



WATERFUND



MANDWASCO



**MANDERA COUNTY
GOVERNMENT**



EUROPEAN UNION

**ENDING DROUGHT EMERGENCIES – CLIMATE PROOFED
INFRASTRUCTURE FOR IMPROVED WATER SUPPLY AND SANITATION IN
ARID AND SEMI-ARID LANDS (ASALS)**

**BIDDING DOCUMENTS FOR
PROCUREMENT OF:**

**TENDER NAME: PROPOSED CONSTRUCTION OF
BOKOLOW BANYOLEY 120,000M3 EARTH
PAN AND ASSOCIATED WATER SUPPLY
WORKS, MANDERA COUNTY**

TENDER NO: MCG/MANDWASCO/WSTF/ONT/01/2020-2021

Employer:	Funding	
Chief Executive Officer Mandera Water and Sewerage Company P. O. Box 341- 70300 MANDERA	Chief Executive Officer Water Sector Trust Fund P.O. Box 49699- 00100 NAIROBI	Chief Officer, Department of Water, Environment, Natural Resources & Energy County Government of Mandera P. O. Box 341- 70300 MANDERA

SEPTEMBER 2020

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SECTION I

INVITATION FOR TENDERS

Tender reference No. CONTRACT NO.:
MCG/MANDWASCO/WSTF/ONT/01/2020-2021

**TENDER NAME: PROPOSED CONSTRUCTION OF BOKOLOW BANYOLEY
120,000M3 EARTH PAN AND ASSOCIATED WATER SUPPLY WORKS,
MANDERA COUNTY**

Name of procuring entity: **Mandera Water and Sewerage Company**

1.1 MANDWASCO Invites sealed tenders for PROPOSED CONSTRUCTION OF BOKOLOW BANYOLEY 120,000M3 EARTH PAN AND ASSOCIATED WATER SUPPLY WORKS, MANDERA COUNTY.

1.2 Interested eligible candidates may obtain further information and inspect tender documents from our website www.mandera.go.ke

Mandera water and sewerage company

P.O. Box 341-70300

Mandera County, Kenya

Tel: [+254 \(020\)7859573/0412245409](tel:+25402078595730412245409)

Email: mandawasco@gmail.com

during normal working hours.

1.3 A complete set of tender documents may be obtained by interested candidates upon payment of a non-refundable fees of (Amount) in cash or Bankers Cheque payable to (Accounting officer)

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 **Conference Room, Mandera water and sewerage company, P.O. Box 341-70300 Mandera County, Kenya** so as to be received on or before **15th September, 2020**

1.6 Tenders will be opened immediately thereafter in the presence of the candidates or their representatives who choose to attend at **MANDWASCO Head Office at the new county headquarters', Mandera town.**

For **Chief Executive Officer,**
Mandera water and sewerage company

SECTION II - INSTRUCTIONS TO TENDERERS
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SECTION II - INSTRUCTION TO TENDERERS

Note: The tenderer must comply with the following conditions and instructions and failure to do so is liable to result in rejection of the tender.

GENERAL

1. Definitions

- (a) “Tenderer” means any persons, partnership firm or company submitting a sum or sums in the Bills of Quantities in accordance with the Instructions to Tenderers, Conditions of Contract Parts I and II, Specifications, Drawings and Bills of Quantities for the work contemplated, acting directly or through a legally appointed representative.
- (b) “Approved tenderer” means the tenderer who is approved by the Employer
- (c) Any noun or adjective derived from the word “tender” shall be read and construed to mean the corresponding form of the noun or adjective “bid”. Any conjugation of the verb “tender” shall be read and construed to mean the corresponding form of the verb “bid.”
- (d) “Employer” means a Central Government Ministry, Local Authority, State Corporation or any other Public Institution.

2. Eligibility and Qualification Requirements

2.1 Eligibility requirements

This invitation to tender is open to all tenderers who are qualified as stated in the appendix.

2.2 Qualification Requirements

To be qualified for award of Contract, the tenderer shall provide evidence satisfactory to Mandera water and sewerage company of their eligibility under Sub clause 2.1 above and of their capability and adequacy of resources to effectively carry out the subject Contract. To this end, the tenderer shall be required to update the following information already submitted during prequalification: -

- (a) Details of experience and past performance of the tenderer on the works of a similar nature and details of current work on hand and other contractual commitments.
- (b) The qualifications and experience of key personnel proposed for administration and execution of the contract, both on and off site.

- (c) Major items of construction plant and equipment proposed for use in carrying out the Contract. Only reliable plant in good working order and suitable for the work required of it shall be shown on this schedule. The tenderer will also indicate on this schedule when each item will be available on the Works. Included also should be a schedule of plant, equipment and material to be imported for the purpose of the Contract, giving details of make, type, origin and CIF value as appropriate.
- (d) Details of sub-contractors to whom it is proposed to sublet any portion of the Contract and for whom authority will be requested for such subletting in accordance with clause 4 of the Condition of Contract.
- (e) A draft Program of Works in the form of a bar chart and Schedule of Payment which shall form part of the Contract if the tender is accepted. Any change in the Program or Schedule shall be subjected to the approval of the Engineer.
- (f) Details of any current litigation or arbitration proceedings in which the tenderer is involved as one of the parties.
- (g)

2.3 Joint Ventures

Tenders submitted by a joint venture of two or more firms as partners shall comply with the following requirements: -

- (a) The tender, and in case of a successful tender, the Form of Agreement, shall be signed so as to be legally binding on all partners
- (b) One of the partners shall be nominated as being in charge, and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the partners
- (c) The partner in charge shall be authorized to incur liabilities and receive instructions for an on behalf of any and all partners of the joint venture and the entire execution of the Contract including payment shall be done exclusively with the partner in charge.
- (d) All partners of the joint venture shall be liable jointly and severally for the execution of the Contract in accordance with the Contract terms, and a relevant statement to this effect shall be included in the authorization mentioned under (b) above as well as in the Form of Tender and the Form of Agreement (in case of a successful tender)
- (e) A copy of the agreement entered into by the joint venture partners shall be submitted with the tender.

3. Cost of Tendering

- 3.1 The Tenderer shall bear all costs associated with the preparation and submission of his tender and Mandera water and sewerage company will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the tendering process.
- 3.2 The price to be charged for the tender document shall be free of charge.
- 3.3 The procuring entity shall allow the tenderer to view the tender document free of charge before purchase.

4. Site Visit

- 4.1. The tenderer is advised to visit and examine the Site and its surroundings and obtain for himself on his own responsibility, all information that may be necessary for preparing the tender and entering into a contract. The costs of visiting the Site shall be the tenderer's own responsibility
- 4.2. The tenderer and any of his personnel or agents will be granted permission by Mandera water and sewerage company to enter upon premises and lands for the purpose of such inspection, but only upon the express condition that the tenderer, his personnel or agents, will release and indemnify Mandera water and sewerage company from and against all liability in respect of, and will be responsible for personal injury (whether fatal or otherwise), loss of or damage to property and any other loss, damage, costs and expenses however caused, which but for the exercise of such permission, would not have arisen.
- 4.3. Mandera water and sewerage company shall organize a site visit at a date to be notified. A representative of Mandera water and sewerage company will be available to meet the intending tenderers at the Site. Tenderers must provide their own transport. The representative will not be available at any other time for site inspection visits.

Each tenderer shall complete the Certificate of Tenderer's Visit to the Site, whether he in fact visits the Site at the time of the organized site visit or by himself at some other time.

5 Tender Documents

- 5.1 The Tender documents comprise the documents listed here below and should be read together with any Addenda issued in accordance with Clause 7 of these instructions to tenderers.
 - a. Form of Invitation for Tenders
 - b. Instructions to Tenderers
 - c. Form of Tender
 - d. Appendix to Form of Tender
 - e. Form of Tender Surety
 - f. Statement of Foreign Currency Requirements
 - g. Tender and Confidential Business Questionnaires

- h. Details of Sub contractors
- i. Schedules of Supplementary Information
- j. General Conditions of Contract – Part I
- k. Conditions of Particular Application – Part II
- l. Specifications
- m. Bills of Quantities
- n. Drawings
- o. Declaration Form

5.2 The tenderer is expected to examine carefully all instructions, conditions, forms, terms, specifications and drawings in the tender documents. Failure to comply with the requirements for tender submission will be at the tenderer's own risk. Pursuant to clause 22 of Instructions to Tenderers, tenders which are not substantially responsive to the requirements of the tender documents will be rejected.

5.3 All recipients of the documents for the proposed Contract for the purpose of submitting a tender (whether they submit a tender or not) shall treat the details of the documents as "private and confidential".

6 Inquiries by tenderers

6.1 A tenderer making an inquiry relating to the tender document may notify Mandera water and sewerage company in writing or by telex, cable or facsimile at the Employer's mailing address indicated in the Invitation to Tender. Mandera water and sewerage company will respond in writing to any request for clarification which he receives earlier than 7 days prior to the deadline for the submission of tenders. Written copies of the Employer's response (including the query but without identifying the source of the inquiry) will be sent to all prospective tenderers who have purchased the tender documents.

6.2 The procuring entity shall reply to any clarifications sought by the tenderer within 3 days of receiving the request to enable the tenderer to make timely submission of its tender.

7 Amendment of Tender Documents

7.1 At any time prior to the deadline for submission of tenders Mandera water and sewerage company may, for any reason, whether at his own initiative or in response to a clarification requested by a prospective tenderer, modify the tender documents by issuing Addenda.

7.2 Any Addendum will be notified in writing or by cable, telex or facsimile to all prospective tenderers who have registered to have downloaded the tender documents and shall be posted on the official website.

7.3 In order to allow prospective tenderers reasonable time in which to take the Addendum into account in preparing their tenders, Mandera water and

sewerage company may, at his discretion, extend the deadline for the submission of tenders.

PREPARATION OF TENDERS

8 Language of Tender

- 8.1 The tender and all correspondence and documents relating to the tender exchanged between the tenderer and Mandera water and sewerage company shall be written in the English language. Supporting documents and printed literature furnished by the tenderer with the tender may be in another language provided they are accompanied by an appropriate translation of pertinent passages in the above stated language. For the purpose of interpretation of the tender, the English language shall prevail.

9 Documents Comprising the Tender

- 9.1 The tender to be prepared by the tenderer shall comprise:
- i. the Form of Tender and Appendix thereto,
 - ii. a Tender Security
 - iii. the Priced Bills of Quantities and Schedules
 - iv. the information on eligibility and qualification
 - v. any other materials required to be completed and submitted in accordance with the Instructions to Tenderers.

The Forms, Bills of Quantities and Schedules provided in the tender documents shall be used without exception (subject to extensions of the schedules in the same format and to the provisions of clause 13.2 regarding the alternative forms of Tender Surety).

10 Tender Prices

- 10.1 All the insertions made by the tenderer shall be made in INK and the tenderer shall clearly form the figures. The relevant space in the Form of Tender and Bills of Quantities shall be completed accordingly without interlineations or erasures except those necessary to correct errors made by the tenderer in which case the erasures and interlineations shall be initialed by the person or persons signing the tender.
- 10.2 A price or rate shall be inserted by the tenderer for every item in the Bills of Quantities whether the quantities are stated or not. Items against which no rate or price is entered by the tenderer will not be paid for by Mandera water and sewerage company when executed and shall be deemed covered by the rates for other items and prices in the Bills of Quantities.

The prices and unit rates in the Bills of Quantities are to be the full [all-inclusive] value of the Work described under the items, including all costs and expenses which may be necessary and all general risks, liabilities and obligations set forth or implied in the documents on which the tender is based. All duties, taxes and other levies payable by the Contractor under the Contract, or for any other cause prior to the deadline for submission of

tenders, shall be included in the rates and prices and the total Tender Price submitted by the tenderer.

Each price or unit rate inserted in the Bills of Quantities should be a realistic estimate for completing the activity or activities described under that particular item and the tenderer is advised against inserting a price or rate against any item contrary to this instruction.

Every rate entered in the Bills of Quantities, whether or not such rate be associated with a quantity, shall form part of the Contract. Mandera water and sewerage company shall have the right to call for any item of work contained in the Bills of Quantities, and such items of work to be paid for at the rate entered by the tenderer and it is the intention of Mandera water and sewerage company to take full advantage of unbalanced low rates.

- 10.3 Unless otherwise specified the tenderer must enter the amounts representing 10% of the sub-total of the summary of the Bills of Quantities for Contingencies and Variation of Prices [V.O.P.] payments in the summary sheet and add them to the sub-total to arrive at the tender amount.
- 10.4 The tenderer shall furnish with his tender written confirmation from his suppliers or manufacturers of basic unit rates for the supply of items listed in the Conditions of Contract clause 70 where appropriate. Mandera water and sewerage company may require the tenderer to justify such rates so obtained from the suppliers or manufacturers.
- 10.5 The rates and prices quoted by the tenderer are subject to adjustment during the performance of the Contract only in accordance with the Provisions of the Conditions of Contract. The tenderer shall complete the schedule of basic rates and shall submit with his tender such other supporting information as required under clause 70 of the Conditions of Contract Part II.
- 10.6 Contract price variations shall not be allowed within the first 12 months of the contract.
- 10.7 Where quantity contract variation is allowed, the variation shall not exceed 15% of the original contract quantity.
- 10.8 Price variation requests shall be processed by the procuring entity within 30 days of receiving the request.

11 Currencies of Tender and Payment

- 11.1 Tenders shall be priced in Kenya Shillings and the tender sum shall be in Kenya Shillings.
- 11.2 Tenderers are required to indicate in the Statement of Foreign Currency Requirements, which forms part of the tender, the foreign currency required by them. Such currency should generally be the currency of the country of the tenderer's main office. However, if a substantial portion of the tenderer's expenditure under the Contract is expected to be in countries other than his country of origin, then he may state a corresponding portion of the contract price in the currency of those other countries. However, the foreign currency element is to be limited to two (2) different currencies and a maximum of 30% (thirty percent) of the Contract Price.
- 11.3 The rate or the rates of exchange used for pricing the tender shall be the selling rate or rates of the Central Bank ruling on the date thirty (30) days before the final date for the submission of tenders.
- 11.4 Tenderers must enclose with their tenders, a brief justification of the foreign currency requirements stated in their tenders.

12 Tender Validity

- 12.1 The tender shall remain valid and open for acceptance for a period of sixty (120) days from the specified date of tender opening or from the extended date of tender opening (in accordance with clause 7.4 here above) whichever is the later.
- 12.2 In exceptional circumstances prior to expiry of the original tender validity period, Mandera water and sewerage company may request the tenderer for a specified extension of the period of validity. The request and the responses thereto shall be made in writing or by cable, telex or facsimile. A tenderer may refuse the request without forfeiting his Tender Surety. A tenderer agreeing to the request will not be required nor permitted to modify his tender, but will be required to extend the validity of his Tender Surety correspondingly.

13 Tender Security

- 13.1 The tenderer shall furnish as part of his tender, a Tender Security in the amount and form stated in the Appendix to Instructions to Tenderers.
- 13.2 The tender security shall be Kshs. 1.5 Million.
- 13.3 The Tender Security shall be valid at least thirty (30) days beyond the tender validity period.

- 13.4 Any tender not accompanied by an acceptable Tender Surety will be rejected by Mandera water and sewerage company as non-responsive.
- 13.5 The Tender Sureties of unsuccessful tenderers will be returned as promptly as possible as but not later than twenty-eight (28) days after expiration of the tender validity period. The Tender Surety of the successful tenderer will be returned upon the tenderer executing the Contract and furnishing the required Performance Security.
- 13.6 The Tender Surety may be forfeited:
- a) if a tenderer withdraws his tender during the period of tender validity: or
 - b) in the case of a successful tenderer, if he fails, within the specified time limit
 - i. to sign the Agreement, or
 - ii. to furnish the necessary Performance Security
 - c) if a tenderer does not accept the correction of his tender price pursuant to clause 23.

14 No Alternative Offers

- 14.1 The tenderer shall submit an offer which complies fully with the requirements of the tender documents unless otherwise provided for in the appendix.

Only one tender may be submitted by each tenderer either by himself or as partner in a joint venture. A tenderer who submits or participates in more than one tender will be disqualified.

- 14.2 The tenderer shall not attach any conditions of his own to his tender. The tender price must be based on the tender documents. The tenderer is not required to present alternative construction options and he shall use without exception, the Bills of Quantities as provided, with the amendments as notified in tender notices, if any, for the calculation of his tender price. Any tenderer who fails to comply with this clause will be disqualified.

15 Pre-tender Meeting

- 15.1 If a pre-tender meeting is convened, the tenderer's designated representative is invited to attend at the venue and time in the Invitation to Tender. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 15.2 The tenderer is requested as far as possible to submit any questions in writing or by cable, to reach Mandera water and sewerage company not later than seven (7) days before the meeting. It may not be practicable

at the meeting to answer questions received late, but questions and responses will be transmitted in accordance with the following:

- (a) Minutes of the meeting, including the text of the questions raised and the responses given together with any responses prepared after the meeting, will be transmitted without delay to all purchasers of the tender documents. Any modification of the tender documents listed in – Clause 9 which may become necessary as a result of the pre-tender meeting shall be made by Mandera water and sewerage company exclusively through the issue of a tender notice pursuant to Clause 7 and not through the minutes of the pre-tender meeting.
- (b) Nonattendance at the pre-bid meeting will not be cause for disqualification of a bidder.

16 Format and Signing of Tenders

- 16.1 The tenderer shall prepare his tender as outlined in clause 9 above and mark appropriately one set “ORIGINAL” and the other “COPY”.
- 16.2 The copy of the tender and Bills of Quantities shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the tenderer. All pages of the tender where amendments have been made shall be initialed by the person or persons signing the tender.
- 16.3 The complete tender shall be without alterations, interlineations or erasures, except as necessary to correct errors made by the tenderer, in which case such corrections shall be initialed by the person or persons signing the tender.

SUBMISSION OF TENDERS

17 Sealing and Marking of Tenders

- 17.1 The tenderer shall seal the original and copy of the tender in separate envelopes, duly marking the envelopes as “ORIGINAL” and “COPY”. The envelopes shall then be sealed in an outer separate envelope.
- 17.2 The inner and outer envelopes shall be addressed to Mandera water and sewerage company at the address stated in the Appendix to Instructions to Tenderers and bear the name and identification of the Contract stated in the said Appendix with a warning not to open before the date and time for opening of tenders stated in the said Appendix.
- 17.3 The inner envelopes shall each indicate the name and address of the tenderer to enable the tender to be returned unopened in case it is

declared “late”, while the outer envelope shall bear no mark indicating the identity of the tenderer.

- 17.4 If the outer envelope is not sealed and marked as instructed above, Mandera water and sewerage company will assume no responsibility for the misplacement or premature opening of the tender. A tender opened prematurely for this cause will be rejected by Mandera water and sewerage company and returned to the tenderer.

18 Deadline for Submission of Tenders

- 18.1 Tenders must be received by Mandera water and sewerage company at the address specified in clause 17.2 and on the date and time specified in the Letter of Invitation, subject to the provisions of clause 7.4, 18.2 and 18.3.

Tenders delivered by hand must be placed in the “tender box” provided in the office of the Employer.

Proof of posting will not be accepted as proof of delivery and any tender delivered after the above stipulated time, from whatever cause arising will not be considered.

- 18.2 Mandera water and sewerage company may, at his discretion, extend the deadline for the submission of tenders through the issue of an Addendum in accordance with clause 7, in which case all rights and obligations of Mandera water and sewerage company and the tenderers previously subject to the original deadline shall thereafter be subject to the new deadline as extended.

- 18.3** Any tender received by Mandera water and sewerage company after the prescribed deadline for submission of tender will be returned unopened to the tenderer.

19 Modification and Withdrawal of Tenders

- 19.1 The tenderer may modify or withdraw his tender after tender submission, provided that written notice of the modification or withdrawal is received by Mandera water and sewerage company prior to prescribed deadline for submission of tenders.

