	1.40	1.2
d	APRON	m	0.90	0.90	0.90	1.0
e	APRON	m	0.20	0.20	0.20	0.2
f	DROP INLET	m	0.60	0.60	0.60	0.6
g	DROP INLET	m	0.30	0.40	0.60	0.3
h	DROP INLET	m	0.60	0.80	1.20	0.6
i	DROP INLET	m	0.20	0.20	0.20	0.4
k	DROP INLET	m	1.20	1.20	1.50	1.2
l	DROP INLET	m	1.00	1.00	1.00	1.0
m	DROP INLET	m	0.38	0.30	0.30	0.3
MATERIAL REQUIREMENT						
FOUNDATION (concrete)		m ³	0.47	0.47	0.52	0.7
HEAD/WINGWALLS (Concrete/Masonry)		m ³	0.56	0.72	1.15	1.2
APRON (concrete)		m ³	0.24	0.24	0.30	0.2



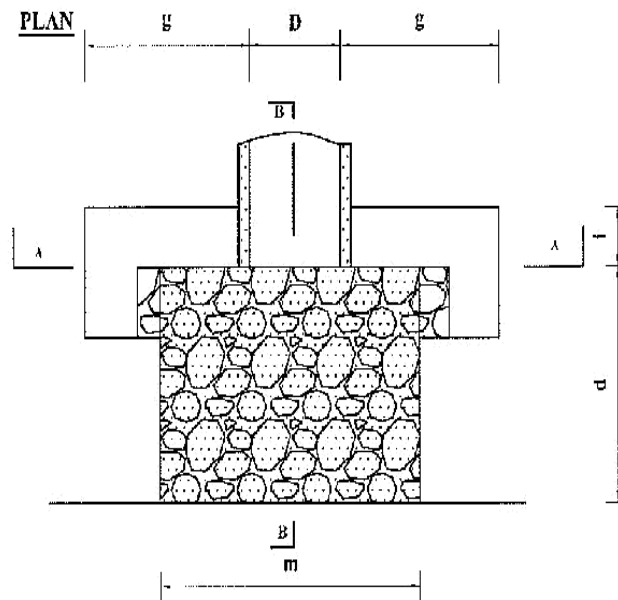
SECTION A-A



SECTION B-B



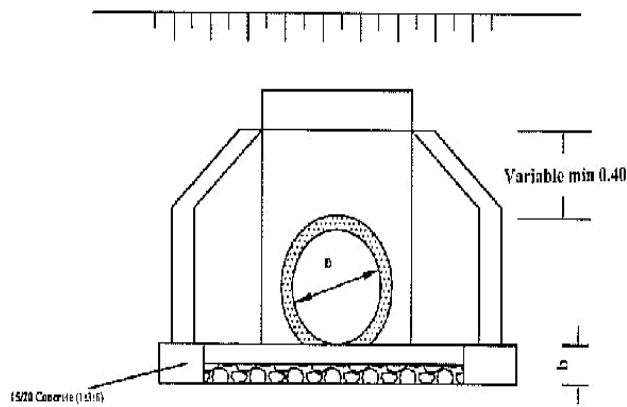
PLAN



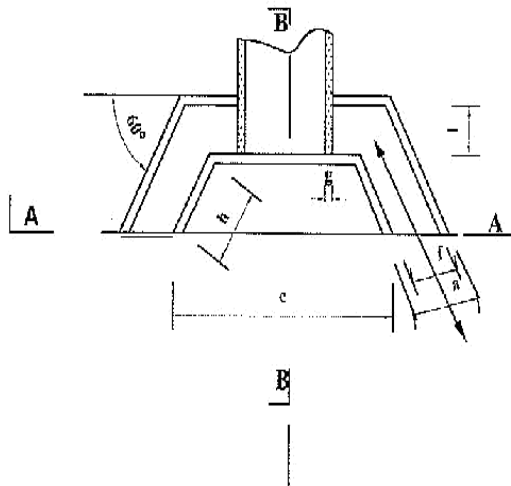
DIMENSIONS AND

PIPE DIAMETER (M)	
DIMENSION	
a	FOUNDATION
b	FOUNDATION
c	FOUNDATION
d	APRON
e	APRON
f	HEADWALL
g	HEADWALL
h	HEADWALL
i	HEADWALL
m	FOUNDATION
n	FOUNDATION
MATERIAL REQ'D	
FOUNDATION	(concrete)
HEAD/WING	(Concrete/Masonry)
APRON	(concrete)

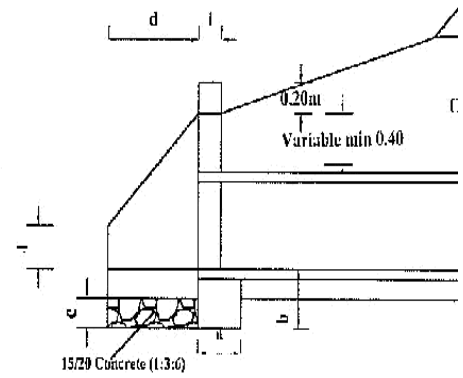
SECTION A-A



PLAN

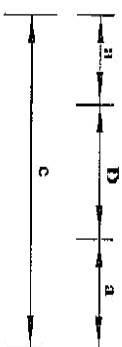
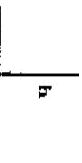
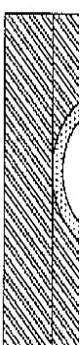


SECTION B-B



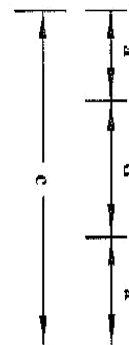
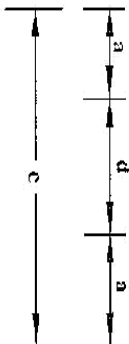
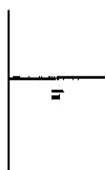
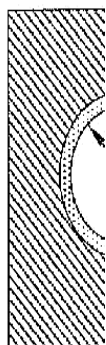
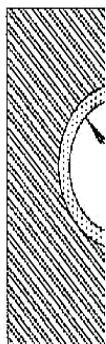
DIMENSIONS AND MATERIAL REQUIREMENTS

PIPE DIAMETER IN (M)	UNIT	TYPE A (CONCRETE BLOCKS)		
		450	600	900
a	FOUNDATION	m	0.20	0.36
b	FOUNDATION	m	0.30	0.30
c	APRON	m	1.34	1.49
d	APRON	m	0.80	0.60
e	APRON	m	0.20	0.20
f	WINGWALLS	m	0.20	0.20
g	WINGWALLS	m	0.10	0.10
h	HEADWALLS	m	0.69	0.69
i	HEADWALLS	m	0.20	0.20
k	HEADWALLS	m	0.65	0.80
l	HEADWALLS	m	0.40	0.40
MATERIAL REQUIREMENT				
FOUNDATION (concrete (1:3:6))		0.18	0.20	
HEAD/WINGWALLS (Concrete/Masonry)		0.28	0.32	
APRON (concrete)		0.12	0.14	



Diameter (D)	450 (mm)	600 (mm)	900 (mm)
a	0.15	0.20	0.20
b	0.10	0.15	0.15
c	0.86	1.12	1.48
d	0.56	0.72	1.08
e	0.14	0.18	0.27
f (min)	0.34	0.45	0.68
g	-	-	-
h	0.24	0.33	0.42
i	-	-	-
Concrete Class 15/20	Volume in (m ³ /m)		
	0.24	0.24	0.24
Application	-Fair subgrade condition -Overfill > 75% of the pipe diameter -Seasonal water flow only		
Remarks	Material for back/overfill shall be approved by the Engineer		

450 (mm)	600 (mm)	900 (mm)
0.15	0.20	0.20
0.10	0.15	0.15
0.86	1.12	1.48
0.56	0.72	1.08
0.28	0.36	0.54
0.34	0.45	0.68
-	-	-
0.38	0.51	0.69
-	-	-
Volume in (m ³ /m)		
0.20	0.37	0.56
-Fair to poor subgrade condition -Overfill > 75% of the pipe diameter -Seasonal water flow only		
Material for back/overfill shall be approved by the Engineer		