- 19.2 The tenderer’s modification or withdrawal notice shall be prepared, sealed, marked and dispatched in accordance with the provisions for the submission of tenders, with the inner and outer envelopes additionally marked “MODIFICATION” or “WITHDRAWAL” as appropriate.

- 19.3 No tender may be modified subsequent to the deadline for submission of tenders.

- 19.4 No tender may be withdrawn in the interval between the deadline for submission of tenders and the period of tender validity specified on the tender form. Withdrawal of a tender during this interval will result in the forfeiture of the Tender Surety.
- 19.5 Subsequent to the expiration of the period of tender validity prescribed by the Employer, and the tenderer having not been notified by Mandera water and sewerage company of the award of the Contract or the tenderer does not intend to conform with the request of Mandera water and sewerage company to extend the period of tender validity, the tenderer may withdraw his tender without risk of forfeiture of the Tender Surety.

TENDER OPENING AND EVALUATION

20 Tender Opening

- 20.1 Mandera water and sewerage company will open the tenders in the presence of the tenderers' representatives who choose to attend at the time and location indicated in the Letter of Invitation to Tender. The tenderers' representatives who are present shall sign a register evidencing their attendance.
- 20.2 Tenders for which an acceptable notice of withdrawal has been submitted, pursuant to clause 19, will not be opened. Mandera water and sewerage company will examine the tenders to determine whether they are complete, whether the requisite Tender Sureties have been furnished, whether the documents have been properly signed and whether the tenders are generally in order.
- 20.3 At the tender opening, Mandera water and sewerage company will announce the tenderer's names, total tender price, tender price modifications and tender withdrawals, if any, the presence of the requisite Tender Surety and such other details as the Employer, at his discretion, may consider appropriate. No tender shall be rejected at the tender opening except for late tenders.
- 20.4 Mandera water and sewerage company shall prepare minutes of the tender opening including the information disclosed to those present.
- 20.5 Tenders not opened and read out at the tender opening shall not be considered further for evaluation, irrespective of the circumstances.

21 Process to be Confidential

- 21.1 After the public opening of tenders, information relating to the examination, clarification, evaluation and comparisons of tenders and

recommendations concerning the award of Contract shall not be disclosed to tenderers or other persons not officially concerned with such process until the award of Contract is announced.

- 21.2 Any effort by a tenderer to influence Mandera water and sewerage company in the process of examination, evaluation and comparison of tenders and decisions concerning award of Contract may result in the rejection of the tenderer's tender.

22 Clarification of Tenders

- 22.1 To assist in the examination, evaluation and comparison of tenders, Mandera water and sewerage company may ask tenderers individually for clarification of their tenders, including breakdown of unit prices. The request for clarification and the response shall be in writing or by cable, facsimile or telex, but no change in the price or substance of the tender shall be sought, offered or permitted except as required to confirm the correction of arithmetical errors discovered by Mandera water and sewerage company during the evaluation of the tenders in accordance with clause 24.
- 22.2 No tenderer shall contact Mandera water and sewerage company on any matter relating to his tender from the time of the tender opening to the time the Contract is awarded. If the tenderer wishes to bring additional information to the notice of the Employer, he shall do so in writing.

23 Determination of Responsiveness

- 23.1 Prior to the detailed evaluation of tenders, Mandera water and sewerage company will determine whether each tender is substantially responsive to the requirements of the tender documents.
- 23.2 For the purpose of this clause, a substantially responsive tender is one which conforms to all the terms, conditions and specifications of the tender documents without material deviation or reservation. A material deviation or reservation is one which affects in any substantial way the scope, quality, completion timing or administration of the Works to be undertaken by the tenderer under the Contract, or which limits in any substantial way, inconsistent with the tender documents, the Employer's rights or the tenderers obligations under the Contract and the rectification of which would affect unfairly the competitive position of other tenderers who have presented substantially responsive tenders.
- 23.3 Each price or unit rate inserted in the Bills of Quantities shall be a realistic estimate of the cost of completing the works described under the particular item including allowance for overheads, profits and the like. Should a tender be seriously unbalanced in relation to the Employer's estimate of the works to be performed under any item or groups of items, the tender shall be deemed not responsive.

23.4 A tender determined to be not substantially responsive will be rejected by Mandera water and sewerage company and may not subsequently be made responsive by the tenderer by correction of the non-conforming deviation or reservation.

24 Correction of Errors

24.1 Tenders determined to be substantially responsive will be accepted. As provided under section 82 of the Public Procurement and Asset Disposal Act, 2015, There SHALL be no correction of errors.

25 Conversion to Single Currency

25.1 For compensation of tenders, the tender price shall first be broken down into the respective amounts payable in various currencies by using the selling rate or rates of the Central Bank of Kenya ruling on the date twenty-one (21) days before the final date for the submission of tenders.

25.2 Mandera water and sewerage company will convert the amounts in various currencies in which the tender is payable (excluding provisional sums but including Dayworks where priced competitively) to Kenya Shillings at the selling rates stated in clause 25.1.

26 Evaluation and Comparison of Tenders

26.1 Mandera water and sewerage company will evaluate only tenders determined to be substantially responsive to the requirements of the tender documents in accordance with clause 23.

26.2 In evaluating tenders, Mandera water and sewerage company will determine for each tender the evaluated tender price by adjusting the tender price as follows:

- (a) Making any correction for errors pursuant to clause 24.
- (b) Excluding Provisional Sums and provision, if any, for Contingencies in the Bills of Quantities, but including Day works where priced competitively.

26.3 Mandera water and sewerage company reserves the right to accept any variation, deviation or alternative offer. Variations, deviations, alternative offers and other factors which are in excess of the requirements of the tender documents or otherwise result in the accrual of unsolicited benefits to the Employer, shall not be taken into account in tender evaluation.

26.4 Price adjustment provisions in the Conditions of Contract applied over the period of execution of the Contract shall not be taken into account in tender evaluation.

- 26.5 If the lowest evaluated tender is seriously unbalanced or front loaded in relation to the Employer's estimate of the items of work to be performed under the Contract, Mandera water and sewerage company may require the tenderer to produce detailed price analyses for any or all items of the Bills of Quantities, to demonstrate the relationship between those prices, proposed construction methods and schedules. After evaluation of the price analyses, Mandera water and sewerage company may require that the amount of the Performance Security set forth in clause 29 be increased at the expense of the successful tenderer to a level sufficient to protect Mandera water and sewerage company against financial loss in the event of subsequent default of the successful tenderer under the Contract.
- 26.6 Firms incorporated in Kenya where indigenous Kenyans own 51% or more of the share capital shall be allowed a 10% preferential bias provided that they do not sub-contract work valued at more than 50% of the Contract Price excluding provisional sums to a non-indigenous sub-contractor.
- 26.7 Preference where allowed in the evaluation of tenders shall not exceed 15%
- 26.8 The procuring entity may at any time terminate procurement proceedings before contract award and shall not be liable to any person for the termination.
- 26.9 The procuring entity shall give prompt notice of the termination to the tenderers and on request give its reasons for termination within 14 days of receiving the request from any tenderer.
- 26.10 A tenderer who gives false information in the tender document about its qualification or who refuses to enter into a contract after notification of contract award shall be considered for debarment from participating in future public procurement.
- 26.11 Poor past performance shall not be used as an evaluation criterion unless specifically provided for in the appendix.

27 **AWARD OF CONTRACT**

Award Criteria

- 27.1 Subject to Sub-clause 27.2, Mandera water and sewerage company will award the Contract to the tenderer whose tender is determined to be substantially responsive to the tender documents and who has offered the lowest evaluated tender price subject to possessing the capability and resources to effectively carry out the Contract Works as required in Sub-clause 2.1 and 2.2 here above.

27.2 Mandera water and sewerage company reserves the right to accept or reject any tender, and to annual the tendering process and reject all tenders, at any time prior to award of Contract, without thereby incurring any liability to the affected tenderers or any obligation to inform the affected tenderers of the grounds for the Employer's action.

28 Notification of Award

28.1 Prior to the expiration of the period of tender validity prescribed by the Employer, Mandera water and sewerage company will notify the successful tenderer by cable, telefax or telex and confirmed in writing by registered letter that his tender has been accepted. This letter (hereinafter and in all Contract documents called "Letter of Acceptance") shall name the sum (hereinafter and in all Contract documents called "the Contract Price") which Mandera water and sewerage company will pay to the Contractor in consideration of the execution and completion of the Works as prescribed by the Contract.

28.2 At the same time that Mandera water and sewerage company notifies the successful tenderer that his tender has been accepted, Mandera water and sewerage company shall notify the other tenderers that the tenders have been unsuccessful.

28.3 Within fourteen [14] days of receipt of the Form of Contract Agreement from the Employer, the successful tenderer shall sign the form and return it to Mandera water and sewerage company together with the required Performance Security.

28.4 The parties to the contract shall have it signed within 30 days from the date of notification of contract award unless there is an administrative review request.

29 Performance Guarantee

29.1 Within twenty-eight [28] days of receipt of the notification of award from the Employer, the successful tenderer shall furnish Mandera water and sewerage company with a Performance Security in the amount stated in the Appendix to Instructions to Tenderers and in the format stipulated in the Conditions of Contract.

29.2 The Performance Security to be provided by the successful tenderer shall be an unconditional Bank Guarantee issued at the tenderer's option by a reputable Bank approved by Mandera water and sewerage company and located in the Republic of Kenya and shall be divided into two elements namely, a performance security payable in foreign currencies (based upon the exchange rates determined in accordance with clause 60(5) of the Conditions of Contract) and a performance security payable in Kenya Shillings. The value of the two securities shall be in the same

proportions of foreign and local currencies as requested in the form of foreign currency requirements.

- 29.3 Failure of the successful tenderer to lodge the required Performance Security shall constitute a breach of Contract and sufficient grounds for the annulment of the award and forfeiture of the Tender Security and any other remedy under the Contract. Mandera water and sewerage company may award the Contract to the next ranked tenderer.

30 Advance Payment

An advance payment, if approved by Mandera water and sewerage company, shall be made under the Contract, if requested by the Contractor, in accordance with clause 60(1) of the Conditions of Contract. The Advance Payment Guarantee shall be denominated in the proportion and currencies named in the form of foreign currency requirements. For each currency, a separate guarantee shall be issued. The guarantee shall be issued by a Bank located in the Republic of Kenya, or a foreign Bank through a correspondent Bank located in the Republic of Kenya, in either case subject to the approval of the Employer.

31 Corrupt or fraudulent practices

- 31.1 The procuring entity requires that tenderers observe the highest standard of ethics during the procurement process and execution of contracts. A tenderer shall sign a declaration that he has not and will not be involved in corrupt or fraudulent practices.

APPENDIX TO INSTRUCTIONS TO TENDERERS

Notes on the Appendix to Instructions to Tenderers

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

	Item	Clause	Remarks
1.	Eligibility requirements	2.1	<p>1. The person should have the legal capacity to enter into a contract for procurement or asset disposal.</p> <p>2. The person should not be insolvent, in receivership, bankrupt or in the process of being wound up.</p> <p>3. The person, if a member of a regulated profession, has satisfied all the professional requirements.</p> <p>4. The procurement entity is not precluded from entering into the contract with the person under section 38 of PPAD act (must complete the attached form).</p> <p>5. The person and his or her sub-contractor, if any, are not debarred from participating in procurement proceedings under part XI of PPAD act (must complete the attached form).</p> <p>6. The person should have fulfilled tax obligations.</p> <p>7. The person should not have been convicted of corrupt or fraudulent practices; and</p> <p>8. Is not guilty of any serious violation of fair employment laws and practices.</p>
2.	Qualification Requirements	2.2	Evaluation criteria is provided for in the last section of the document and the award criteria will be on the basis of lowest evaluated price and the highest evaluated score.
3.	Site Visit	4	Date: 7 th September 2020
4.	Inquiries by tenderers	6	mandawasco@gmail.com
5.	Tender Validity	12	120 days

6.	Tender Security	13	Amount of Tender Security is Kshs 1,500,000.00
7.	Deadline for Submission of Tenders	18	<i>15th September, 2020</i>
8.	Tender Opening	20	<i>15th September, 2020 at 10.00 Am</i>
9.	Correction of Errors	24	No correction of errors
10.	Evaluation and Comparison of Tenders	26	To be strictly done as per the attached Evaluation Criteria
11.	Award Criteria	27	Mandera water and sewerage company will award the Contract to the tenderer whose tender is determined to be substantially responsive to the tender documents and who has offered the lowest evaluated tender price

SECTION III

CONDITIONS OF CONTRACT, PART I – GENERAL CONDITIONS

The Conditions of Contract, Part I – General Conditions, shall be those forming Part I of the “Conditions of Contract for works of Civil Engineering Construction, Fourth Edition 1987, re-printed in 1992 with further amendments, prepared by the Federation International des Ingenieurs – conseils (FIDIC). The Conditions are subject to variations and additions set out in Part II hereof entitled “Conditions of Contract, Part II - Conditions of Particular Application”.

Note

- i. The standard text of the General Conditions of Contract must be retained intact to facilitate its reading and interpretation by tenderers. Any amendments and additions to the General Conditions, specific to a given Contract, should be introduced in the Conditions of Particular Application or in the Appendix to Form of Tender.
- ii. The Conditions of Particular Application take precedence over the General Conditions of Contract.
- iii. Copies of the FIDIC Conditions of Contract can be obtained from:
FIDIC Secretariat
P.O. Box 86
1000 Lausanne 12
Switzerland
Fax: 41 21 653 5432
Telephone: 41 21 653 5003

**SECTION IV
CONDITIONS OF CONTRACT PART II
(CONDITIONS OF PARTICULAR APPLICATION)**

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SECTION IV
CONDITIONS OF CONTRACT PART II – CONDITIONS OF PARTICULAR APPLICATION

GENERAL

The Conditions of Contract Part II – Conditions of Particular Application, modify and compliment like-numbered clauses in the Conditions of Contract Part I – General Conditions. Both Parts shall be read together, with the Conditions of Particular Application prevailing in case of conflict or discrepancy. Clauses of the General Conditions not specifically modified and supplemented shall remain in effect.

Clause No.

Definitions and Interpretation

- 1.1 (a)(i) The said “Employer” shall be Mandera water and sewerage company represented by Projects Engineer
- (iv) The said “Engineer” shall be Pascal Jira any other competent person appointed by the Employer, and notified to the Contractor, to act in replacement of the Engineer.
- (b)(i) Insert in line 2 after “the Bills of Quantities”, the following,” the rates entered by the Contractor (whether or not such rate be employed in computation of the Contract Price)”.

Add the following sub-clause;

Engineer’s Duties and Authority

- 2.1 (b) The Engineer shall obtain specific approval of Mandera water and sewerage company before taking any of the following actions specified in Part I:
- (i) Consenting to the sub-letting of any part of the Works under clause 4.
 - (ii) Certifying additional cost determined under Clause 12
 - (iii) Determining an extension of time under Clause 44
 - (iv) Issuing a variation under Clause 51 except in an emergency situation as reasonably determined by the Engineer.
 - (v) Fixing rates or prices under clause 52

4 Assignment and Subcontracting

4.1 Delete the second and third sentence and substitute:

No single subcontract may be for more than 10 percent of the Contract Price nor shall the sum of all subcontracts exceed 25 percent of the Contract price. No one subcontractor may be awarded subcontracts to a total value greater than 10 percent of the Contract Price. All subcontracts greater than 2 percent of the Contract Price are to have the prior consent of the Engineer. The Contractor shall however, not have required such consent for purchases of materials or to place contracts for minor details or for any part of the Works of which the manufacturer or supplier is named in the Contract. Any such consent shall not relieve the Contractor from any liability or obligation under the Contract and he shall be responsible for the acts, defaults and neglects of any subcontractor, his agents, servants or workmen as fully as if they were the acts, defaults or neglects of the Contractor, his agents, servants or workmen.

5 Contract Documents

5.1 (a) The language governing this Contract shall be English.

The “Ruling Language” which shall be used to interpret this Contract shall be English. Communication between the Contractor and Engineer or Engineer’s representative shall be in English.

(b) The law applicable to this Contract shall be the laws of the Republic of Kenya. Except to the extent otherwise provided by the Contract, the Kenyan courts shall have exclusive jurisdiction to hear and to determine all actions and proceedings in connection with and arising out of the Contract, and the Contractor shall submit to the jurisdiction of Kenyan courts for the purpose of any such actions and proceedings.

5.2 Delete the documents listed 1-6 and substitute:

- (1) The Contract Agreement;
- (2) The Notification of Award;
- (3) Tender and Appendix to Form of Tender;
- (4) The Conditions of Contract Part II;
- (5) The Conditions of Contract Part I (FIDIC);
- (6) The Special Specifications;
- (7) The Standard Specifications for Road and Bridge Construction, MOTC – 1986;
- (8) Clarifications and rectifications accepted by the Employer;
and
- (9) The Drawings;
- (10) The priced Bills of Quantities; and

- (11) Schedules and other documents forming part of the Contract.

8.1 Add to sub clause 8.1 the following:

- (a) Within 28 days after receipt of the Engineer's order to commence the Works, the Contractor shall establish an office at the Site duly equipped for the Contractor's representative and his supervisory personnel.

The Contractor shall maintain this office throughout the Contract period. The said office shall be the legal domicile of the Contractor, and all correspondence sent to this office shall be deemed to have been sent to the Contractor's head office.

- (b) A foreign Contractor or a Kenya-foreign joint venture, if not registered in Kenya under the applicable laws of Kenya, shall undertake registration upon receipt of the letter of acceptance and prior to signing of the Contract.

10.1 Performance Security

In lines 1,2 and 3 delete the words "If the Contract... within 28 days" and substitute "The Contractor shall obtain a Performance Security within 28 days"

The Performance Security shall be issued by a Bank incorporated in Kenya. The amount of guarantee shall be as stated in the Appendix to Form of Tender.

The bank guarantee, shall be issued either (a) by an established and reputable bank approved by Mandera water and sewerage company and located in Kenya or a foreign bank through a correspondent established and reputable bank located in Kenya and approved by Mandera water and sewerage company or (b) directly by a foreign bank acceptable to the Employer. The performance security shall normally be in the currency or currencies requested for payment by the Contractor and in the same proportions as those requested for payment in the Contract.

The performance security may, subject to the approval of the Engineer, be adjusted at the end of each period of 12 months to reflect the residual value of the Contract Works.

10.2 The performance guarantee shall be valid until a date 28 days after the date of issue of the Taking-Over Certificate.

The security shall be returned to the Contractor within 28 days of the expiration.

10.3 Delete sub-clause 10.3

11.1 Inspection of Site

Add the words “and the Contractor shall be deemed to have based his tender on all the aforementioned” after the words “affect his tender”.

Delete the last paragraph completely and replace with the following:

“Mandera water and sewerage company in no way guarantees completeness nor accuracy of the soil, materials, subsurface and hydrological information made available to the Contractor at the time of tendering or at any other time during the period of the Contract, and the Contractor shall be responsible for ascertaining for himself all information as aforesaid for the execution of Works and his tender shall be deemed to have been priced accordingly.

14.1 Programme to be Submitted

The time within which the Programme shall be submitted shall be twenty-eight (28) days. This detailed Programme shall be based upon the programme submitted by the Contractor as part of his tender and shall, in no material manner, deviate from the said programme.

The Contractor shall allow in his Programme for the following 11 public holidays per calendar year in Kenya upon which the Contractor shall not be permitted to work

New Year’s Day	(1st January)
Good Friday	
Easter Monday	
Labour Day	(1 st May)
Madaraka Day	(1 st June)
Idd-Ul-Fitr	
Kenyatta Day	(20 th October)
Jamhuri Day	(12 th December)
Christmas Day	(25 th December)
Boxing Day	(26 th December)

The Contractor should also allow per calendar year for a further 2 unspecified public holidays which may be announced by the Government of Kenya with no prior notification, and upon which he shall not be permitted to work.