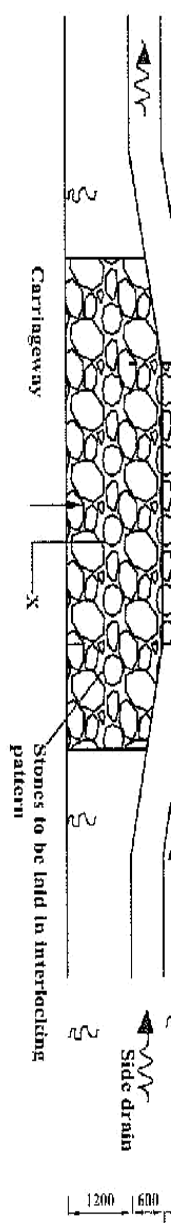


Diameter (D)	450 (mm)	600 (mm)	900 (mm)
a	0.15	0.20	0.20
b	0.10	0.15	0.15
c	0.86	1.12	1.48
d	0.56	0.72	1.08
e	0.42	0.54	0.81
f(min)	0.23	0.3	0.45
g	-	-	-
h	0.52	0.69	0.96
i	-	-	-

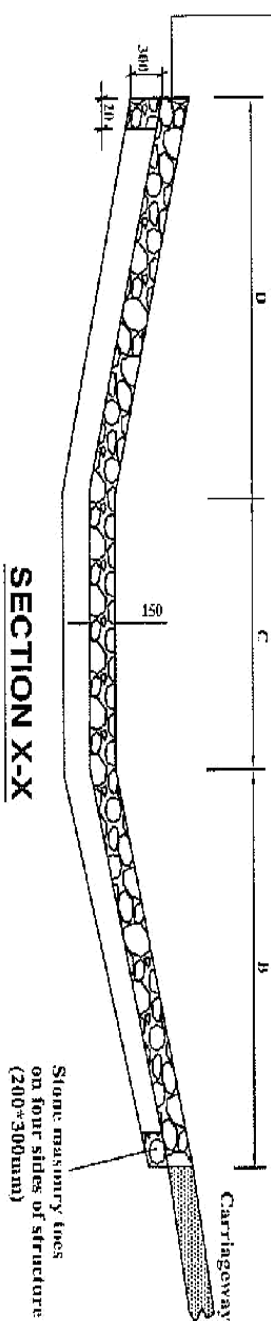
450 (mm)	600 (mm)	900 (mm)
0.15	0.20	0.20
0.10	0.15	0.15
0.86	1.12	1.48
0.56	0.72	1.08
0.46	0.52	0.78
0.15	0.15	0.15
0.15	0.15	0.15
0.81	1.02	1.38
0.28	0.35	0.45

Concrete Class 15/20	Volume in (m ³ /m)	0.26	0.47	0.71
Application	-Fair subgrade condition -Overfill > 75% of the pipe diameter -Seasonal water flow only			
Remarks	Material for back/overfill shall be approved by the Engineer			

Volume in (m ³ /m)	0.37	0.61	0.92
Application	-Fair to poor subgrade condition -Overfill > 75% of the pipe diameter -Seasonal water flow only		
Remarks	Material for back/overfill shall be approved by the Engineer		

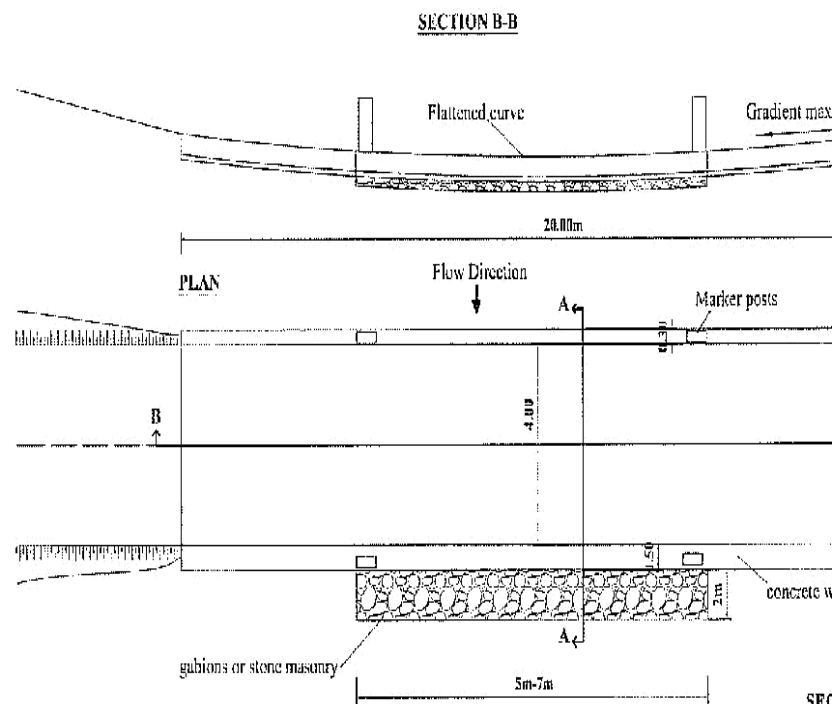


150mm Grouted Stone Pitching
(Cement mortar 1:4)



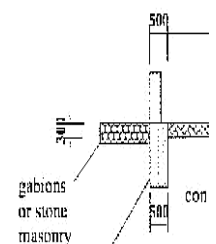
SECTION X-X

QUANTITIES TABLE						
Cross section	DIMENSIONS					Excavation(m ³)
	A	B	C	D	E	
A	4000	1800	600	1800	4200	7.5
	6000	1800	600	1800	4200	10.00
B	4000	1400	400	1800	3600	7.00
	6000	1400	400	1800	3600	9.00
						1.30
						1.60
						1.20
						1.50
						21.75
						30.15
						18.30
						25.50



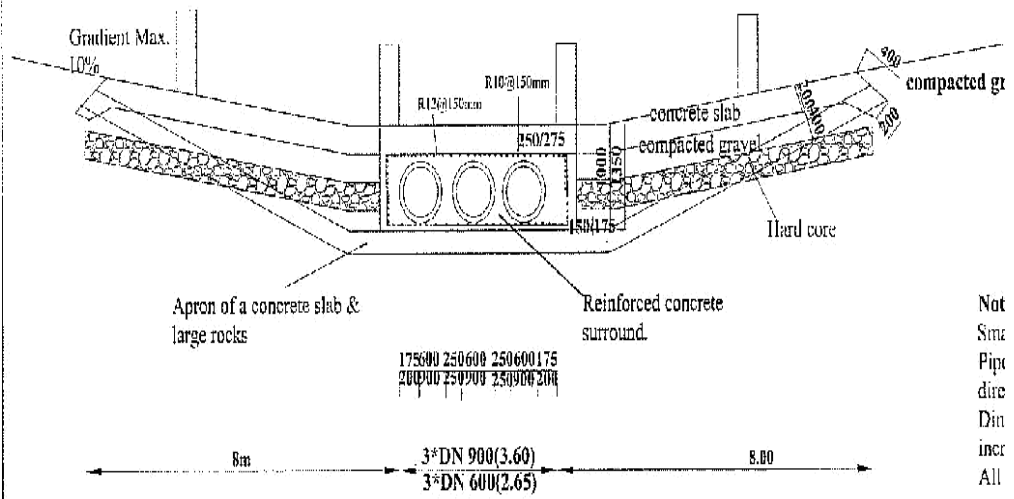
Material : All concrete Class 20/20 (1:2:4)

- 1 Concrete wall : 16m³
- 2 Concrete slab: 24m³ or stone masonry
- 3 Concrete toe : 8m³ or stone masonry
- 4 Gabions / mattress rock fill: 4.3m³ or stone masonry
- 5 Gabions / mattress: 36m³
- 6 Marker posts - precast concrete: 4 no.
- 7 Excavation (slab + toes + gabions) 54.2m³