14.2 Add the following at the end of this sub clause: -

Mandera water and sewerage company shall have the right to withhold payment at any time if the Contractor fails to submit the contractual construction programmes in accordance with sub clause 14.1 above or revise construction programmes due to his negligence, failure or omission.

14.3 **Cash Flow Estimate to be Submitted**

The time limit within which a detailed cash flow estimate is to be submitted shall be twenty-eight (28) days.

In preparing the estimates, the Contractor shall make provision for Advance payment, repayment of advance, retention, payment for services provided by Mandera water and sewerage company and timing implications of sub clause 60 – Certificates and Payments.

15 Contractor's Superintendence

Add the following at the end of the first paragraph of sub-clause 15.1:

15.1 The Contractor shall, within seven (7) days of receipt of the Engineer's order to commence the Works, inform the Engineer in writing, the name of the Contractor's representative and the anticipated date of his arrival on Site.

Add the following sub-clause 15.2:

15.2 The Contractor's agent or representative on the Site shall be an Engineer registered by the Engineer's Registration Board of Kenya in accordance with the Laws of Kenya cap. 530 or have equivalent status approved by the Engineer and shall be able to read, write and speak English fluently.

16.2 **Engineer at Liberty to object**

At the end of this clause add "by a competent substitute approved by the Engineer at the Contractor's own expense".

The Contractor is encouraged to the extent practicable and reasonable, to employ staff and labour with appropriate qualifications who are Kenyan citizens.

Safety, Security and Protection of the Environment

19.1 Add at the end of sub clause 19.1 the following: -

The formulation and enforcement of an adequate safety program shall be the obligation of the Contractor with respect to all the Works under this Contract, regardless of whether performed by the Contractor or his subcontractors. The Contractor shall, within 14 days after commencement of the Works, meet the Engineer to present and discuss his plan for the establishment of such safety measures as may be necessary to provide against accidents, unsafe acts and so forth. Within 28 days after commencement of the Works, the Contractor shall submit a written safety program to the Engineer covering the overall Works and based on the laws and regulations of Kenya. In addition, he shall prepare special safety programs for blasting and handling of explosives as stipulated in the General and Special Specifications.

Notwithstanding the foregoing, the Contractor shall observe the following measures with a view to reducing or eliminating adverse environmental effects by the Site Works:

- (i) All queries and borrow pits shall be filled and landscaped to their original state after extraction of construction material
- (ii) Soil erosion due to surface runoff or water from culverts or other drainage structures should be avoided by putting in place proper erosion control measures that shall include, but not limited to grassing, planting of trees, gabions etc.
- (iii) Long traffic diversion roads shall be avoided so as to minimize the effect of dust on the surrounding environment. In any case all diversions shall be kept damp and dust free at the Contractor's expense.
- (iv) Spillage of oils, fuels and lubricants shall be avoided and if spilt, shall be collected and disposed off in such a way as not to adversely affect the environment.
- (v) Rock blasting near settlement areas shall be properly coordinated with the relevant officers of the Government so as to minimize noise pollution and community interference.
- (vi) Dumping shall be done only at designated dumping areas and not haphazardly on surroundings.

Insurance of Works & Contractor's Equipment

- 21.1 (a) Delete the first sentence of this clause and replace with the following:

“Prior to commencement of the Works the Contractor shall, without limiting his or the Employer’s obligations and responsibilities under Clause 20, insure to the satisfaction of the Employer.”

- (b) Add the following words at the end of sub - paragraph (a) and Immediately before the last word in (b)

“it being understood the insurance shall provide for compensation to be payable in the types and proportions of the currencies required to rectify the loss or damage incurred.”

In sub clause 21.1(b), delete the words “or as may be specified in Part II of these Conditions”.

- 21.2 (a) Delete the words “from the start of Work at the Site” and substitute with the words “from the first working day after the commencement date”

- (c) Add the following sub-clause: “It shall be the responsibility of the Contractor to notify the insurance company of any change in the nature and extent of the Works and to ensure the adequacy of the insurance coverage at all times during the period of the Contract”.

23.1 Third Party Insurance

Add the following at the beginning of this sub-clause: -

“Prior to commencement of the Works

23.2 Minimum Amount of Insurance

Add the following at the end of this sub-clause: -

“..... with no limits to the number of occurrences.”

- 25.1 Insert the words “as soon as practicable after the respective insurances have been taken out but in any case” before the words “Prior to the start of Work at the Site”

Add the following sub-clauses 25.5 to 25.7

25.5 Insurance Notices

Each policy of insurance effected by the Contractor for the purpose of the Contract shall include a provision to the effect that the Insurer shall have a duty to give notice in writing to the Contractor and Employer of the date when a premium becomes payable not more than thirty (30) days after the giving of such notice.

25.6 Re-insurance in Kenya

The risks against which the Contractor is obliged to insure under the Contract shall be insured through established and reputable companies approved by Mandera water and sewerage company and located in Kenya and any cover against risks which the Contractor may enjoy shall be reinsured in Kenya by an approved Kenyan Insurance Company in respect of the Contractor's obligations under the Contract.

- 25.7 It shall be the responsibility of the Contractor to notify the insurers under any of the insurances referred or event which by the terms of such insurances are required to be so notified and the Contractor shall indemnify and keep indemnified Mandera water and sewerage company against all losses, claims, demands, proceedings, costs, charges and expenses whatsoever arising out of or in consequence of any default by the Contractor in complying with the requirements of this sub clause whether as a result of avoidance of such insurance or otherwise.

26. **Compliance with Statutes, Regulations**

Add the following sub-clause 26.2;-

Mandera water and sewerage company will repay or allow to the Contractor all such sums as the Engineer shall certify to have been properly payable and paid by the Contractor in respect of such fees. Provided always that, without prejudice to sub clause, nothing contained in this clause shall be deemed to render Mandera water and sewerage company liable to all claims which may be considered to fall within the provisions of clause 22.1.

Royalties

- 28.2 Add the following at the end of this sub-clause;

“The Contractor shall also be liable for all payments or compensation, if any, that are levied in connection with the dumping of part or all of any such material.”

Interference with Traffic and Adjoining Properties

- 29.2 Add new sub-clause 29.2;

The Contractor shall reinstate all properties whether public or private which are damaged in consequence of the construction and maintenance of the Works to a condition at least equal to that prevailing before his first entry on them.

If in the opinion of the Engineer the Contractor shall have failed to take reasonable and prompt action to discharge his obligations in the matter of reinstatement, the Engineer will inform the Contractor in writing of his

opinion, in which circumstances Mandera water and sewerage company reserves the right to employ others to do the necessary work of reinstatement and to deduct the cost thereof from any money due or to become due to the Contractor.

The Contractor shall promptly refer to Mandera water and sewerage company all claims, which may be considered to fall within the provisions of Clause 22.1.

LABOUR

34.2 Conditions of Employment of Labour

The Contractor shall be responsible for making all arrangements for and shall bear all costs relating to recruitment, obtaining of all necessary visas, permits or other official permission for movements of staff and labour.

34.3 Fair Wages

The Contractor shall, in respect of all persons employed anywhere by him in the execution of the Contract, observe and fulfill the following conditions:

- (a) The Contractor shall pay the rates of wages, observe hours of labour and provide conditions, housing amenities and facilities not less favorable than those required by the Regulation of wages (Building and Construction Industry) Order 1998, and any subsequent amendments thereto, or in any ministry of labour or other government department in consultation with the district whose general circumstances in the trade or industry in which the Contractor is engaged are similar. The Contractor shall at all times during the continuation of the Contract display, for the information of his employees, a notice setting out the general rates of wages, hours and conditions of labour of his employees and a copy of this clause.
- (b) In the absence of any rates for wages, hours or conditions of labour so established, the Contractor shall pay rates or wages and observe hours and conditions for labour which are not less favourable than the general circumstances in the trade or industry in which the Contractor is engaged.
- (c) Where the absence of established rates of wages, hours and conditions of labour or the dissimilarity of the general circumstances in the trade or industry in which the Contractor is engaged prevent the Contractor from observing rates of wages, hours and conditions of labour ascertained under sub-paragraph (a) or (b) above, the Contractor in fixing the rates of wages, hours and conditions of labour of his employees shall be guided by the advice of the labour department.
- (d) The Contractor shall recognize the freedom of his employees to be members of trade unions.

- (e) The Contractor shall maintain records of the times worked by, and the wages paid to his employees. The Contractor shall furnish to the Employer, if called upon so to do, particulars of the rates of wages, hours and conditions of labour as Mandera water and sewerage company may direct.
- (f) The Contractor shall be responsible for observance by his sub-Contractors of the foregoing provisions.

34.4 **Breach of Fair Wages Clause**

Should a claim be made to Mandera water and sewerage company alleging the Contractor's default in payment of fair wages to any workman employed on the Contract and if proof thereof satisfactory to Mandera water and sewerage company is furnished by the labour department, Mandera water and sewerage company may, failing payment by the Contractor, pay the claims out of any monies due or which may become due to the Contractor under the Contract.

34.5 **Recruitment of Unskilled Labour**

Any additional unskilled labour which may be required by the Contractor for the Works and which is not in his employ at the time of the acceptance of the tender shall be recruited by the Contractor from the labour office nearest to the Site of the Works.

34.6 **Compensation for injury**

The Contractor shall, in accordance with the Workman's Compensation Act Chapter 236 of the laws of Kenya and any other regulations in force from time to time in Kenya, pay compensation for loss or damage suffered in consequence of any accident or injury or disease resulting from his work to any workman or other person in the employment of the Contractor or any sub-contractor.

34.7 **Labour Standards**

- a) The Contractor shall comply with the existing local labour laws, regulations and labour standards.
- b) The Contractor shall formulate and enforce an adequate safety program with respect to all Work under this Contract, whether

performed by the Contractor or his sub-contractors. The Contractor has assurance from Mandera water and sewerage company of cooperation where the implementation of these safety measures requires joint cooperation.

- c) Upon written request of Mandera water and sewerage company the Contractor will remove or replace any of his employees employed under this Contract.

34.8 **Recruitment**

The Contractor shall not induce personnel of Mandera water and sewerage company or the Engineer to leave their regular employment and shall not, without the prior consent in writing of the Employer, employ personnel who have resigned from such service within the preceding twelve months.

35 Add the following subclauses 35.2 and 35.3:-

35.2 The Contractor shall maintain such records and make such reports concerning safety, health and welfare of persons and damage to property as the Engineer may from time to time prescribe.

35.3 The Contractor shall report to the Engineer details of any accident as soon as possible after its occurrence. In the case of any fatality or serious accident, the Contractor shall, in addition, notify the Engineer immediately by the quickest available means. The Contractor shall also notify the relevant authority(s) whenever such report is required by the law.

41.1 **Commencement and Delays**

Insert immediately after the word Works----- “on Site within 28 days” and before the word -----after

41.2 **Definition of Commencement**

For the purposes of this clause, the Works shall be deemed to have commenced when all of the following conditions are satisfied;

- a) The approved competent and authorized agent or representative of the Contractor is resident in the project area and is giving his whole time to the superintendence of the Works.
- b) The provision by the Contractor of evidence that all insurances required by the Contract are in force.
- c) The Contractor has an established office in the project area with postal address for receipt of correspondence.
- d) The principal items of constructional plant have been brought to Site and put to work in the execution of the permanent Works.

42.4 **Possession of Site and Access Thereto**

Add the following to this clause 42.4;

The Contractor shall not enter any part of the Site until he has requested and received permission to do so from Mandera water and sewerage company or the Engineer.

The Contractor shall not use any portion of the Site for any purpose not connected with the Works.

44.1 Add at the end of sub-clause 44.1 the following:

Neither rains falling between 1st November and 31st December (inclusive) and between 1st February and 31st May (inclusive) nor floods caused by such rains shall be deemed exceptional weather conditions such as may fairly entitle the Contractor to an extension of time for the completion of the Work.

45 Working Hours

Delete sub-clause 45.1 and substitute:

“subject to any provision to the contrary contained in the Contract, the Contractor shall have the option to work continuously by day and by night and on locally recognized days of rest.

If the Contractor requests for permission to work by day and night and if the Engineer shall grant such permission, the Contractor shall not be entitled to any additional payment for so doing. All such work at night shall be carried out without unreasonable noise or other disturbance and the Contractor shall indemnify Mandera water and sewerage company from and against any liability for damages on account of noise or other disturbance created while or in carrying out night work and from and against all claims, demands, proceedings, costs, charges and expenses whatsoever in regard or in relation to such liability. In addition, the Contractor shall be required to provide, for any work carried out by night or recognized days of rest, adequate lighting and other facilities so that the Work is carried out safely and properly. In the event of the Engineer granting permission to the Contractor to work double or rotary shifts or on Sundays, the Contractor shall be required to meet any additional costs to Mandera water and sewerage company in the administration and supervision of the Contract arising from the granting of this permission.

47.2 **Reduction of Liquidated Damages**

There shall be no reduction in the amount of liquidated damages in the event that a part or a section of the Works within the Contract is certified as completed before the whole of the Works comprising that Contract.

No bonus for early completion of the Works shall be paid to the Contractor by the Employer.

The sum stated in the Appendix to Form of Tender as liquidated damages shall be increased by a sum equivalent to any amount payable by Mandera water and sewerage company to the Contractor under clause 70.1 in respect of an increase in costs in such period that would not have been incurred by the Contractor if the Works had been completed by the due date for completion prescribed by clause 43.

Defects Liability

49.2 Add at the end of this sub-clause the following sentence: -

Any work ordered to be executed under this clause shall be done at a time and in a manner as directed by the Engineer so as to interfere as little as possible with the operations of Mandera water and sewerage company or of other contractors and no extension(s) of the defects liability period will be allowed for the execution of this Work.

Add the following sub-clause 49.5 to this Clause:-

52 **Variations**

52.1 Add the following final sentence to this subclause:-

The agreement, fixing or determination of any rates or prices as aforesaid shall include any foreign currency and the proportion thereof.

52.4 **Daywork**

Add the following at the end of this sub-clause:

The Work so ordered shall immediately become part of the Works under the Contract. The Contractor shall, as soon as practicable after receiving the Daywork Order from the Engineer undertake the necessary steps for due execution of such Work. Prior to commencement of any work to be done on a Daywork basis, the Contractor shall give a notice to the Engineer stating the exact time of such commencement.

54 **Plant, Temporary Works and Materials**

Delete Sub-Clauses 54.3 to 54.4 entirely.

For the purpose of these Clauses, the term “Equipment” shall be read as “Contractor’s Equipment” where the context so requires.

54.1 Line 5: - Add “written” between “the” and “consent”.

Quantities

55.1 Delete sub-clause 55.1 and substitute with the following;

The quality and quantity of the Work included in the Contract Price shall be deemed to be that which is set out in the Contract Bills. The Bills, unless otherwise expressly stated therein, shall be deemed to have been prepared in accordance with the principles of the latest edition of the Civil Engineering Standard Method of Measurement.

Any error in description or in quantity or any omission of items from the Contract Bills or Specifications shall not vitiate this Contract but shall be corrected and deemed to be a variation required by the Engineer. Subject to the foregoing, any error whether arithmetical or not in the computation of the Contract Price shall be deemed to have been accepted by the parties hereto.

The Contract Price shall not be adjusted or altered in any way whatsoever otherwise than in accordance with the express provisions of these Conditions.

55.2 Add as a new sub-clause:

“Items of Work described in the Bills of Quantities for which no rate or price has been entered in the Contract shall be considered as included in other rates and prices in the Contract and will not be paid for separately by the Employer.

Measurement

56.1 Delete sub clause 56.1 and replace with the following: -

The Contractor shall prepare and submit to the Engineer all necessary field notes and other records taken and computations made for the purpose of quantity measurements, of which the forms shall be approved by the Engineer, for the monthly progress payment under clause 60. The measurement of work quantities made by the Contractor shall be verified and certified by the Engineer based on the above-mentioned documents.

The Contractor shall furnish all personnel, equipment and materials to make such surveys and computations as necessary to determine the quantities of work performed. Unless otherwise prescribed in the specifications or the drawings, all measurements for payment shall be made by the dimensions, lines and grades as shown on the drawings or by direct survey of which the methods shall be approved by the Engineer.

The documents submitted for measurement and payment shall become the property of Mandera water and sewerage company and shall be used to the extent necessary to determine the monthly progress payment to be made to the Contractor under the Contract. Direct survey, if done, shall be subject to checking and verification by the Engineer and all errors in the said survey work and related computations as found during such checking shall be immediately corrected by the Contractor.

- 57.1 Delete sub clause 57.1 and substitute with the following: -
The Works shall be measured net with deductions made in accordance with the principles of the latest edition of the Civil Engineering Standard Method of Measurement. All measurements shall be given in metric (SI) units.

Provisional Sums

58.4 **Prime Cost sum**

Wherever an item in the Bills of Quantities has been referred to as a “P.C. Sum” (Prime Cost Sum), that item shall be construed as a Provisional sum and the provisions of Sub-clauses 58.1 to 58.3 will apply.

- 59.5 Add the following paragraph at the end of sub clause 59.5: -

If the Engineer desires to secure final payment to any nominated sub-contractor before final payment is due to the Contractor and if such sub-contractor has satisfactorily indemnified the Contractor against any latent defects, the Engineer may, in an interim certificate, include an amount to cover the said final payment, and thereupon the Contractor shall pay to such nominated sub-contractor the amount so certified. Upon such final payment, the amount named in the Appendix to Form of Tender as Limit of Retention Money shall be reduced by the sum which bears the same ratio to the amount as does the subcontract and sub-contractor shall be discharged from all liability for the Work, materials or goods executed or supplied by such subcontractor under the Contract to which the payment relates.

Certificates and Payment

Delete Sub-clauses 60.1 to 60.10 entirely and substitute with the following: -

60.1 **Advance Payment**

In the event that an advance payment is granted, the following shall apply: -

- a) On signature of the Contract, the Contractor shall at his request, and without furnishing proof of expenditure, be entitled to an advance of 10% (ten percent) of the original amount of the Contract. The advance shall not be subject to retention money.

- b) No advance payment may be made before the Contractor has submitted proof of the establishment of deposit or of a directly liable guarantee satisfactory to Mandera water and sewerage company in the amount of the advance payment. The guarantee shall be in the same currency as the advance.
- c) Reimbursement of the advance shall be effected by deductions from monthly interim payments.
- d) Reimbursement of the lump sum advance shall be made by deductions from the Interim payments and where applicable from the balance owing to the Contractor. Reimbursement shall begin when the amount of the sums due under the Contract reaches 20% of the original amount of the Contract. It shall have been completed by the time 80% of this amount is reached.

The amount to be repaid by way of successive deductions shall be calculated by means of the formula:

$$R = \frac{A (x^1 - x^{11})}{80 - 20}$$

Where:

- R = the amount to be reimbursed
- A = the amount of the advance which has been granted
- X¹ = the amount of proposed cumulative payments as a percentage of the original amount of the Contract. This figure will exceed 20% but not exceed 80%.
- X¹¹ = The amount of the previous cumulative payments as a percentage of the original amount of the Contract. This figure will be below 80% but not less than 20%.

- (e) with each reimbursement the counterpart of the directly liable guarantee may be reduced accordingly.

60.2 Interim Payment Certificate

The Contractor shall submit to the Engineer, in the manner required by the Engineer after the end of each month a statement showing the estimated total value of permanent Work properly executed and materials or goods for permanent works brought to Site up to the end of the previous month (if the value shall justify the issue of an interim certificate) together with any adjustments under clause 70 and any outstanding claims and sums the Contractor considers may be due to him. The Contractor shall amend or correct his estimate as directed by the Engineer and the latter shall not accept it until he is satisfied that it is fair and reasonable. With respect to the said materials and goods, no payment for them shall be made unless; -

- (i) The materials are in accordance with the specifications for the Works;

- (ii) The materials have been delivered to Site and are properly stored and protected against loss, damage or deterioration;
- (iii) The Contractor's record of the requirements, orders, receipts and use of materials are kept in a form approved by the Engineer, and such records are available for inspection by the Engineer;
- (iv) The Contractor has submitted a statement of his cost of acquiring and delivering the materials and goods to the Site, together with such documents as may be required for the purpose of evidencing such cost;
- (v) The materials are to be used within a reasonable time.