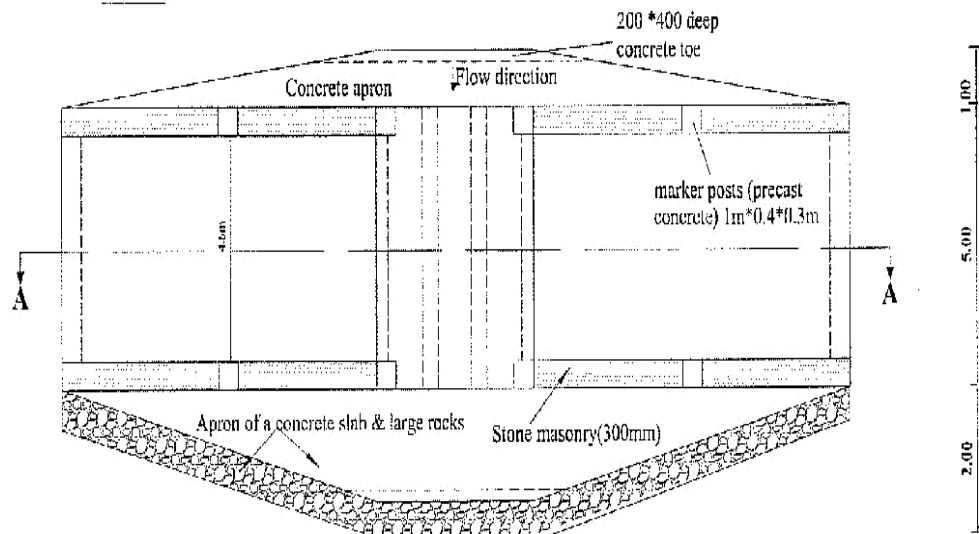


concrete wall > 1000mm

SECTION A-A

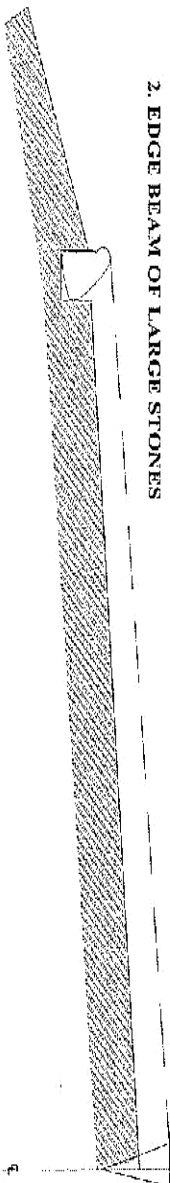


PLAN

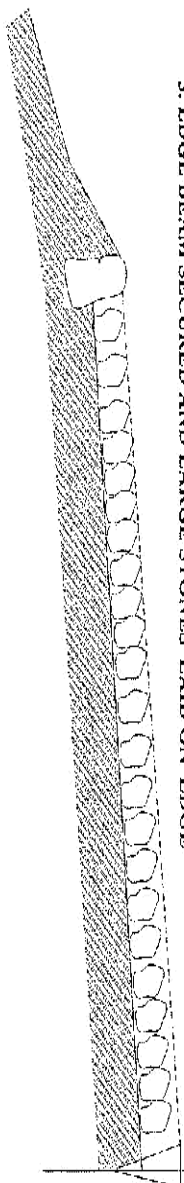




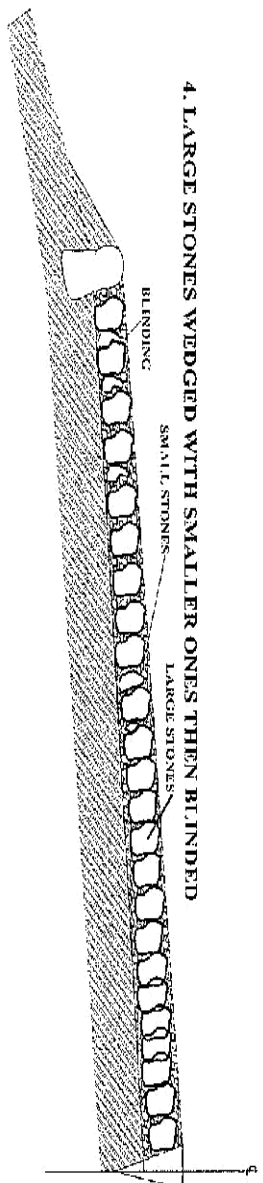
2. EDGE BEAM OF LARGE STONES

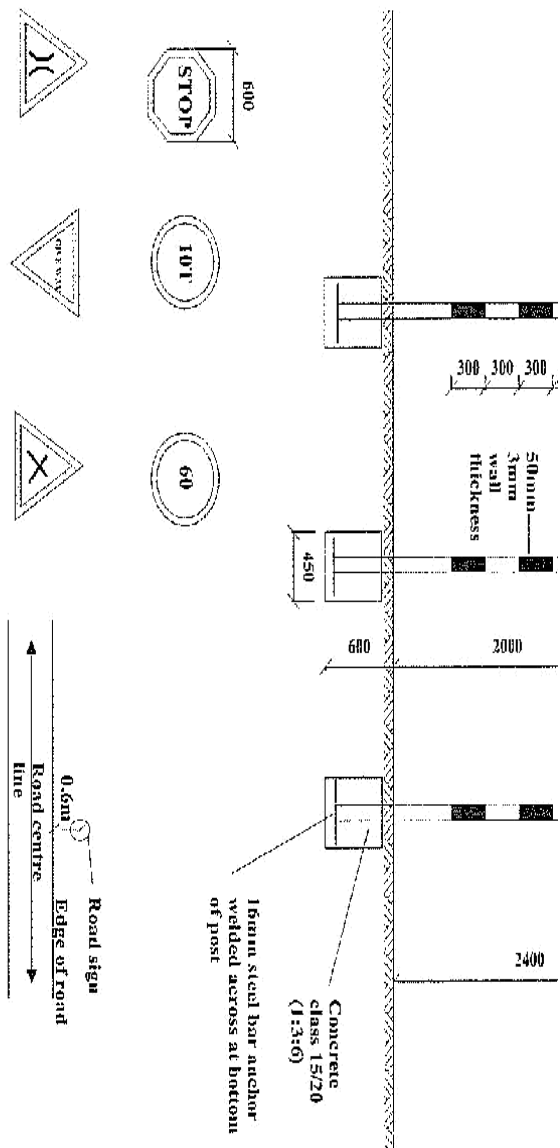


3. EDGE BEAM SECURED AND LARGE STONES LAID ON EDGE



4. LARGE STONES WEDGED WITH SMALLER ONES THEN BLINDED

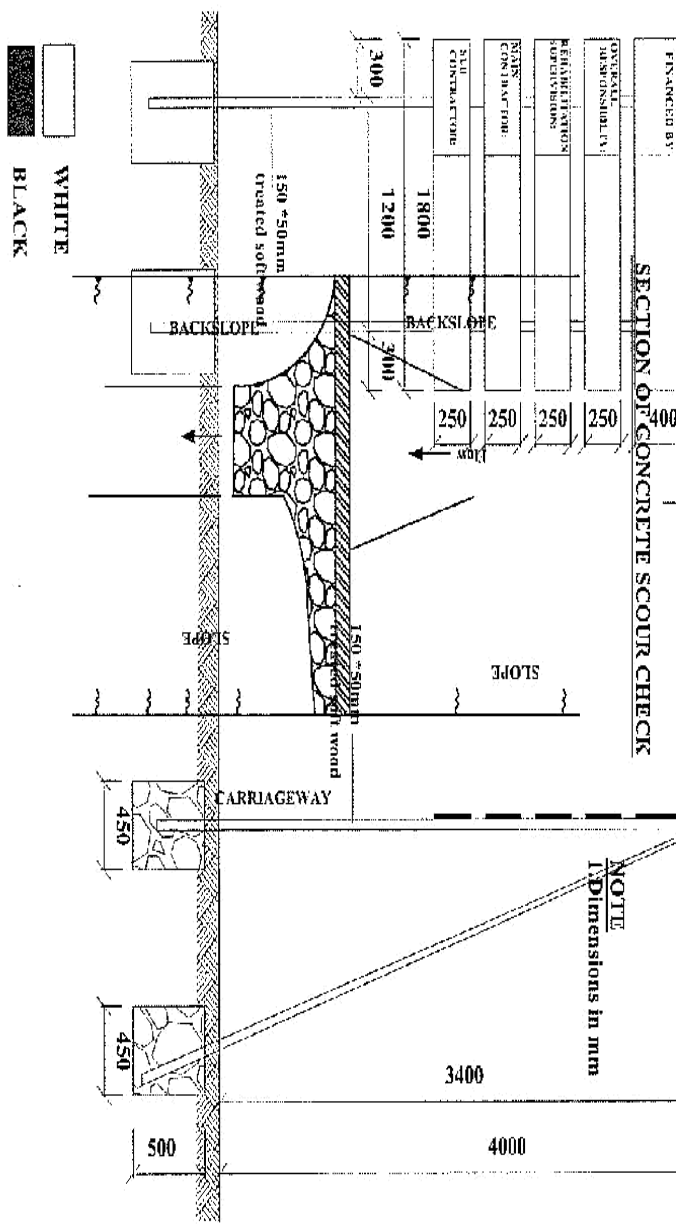




KEY

BLACK WHITE RED

1. The type of sign required and their location shall be as shown on the Road Plan or as directed by the Engineer.
2. Sign plate to be 2mm thick mild steel plate.
3. Sign post to be 50mm fixing clamps/brackets.
4. Sign plate to be fixed to steel tube by 5 Nos M10 bolts and 50mm fixing clamps/brackets.
5. Sign paints shall be reflective.
6. The sign plate and post shall be treated by applying two coats of lead red oxide paint before applying a priming and two finish coats of approved paints. Paints used shall have a hard, durable and glossy finish.

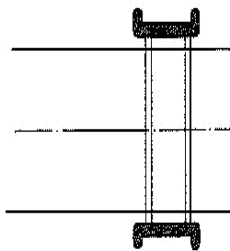
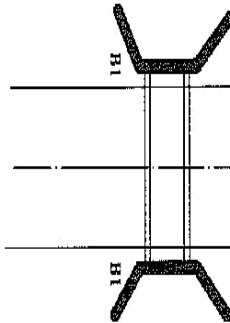


PLAN OF DRAIN WITH SCOUR CHECK

NOTES

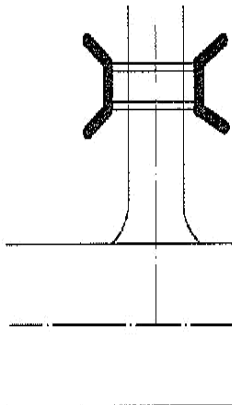
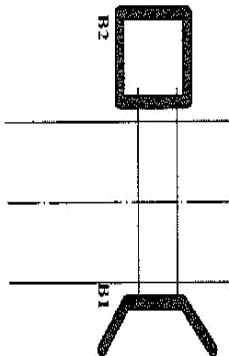
1. The wording of the project sign shall be as approved by the Engineer.
2. Materials to be used for fabrication of signboard shall be pre-galvanised treated softwood timber.
3. Wording board posts to be attached to the posts with galvanised treated softwood timber.
4. Project board posts and sign shall be in concrete class 20/20 (1:2:4).

A	2400	100	550	0.13	0.15	0.18
B	2000	100	500	0.10	0.09	0.14



TYPE 2(ENTRY ONLY)

TYPE 4(ENTRY AND EXIT ON ACCESS)



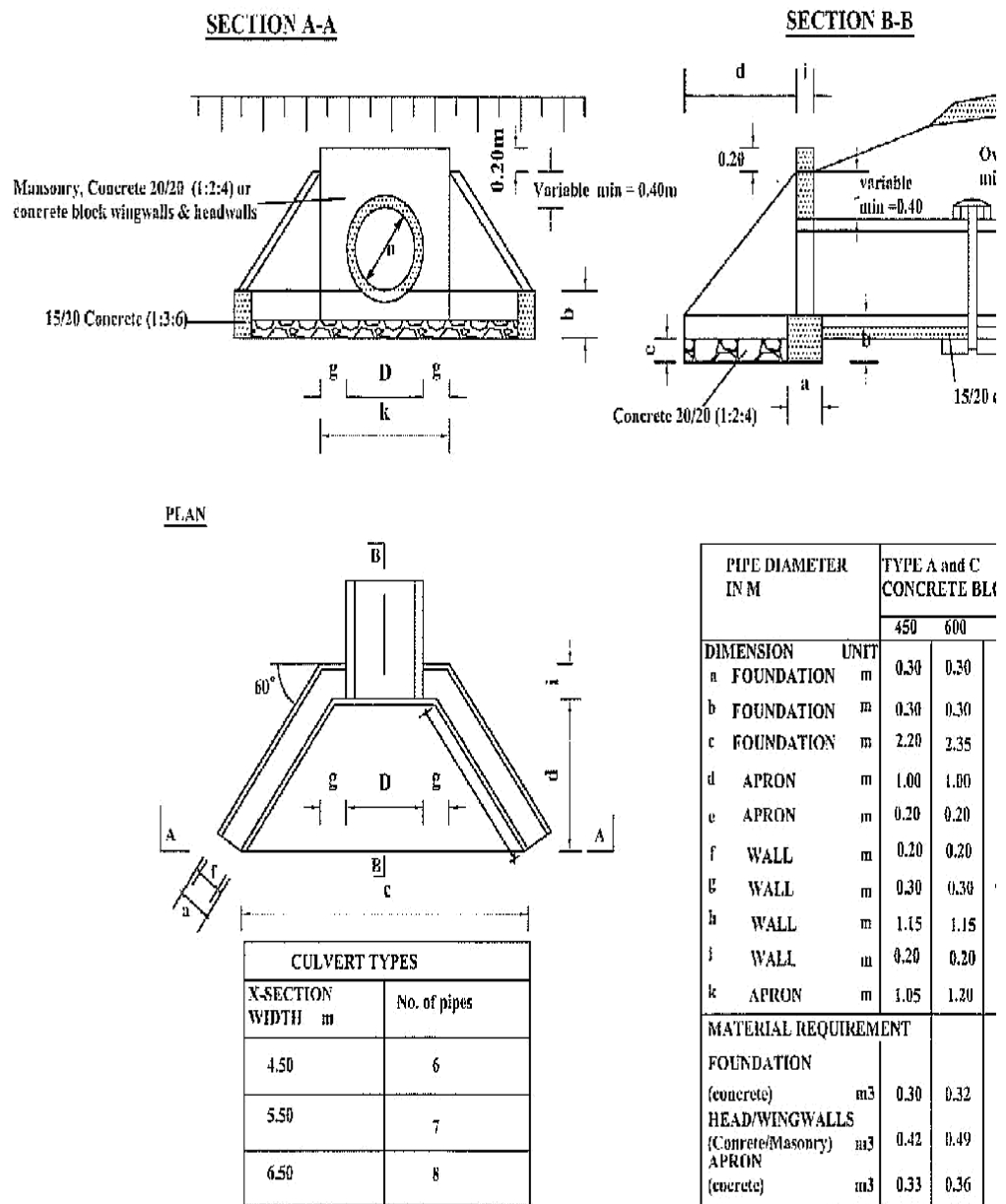
NOTE

1. The code numbers specify the shape and function and the code letter denotes the material;

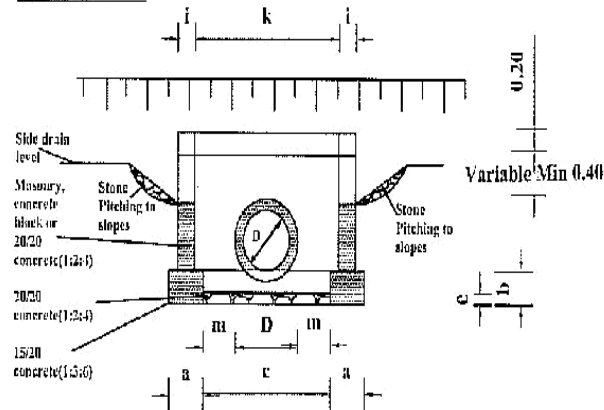
A =Concrete block

B =Stone masonry

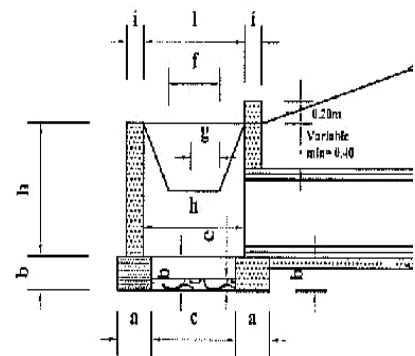
C =Concrete



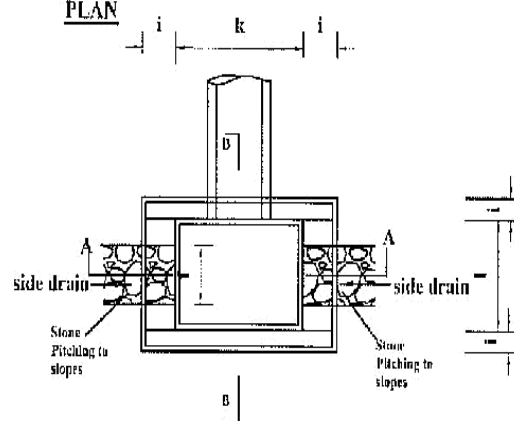
SECTION A-A



SECTION B-B



PLAN

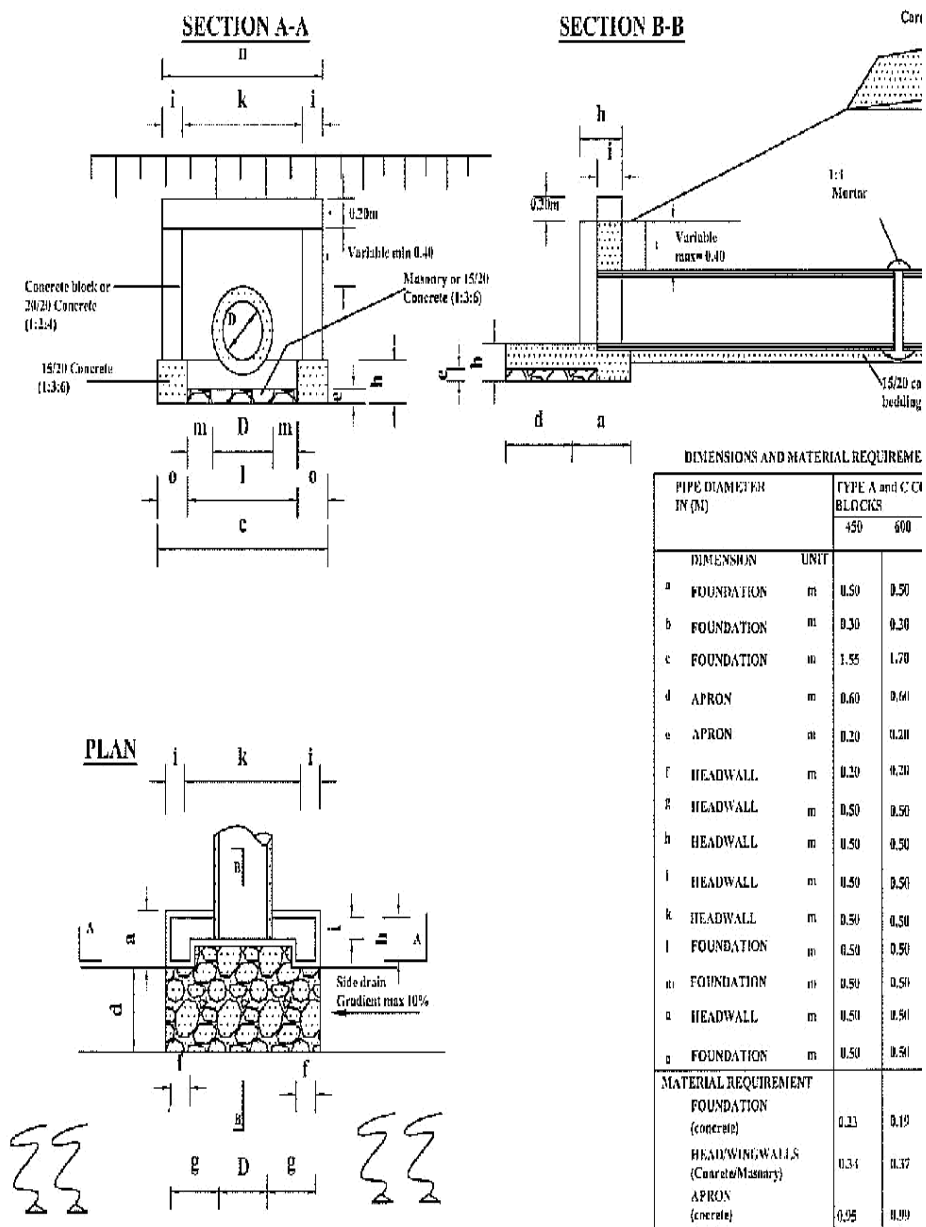


DIMENSIONS AND MATERIAL REQUIREMENTS

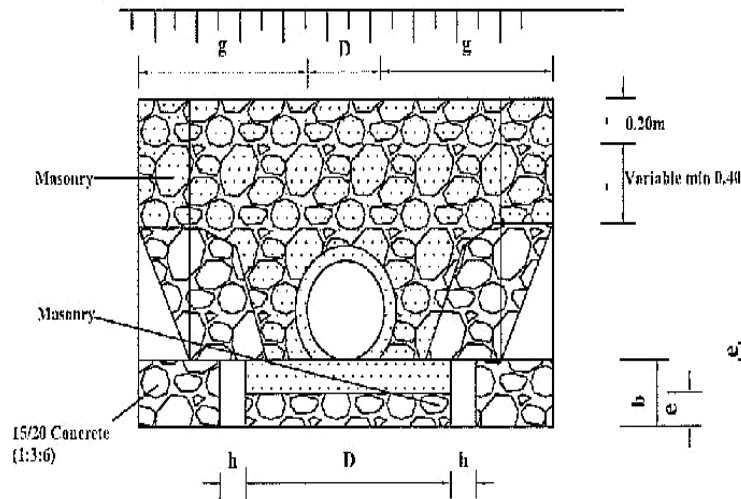
PIPE DIAMETER IN (M)	TYPE A CONCRETE BLOCKS				TY M ³
		450	600	900	
DIMENSION	UNIT				
a FOUNDATION	m	0.30	0.30	0.30	0.4
b FOUNDATION	m	0.30	0.30	0.30	0.3
c FOUNDATION	m	1.10	1.10	1.40	1.2
d APRON	m	0.90	0.90	0.90	1.0
e APRON	m	0.20	0.20	0.20	0.2
f DROP INLET	m	0.60	0.60	0.60	0.6
g DROP INLET	m	0.30	0.40	0.60	0.3
h DROP INLET	m	0.60	0.80	1.20	0.6
i DROP INLET	m	0.20	0.20	0.20	0.4
k DROP INLET	m	1.20	1.20	1.50	1.2
l DROP INLET	m	1.00	1.00	1.00	1.0
m DROP INLET	m	0.38	0.30	0.30	0.3