The Contractor will be paid on the certificate of the Engineer the amount due to him on account of the estimated total value of the permanent Work executed up to the end of the previous month together with such amount (not exceeding 75% of the value) as the Engineer may consider proper on account of materials and goods for permanent Work delivered by the Contractor on Site and in addition, such amount as the Engineer may consider fair and reasonable for any Temporary Works for which separate amounts are provided in the Bill of Quantities, all of which shall be subject to a retention of the percentage named in the Appendix to Form of Tender until the amount retained (hereinafter and in all Contract documents called the "Retention Money") shall reach the "Limit of Retention Money" named in the said Appendix. Provided always that no interim certificate shall be issued for a sum [such sum always being the net amount thereof after all deductions for retention etc) less than that named in the Appendix to Form of Tender as "Minimum Amount of Interim Certificate" at one time.

Within 14 days after receiving a statement from the Contractor as aforesaid, and subject to the Contractor having made such further amendments and corrections as the Engineer may require, the Engineer shall issue a Certificate of Payment to Mandera water and sewerage company showing the amount due, with a copy to the Contractor.

The Engineer shall not unreasonably withhold certifying an Interim Payment Certificate and where there is a dispute regarding an item for payment, the Engineer may delete this disputed item from the Interim Payment Certificate and certify the remainder for payment provided the said payment is in accordance with the preceding paragraph. In cases of difference in opinion as to the value of any item, the Engineer's view shall prevail.

60.3 Final Account and Final Payment Certificate

As soon as possible after the issue of Taking - Over Certificate or the termination of the Contract and not later than the time of issue of Defects Liability Certificate, the Contractor shall prepare and submit to the Engineer (with a copy to the Employer), a Statement of Final Account showing in detail

the total value of work done in accordance with the Contract together with all sums paid in previous payments. Within thirty (30) after receipt of such further information as may be reasonably required from the Contractor for its verification, the Engineer shall check the said statement, prepare and submit a Final Payment Certificate to Mandera water and sewerage company (with a copy to the Contractor).

The Final Payment Certificate shall state;

- (a) The (final) total value of all Work done in accordance with the Contract;
- (b) After giving credit to Mandera water and sewerage company for all amounts previously paid to the Contractor, the balance, if any, due from Mandera water and sewerage company to the Contractor or the Contractor to the Employer, as the case may be.

Unless the Contractor notifies the Engineer of his objection to the Final Payment Certificate within twenty-eight [28] days of delivery thereof, he shall be deemed to have agreed that he accepts the total Contract Price as set out in the Final Payment Certificate as full settlement for all work done under the Contract including any claims, variations and omissions thereof.

However, a Final Certificate of Payment shall not be conclusive:

- a) to the extent that fraud or dishonesty relates to or affects any matter dealt with in the Certificate, or
- b) if any arbitration or court proceedings under the Contract have been commenced by either party before the expiry of 84 days after the issue of the Final Certificate of Payment.

60.4 **Payment of Certificates**

Payment upon each of the Engineer's Certificates for Interim Payments shall be made by Mandera water and sewerage company within the time stated in the Appendix to Form of Tender from the date of issue of each Certificate of Payment.

Payment upon the Engineer's Final Payment Certificate shall be made by Mandera water and sewerage company within the time stated in the Appendix to Form of Tender from the date of issue of the Final Certificate of Payment signed by the Engineer and countersigned by the Contractor or his authorised agent or representative.

Making of a payment by Mandera water and sewerage company shall be considered to have been duly executed on the day that Mandera water and sewerage company has issued a cheque.

60.5 **Payment of Retention Money**

One half of the retention money shall become due upon the issue of a Taking – Over Certificate and shall be paid to the Contractor when the Engineer shall certify in writing that the last section of the whole of the Works has been substantially completed and the other half shall be paid to the Contractor after the expiration of the Defects Liability Period and the issue of a Certificate under Clause 62. Provided always that if such time there shall remain to be executed by the Contractor any Works ordered during such period pursuant to Clauses 49 and 50 thereof, Mandera water and sewerage company

shall be entitled to withhold payment [until the completion of such Works] of so much of the second half of the Retention Money as shall in the opinion of the Engineer represent the Costs of the Works so remaining to be executed. Provided further that in the event of different Defects Liability Periods having become applicable to different parts of the Works pursuant to clause 48 hereof the expression “expiration of the Defect Liability Period” shall for the purpose of this Sub-clause be deemed to mean the expiration of the latest of such periods.

60.6 **Currency of Payment**

The Contract price shall be stated in Kenya Shillings. All payments to the Contractor shall be made in Kenya shillings and foreign currency(s) in the proportion indicated in the tender, or agreed prior to the execution of the Contract Agreement and indicated therein. The rate[s] of exchange for the calculation of the amount of foreign currency payment[s] shall be the rate of exchange indicated in the Tender. If the Contractor indicated foreign currencies for payment other than the currencies of the countries of origin of related goods and services, Mandera water and sewerage company reserves the right to pay the equivalent at the time of payment in the currencies of the countries of such

goods and services. Mandera water and sewerage company and the Engineer shall be notified promptly by the Contractor of any changes in the expected foreign currency requirements of the Contractor during the execution of the Works as indicated in the Statement of Foreign Currency Requirements and the foreign and local currency portions of the balance of the Contract Price shall then be amended by agreement between Employer and the Contractor in order to reflect appropriately such changes.

60.7 **Overdue Payments**

Unless otherwise stated in the appendix interest shall be paid on the overdue amounts and the interest to be paid shall be in accordance with prevailing commercial bank rates.

60.8 **Correcting and With-holding**

The Engineer may by any interim certificate or through the final account

make any correction or modification to any previous certified sum and shall have authority, if any work or part thereof is not being carried out to his satisfaction, to omit or reduce the value of such work in any Interim Payment Certificate.

60.9 Completion by Sections.

If a Taking-Over Certificate shall be issued for any section or part of the Works separately, the payments herein provided for on or after issue of such a Certificate shall be made in respect of such section or part and references to the Contract Price shall mean such part of the Contract Price as shall in the absence of agreement be apportioned thereto by the Engineer.

60.10 Proportion of Foreign Currency

Subject to the provision of sub clause 60.5 the proportion of foreign currency in any amount due to the Contractor or Employer shall be determined in the following manner: -

- a) For all measured Work, the percentages of foreign currency for the appropriate section of the Bill of Quantities as stated in the schedule of foreign currency requirements shall be applied.
- b) Variations in the cost of imported materials shall be paid in foreign currency.
- c) Variations in the cost of locally purchased materials and those due to changes of legislation shall be paid in local currency.
- d) For Day works labour and plant, the respective percentages of foreign currency stated in the schedule shall be applied.
- e) For Day works materials and materials on site, payment in foreign currency will only be made for imported materials.
- f) The provisions for the deduction and release of Retention Money and the payment of interest shall be applied similarly to both the local and foreign portions.
- g) The advance mobilization loan, its repayment thereof and liquidated damages shall all be apportioned on the basis of the ration between local and foreign currency indicated in the Contract Price.
- h) In the event that the payment is for an item not covered in the foregoing paragraphs, the Engineer shall determine the proportion of foreign and local currency based on the information given in the Schedule of Foreign Currency Requirements, together with any additional information he may request the Contractor to provide.

60.11 **Statement at Completion**

Not later than 14 days after the issue of the Taking-Over Certificate in respect of the whole of the works, the Contractor shall submit to the Engineer a statement at completion showing in detail, in a form approved by the Engineer;

- (a) The final value of all work done in accordance with the Contract up to the date stated in such Taking-Over Certificate.
- (b) Any further sums which the Contractor considers to be due; and
- (c) An estimate of amounts, which the Contractor considers, will become due to him under the Contract.

Estimate amounts shall be shown separately in the Statement at Completion. The Contractor shall amend and correct the Statement as directed by the Engineer who shall issue a Certificate at Completion to be processed in accordance with sub-clause 60.4.

60.12 **Final Statement**

Not later than 56 days after the issue of the Defects Liability Certificate, the Contractor shall submit to the Engineer for consideration a draft final statement with supporting documents showing in detail, in the form approved by the Engineer;

- (a) The final value of all work done in accordance with the Contract;
- (b) Any further sums which the Contractor considers to be due to him.

If the Engineer disagrees with or cannot verify any part of the draft final statement, the Contractor shall submit such further information as the Engineer may reasonable require and shall make such changes in the draft as may be required.

60.13 **Discharge**

Upon submission of the Final Statement, the Contractor shall give to the Employer, with a copy to the Engineer, a written discharge confirming that the total of the Final Statement represents full and final settlement of all monies due to the Contractor arising out of or in respect of the Contract. Provided that such discharge shall become effective only after payment under the Final Payment Certificate issued pursuant to Sub-clause 60.14 has been made and the Performance Security referred to in Sub-clause 10.1 has been returned to the Contractor.

60.14 **Final Payment Certificate**

Upon acceptance of the Final Statement as given in Sub-clause 60.12, the Engineer shall prepare a Final Payment Certificate which shall be delivered to the Contractor's authorized agent or representative for his signature. The Final Payment Certificate shall state:

- (a) The final value of all work done in accordance with the Contract;
- (b) After giving credit to Mandera water and sewerage company for all amounts previously paid by the Employer, the balance, if any, due from Mandera water and sewerage company to the Contractor or the Contractor to Mandera water and sewerage company as the case may be

Final Certificate shall be issued for any sum due to the Contractor even if such is less than the sum said named in the Appendix to the Form of Tender.

60.15 Cessation of Employer's Liability

Unless the Contractor notifies the Engineer of his objection to the Final Certificate within fourteen days of delivery thereof he shall be deemed to have agreed that he accepts the total Contract Price as set out in the Final Certificate as full settlement for all work done under the Contract including any variations and omissions thereof.

62.1 Defects Liability Certificate

Delete the last sentence of this Sub-Clause beginning "Provided that the issue.....in Sub-Clause 60.3".

Remedies

63.4 Assignment of Benefit of Agreement

Add the following at the end of this sub-clause: -

"But on the terms that a supplier or sub-contractor shall be entitled to make any reasonable objection to any further assignment thereof by Mandera water and sewerage company and Mandera water and sewerage company may pay the supplier or sub-contractor for any such materials supplied or Works executed under such agreement, whether the same be assigned as aforesaid or not, before or after the said determination, the amount due by such arrangement in so far as it has not already been paid by the Contractor".

65 Special Risks

Add sub clause 65.9 as follows:

- (a) In the event of Mandera water and sewerage company unilaterally ordering the final cessation of performance of the Contract for reasons not specified elsewhere in the Conditions of Contract the Contract shall be considered to be frustrated and the Contractor shall be indemnified as provided for under clause 65.1.
- (b) In the event of Mandera water and sewerage company ordering the adjournment of the Contract before or after commencement of the Works for reasons not specified elsewhere in the Conditions of Contract, the Contractor shall be entitled to indemnity for any injury which he may have suffered as a consequence of such adjournment. The Engineer shall award the Contractor payment of such sum as in his opinion shall be reasonable giving regard to all material and relevant factors including the Contractor's on costs and overheads, and the nature of the instruction to adjourn the Contract.

Settlement of Disputes

67.3 Arbitration

For the purposes of this Clause, the Arbitrator shall be a person to be agreed between the parties or failing agreement, the Arbitrator shall be appointed by the appointer designated in the Appendix to the Form of Tender.

Add the following paragraph after the last paragraph of sub-clause 67.3:

Arbitration shall take place in Nairobi, Kenya. The language of all arbitration proceedings shall be in English. The cost of arbitration shall be apportioned by the Arbitrator according to his findings.

Notices

68.1 Add the following at the end of this sub clause:-

Notwithstanding the foregoing, the Contractor shall either maintain an address close to the Works or appoint an agent residing close to the Works for the purpose of receiving notices to be given to the Contractor under the terms of the Contract. This obligation shall be terminated upon the issue of the Certificate of Completion.

68.2 Delete the words "nominated for that purpose in Part II of these Conditions" in this sub-clause.

Default of Employer

69.1 Default of Employer

In paragraph (a) of this Sub-Clause, delete the words “within 28 days of expiry of the time stated in Sub-clause 60.10” and insert “within 56 days after the expiry of the time stated in Sub-Clause 60.4”.

69.4 Contractor’s Entitlement to Suspend Work

Delete the first four lines of this Sub-Clause and replace with the following:-

“Without prejudice to the Contractor’s entitlement to interest under Sub-clause 60.7 and to terminate his employment under Sub-Clause 69.1, the Contractor may, if Mandera water and sewerage company fails to pay the Contractor the amount due under any certificate of the Engineer within 56 days after the expiry of the time stated in Sub-Clause 60.4.....”

Delete sub-clause 69.4 (b) and substitute with the following----“the amount of such cost, which shall be added to the Contract Price. However, the costs due to idle time for plant, equipment and labour shall not be included in the said costs and shall be borne by the Contractor.

69.5 Resumption of Work

In line 3 of this Sub-Clause delete the Words “Sub-Clause 60.10” and replace with “Sub-Clause 60.7”

Changes in Cost and Legislation

70.1 Delete the sub-clause 70.1 in its entirety and substitute with the following:-

“The Contract Price shall be deemed to have been calculated in the matter set below and shall be subject to the adjustment in the event specified hereunder:

- (a) The rates contained in the priced Bill of Quantities are based upon the rates of wages and other emoluments and expenses applicable at the site and the date of tender pricing (as defined in sub-clause 70.4 hereinafter);
- (b) If the said rates of wages and other emoluments and expenses shall be increased or decreased by act, statue, decree, regulation and the like after the said date of tender pricing then the net amount of increase the

emoluments and expenses shall, as the case may be, paid to or allowed by Contractor;

- (c) The rates contained in the price Bill of Quantities are based upon the rates of the Contractor's compulsory contributions payable at the date of tender under or by virtue of any Act, Statue, Regulations and the like applicable at the site;
- (d) If any of the said rates of contribution becomes payable after that date then the net amount of new statutory contribution becomes payable after that date then the net amount of increase or decrease of the emoluments and expenses shall, as the case may be, be paid to or allowed by the Contractor. Difference between what the Contractor actually pays in respect of work people engaged upon or in connection with the works and what he would have paid in respect of such person had any of the said rates not been increased or decreased or had a new contribution not become payable as aforesaid, shall as the case may be, be paid to or allowed by the Contractor. Provided always that the Engineer and the Contractor may agree a sum, which shall be deemed to be the net amount of the aforesaid difference, and such sum shall be deemed for the purpose of this Contract to be, that which is to be paid to or allowed by the Contractor by the virtue of this sub-paragraph;
- (e) If the market price or any materials or goods specified as aforesaid shall be increased or decreased after the said Date of Tender Pricing, then the net amount of difference between the basic price and the market price payable by the Contractor and current when any such goods and materials are bought shall, as the case may be, be paid to or allowed by the Contractor. Orders for materials and goods listed as aforesaid shall have been placed within a reasonable time after the date at which sufficient information is available for the placing of such orders, and the placing of orders at that time shall be a condition precedent to any payments being made to the Contractor in respect of increased market prices."

Substitute and add the following sub-clauses:

- 70.2 (a) If the Contractor shall decide subject to Clause 4 thereof to sub-let any portion of the work he shall incorporate in the sub-contract provisions to the like effect as those contained in sub-clause (1) of this Clause;
- (c) If the price payable under a sub-contract as aforesaid is increased above or decreased below the price in such sub-contract by reason of the operation of the incorporated provisions of sub-clause (1) of this clause then the net amount of such increase or decrease shall as the case may be, be paid to or allowed by the Contractor under this Contract.

70.3 The expression “the date of tender pricing” as used in this Clause means the date 28 days prior to the final date for submission of Tenders as determined by Mandera water and sewerage company in the Tender documents.

70.4 For imported materials, the supplier’s/manufacturer’s Prime costs shall be C.I.F. cost at point of entry by the same means of transport as determined by the Contractor’s Basic Rate.

For locally produced materials, the supplier’s or manufacturer’s prime costs shall be at their nearest depot or the nearest railway station relevant to the works.

For materials, which are subject to Government Price Control, payments for price variations will be determined from the difference between the control price in force at a date 28 days prior to date for submission of Tenders and the price in force on the date of purchase.

70.5 The materials to which this Variation Clause applies are:

- ◆ All bitumen material
- ◆ Fuels, oils and lubricant
- ◆ Cement
- ◆ Lime
- ◆ Flex beam guardrail
- ◆ Explosives
- ◆ Gabion mesh
- ◆ Reinforcing steel

70.6 The Contractor shall not change the supplier or manufacturer during the Contract without the approval of the Engineer.

70.7 No payments will be made for price variation related to expenses incurred by the Contractor in his Head Office in Kenya, or overseas.

70.8 All payments made pursuant to Clause 70 shall be in Kenya Shillings.

70.9 No payments will be made for the cost of preparing V.O.P. claims.

70.10 Add the following at the end of this clause.

“Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited as aforesaid if the same shall already have been taken into account in accordance with the provisions of sub-clause 70.1”.

ADDITIONAL CLAUSES

Clause 73 Declaration Against Waiver

The condoning by Mandera water and sewerage company of any breach or breaches by the Contractor or any authorized sub-contractor of any of the stipulations and Conditions contained in the Contract shall in no way prejudice or affect or be construed as a waiver of the Employer's rights, powers and remedies under the Contract in respect of any breach or breaches as aforesaid.

Clause 74 Bribery and Collusion

Mandera water and sewerage company shall be entitled to determine the Contract and recover from the Contractor the amount of any loss resulting from such determination if the Contractor shall have offered or given or agreed to give any person any gift or consideration of any kind as an inducement of regard for doing or fore bearing to do or for having done or fore borne to do any action in relation to obtaining or the execution of the Contract or any other contract with Mandera water and sewerage company or if any of the like acts shall have been done by any person employed by the Contractor or acting on his behalf (whether with or without the

knowledge of the Contractor) or if the Contractor shall have come to any agreement with another contractor or number of contractors whereby an agreed quotation or estimate shall be tendered to Mandera water and sewerage company by one or more contractors.

Clause 75 Contract Confidential

The Contractor shall treat the Contract and everything in connection therewith as private and confidential. In particular, the Contractor shall not publish any information, drawings or photographs concerning the Works in any trade or technical paper etc, and shall not use the Site for the purpose of advertising except with the written consent of the Engineer and subject to such conditions as the Engineer may prescribe.

Clause 76 Employer's Officials etc., Not Personally Liable

No official of Mandera water and sewerage company or the Engineer or the Engineer's Representative or anyone of their respective staffs or their employees shall be in any way personally bound or liable for the acts or obligations of Mandera water and sewerage company under the Contract or answerable for default or omission in the observance or performance of any of the acts, matters or things which are herein contained.

Clause 77 Taxes and Duties

- (1) The Contractor shall list in his tender the plant and vehicles which he intends to import for the execution of the Works. The Engineer will consider the list in the context of the program of the Works and will give his approval subject to any modifications that he may see fit to make. No appeal against the Engineer's decision shall be permitted.

The Contractor will be permitted to import approved plant and vehicles required for the execution of the Works on the basis of temporary admission into Kenya and re-export thereafter upon completion of the Contract without payment of customs duties and Value Added Tax for them. If the plant and equipment shall not be re-exported, duties and taxes shall then be paid based upon their residual value at the date of completion of the Contract, or the date of withdrawal from the Works, if earlier. Plant and vehicles so imported shall not be utilized on other works not associated with the Contract unless specifically authorized by the Engineer.

- (2) The Contractor will be permitted to import approved spare parts, tires and tubes without payment of customs duty and Value Added Tax for maintenance of any imported vehicles and plant as provided in sub-clause 77.1 above, within a financial limit indicated by himself. However, this limit will not exceed 15% of the Contract Price excluding Contingencies.
- (3) All materials approved by the Engineer to be incorporated into the Works or temporary works, and whose importation into Kenya is agreed to be essential shall be free of customs duties and Value Added Tax. The Contractor shall submit a list of such materials required with the tender. The Contractor shall be required to satisfy the Engineer that such materials have actually been incorporated into the Works.

Items produced in Kenya will not be permitted to be imported without payment of customs duty and Value Added Tax.

Items produced in Kenya shall mean commercially recognized goods or products that are either mined, grown, manufactured, processed or assembled (whether the components are imported or not) in Kenya.

Clause 78 Joint Ventures

- 78.1 If the Contractor is a joint venture, all partners of the joint venture shall be jointly and severally liable to Mandera water and sewerage company for the execution of the entire Contract in accordance with its terms and Conditions.

APPENDIX TO CONDITIONS OF CONTRACT

This appendix forms part of the tender

CONDITIONS OF CONTRACT	CLAUSE	AMOUNT
Tender Security (Bank Guarantee or an insurance Bond)		Kshs 1.5 Million
Amount of Performance Security (Unconditional Bank Guarantee)	10.1	10 percent of Tender Sum in the form of Unconditional Bank Guarantee
Program to be submitted	14.1	Not later than 14 days after issuance of Order to Commence
Cash flow estimate to be submitted	14.3	Not later than 14 days after issuance of Order to Commence
Minimum amount of Third Party Insurance	23.2	Kshs.
Period for commencement, from the Engineer's order to commence	41.1	14 days
Time for completion	43.1	6 months
Amount of liquidated damages	47.1	Rate at 0.001 per cent of the Contract price per day of Contract Value
Limit of liquidated damages	47.1	Rate at 0.001 per cent of the Contract price per day of Contract Value
Defect Liability period	49.1	3 Months
Percentage of Retention	60.5	10% of Interim Payment Certificate
Limit of Retention Money	60.5	10 % of Contract Price
Minimum amount of interim certificates	60.2	Contract value/Time for completion in months
Time within which payment to be made after Interim Payment Certificate signed by Engineer	60.8	30 days
Time within which payment to be made after Final Payment Certificate signed by Engineer	60.8	30 days
Appointer of Arbitrator	67(3)	Chief Justice of The Republic of Kenya
Notice to Employer and Engineer	68.2	Mandera water and sewerage company ltd, P.O. Box 341-70300, <u>MANDERA.</u>

Signature of Tender..... Date.....

SPECIFICATIONS

Notes for preparing Specifications

- 1.0 Specifications must be drafted to present a clear and precise statement of the required standards of materials and workmanship for tenderers to respond realistically and competitively to the requirements of MANDERA Water and Sewerage Services Company Limited ensure responsiveness of tenders. The Specifications should require that all materials, plant and other supplies to be incorporated in the permanent Works be new, unused, of the most recent or current models and incorporating all recent improvements in design and materials unless provided otherwise in the Contract. Where the Contractor is responsible for the design of any part of the permanent Works, the extent of his obligations must be stated.
- 2.0 Specifications from previous similar projects are useful and it may not be necessary to re- write specifications for every works contract.
- 3.0 There are considerable advantages in standardizing **General Specifications** for repetitive Works in recognized public sectors, such as highways, urban housing, irrigation and water supply. The General Specifications should cover all classes of workmanship, materials and equipment commonly involved in construction works, although not necessarily to be used in a particular works contract. Deletions or addenda should then adapt the General Specifications to the particular Works.
- 4.0 Care must be taken in drafting Specifications to ensure they are not restrictive. In the specifications of standards for materials, plant and workmanship, existing Kenya Standards should be used as much as possible, otherwise recognized International Standards may also be used.
- 5.0 Mandera water and sewerage company should decide whether technical solutions to specified parts of the Works are to be permitted. Alternatives are appropriate in cases where obvious (and potentially less costly) alternatives are possible to the technical solutions indicated in tender documents for certain elements of the Works, taking into consideration the comparative specialized advantage of potential tenderers.

Mandera water and sewerage company should provide a description of the selected parts of the Works with appropriate reference to Drawings, Specifications, Bills of

Quantities, and Design or Performance criteria, stating that the alternative solutions shall be at least structurally and functionally equivalent to the basic design parameters and Specifications.

Such alternative solutions shall be accompanied by all information necessary for a complete evaluation by the Employer, including drawings, design calculations, technical specifications, breakdown of prices, proposed construction methodology and other relevant details. Technical alternatives permitted in this manner shall be considered by Mandera water and sewerage company each on its own merits and independently of whether the tenderer has priced the item as described in the Employer's design included with the tender documents

6.0 **Health Care and Welfare**

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

7.0 MANDERA water and Sewerage invites sealed tenders for the. The proposed works for PROPOSED CONSTRUCTION OF BOKOLOW BANYOLEY 120,000M3 EARTH PAN AND ASSOCIATED WATER SUPPLY WORKS, MANDERA COUNTY include;

- i). Construction of 120000m³ water pan and its auxillaries (fencing, infiltration galleries & sump wells
- ii). 50m³ elevated steel tank
- iii). Pipelines - 2.2km rising main and 1.1km distribution lines
- iv). Construction of 2no. water kiosks
- v). 2no. sanitation blocks
- vi). 2no. cattle trough
- vii). Pumping sets

SECTION VI

DRAWINGS

- Note 1. A list of Contract drawings should be inserted here
2. The actual Contract drawings including Site plans should be annexed in a separate booklet.

SECTION VII – BILLS OF QUANTITIES

Notes for preparing Bills of Quantities

1.0 Preamble To Bill of Quantities

- a) The Bill of Quantities shall form part of the Contract Documents and is to be read in conjunction with the Instructions to Tenderers, Conditions of Contract Parts I and II, Specifications and Drawings.
- b) The brief description of the items in the Bill of Quantities is purely for the purpose of identification, and in no way modifies or supersedes the detailed descriptions given in the conditions of Contract and Specifications for the full direction and description of work and materials.
- c) The Quantities set forth in the Bill of Quantities are estimated and provisional, representing substantially the work to be carried out, and are given to provide a common basis for tendering and comparing of Tenders. There is no guarantee to the Contractor that he will be required to carry out all the quantities of work indicated under any one particular item or group of items in the Bill of Quantities. The basis of payment shall be the Contractor's rates and the quantities of work actually done in fulfillment of his obligation under the Contract.
- d) The prices and rates inserted in the Bills of Quantities will be used for valuing work executed, and the Engineer will measure the whole of the works executed in accordance with this Contract.
- e) A price or rate shall be entered in ink against every item in the Bill of Quantities with the exception of items, which already have provisional sums, affixed thereto. The Tenderers are reminded that no "nil" or "included" rates or "lump-sum" discounts will be accepted. The rates for various items should include discounts if any. Tenderers who fail to comply will be disqualified.
- f) Provisional sums (including Day works) in the Bill of Quantities shall be expended in whole or in part at the discretion of the Engineer in accordance with Sub-clause 52.4 and Clause 58 of part of the Conditions of Contract.
- g) The price and rates entered in the Bill of Quantities shall, except insofar as it is otherwise provided under the Contract, include all Constructional plant to be used, labour, insurance, supervision, compliance, testing, materials, erection, maintenance or works, overheads and profits, taxes and duties together with all general risks, liabilities and obligations set out or implied in the Contract, transport, electricity and telephones, water, use and replenishment of all consumables, including those required under the Contract by the Engineer and his staff.

- h) Errors will be corrected by Mandera water and sewerage company for any arithmetic errors in computation or summation as follows:
 - (a) Where there is a discrepancy between amount in words and figures, the amount in words will govern; and
 - (b) Where there is a discrepancy between the unit rate and the total amount derived from the multiplication of the unit price and the quantity, the unit rate as quoted will govern, unless in the opinion of the Employer, there is an obviously gross misplacement of the decimal point in the unit price, in which event the total amount as quoted will govern and the unit rate will be corrected.
 - (c) If a Tenderer does not accept the correction of errors as outlined above, his Tender will be rejected.
- i) The Bills of Quantities, unless otherwise expressly stated therein, shall be deemed to have been prepared in accordance with the principles of the latest edition of the Civil Engineering Standard Method of Measurement (CESMM).
- j) “Authorised” “Directed” or “Approved” shall mean the authority, direction or approval of the Engineer.
- k) Unless otherwise stated, all measurements shall be net taken on the finished work carried out in accordance with the details shown on the drawings or instructed, with no allowance for extra cuts or fills, waste or additional thickness necessary to obtain the minimum finished thickness or dimensions required in this Contract. Any work performed in excess of the requirements of the plans and specifications will not be paid for, unless ordered in writing by the Engineer.
- l)
 - (a) Hard material, in this Contract, shall be defined as the material which, in the opinion of the Engineer, require blasting, or the use of metal wedges and sledgehammers, or the use of compressed air drilling for their removal, and which cannot be extracted by ripping with a dozer tractor of at least 150 brake horse power (112 kilowatt) with a single, rear-mounted, hydraulic ripper. Boulders of more than 0.2m³ occurring in soft material shall be classified as hard material.
 - (b) Soft material shall be all material other than hard material.

2.0 The objectives of the Bills of Quantities are;

- (a) to provide sufficient information on the quantities of Works to be performed to enable tenders to be prepared efficiently and accurately; and

- (b) when a Contract has been entered into, to provide a priced Bills of Quantities for use in the periodic valuation of Works executed.

In order to attain these objectives, Works should be itemized in the Bills of Quantities in sufficient detail to distinguish between the different classes of Works, or between Works of the same nature carried out in different locations or in other circumstances which may give rise to different considerations of cost. Consistent with these requirements, the layout and content of the Bills of Quantities should be as simple and brief as possible.

- 3.0 The Bills of Quantities should be divided generally into the following sections:

- (a) Preliminaries.**

The preliminaries should indicate the inclusiveness of the unit prices, and should state the methods of measurement which have been adopted in the preparation of the Bills of Quantities and which are to be used for the measurement of any part of the Works.

The number of preliminary items to be priced by the tenderer should be limited to tangible items such as site office and other temporary works, otherwise items such as security for the Works which are primarily part of the Contractor's obligations should be included in the Contractor's rates.

- (b) Work Items**

- (i) The items in the Bills of Quantities should be grouped into sections to distinguish between those parts of the Works which by nature, location, access, timing or any other special characteristics may give rise to different methods of construction or phasing of the Works or considerations of cost. General items common to all parts of the Works may be grouped as a separate section in the Bills of Quantities.
- (ii) The brief description of the items in the Bill of Quantities should in no way modify or supersede the detailed descriptions given in the Contract drawings, Conditions of Contract and Specifications.
- (iii) Quantities should be computed net from the Drawings, unless directed otherwise in the Contract, and no allowance should be made for bulking, shrinkage or waste. Quantities should be rounded up or down where appropriate.

- (iv) The following units of measurement and abbreviations are recommended for use.

<i>Unit</i>	<i>Abbreviation</i>	<i>Unit</i>	<i>Abbreviation</i>
cubic meter	m ³ or cu m	millimeter	mm
hectare	ha	month	mon
hour	h	number	nr
kilogram	kg	square meter	m ² or sq m
lump sum	sum	square millimeter	mm ² or sq mm
meter	m	week	wk
metric ton (1,000 kg)	t		

- (v) The commencing surface should be identified in the description of each item for Work involving excavation, boring or drilling, for which the commencing surface is not also the original surface. The excavated surface should be identified in the description of each item for Work involving excavation for which the excavated surface is not also the final surface. The depths of Work should be measured from the commencing surface to the excavated surface, as defined.

(c) Daywork Schedule

A Daywork Schedule should be included if the probability of unforeseen work, outside the items included in the Bills of Quantities is relatively high. To facilitate checking by Mandera water and sewerage company of the realism of rates quoted by the tenderers, the Daywork Schedule should normally comprise:

- (i) a list of the various classes of labour, and materials for which basic Daywork rates or prices are to be inserted by the tenderer, together with a statement of the conditions under which the Contractor will be paid for Work executed on a Daywork basis; and
- (ii) a percentage to be entered by the tenderer against each basic Daywork Subtotal amount for labour, materials and plant representing the Contractor's profit, overheads, supervision and other charges.

(d) Provisional Quantities and Provisional Sums

- (i) Provision for quantity contingencies in any particular item or class of Work with a high expectation of quantity overrun should be made by entering specific “Provisional Quantities” or “Provisional Items” in the Bills of Quantities, and *not* by increasing the quantities for that item or class of Work beyond those of the Work normally expected to be required. To the extent not covered above, a general provision for physical contingencies (quantity overruns) should be made by including a “Provisional Sum” in the Summary of the Bills of Quantities. Similarly, a contingency allowance for possible price increases should be provided as a “Provisional Sum” in the Summary of the Bills of Quantities. The inclusion of such provisional sums often facilitates budgetary approval by avoiding the need to request periodic supplementary approvals as the future need arises.
- (ii) Provisional Sums to cover specialized works normally carried out by Nominated Sub Contractors should be avoided and instead Bills of Quantities of the specialised Works should be included as a section of the main Bill of Quantities to be priced by the Main Contractor. The Main Contractor should be required to indicate the name (s) of the specialised firms he proposes to engage to carry out the specialized Works as his approved domestic sub-contractors. Only Provisional Sums to cover specialized Works by statutory authorities should be included in the Bills of Quantities.
- (iii) Unless otherwise provided in the Contract, the Provisional Sums included in the Bills of Quantities should always be expended in whole or in part at the discretion of the Engineer after full consultation with the Employer.

(e) Summary

The Summary should contain a tabulation of the separate parts of the Bills of Quantities carried forward, with Provisional Sums for Dayworks, physical (quantity) contingencies, and price contingencies (upward price adjustment) where applicable.

SECTION VIII – STANDARD FORMS

1. Form of Invitation for Tenders
2. Form of Tender
3. Letter of Acceptance
4. Form of Agreement
5. Form of Tender Security
6. Performance Bank Guarantee (unconditional)
7. Bank Guarantee for Advance Payment
8. Tender Questionnaire
9. Confidential Business Questionnaire
10. Statement of Foreign Currency Requirement
11. Schedule of Materials;- Basic Prices
12. Schedule of Labor;- Basic Prices
13. Schedule of Plant and Equipment
14. Details of Sub-Contractors
15. Certificate of Tenderer's Site visit
16. Form of Written Power of Attorney
17. Key Personnel
18. Completed Civil Works
19. Schedule of Ongoing Projects
20. Other Supplementary Information
21. Declaration Form
22. Request for Review

FORM OF INVITATION FOR TENDERS

_____ [date]

To: _____ [name of Contractor]
_____ [address]

Dear Sirs:

Reference: _____ [Contract Name]

You have been prequalified to tender for the above project.

We hereby invite you and other prequalified tenderers to submit a tender for the execution and completion of the above Contract.

A complete set of tender documents may be purchased by you from _____
_____ [mailing address, cable/telex/facsimile numbers].

Upon payment of a non-refundable fee of Kshs _____

All tenders must be accompanied by _____ number of copies of the same and a security in the form and amount specified in the tendering documents, and must be delivered to

_____ [address and location]

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

Please confirm receipt of this letter immediately in writing by cable/facsimile or telex.

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 named Works, we, the undersigned offer to construct, install and complete such Works and remedy any defects therein for the sum of Kshs. _____ [Amount in Shillings] _____ figures]Kenya
_____ [Amount in words]
2. We undertake, if our tender is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Project Manager's notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the Appendix to Conditions of Contract.
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.
5. 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 Employer]
of _____ [Address of Employer]

Witness; Name _____

Address _____

Signature _____

Date _____

LETTER OF ACCEPTANCE
[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 : Agreement

FORM OF AGREEMENT

THIS AGREEMENT, made the _____ day of _____ 20 _____ between _____ of [or whose registered office is situated at] _____ (hereinafter called “the Employer”) of the one part AND _____ of [or whose registered office is situated at] _____ (hereinafter called “the Contractor”) of the other part.

WHEREAS Mandera water and sewerage company is desirous that the Contractor executes

_____ (*name and identification number of Contract*) (hereinafter called “the Works”) located at _____ [*Place/location of the Works*] and Mandera water and sewerage company has accepted the tender submitted by the Contractor for the execution and completion of such Works and the remedying of any defects therein for the Contract Price of Kshs _____ [*Amount in figures*], Kenya Shillings _____ [*Amount in words*].

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 hereinafter referred to.
2. The following documents shall be deemed to form and shall be read and construed as part of this Agreement i.e.
 - (i) Letter of Acceptance
 - (ii) Form of Tender
 - (iii) Conditions of Contract Part I
 - (iv) Conditions of Contract Part II and Appendix to Conditions of Contract
 - (v) Specifications
 - (vi) Drawings
 - (vii) Priced Bills of Quantities
3. In consideration of the payments to be made by Mandera water and sewerage company to the Contractor as hereinafter mentioned, the Contractor hereby covenants with Mandera water and sewerage company to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.

4. Mander water and sewerage company hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties thereto have caused this Agreement to be executed the day and year first before written.

The common Seal of _____

Was hereunto affixed in the presence of _____

Signed Sealed, and Delivered by the said _____

Binding Signature of Employer _____

Binding Signature of Contractor _____

In the presence of (i) Name _____

Address _____

Signature _____

[ii] Name _____

Address _____

Signature _____

FORM OF TENDER SECURITY

WHEREAS(hereinafter called “the Tenderer”) has submitted his tender dated for the construction 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 Mandera water and sewerage company 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;
 - (c) Rejects a correction or an arithmetic error in the tender.

We undertake to pay to Mandera water and sewerage company up to the above amount upon receipt of his first written demand, without Mandera water and sewerage company having to substantiate his demand, provided that in his demand Mandera water and sewerage company 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]

(Amend accordingly if provided by the Insurance Company)

PERFORMANCE BANK GUARANTEE (UNCONDITIONAL)

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 there under 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 Certificate of Completion.

SIGNATURE AND SEAL OF THE GUARANTOR _____

Name of Bank _____

Address _____

Date _____

(Amend accordingly if provided by Insurance Company)

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 deposit with _____ [name of Employer] a bank guarantee to guarantee his proper and faithful performance under the said Contract in an amount of Kshs. _____ [amount of Guarantee in figures] Kenya Shillings _____ [amount of Guarantee in words].

We, _____ [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], such amount to be reduced periodically by the amounts recovered by you from the proceeds of the Contract.

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 there under 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.

No drawing may be made by you under this guarantee until we have received notice in writing from you that an advance payment of the amount listed above has been paid to the Contractor pursuant to the Contract.

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: _____

31. TENDER QUESTIONNAIRE

Please fill in block letters.

1. Full names 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. Telex address 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. This is essential if the tenderer does not have his registered address in Kenya (name, address, telephone, telex)

.....

Signature of Tenderer

Make copy and deliver to : _____(*Name of Employer*)

CONFIDENTIAL BUSINESS QUESTIONNAIRE

You are requested to give the particulars indicated in Part 1 and either Part 2 (a), 2 (b) or 2 (c) and 2 (d) 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 Licence No..... Expiring date.....

Maximum value of business which you can handle at any time: K. pound.....

Name of your bankers.....

Branch.....

Part 2 (a) – Sole Proprietor

Your name in full..... Age.....

Nationality..... Country of Origin.....

*Citizenship details

Part 2 (b) – Partnership

Give details of partners as follows:

	<i>Name in full</i>	<i>Nationality</i>	<i>Citizenship Details</i>	<i>Shares</i>
1
2
3

STATEMENT OF FOREIGN CURRENCY REQUIREMENTS

(See Clause 60[5] of the Conditions of Contract)

In the event of our Tender for the execution
of _____

_____ (*name of Contract*) being accepted, we
would require in accordance with Clause 21 of the Conditions of
Contract, which is attached hereto, the following percentage:

(Figures)..... (Words).....

of the Contract Sum, (Less Fluctuations) to be paid in foreign
currency.