MATERIAL REQUIREMENT

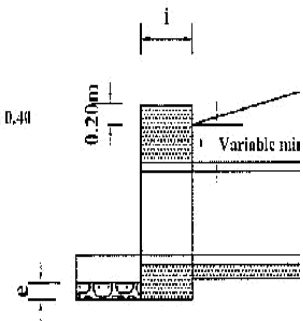
FOUNDATION (concrete)	m ³	0.47	0.47	0.52	0.7
HEAD/WINGWALLS (Concrete/Masonry)	m ³	0.56	0.72	1.15	1.2
APRON (concrete)	m ³	0.24	0.24	0.30	0.2



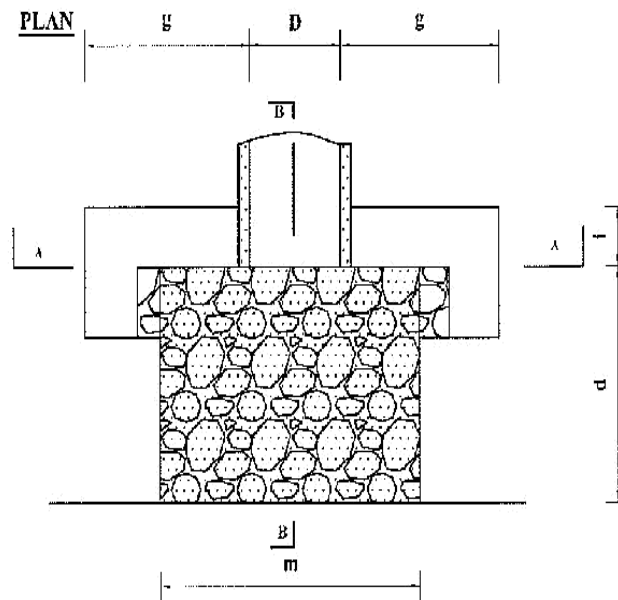
SECTION A-A



SECTION B-B



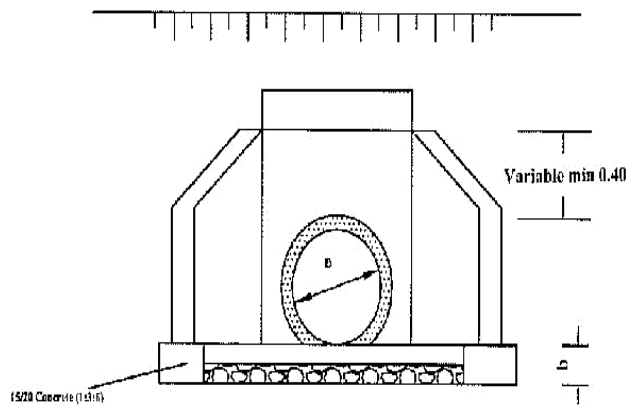
PLAN



DIMENSIONS AND

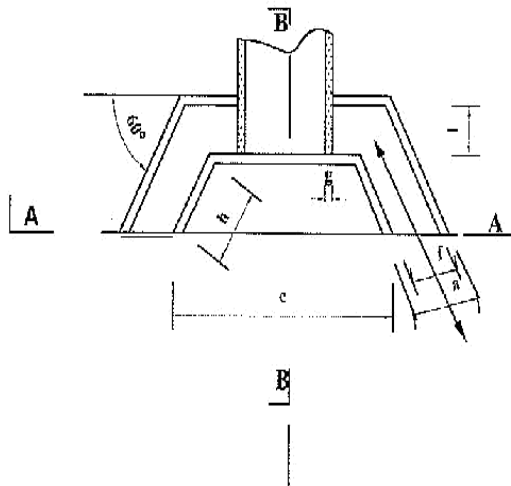
PIPE DIAMETER (M)	
DIMENSION	
a	FOUNDATION
b	FOUNDATION
c	FOUNDATION
d	APRON
e	APRON
f	HEADWALL
g	HEADWALL
h	HEADWALL
i	HEADWALL
m	FOUNDATION
MATERIAL REQ'D	
FOUNDATION (concrete)	
HEAD/WING (Concrete/Masonry)	
APRON (concrete)	

SECTION A-A

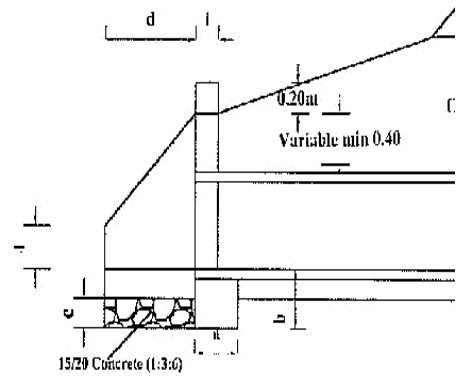


B D R

PLAN

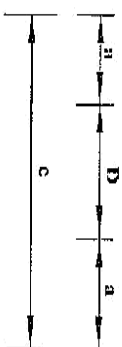
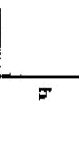
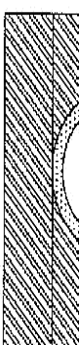


SECTION B-B



DIMENSIONS AND MATERIAL REQUIREMENTS

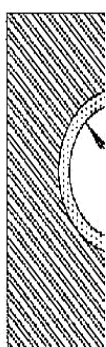
PIPE DIAMETER IN (M)	UNIT	TYPE A (CONCRETE BLOCKS)		
		450	600	900
a	FOUNDATION	m	0.20	0.36
b	FOUNDATION	m	0.30	0.30
c	APRON	m	1.34	1.49
d	APRON	m	0.80	0.60
e	APRON	m	0.20	0.20
f	WINGWALLS	m	0.20	0.20
g	WINGWALLS	m	0.10	0.10
h	HEADWALLS	m	0.69	0.69
i	HEADWALLS	m	0.20	0.20
j	HEADWALLS	m	0.65	0.80
k	HEADWALLS	m	0.40	0.40
MATERIAL REQUIREMENT				
FOUNDATION (concrete (1:3:6))		0.18	0.20	
HEAD/WINGWALLS (Concrete/Masonry)		0.28	0.32	
APRON (concrete)		0.12	0.14	



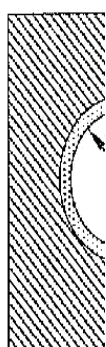
Diameter (D)	450 (mm)	600 (mm)	900 (mm)
a	0.15	0.20	0.20
b	0.10	0.15	0.15
c	0.86	1.12	1.48
d	0.56	0.72	1.08
e	0.14	0.18	0.27
f (mm)	0.34	0.45	0.68
g	-	-	-
h	0.24	0.33	0.42
i	-	-	-
Concrete Class 15/20	Volume in (m ³ /m)		
	0.24	0.24	0.24
Application	-Fair subgrade condition -Overfill > 75% of the pipe diameter -Seasonal water flow only		
Remarks	Material for back/overfill shall be approved by the Engineer		

450 (mm)	600 (mm)	900 (mm)
0.15	0.20	0.20
0.10	0.15	0.15
0.86	1.12	1.48
0.56	0.72	1.08
0.28	0.36	0.54
0.34	0.45	0.68
-	-	-
0.38	0.51	0.69
Volume in (m ³ /m)		
0.20	0.37	0.56
-Fair to poor subgrade condition -Overfill > 75% of the pipe diameter -Seasonal water flow only		
Material for back/overfill shall be approved by the Engineer		

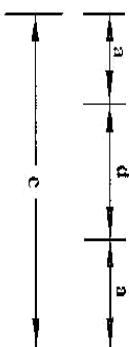
e
b



h
e
b



h

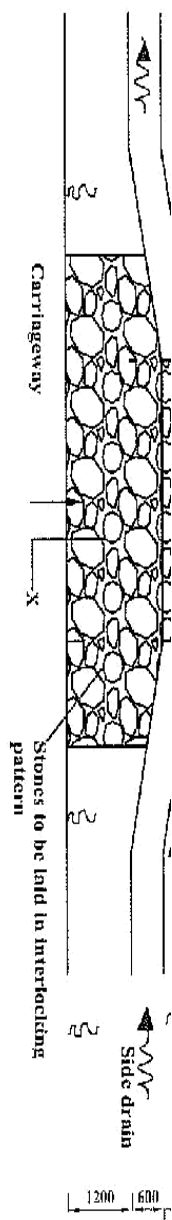


Diameter (D)	450 (mm)	600 (mm)	900 (mm)
a	0.15	0.20	0.20
b	0.10	0.15	0.15
c	0.86	1.12	1.48
d	0.56	0.72	1.08
e	0.42	0.54	0.81
f(min)	0.23	0.3	0.45
g	-	-	-
h	0.52	0.69	0.96
i	-	-	-