Currency in which foreign exchange element is required:

.....
.....

Date: The Day of 20.....

Enter 0% (zero percent) if no payment will be made in foreign
currency.

Maximum foreign currency requirement shall be
_____ (percent) of the Contract Sum, less Fluctuations.

(Signature of Tenderer)

SCHEDULE OF MATERIALS;-BASIC PRICES
(Ref: Clause 70 of Conditions of Contract)

MATERIAL	UNIT	ORIGIN AND PRICE			TRANSPORTATION COST FROM SOURCE OF ORIGIN	
		COUNTRY OF ORIGIN	SUPPLIER	PRICE	MODE	PRICE (KSHS)
Cement	Mg					
Lime	Mg					
Sand	Mg					
Aggregate	Mg					
Diesel	L					
Regular Petrol	L					
Super Petrol	L					
Kerosene	L					
Structural steel	Mg					
Gabion Mesh	M2					
Reinforcement Steel	Mg					
Explosives	Kg					
Oil and Lubricants	L					
Bitumen Emulsion A3	L					
Bitumen Emulsion A4	L					
Bitumen Emulsion K1	L					
Bitumen Emulsion K3	L					
Bitumen 80/100	Kg					
Bitumen MC 30	ML					
Bitumen MC 70	L					
Bitumen MC 3000	L					
Ammonium nitrate for blasting	Kg					

I certify that the above information is correct.

.....
(Title)

.....
(Signature)

.....
(Date)

The prices inserted above shall be those prevailing 30 days before the submission of Tenders and shall be quoted in Kenya Shillings using the exchange rates specified in the Appendix to Form of Tender.

Prices of imported materials to be quoted CIF Mombasa or Nairobi as appropriate depending on whether materials are imported by the tenderer directly or through a local agent.

Transportation costs for imported materials to be quoted from Mombasa or Nairobi as appropriate to _____ (Contract Site) depending on whether materials are imported directly by the tenderer or through a local agent.

SCHEDULE OF LABOUR: - BASIC RATES
(Reference: Clause 70 of Conditions of Contract)

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.

DETAILS OF SUB-CONTRACTORS

If the Tenderer wishes to sublet any portions of the Works under any heading, he must give below details of the sub-contractors he intends to employ for each portion.

Failure to comply with this requirement may invalidate the tender.

(1) Portion of Works to be sublet:

.....

(i) Full name of Sub-contractor
and address of head office:

.....

(ii) Sub-contractor's experience
of similar works carried out
in the last 3 years with
Contract value:

.....

.....

(2) Portion of Works to sublet:

.....

(i) Full name of sub-contractor
and address of head office:

.....

.....

.....

(ii) Sub-contractor's experience
of similar works carried out
in the last 3 years with
contract value:

.....

[Signature of Tenderer)

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 the **(Name of Contract:**)

..... day of.....20.....

Signed.....

(Employer’s Representative)

.....

NOTE: This form is to be completed whether the site visit is made at the time of the organized site or privately organized.

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 authorized 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. Director 2. 3. 4. 5. etc.			
Site Office: 1. Site Superintendent 2. 3. 4. 5. etc.			

I certify that the above information is correct.

.....
(Title)

.....
(Signature)

.....
(Date)

SCHEDULE FOR MAJOR ITEMS OF CONSTRUCTION PLANT AND EQUIPMENT

Date of Arrival on Project (Days after commencement)	
Power Rating	
Owned/Leased/Imported	
Source	
Estimated CIF Mombasa Value (If to be Imported)	
Capacity or m ³	
New or Used	
Year of Manufacture	
No. of each	
Description Type, Model, Make	

The Bidder shall enter in this schedule all major items of plant and equipment which he proposes to bring to site. Only reliable plant in good working order and suitable for the work required of it shall be shown on this Schedule. Summary of the same shall be entered in Section 5: Qualification Criteria, Part 7.

I certify that the above information is correct.

.....
(Signature of Bidder)

.....
(Date)

**SCHEDULE OF COMPLETED CIVIL WORKS CARRIED OUT BY THE
TENDERER IN THE LAST EIGHT 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)

*Value in Kshs using Central Bank of Kenya mean exchange rate at a reference date 30 days before date of tender opening.

SCHEDULE OF ONGOING PROJECTS

DESCRIPTION OF WORK AND CLIENT	CONTRACT PERIOD	DATE OF COMMENCEMENT	DATE OF COMPLETION	TOTAL VALUE OF WORKS (KSHS.)	PERCENTAGE COMPLETED TO DATE

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

.....
(Title)

.....
(Signature)

.....
(Date)

DECLARATION/DEBARRMENT 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)

LITIGATION FORM

Other Party (ies)	Cause of Dispute	Amount Involved
a)		
b)		
c)		
d)		

LETTER OF NOTIFICATION OF AWARD

Address of Procuring Entity

To: _____

RE: Tender No. _____

Tender Name _____

This is to notify that the contract/s stated below under the above mentioned tender have been awarded to you.

1. Please acknowledge receipt of this letter of notification signifying your acceptance.
2. The contract/contracts shall be signed by the parties within 30 days of the date of this letter but not earlier than 14 days from the date of the letter.
3. You may contact the officer(s) whose particulars appear below on the subject matter of this letter of notification of award.

(FULL PARTICULARS) _____

SIGNED FOR ACCOUNTING OFFICER

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 of20.....

SIGNED
Board Secretary

EVALUATION CRITERIA

Stage 1: Preliminary Bid Responsiveness Assessment (Mandatory Requirements)

This will involve assessing whether bidders have complied with submission requirements and have also attached certified copies of mandatory eligibility and statutory documents. Evaluation at this stage will be conducted on **Yes/No**, and bidders are expected to comply with ALL required items so as to proceed to the next stage of evaluation.

No.	Completeness and Responsiveness Criteria	Requirement
1.	Form of Bid/Tender	1. Amount must be indicated 2. Properly fill and sign
2.	Bid Security	- Provide a valid bid security as prescribed
3.	Confidential Business Questionnaire	- Properly fill and sign - Provide all required information as applicable
4.	Form of Power of Attorney	- Properly fill and sign - Provide copies of National Identification card or Passport.
5.	Valid Tax Compliance Certificate	- Copy of Valid certificate Certified by Commissioner of Oaths
6.	Registration with National Construction Authority	- Category 1-5 (Water works and Building works) - Copy of Valid certificate Certified by Commissioner of Oaths
7.	Certificate of Incorporation	- Copy of certificate Certified by Commissioner of Oaths
8.	Eligibility	- Copies of National ID or passport for all directors - Certified copy of Form CR12 (Certified by Commissioner of Oaths)
9.	Debarment/Declaration form	- Properly fill and sign
10.	Litigation History	- Fill in information and sign or provide signed affidavit
11.	Schedule of Major Items of Plant	- Properly fill and sign
12.	Schedule of Key Personnel	- Properly fill and sign
13.	Water work Completed Satisfactorily	- Properly fill and sign
14.	Schedule of Ongoing Projects	- Properly fill and sign
15.	Single Business Permit	- Certified copy of current single business permit (Certified by Commissioner of Oaths)
16.	Serialization	- All pages of the tender document submitted shall be sequentially serialized
17.	Copies of Tenders	- Provide an original and copy of tender documents
18.	Audited Financial Accounts	- Provide a genuine audited financial accounts for 2019, 2018 and 2017 which must be signed by the auditors and directors

Stage 2: Technical Responsiveness Evaluation Stage

Tenders will be evaluated to ensure that they are substantially responsive to the technical specifications and contract conditions stated in the Tender Document. The determination of a tender's technical responsiveness will be based on the contents of the tender itself, subject to any clarifications received in the preliminary examination of Tenders. Items of this evaluation will be scored.

ITEM	DESCRIPTION	POINT SCORE SCALE	
1	EXPERIENCE Attach authentic reference letters, contracts/purchase orders and completion certificates for different firms which shall be used as evidences.	Max 30	
	1.1 Value of related water works handled in Kshs.		
a.	Three projects of equal or higher value in the last three years. OR	15	
b.	Any three (3No) projects of value between 50 % and 100% of value. OR	9	
c.	Any three projects less than 50% value of the tendered works.	6	
d.	No submission of project record	0	
	1.2 Nature, scope and specificity of water works handled		
a.	Three projects of similar nature as per this scope of works OR	15	
b.	Any three (3No) projects of related nature but not same complexity OR	9	
c.	Any three unrelated construction works e.g. buildings etc.	6	
d.	No submission in details works undertaken	0	
2	KEY PERSONNEL	Max 20	
	Technical skill in terms of human resource. Attach CVs and certified copies of academic certificates detailing qualifications of at least (3) Key personnel who shall be involved in this assignment. <ul style="list-style-type: none"> • The persons must be working with the organization or sign an undertaking to work with the firm by the time of submitting this tender. • All the proposed personnel must have relevant engineering qualifications and also must have worked for 10 years for a Project Manager and 5 years for others. • Each of the 3 personnel will be evaluated on the following parameters: 		
a.	Project Manager/Site Agent (Max 10 marks)	Technical qualification (4) Experience in years (4) Registration with relevant professional body (2)	10
b.	Surveyor (Max 5marks)	Technical qualification (2) Experience in years (2) Registration with relevant professional body (1)	5

ITEM	DESCRIPTION	POINT SCORE SCALE	
c.	Foreman (Max 5 marks)	Technical qualification (2) Experience in years (2) Registration with relevant professional body (1)	5
3	PLANT AND EQUIPMENT		Max 10
	Relevant Equipment	Showing evidence of ownership Owned/Leased (Max 5marks) Listing the required equipment (1 point for each equipment, maximum of five) The required equipment shall include: 1.Excavator 2.back hoe 3.water bowser 4. Roller 5. Tipper Note: None government leases must also provide evidences of ownership be lessor.	0-10
4	WORK METHODOLOGY		Max 20
		Program of works	0-5
		Detailed Methodology	0-5
		Proposed Equipment Scheduling/Work statement.	0-5
		Methodology on safety during the construction period.	0-5
5	FINANCIAL CAPACITY		Max 20
	a)	Audited financial statements for the last three years	5
	b)	Line of credit or indication of self-financing	5
	c)	Positive current (Assets/Liability) ratios for the three years	5
	d)	Average annual Turnover of the last 3 years, which must be above this contract amount.	5
	TOTAL		MAX 100

The technical evaluation pass mark shall be **70% of which** bidders who pass will be subjected to tender price comparisons.

Mandera Water and Sewerage Company Limited will award the Contract to the tenderer whose tender is determined to be substantially responsive to the tender documents and who has offered the lowest evaluated tender price.

Mandera Water and Sewerage Company Limited will verify information submitted. Any form of forgery or misinformation from the bidder shall lead to cancellation of the bid/award, institution of legal proceedings and blacklisting for all future (Procuring Entity) contracts.

BILL OF QUANTITIES.

BOKOLOW BANYOLEY WATER PROJECT IN MANDERA COUNTY

Tender No. _____

BILL NO. 2: Preliminary and General Items

Item	Description	Units	Qty	Rate (Kshs)	Amount (Kshs)
1.1	Allow for Contractors Mobilization, including Mobilization of plant and equipment to the project site, Site establishment, Maintenance and demobilization. Rate shall be inclusive of Demobilization after completion of the works. Plant to include but not limited to the following: Personnel, Excavator, Bulldozer, Roller, and Water Bowser e.t.c.	Item	1		
1.2	Provide and erect contract / Project Sign boards at Bokolo center, and at the water pan intake works site as directed by the implementing Agency through the Engineer or his representative.	No	2		
1.3	Allow for provision for branding all the project components (signboard, kiosks, sanitation blocks, tanks, pump house) as directed by engineer	Item	1		
BILL NO 1: PRELIMINARIES AND GENERAL ITEMS CARRIED TO GRAND SUMMARY					

BOKOLOW BANYOLEY WATER PROJECT IN MANDERA COUNTY					
Tender No. _____					
BILL No. 2 WATER PAN					
Item	Description	Quantity	Unit	Rate (KES)	Amount (KES)
	Site Clearance				
2.1.1	Clear reservoir area of all bushes, grass and shrubs including grabbing up roots and deposit away as directed by the engineer	55,000.0	SM		
	Earthworks				
	<i>Rates to include disposal or stockpiling for re-use as directed</i>				
2.1.2	Strip the pan area of 250mm top soil and spread on site or dispose off as directed by the Engineer	12,642	CM		
2.1.3	Strip the Embankment area of 250mm top soil and spread on site or dispose off as directed by the Engineer	4,450	CM		

2.1.4	Excavation for the reservoir depth not exceeding 4.0m depth, stock pile for re-use and/or cart away to spoil as shown on the Drawing	150,000	CM		
2.1.5	Excavation for silt trap depth not exceeding 4.0m depth, with side slope of 1:3, stock pile for re-use and/or cart away to spoil as shown on the Drawing.	12,000	CM		
2.1.6	Place and compact selected material from 2.13 and 2.14 above to form 10 wide by 2.0m high embankment with 1:3 side slopes around the reservoir as shown on the drawing. Cost to include riprap and grasing protection as shown in the drawing	35,000	CM		
2.1.7	Place and compact selected material from 2.13 and 2.14 above to form 10 wide by 2.0m high embankment with 1:3 side slopes around the silt trap as shown on the drawing.	6,000	CM		
2.1.8	Place and compact 150mm Thick approved heavy clay seepage seal material to the reservoir floor	36,450	SM		
	Element No. 2: Spill way concrete protection				
2.2.1	Allow for the excavation along the bed and sides of the earth pan spillway of bottom width 8m, depth 1.5m, free board 0.80m with side slope of 1:2	50	CM		
2.2.2	Allow for the supply, preparation and placing of steel reinforcements:				
(i)	D12 reinforcement bars	58	Kg		
(ii)	D8 reinforcement bars	10	Kg		
(iii)	BRC Mesh fabric No 142	48	SM		
2.2.3	Supply materials, cut to recess and construct weighted Gabion mattress 6mx1mx0.3m as riprap	18	No		

	at Spillway to pan Filled, placed and properly anchored				
2.2.4	Provision of timber formwork on sides on R.C. spillway protection	12	SM		
2.2.5	Undertake construction of 24m long by 8m wide at the bottom Reinforced Concrete (Class 20) spillway to protect against erosion as shown in drawings and as directed by the Engineer	39	CM		
2.2.6	Raise spillway bed by 400mm and providing for construction of concrete walling on spillway sides as shown in drawings and as directed by the Engineer	1	Item		
2.2.7	Provide stone rip rap and grassing protection for spill way along contact areas with earth embankment as shown in drawings and as directed by the Engineer	24	SM		
	PAGE TOTAL CARRIED FORWARD TO COLLECTION				
Element No. 3:					
Inlet channel concrete protection					
2.3.1	Allow for the excavation along the bed and sides of the water pan inlet 8m wide at the bottom, 1.5m depth, freeboard 0.9m and side slope 3:2	648	CM		
2.3.2	Allow for the supply, preparation and placing of steel reinforcements:				
(i)	D12 reinforcement bars	60	Kg		
(ii)	D8 reinforcement bars	12	Kg		
(ii)	BRC Mesh fabric No A142	52	SM		
2.3.3	Supply materials, cut to recess and construct weighted Gabion mattress 6mx1mx0.3m as riprap at Inlet to pan Filled, placed and properly anchored	18	No		
2.3.4	Provision of timber formwork on sides on R.C. spillway protection	12	SM		

2.3.5	Reinforced Concrete inlet apron 24m long by 4.5m wide to protect against erosion as shown in the drawing or as directed by the Engineer	1	Item		
2.3.6	Raise the inlet bed by 250 mm and an construct a a concrete wall on inlet sides as shown in drawings and as directed by the Engineer	1	Item		
2.3.7	Provide stone rip rap and Grassing protection for inlet along contact areas with earth embankment as shown in drawings and as directed by the Engineer	24	SM		
2.4	Element No.4: Construction of 2 No. 3x4m infiltration galleries				
2.4.1	Excavation for disposal below reservoir level to depth not exceeding 1.0m	24	CM		
2.4.2	Ditto in hard material depth not exceeding 1.0m	18	CM		
2.4.3	Reinforced concrete grade 30/35 to slabs and walls	26	CM		
2.4.4	High Yield tensile steel reinforcement to concrete Diameter 8-16	6000	KG		
2.4.5	Supply and placement/ fitting of the following to construct galleries;				
(ii)	Clean Graded Ballast	16	Tones		
(iv)	Clean Graded Sand	45	Tones		
(v)	160mm diameter HDPE PN16 slotted circular screens	50	LM		
(vi)	160mm diameter HDPE PN16 water collection pipes	250	LM		
(vii)	160mm Butt/Electro Fussed End Caps	6	No		
(viii)	160mm Compression Blanking plugs	6	No		
2.4.6	Back fill pipe trenches	150	CM		
2.4.7	Provide and install 450m Diameter Culver rings in depth not exceding 6.0m. Culvers to be encased in 250mm thick grade 15 concrete surround and trenche backfilled using approved fill	75	LM		

	material compacted in layer not exceeding 150mm thick				
2.5	7.0m deep by 3.0 Diameter Concrete sump well (2No)				
(i)	General excavation to depth not exceeding 6.0	89	CM		
(ii)	200mm R.C. 1:2:4 bottom and roof slabs	4	CM		
(iii)	225mm thick concrete well wall lining Grade 20/25	18	CM		
(iv)	High Yield tensile steel reinforcement to concrete Diameter 8-16	5000	KG		
(v)	Allow for form work to sides of roof slab, and sides of wall	28	SM		
(vi)	Cement/Sand internal finishes to bottom and walls	45	SM		
2.6	Allow for provision and fitting of:				
(i)	600x 600mm lockable plastic HG manhole cover	1	No		
(ii)	Air vent assemblies made of 2 x50mm Elbows, 1 x 50mm barrel nipple, 50mm piece of pipe 300mm long and pieces of coffee tray and mosquito gauze wires; fitted to the well roof slab	2	Sets		
(iii)	Internal access foot rests 500mm apart all down the well walls, made of D 16 reinforcement bars	228	No		
(iv)	150mm diameter water collection pipes from galleries	2	Item		
(v)	200mm HDPE Pipe to interconnect the Sumps Slope at 0.25%	180	m		
(vi)	300mm long, 150mm diameter pipe fitted through roof slab next to lockable manhole cover for pump insertion and removal and provided with a 152mm standard Borehole Cap	1	No		
2.7	Allow for land scaping around completed shallow sump well	1	Item		

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	BILL 2.0 TOTAL CARRIED TO SUMMARY PAGE				

<u>BOKOLOW BANYOLEY WATER PROJECT IN MANDERA COUNTY</u>					
<u>BILL No. 3: PIPELINES</u>					
ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
	<u>CLASS A: GENERAL ITEM</u>				
	<u>Testing of works</u>				
3.1	Pipeline testing and commissioning for the whole work on this line, including all necessary equipment, materials and works necessary for testing, such as thrust blocks, anchor blocks, transportation and use of water, pipe fittings, disposal of used water.	m	3,300		
3.2	Disinfection of Pipe lines: flushing with clear water, filling with water containing 0.05 g/l calcium hypochlorite, left for 24 hours. This includes supply of all necessary equipment, materials, chemicals and water, measurement of residual chlorine, all as specified.	m	3,300		
	<u>CLASS D: DEMOLITION AND SITE CLEARANCE</u>				
	<u>Tree Cutting (Provisional)</u>				
3.3	Cut down trees, grub up roots and cart away to tips, Girth shall be measured 1.0 m above the ground level Girth: 0.5m - 1.0m	Nr	10		