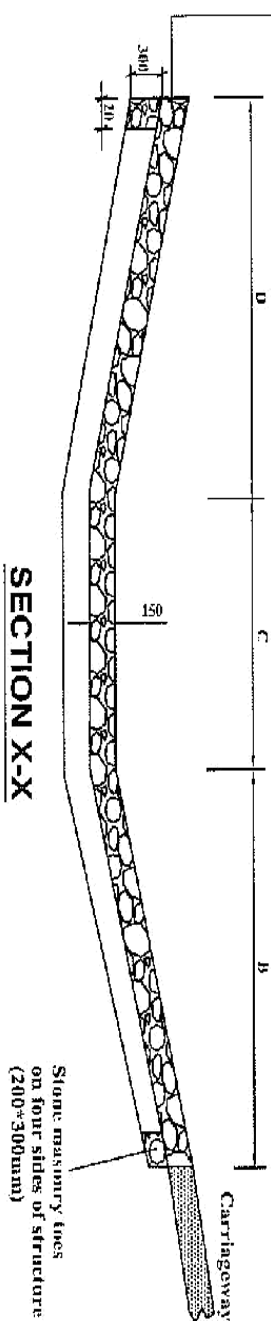
450 (mm)	600 (mm)	900 (mm)
0.15	0.20	0.20
0.10	0.15	0.15
0.86	1.12	1.48
0.56	0.72	1.08
0.46	0.52	0.78
0.15	0.15	0.15
0.15	0.15	0.15
0.81	1.02	1.38
0.28	0.35	0.45

Concrete Class 15/20	Volume in (m ³ /m)	0.26	0.47	0.71
Application	-Fair subgrade condition -Overfill > 75% of the pipe diameter -Seasonal water flow only			
Remarks	Material for back/overfill shall be approved by the Engineer			

Volume in (m ³ /m)	0.37	0.61	0.92
-Fair to poor subgrade condition -Overfill > 75% of the pipe diameter -Seasonal water flow only			
Material for back/overfill shall be approved by the Engineer			

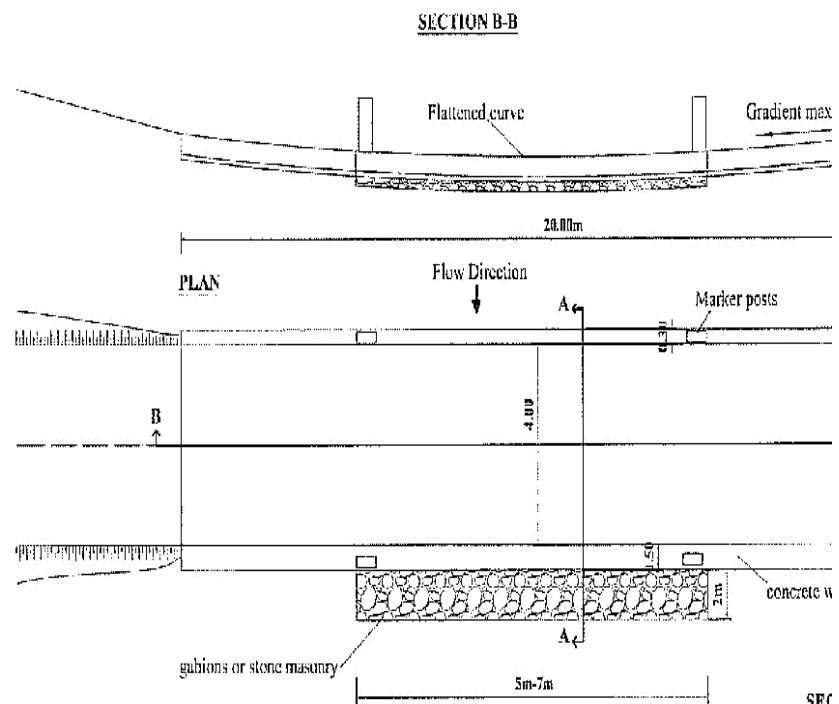


150mm Grouted Stone Pitching
(Cement mortar 1:4)



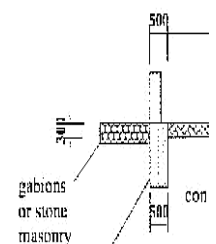
SECTION X-X

QUANTITIES TABLE						
Cross section	DIMENSIONS					Excavation(m ³)
	A	B	C	D	E	
A	4000	1800	600	1800	4200	7.5
	6000	1800	600	1800	4200	10.00
B	4000	1400	400	1800	3600	7.00
	6000	1400	400	1800	3600	9.00
						1.30
						1.60
						1.20
						1.50
						21.75
						30.15
						18.30
						25.50



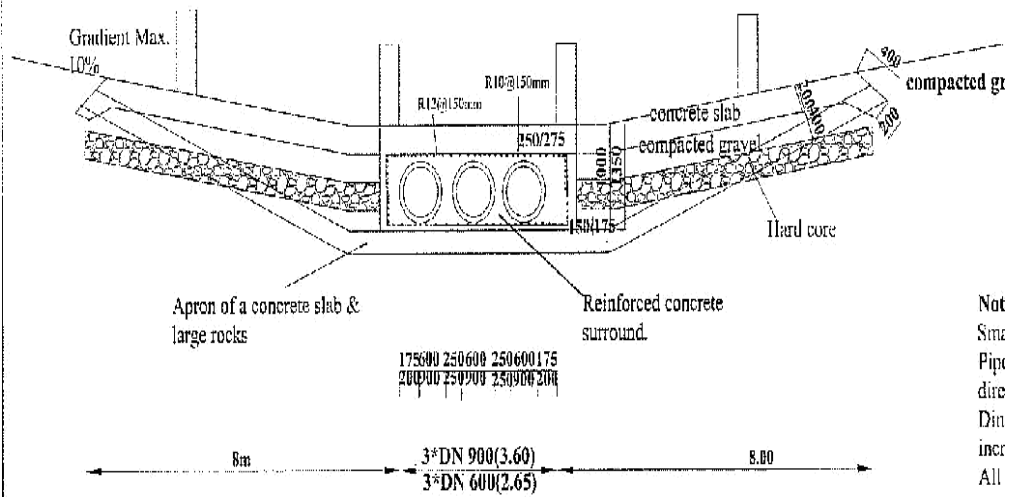
Material : All concrete Class 20/20 (1:2:4)

- 1 Concrete wall : 16m³
- 2 Concrete slab: 24m³ or stone masonry
- 3 Concrete toe : 8m³ or stone masonry
- 4 Gabions / mattress rock fill: 4.3m³ or stone masonry
- 5 Gabions / mattress: 36m³
- 6 Marker posts - precast concrete: 4 no.
- 7 Excavation (slab + toes + gabions) 54.2m³