	CLASS I: PIPE WORK - PIPES				
	<u>Supply and Pipe Laying</u>				
	Supply lay and joint pipes in trench, include for excavation, preparation of surfaces, disposal of excavated material, shoring sides of excavation and backfilling.				
	Note:- Trench width and minimum cover to pipes is as per the Specification. The cost shall include for strutting, shuttering, stabilizing the earth faces of trenches and keeping the trenches free of water from whatever source by pumping or other means and cost of use of selected soil from the excavated material for compaction in bed and surround to backfilling of trenches, all as specified.				
	<u>Provide, lay, joint and test in depth not exceeding 1.4m the following flexible Polyethylene (PE) Pipes to BS EN 12201/KS ISO 4427 standards with electro-fusion joints and fittings or other approved compression jointing, Working Pressure as specified. Rates to include for all jointing materials, cutting wastage and trenching in normal soil, backfilling and testing</u>				
	-				
	Note: Pipes of diameter less than 90mm to be installed in continuous lengths of 100m, 10mm diameter in 50m lengths and diameter above 125mm in 12m lengths.				
	-				
3.4	160mm Dia HDPE PN10 Rising Main	m	2,200		
3.5	90mm Dia HDPE PN10 Distribution	m	500		
	-				
3.6	63mm Dia HDPE PN10 Distribution	m	600		
	-				
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	<u>CLASS J: PIPE WORK - FITTINGS AND VALVES</u>				
	<u>Supply, Laying and Jointing</u>				
	-				
	Provide, lay, joint and test the following fittings. Rates to include for all jointly materials, cutting wastage. All fittings to be PN20 Rating				
	HDPE fittings (Saddle Tappings and Tees)				
3.7	90/63mm Dia HDPE Saddle Tapping	Nr	6		
3.8	63/63mm Dia HDPE Saddle Tapping	Nr	2		
	HDPE fittings (Reducers)				
3.9	90/63mm Dia HDPE Reducer	Nr	2		
	<u>Flanged Connetion fittings to Washouts (1No)</u>				
3.10	DN 160 x 110mm HDPE Washout Tee	nr	1		
3.11	DN110mm Dia. by 3000mm long Spigot	nr	1		
3.12	DN 110mm Dia. HDPE Stub Connection Complete with a Flange	nr	2		
3.13	DN 110mm Dia. Gate Valve	nr	1		
	<u>Flanged Connection fittings to Air Valves (2No)</u>				
	<i>Note: All air valves have to be equipped with built-in gate valve</i>				
3.14	DN 80 Double Orifice Air Valve with isolating cork and DN80 threaded branch on DN160 Pipeline Section	nr	2		
3.15	DN 160 X 80 mm HDPE Tapping Saddle	nr	2		
3.16	DN 80mm Dia. HDPE Stub Connection Complete with a Flange	nr	2		
3.17	DN80 mm Double Flanged Gate Valve	nr	2		

	-				
	<u>Flanged Connection fittings to Valves at offtake Junctions (2No)</u>				
3.18	DN 90mm Dia. Gate Valve Flanged	nr	1		
3.19	DN 63mm Dia. Gate Valve Flanged	nr	1		
3.20	DN 90mm Dia. HDPE Stub Connection Complete with a Flange	nr	2		
3.21	DN 63mm Dia. HDPE Stub Connection Complete with a Flange	nr	2		
3.22	DN 90mm Dia. HDPE By 3000mm long HDPE Spigot	nr	2		
3.23	DN 63mm Dia. HDPE By 3000mm long HDPE Spigot	nr	2		
	-				
PAGE TOTAL CARRIED TO SECTION COLLECTION SHEET					
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	CLASS K: PIPE WORK - CHAMBERS AND PIPE WORK ANCILLARIES				
	Chambers, ducts, culverts, crossings, thrust and anchor blocks, reinstatement and others as listed and specified in drawings.				
	<u>Note:-</u> Items for work in this class shall include:- - Excavation, preparation of surfaces, disposal of excavated material, shoring sides of excavation, backfilling and removal of redundant services. - Concrete, reinforcement, formwork, joints and finishes. - Tips for disposal of excavated material or debris to be identified by the Contractor in liaison with the Local Authority.				
	-				
	<u>In Situ Chambers</u>				
3.24	Provide all materials and construct GATE VALVE chambers internal dimensions 1800mm x 1500mm. Include for supply and fixing of precast	nr	2		

	concrete cover and step irons, as detailed in drawing. Depth: not exceeding 1.5 m				
3.25	Provide all materials and construct WASHOUT chambers internal dimensions 1800mm x 1500mm. Include for supply and fixing of precast concrete cover and step irons, as detailed in drawing. Depth: not exceeding 1.5 m	nr	1		
3.26	Provide all materials and construct AIR VALVE chambers internal dimensions 1800mm x 1500mm. Include for supply and fixing of precast concrete cover and step irons, as detailed in drawing. Depth: not exceeding 1.5 m	nr	2		
	<u>Other Ancillaries</u>				
	<i>Supply all material, cast and fixed reinforced conceter Marker Posts complete. All in accordance with drawings and specifications</i>				
3.27	Air Valves inscribe AV	nr	2		
3.28	Washouts, inscribe WO	nr	1		
3.29	Sluice Valves, inscribe SV	nr	2		
3.30	Pipeline, inscribe Pipe Diameter & Type i.e 63 Dia HDPE PIPE at every 250m	nr	13		
	<u>CLASS L:- PIPEWORK - SUPPORTS AND PROTECTION, ANCILLARIES TO LAYING AND EXCAVATION</u>				
	Extras to Excavation and Backfilling (Provisional)				
3.31	Excavation for trench in hard rock	m	50		
3.32	Excavation for Chambers in hard rock	m ³	4		
	Concrete Support, Thrust Blocks and Anchor Blocks				

3.33	<u>Thrust blocks for bends</u>	nr	8		
	-				
3.34	<u>Ditto for Tees</u>	nr	5		
	-				
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BILL NO. 3: TOTAL TAKEN TO SUMMARY PAGE					

BOKOLOW BANYOLEY WATER PROJECT IN MANDERA COUNTY					
Tender No.					
BILL 4.0- 50M³ ELEVATED WATER STORAGE TANK					
ITEM	DESCRIPTION	UNIT	QUANTITY	RATE (KES)	AMOUNT (KES)
4.1	EXCAVATION AND FILLING				
4.1.1	Excavate for column bases 1.5 X 1.5 commencing from ground level depth not exceeding 1.5m	m3	15		
4.1.2	Extra over for excavation in hard rock	m3	3		
4.2	Vibrated Reinforced Class 25/20 (1:2:4)				
4.2.1	450mm Thick column footing (4 in No.)	m3	4.5		
4.2.2	550 X 550mm column (4 in No.)	m3	2		
	Formwork (cut and fix in position sawn timber formwork or equivalent):				
4.2.3	a) around 450 mm thick column footings	m2	12		
4.2.4	b) around columns	m2	15		

4.3	Steel reinforcement				
4.3.1	12mm Dia. (nominal) Deformed high tensile steel bars in column base (80 in No.)	Kg	150		
4.3.2	16mm Dia. (nominal) Deformed high tensile steel bars in columns (32 in No.)	Kg	85		
4.3.3	8mm Dia. (nominal) Deformed high tensile steel links in columns (40 in No.)	Kg	15		
4.3.4	6mm Dia. (nominal) Deformed mild steel bars in columns (4 in No.)	Kg	22		
4.4	Steel tower				
	<i>Provide steel members as specified, cut , fabricated and fix to form the following. Rates to include surface treatment using two coats of aluminium paint and all MS nuts and bolts</i>				
	Column Base:				
4.4.1	300X300mm,12mm Thick Base Plate	No.	4		
4.4.2	M20X300mm Bolts Grade 4.6	No.	32		
	<i>Steel Column:</i>				
4.4.3	100x100x4.0mm SHS Stanchion	m	48		
4.4.4	200X200mm,6mm Thick Plate (welded on stanchion)	No.	24		
	Lateral Bracing:				
4.4.5	50x50x6mm Angle bracings	m	210		
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4.4.6	Bolts Galvanised mild steel, diameter 10 mm	No.	150		
4.4.7	250X160mm 6mm Thick Gusset Plate	No.	68		
	Deck:				

4.4.8	254 X 146 X 31 KG/M UB	m	12		
4.4.9	203 X 133 X 25 KG/M UB	m	16		
4.4.1 0	Bolts Galvanised mild steel, Assorted diameter	No.	350		
	Walkways				
4.4.1 1	40X40mm,4mm thick Square tubes Rails	m	110		
4.4.1 2	Gauset plated 250mm by 100mm by 4mm THK, welded to Deck	m	36		
4.4.1 3	6mm THICK CHEQ'RD PLATE	m2	15		
	Wide Access Ladder				
4.4.1 4	50X25mm,2mm thick Square tubes Rails and Runnings	m	150		
4.5	Steel Tanks				
4.5.1	Fabricate and installed 50,000 Litres prestressed panel steel Tank elevated on a 12m height platform	No.	1		
4.5.2	Fabricate and install water level indicator	No.	1		
4.6	Pipework				
	Allow for connection of Connect 75mm diamater GI Class B onlet pipe inludding all fittings				
4.6.1	Allow for Connection 75mm dia, Scour pipe complete with fittings including 75mm dia 900 bend, barrel nipples, union and Gate Valve	Item	1		
4.6.2	Allow for connection of 100mm dia GI class 'B' outlet pipe complete with all fittings including 100mm Gate Valve and 90mm water meter and all fittings and a standard masonry chamber.	Item	1		

4.6.3	Allow for Disinfection and pressure testing of the tank and support structure	Item	1		
4.6.4	Allow for interconnection fittings and pipes for inlet pipe, outlet and overflow pipes. The Cost to include chambers, fittings any fabrications necessary.	Item	1		
4.6.6	Apply 3 coats of enamel paint to whole structure	Item	1		
	PAGE TOTAL CARRIED TO SECTION COLLECTION SHEET				
	BILL NO. 4.0 COLLECTION PAGE				
	COLLECTION				
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2	BROUGHT FORWARD FROM PAGE 2				
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BOKOLOW BANYOLEY WATER PROJECT IN MANDERA COUNTY					
Tender No.					
BILL NO. 5:Sanitation Block					
Item	Description	Quantity	Unit	Rate (KES)	Amount (KES)
	(I) SUBSTRUCTURES (Provisional)				
	Excavations				
5.1	Bulk Exacavtion of pit to 6.0m depth including maintenance and supporting sides and keeping free from water, mud and fallen materials by bailing , pumping or otherwise	22	m		
5.2	Excavation for strip footing depth not exceeding 1.5m	4	m ³		
5.3	Remove surplus excavated material from site	26	m ³		
5.4	Back fill around foundation	1	m ³		
	Pit lining				
5.5	Double layer of brick lining with mortar joints on the well circumference including hoop iron @ every other two courses	45	m ²		
	Concrete work				
	Mass concrete1:2:4 , Class 20/15				
5.6	Strip foundations	0.6	m ³		
5.7	300 X 200mm precast concrete manhole cover	0.2	m ³		
5.8	100mm thick slab	0.4	m ³		
5.9	Weld mesh A142 Reinforcement	4	m ²		

	(II) SUPERSTRUCTURES				
	Walling				
5.10	150 mm Thick (building stones /rubble/interlocking soil blocks) walling in cement and sand mortar (1:3)	11.2	m ²		
	Concrete Work				
	Vibrated reinforced concrete 1:2:4-20				
5.11	Maximum Aggregate as described in:				
5.12	150 x 200mm Thick lintel over door opening	0.07	m ³		
	Reinforcement				
5.13	8mm Diameter high tensile reinforcement bar	5	Kg		
5.14	6 mm Ditto	3	Kg		
	Sawn Formwork				
5.15	Formwork to sides and soffits of lintel	5	m ²		
	Doors				
5.17	45mm Thick cypress timber framed T & G door overall size 800 x 2100mm high with and including 100 x 50mm frame, door hinges and all opening fittings	2	No		
	Painting and decorating				
5.18	Prepare and apply two undercoats and one finishing coat oil paint to timber door	6	m ²		
	Finishes				
	Wall finishes				
	Cement and sand (1:3) render as described in:				
5.19	13mm Thick with steel float finish to masonry	20	m ²		
	<i>PAGE TOTAL CARRIED TO COLLECTION</i>				
	Prepare and apply three coats plastic emulsion paint to:				
5.20	Rendered wall surfaces	20	m ²		
5.21	Plastered wall surfaces	20	m ²		
	Roofing				
5.22	Corrugated iron sheet roofing- gauge 30	10	m ²		
5.23	100 x 50 timber rafters at 1000 mm c/c	8	m		
5.24	75 x50 mm timber purlins at 500mm c/c	11	m		
5.25	Fascia board	6	m		
	Others				

5.26	150 mm uPVC class E pipe	12	m		
5.27	Allow for a draw off water point, including pipes and fittings 32mm Dia from the elevated tank outlet to the VIP latrines	50	m		
	PAGE TOTAL CARRIED TO COLLECTION				
	BILL NO. 5: COLLECTION PAGE				
1	Brought Forward From Page 1				
2	Brought Forward From Page 2				
	BILL NO. 5 TOTAL (ONE SANITATION BLOCK)				

BOKOLOW BANYOLEY WATER PROJECT IN MANDERA COUNTY					
Tender No.					
BILL NO. 6: Cattle Trough					
Item	Description	Quantity	Unit	Rate (KES)	Amount (KES)
	Excavations				
6.1	Excavation including maintain and supporting sides and keeping free from water, mud and fallen materials by bailing , pumping or otherwise	12	m		
6.2	Excavate bulk for pit 0.00-1.5 metres	21.7	m3		
6.3	Remove surplus excavated material from site	21.7	m3		
	Hardcore filling				
6.4	Supply, fill and ram 300mm thick approved Hardcore	20	ton		
	Concrete work				
	Concrete in foundations				
6.5	Mass concrete strip foundations	0.8	m3		
6.6	10mm diameter reinforcement bars 150mm c/c	30	Kg		
6.7	100mm thick reinforced concrete slab	1.3	m3		
6.8	Timber shattering provided to sides of floor slab	30	m		
6.9	Weld mesh Reinforcement A142	12.1	m2		
	(II) SUPERSTRUCTURES				
	Walling				
6.11	225 mm Thick (building stones /rubble/interlocking soil blocks) walling in cement and sand mortar (1:3)	13.2	m2		
	Finishes				
	Wall finishes				
	Cement and sand (1:3) render as described in:				

6.12	13mm Thick with finish to masonry walling	26.4	m2		
6.13	25mm thick floor finish	11	m2		
	Prepare and apply three coats plastic emulsion paint to:				
6.14	Rendered wall surfaces	13.2	m2		
	Others				
	50mm diameter pipes and fittings				
6.15	PPR class PN 10 pipe and all fittings	50	m		
6.16	GI Barrel Nipples	6	No		
6.17	PPR Sockets	4	No		
6.18	PPR Unions	3	No		
6.19	GI Gate Valves	2	No		
6.21	Ball valve	1	No		
6.22	PPR Elbows	4	No		
	BILL No. 6 TOTAL CARRIED TO GRAND SUMMARY				-
BILL NO. 6 TOTAL FOR 2 NO. CATTLE TROUGHS CARRIED TO SUMMARY PAGE					

BOKOLOW BANYOLEY WATER PROJECT IN MANDERA COUNTY					
Tender No.					
BILL NO. 7: Perimeter Fence					
ITEM	DESCRIPTION	UNIT	Quantity	RATE (KES)	AMOUNT (KES)
	FENCING AND GATE				
7.1	Provide and Install 3.0m high, 150 by 150mm Square precast concrete intermediate cranked top fencing post suitable for 3 rows of barbed wire @ 150mm C/C over cranked section and 6 line plain wire over straight section @ 300mm C/C as shown in the drawiangs	Nr	520		

7.2	Provide and Install 3.0m, 150 by 150mm Square precast concrete corner fencing post suitable for 4 line wires @ 500mm C/C as shown in the drawings	Nr	10		
7.3	Provide and Install 2.5m, 150 by 150mm Square precast concrete corner and intermediate post strainers as shown in the drawings. <i>Intermediate strainers at every 10th post interval</i>	Nr	124		
7.4	Provide and Install 2.1m high, gauge 10 (3.2mm diameter) chain-link fencing to KEBS standard KS 261:2007, with 80 x 80mm aperture stayed using 6 strands of galvanized plain wire 2.5mm diameter to KS-261-2007 (Kenya Standards). <i>Cost includes all straining and fixing components</i>	m	1,300		
7.5	Provide and Install 3 strand barbed wire, gauge 16 to KS-261-2007 (Kenya Standards) fencing over cranked fence section. <i>Cost to include all straining and fixing components</i>	m	3,900		
7.6	Provide and Install 4.0m wide by 2400high double leaf metal gate fixed on 100 x 6mm SHS to detail as shown on the drawings including all fixing, bolting and locking fixtures	Nr	1		
7.8	Provide Materials and Construct a 2000mmx2000mm guard house at the gate including roofing gal sheets and finishes to Engineers approval	Nr	1		
7.9	500No drought resistant Tree planting around the perimeter fence as wind break for protection of water pan embankment and prevent erosion. Water the trees to grow for 6 months during the DLP	1	L/S		
	-				

BILL NO. 7 TOTAL CARRIED TO SUMMARY PAGE				
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BOKOLOW BANYOLEY WATER PROJECT IN MANDERA COUNTY					
Tender No.					
Bill No. 8- Water Kiosk					
ITEM	DESCRIPTION	UNIT	RATE (KSh)	QUANTITY	AMOUNT (Ksh)
	CLASS E: EARTHWORKS				
	<i>Excavation for foundations</i>				
	<i>To include for all trimming to levels, backfilling with approved selected spoil, compacting, disposal of surplus material and reinstatement.</i>				
8.1	General excavation for floor area depth not exceeding 250mm deep	m ³		2.00	
8.2	Excavation for wall footing depth not exceeding 1200mm deep	m ³		9.00	
8.3	Excavation for front area depth not exceeding 250mm	m ³		1.50	
	<i>Filling</i>				
8.4	Approved Hardcore backfill minimum depth 250mm compacted in 150mm layers to floor slab and front area	m ³		4.00	
8.5	Approved Murrum blinding to floor slab	m ³		0.75	
	CLASS G: CONCRETE ANCILLIARIES				
	<i>Provide and place the following concrete including all form work.</i>				
8.6	Concrete grade 15/20 - 400 mm thick Plinth	m ³		0.3	
8.7	Concrete grade 15/20 - 100mm thick slanting front area	m ³		0.5	
8.8	Reinforced concrete grade 25/20 - 125mm thick floor slab	m ³		0.75	
8.9	Reinforced concrete grade 25/20 - 150mm thick roof slab	m ³		1	

8.10	Reinforced concrete grade 25/20 - in ring beams	m ³		1	
8.11	Reinforced concrete grade 25/20 - 200mm thick lintel	m ³		0.1	
8.12	Reinforced concrete grade 25/20 - 450 X 250mm footing	m ³		1.2	
8.13	Reinforced concrete grade 25/20 - 1000 X 1000 X 350mm column bases	m ³		1.5	
8.14	Reinforced concrete grade 25/20 - 200 X 200mm columns	m ³		1	
	REINFORCEMENT				
	<i>Provide support and fix the following reinforcement, including all cutting, bending and supports.</i>				
8.15	10mm dia. high yield Steel bars to foundation footing (density 0.62kg/m)	Kg		40	
8.16	8mm dia. mild steel bars to foundation footing (density 0.40kg/m)	Kg		30	
8.17	16mm dia. high yield bars to ring beam (density 1.56kg/m)	Kg		75	
8.18	8mm dia. mild steel bars to ring beam (density 0.40kg/m)	Kg		25	
8.19	10mm dia. mild steel bars to roof slab (density 0.62kg/m)	Kg		70	
8.20	12mm dia. mild steel bars to column base (density 0.89kg/m)	Kg		55	
	PAGE TOTAL CARRIED TO COLLECTION				
8.21	16mm dia. mild steel bars to columns (density 1.56kg/m)	Kg		125	
8.22	8mm dia. mild steel bars to columns (density 0.40kg/m)	Kg		35	
8.23	BS 142 weld mesh reinforcement to floor Slab	m ²		5	
8.24	150 X 25mm formwork				
	CLASS I: PIPEWORK - PIPES				
	<i>All pipes to be PPR KS ISO 1425-2</i>				
8.25	50mm Dia PN 16 PPR inlet pipe	m		6	