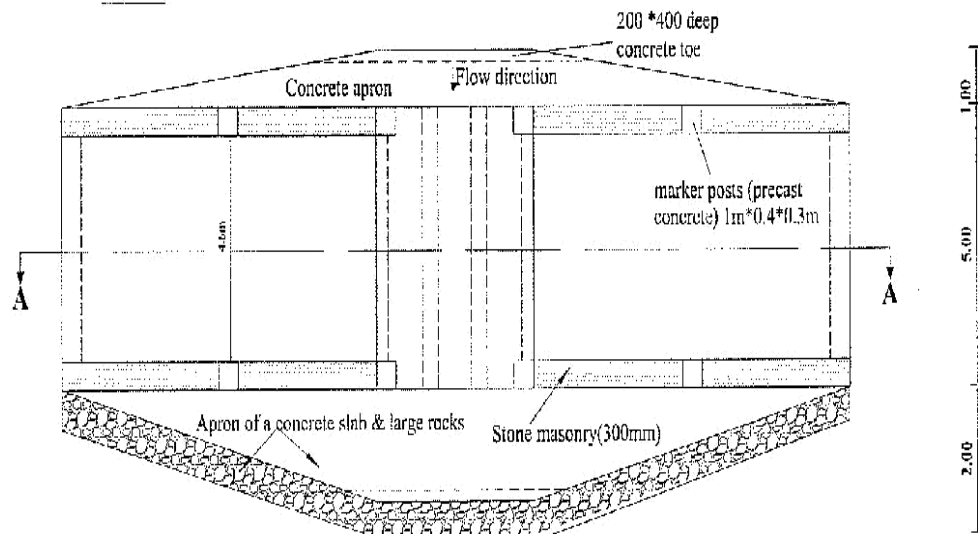


concrete wall > 1000

SECTION A-A

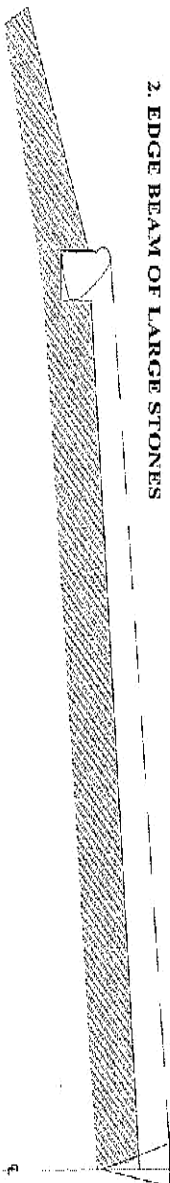


PLAN

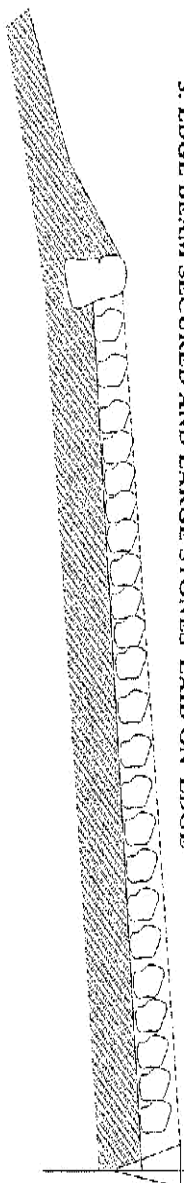




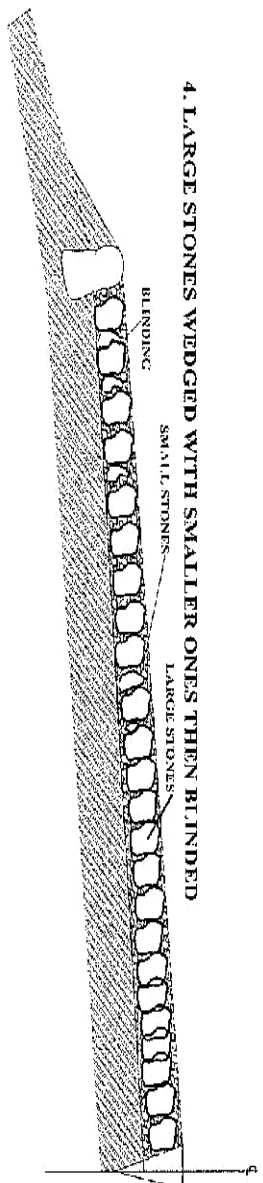
2. EDGE BEAM OF LARGE STONES



3. EDGE BEAM SECURED AND LARGE STONES LAID ON EDGE



4. LARGE STONES WEDGED WITH SMALLER ONES THEN BLINDED



PREAMBLE TO BILLS OF QUANTITIES

1. The Bills of Quantities form part of the Contract Documents and are to be read in conjunction with the Instructions to Tenderers and these Documents.
2. The prices and rates to be inserted in the Bills of Quantities are to be the full, inclusive value of the work described under the several items including all costs and expenses which may be required in and for the execution of the work described and for the Contractor's overheads and profits. The rates shall be VAT exclusive but include all other taxes, levies and fees applicable. The rates shall be based on the Works being carried out in accordance with the R2000 Strategy of using optimum labour resources. The contractor should Append their signature and company stamp on all Bills of Quantities pages, failure to which it will be considered null and void
3. Each item in the Bills of Quantities contains only a brief description of the required work. Fuller details and descriptions of the work to be done, the materials to be used, the standards of workmanship, methods of measurement and payment are to be found in the various sections of the Specifications and on the Drawings.
4. The Quantities set out in the Bills of Quantities are estimated and represent substantially the work to be carried out. There is no guarantee that the Contractor will be required to carry out all the quantity of work indicated under any one particular item or group of items in the Bills of Quantities. The basis of payment shall be the Contractor's rates and the quantities of measured work done in fulfilment of the obligations under the Contract.
5. Work shall be carried out under Dayworks items only at the direction, and with the approval, of the Engineer. The Contractor shall enter rates in the Dayworks Schedule of Rates, which shall reflect the realistic costs, including overheads and profit, of each item. If, in the opinion of the Engineer, a rate is unreasonably high or low, the Contractor may be required to amend the rate to the satisfaction of the Engineer.

BILLS OF QUANTITIES

(AS GENERATED FROM RMS)

RoadCode URF

Structure:

Package: Kinondo - Chale/KeRRA/011/KWL/39/001/2019-2020

Contractor

Section Name

Kinondo Road - Chale

0

Bill of Quantities		Page: 1
	Summary	Project:
Item No.	Description	Amount (KShs)
1	General: Office administration and overheads/Preliminaries	
10	GRADING AND GRAVELLING WORKS	
12	NATURAL MATERIAL BASES AND SUBBASE	
17	CONCRETE WORKS (Major Structures)	
20	ROAD FURNITURE REPAIR AND MAINTENANCE	
23	PAVED SURFACES	
	Sub Total	
	VAT @ 16 %	
	Total	
	Contingencies (@ 0 %)	
	Carried to page on the form of Tender	

Road Code URF
Package: Kinondo -
Chale/KeRRA/011/KWL/39/001/2019-2020
Contractor

Section Name

Kinondo Road - Chale

0

Bill of Quantities						Page: 1
Bill No.1	General: Office administration and overheads/Preliminaries					Project:
Item No.	Description	Units	Qty	Unit Bid Rate(Ksh)	Amount KSh	Tech
01-60-005	Publicity Sign Boards	KS	1			LB-MB
01-80-010	Allow a prime cost of sum for materail testing as directed by the Engineer	PC SUM	1		20000	LB-MB
01-80-030	Allow a prime cost for attendance to the RE,s supervisory staff including overtime	PC SUM	1		250000	LB-MB
01-80-031	Include percentage of PC sum in item 01-80-030 for contractors overhead and profit	%	250000			LB-MB
	Total Carried Forward to Summary:					
Bill No.10	GRADING AND GRAVELLING WORKS					
10-50-002	Heavy grading with watering and compaction instructed by the Engineer	M³	1400			MB
	Total Carried Forward to Summary:					
Bill No.12	NATURAL MATERIAL BASES AND SUBBASE					
12-50-002	Provide, place, spread and compact natural gravel for subbase	M³	150			MB
	Total Carried Forward to Summary:					
Bill No.17	CONCRETE WORKS (Major Structures)					
17-60-002	Provide place and compact concrete class 20/25 concrete	M³	4.61			MB
	Total Carried Forward to Summary:					
Bill No.20	ROAD FURNITURE REPAIR AND MAINTENANCE					
20-50-012	Kerbs	MT	410			LB
	Total Carried Forward to Summary:					
Bill No.23	PAVED SURFACES					
23-50-005	Paving block-60mm thick	M²	1000			LB-MB
	Total Carried Forward to Summary:					