8.26	40mm Dia PN 16 PPR outlet pipe	m	5	
	CLASS J: PIPEWORK - FITTINGS AND VALVES			
	All fittings are GI unless Specified			
8.27	50 mm dia. Elbows PPR	No.	4	
8.28	50 mm dia. Elbows PPR Female Adaptor	No.	2	
8.29	32mm dia. PPR-GI Adapter	No.	2	
8.30	40X32mm dia. PPR Reducer	No.	1	
8.31	32mm dia. Elbows	No.	4	
8.32	32mm dia. Valve sockets	No.	4	
8.33	32mm gate valve	No.	2	
8.34	32mm Tee	No.	3	
8.35	32mm end plug	No.	3	
8.36	32mm union	No.	6	
8.37	32mm short nipple	No.	6	
8.38	32mm union	No.	3	
8.39	32mm long nipple	No.	6	
8.40	32mm Ball Cork Valve	No.	3	
8.41	32mm elbow	No.	3	
8.42	32mm Pegler or approved Water Meter	No.	1	
	CLASS K: PIPEWORK - MANHOLES AND PIPEWORK ANCILLARIES			
	Drainage			
8.43	Excavate for 400mm square X 900mm catch pit to detail	No.	1	
8.44	Excavate for 1000mm square X 1500mm soak pit as detailed	No.	1	

	PAGE TOTAL CARRIED TO COLLECTION PAGE				
8.45	4" X 8 X 18" lining block to the site of the catch pit	m		7	
8.46	100mm thick mass concrete for catch pit base slab	m		1	
8.47	Mass concrete to the soak pit cover slab	m		0.3	
8.48	Catch pit grating made from welded to form 25mm square mesh on 50mm steel frame	No.		1	
8.49	Graded approved free draining Hardcore/rubble stone filling the soak pit	m ³		2	
8.50	225mm Dia. uPVC drainage pipes	m		1	
	CLASS U: BRICKWORK, BLOCKWORK AND MASONRY				
	WALLING				
8.51	150 x225X 450mm natural stone to walls to superstructures walling in 1:3 sand/cement mortar finished with steel finished d on one side	m		75	
8.52	225 x225 X 450 natural stone to walls to Substructures walling in 1:3 sand/cement mortar	m		33	
8.53	6" x 12" X 12" Concrete ventilation blocks	Nr		8	
	Ancillaries - Finishes				
8.54	20mm trowel finished plaster to the internal wall surfaces	m ²		20	
8.55	3 coats of approved emulsion gloss pint to plastered surface	m ²		20	
	CLASS X: MISCELANNEOUS WORK				
	Fixtures				
8.56	2000 X 1000 steel door including locks and hinges to details	No.		1	
8.57	1000 X 950 steel swing window including locks and hinges to details	No.		1	

8.58	Build in 4No. Wall Shelves of 400mm deep by 2100mm long and two lockable drawers	No.		1	
8.59	Supply and Install 5000 litres Plastic Tank on the Roof Slab of Water Kiosk, Colour of the Tank to be advise by the Resident Engineer	No.		1	
8.60	Supply and install Float Valve complete will all its fittings in the Plastic Tank on the Roof Slab of Water Kiosk	No.		1	
	PAGE TOTAL CARRIED TO COLLECTION PAGE				-
	BILL NO. 7: COLLECTION PAGE				
	From Page 1				
	From Page 2				
	From Page 3				
	BILL NO. 8 TOTAL (ONE KIOSK)				
BILL NO. 8 TOTAL FOR 2 NO. KIOSKS CARRIED TO SUMMARY PAGE					

BOKOLOW BANYOLEY WATER PROJECT IN MANDERA COUNTY					
Tender No. _____					
BILL No. 9 PUMPING UNIT					
Item	Description	Quantity	Unit	Rate (KES)	Amount (KES)
	Supply and installation of solar powered pump.				
	<i>Supply and fit the following pumping equipment and accessories</i>				
9.1	Pump: 7.7KW, Submersible pump set s set capable of delivering 20M ³ /hr of water against a total head of 35m	1	No		
9.2	DC/AC Converter and Pump Controller: Supply, Install and test approved compatible 7.7KW Solar Hybrid Power inverter and pump controller to	1	No		

	the above pump as Grundfos RSI or Dayliff Sunverter or Equivalent				
9.3	PV Modules: 24V 330W Solar Panels and protection grills to minimise theft. The panels to be fixed on a 6m high steel platform within the water pan fenced compound	36	No		
9.4	Supply materials, Fabricate and assemble 6m Galvanised steel PV Module Support Structure to support 60 modules	1	Item		
9.5	16mm ² 4core submersible cable	10	LM		
9.6	6mm ² twin flat cable with earth for Modules interconnection	36	LM		
9.7	10mm Diameter by 1250mm Copper Bond Earth Rod c/w clamp and 20m cable	1	No.		
9.8	Londex dual core cable for low level sensor	50	Lm		
9.9	16mm ² x 4 core Armored cable	50	Lm		
9.10	1.5mm ² x 4core Armored cable	50	Lm		
9.11	Lightning Arrestor c/w earthing cable	1	No		
9.12	DN160 Water meter complete with Flanged Connection Fitting	1	No		
9.13	Controller lockable Enclosure - 1000x500x350mm	1	No		
9.14	Pressure switch for c/w accessories	1	No		
9.15	SS1000 PV Disconnect Switch	1	No		
9.16	3" G.I Pipes Borehole Riser Pipe of Minimum 16 Bars Pressure Rating Complete with Sockets	2	m		
9.17	3" x 6" Borehole Cover complete with well head sundries in lockable Chamber	1	No.		
9.18	Approved Well Sensor Switch	1	No		
9.19	Compatible Submersible Pump Cooling sleeves	1	No		
9.20	Flanged HDPE adapter	40	LM		
9.21	160 mm diameter HDPE flanged stub	1	LM		
9.22	160mm diameter GI Non-return Valve	1	No		

9.23	Supply and Installation and testing of 2No. Chlorination dosers (1No. In use and other standby) and supply of 2T chlorine chemicals(170 lit chemical tank, dosing pump, 125w 12v solar panel, 100ah 12v sealed solar battery, Izzy 350w 12v dc inverter and Steca 20A charge controller)	1	item		
9.24	Provide Materials and Construct a 2000mmx2000mm Pump house at the gate including roofing galsheets and finishes to Engineers approval	1	Nr		
BILL 9.0 TOTAL CARRIED TO SUMMARY PAGE					

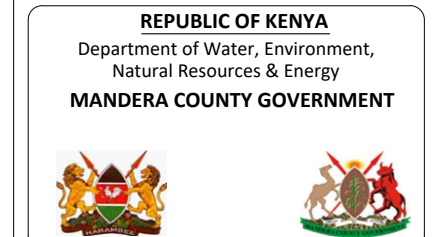
BOKOLOW BANYOLEY WATER PROJECT IN MANDERA COUNTY		
Tender No.		
SUMMARY OF COSTS		
Bill No.	Description	Amount (Kshs.)
Bill No. 1:	Preliminaries and General items	
Bill No. 2:	Water Pan and Auxiliaries	
Bill No. 3:	Pipelines	
Bill No. 4:	50m3 Elevated water Tank	
Bill No. 5:	2 No. Sanitation Blocks	
Bill No. 6:	2 No. Cattle troughs	
Bill No. 7:	Perimeter Fence	
Bill No. 8:	2No. Masonry Water Kiosks	
Bill No. 9:	Pumping System	
GRAND TOTAL		

CONSTRUCTION OF BOKOLOW BANYOLE WATER AND SANITATION PROJECT

LIST OF DRAWINGS

DRAWING No.	TITLE
LAYOUT DRAWINGS	
WSTF-MC/T-01	PROJECT GENERAL LAYOUT MAP
WATER PAN	
WSTF-MC/T-02	PROPOSED PAN LAYOUT MAP, INLET, OVERFLOW AND OUTLET DETAILS
WSTF-MC/T-03	PROPOSED PAN SECTIONS AND DETAILS
50M³ ELEVATED STEEL WATER TANK	
WSTF-MC/T-04	PLAN, SECTIONS AND DETAILS
2DOOR VIP LATRINE	
WSTF-MC/T-05	PLAN, SECTIONS AND DETAILS
CATTLE TROGN	
WSTF-MC/T-06	PLAN, SECTIONS AND DETAILS
FENCE AND GATE DETAILS	
WSTF-MC/T-07	TYPICAL STANDARD DRAWING SECURITY FENCE AND GATE DETAILS
WATER KIOSK	
WSTF-MC/T-08	WATER KIOSK PLAN, SECTIONS AND DETAILS
WSTF-MC/T-09	TYPICAL WATER KIOSKS STRUCTURAL DETAILS
STANDARD DRAWINGS	
WSTF-MC/T-10	TYPICAL AIR VALVE AND WASHOUT DETAILS
WSTF-MC/T-11	PIPELINE MARKER POSTS AND TEMPORARY BENCHMARK DETAILS

NOTES:



PROJECT:
**PROPOSED 120,000 CM WATER
PAN AT BOKOLOW BANYOLE**

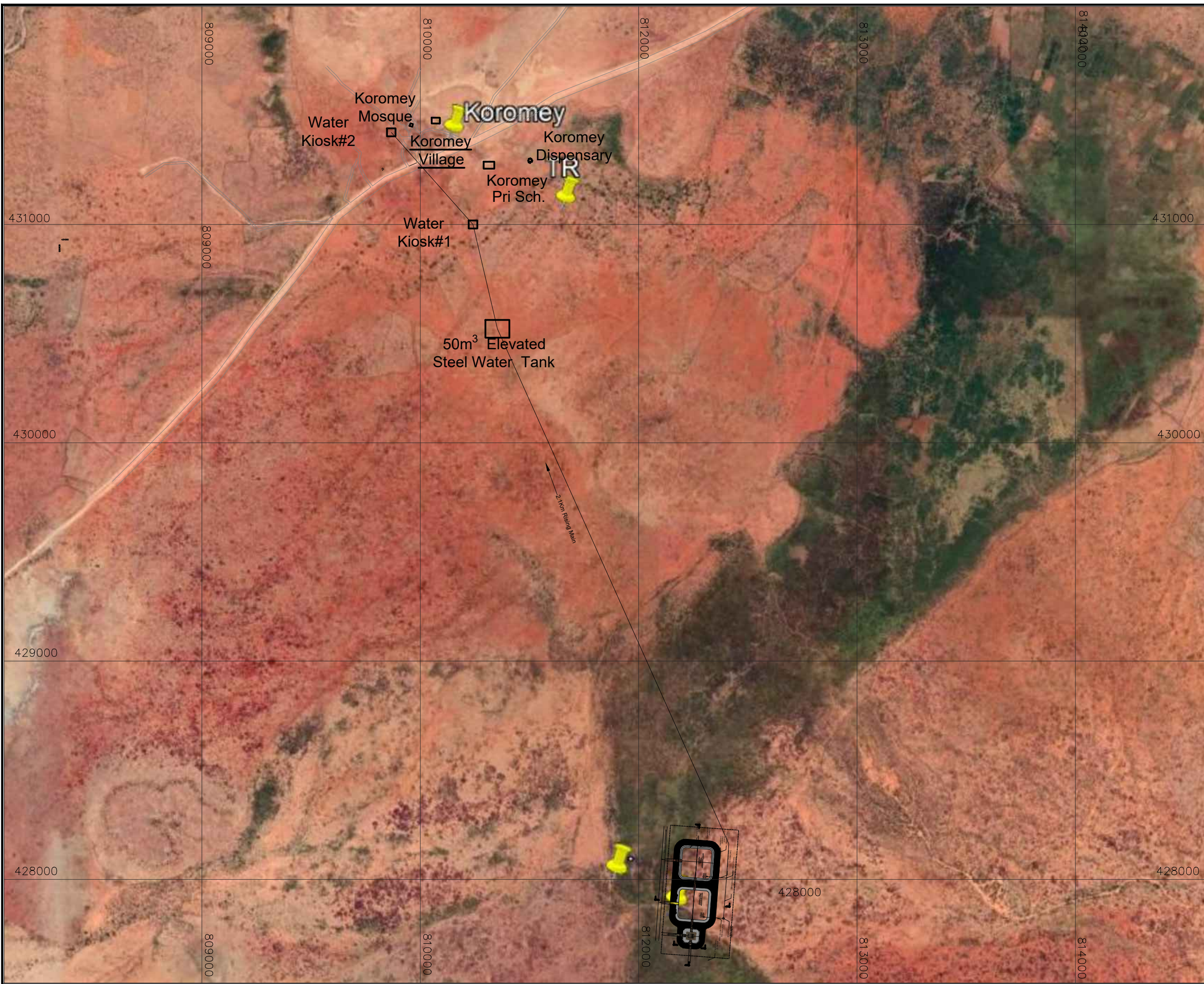
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Activity	Name	Sign	Date
Designed by:			
Drawn by:			
Checked by:			
Approved by:			

Drawing Title:	Sheet:
LIST OF DRAWINGS	1 OF 1
Scale:	Date:
N/A	JUNE, 2020
	Drg. No.
	WSTF-MC/T-00



GENERAL NOTES:

REPUBLIC OF KENYA
 Department of Water, Environment,
 Natural Resources & Energy
MANDERA COUNTY GOVERNMENT



PROJECT:
**PROPOSED 120,000 CM WATER
 PAN AT BOKOLOW BANYOLE**

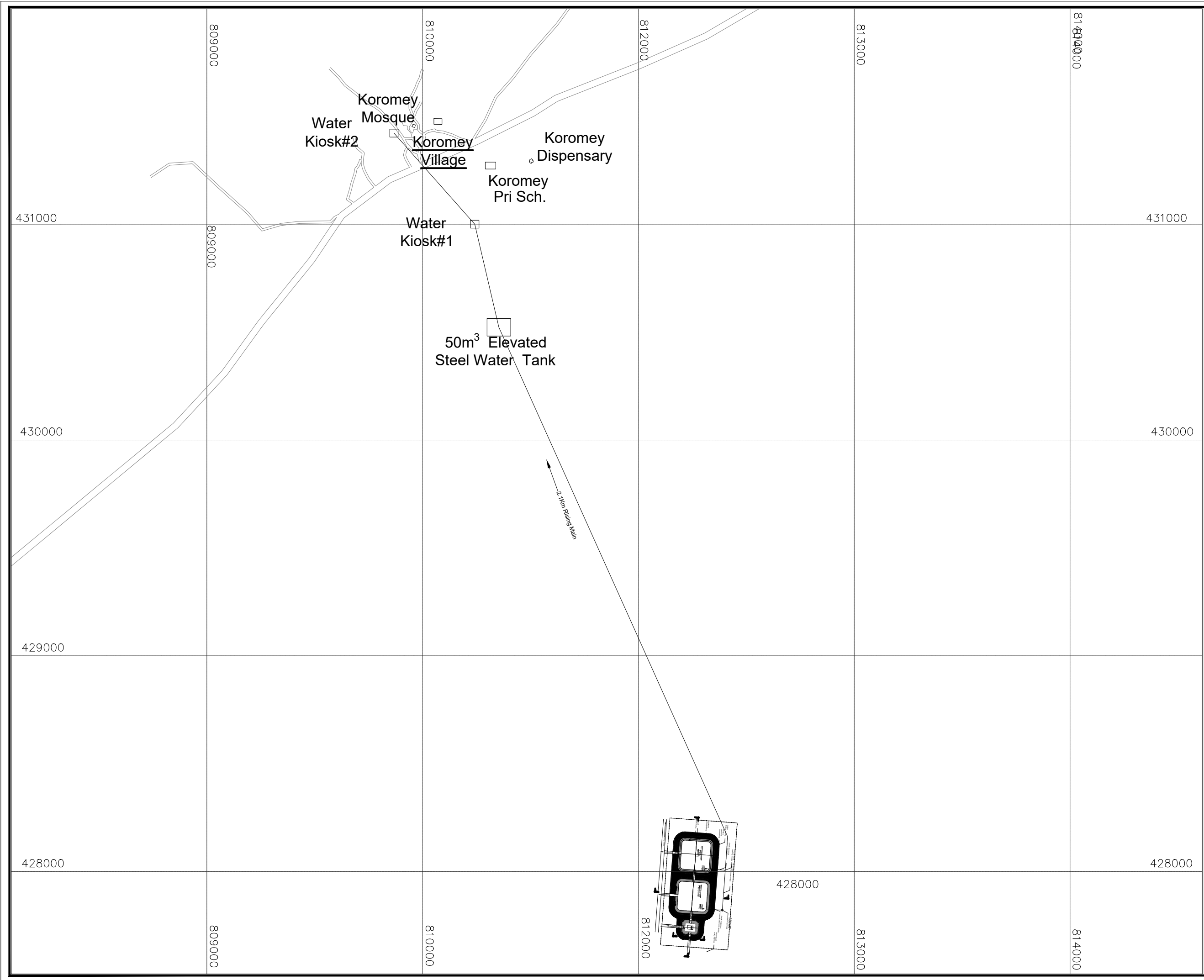
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Activity	Name	Sign	Date
Designed by:	NHA		
Drawn by:	OGO		
Checked by:			
Approved by:			

Drawing Title:	Sheet: SHEET 1 OF 1
LAYOUT MAP	Date: JUNE, 2020
Scale: As Shown	Drg. No. WSTF/MC/T-01



GENERAL NOTES:

REPUBLIC OF KENYA
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MANDERA COUNTY GOVERNMENT




PROJECT:
**PROPOSED 120,000 CM WATER
 PAN AT BOKOLOW BANYOLE**

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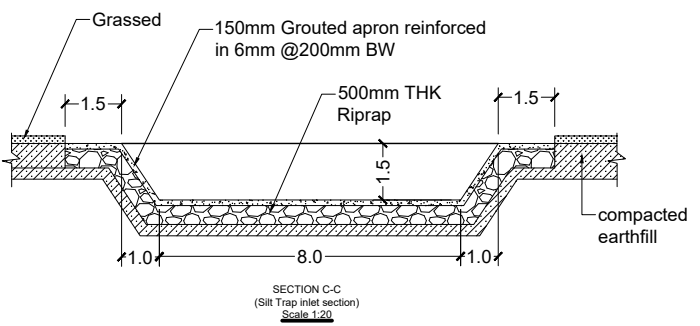
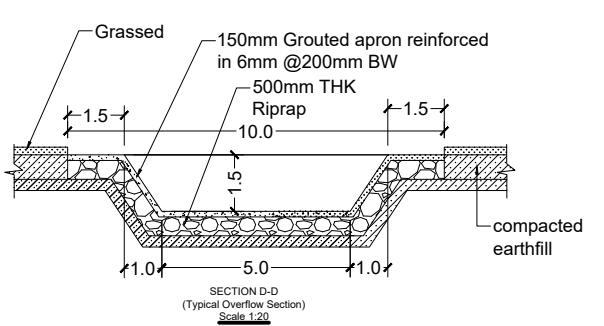
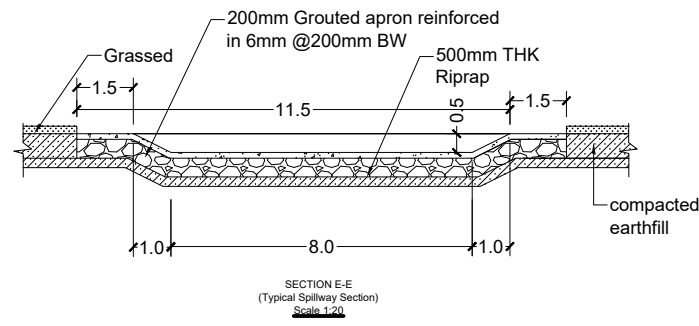
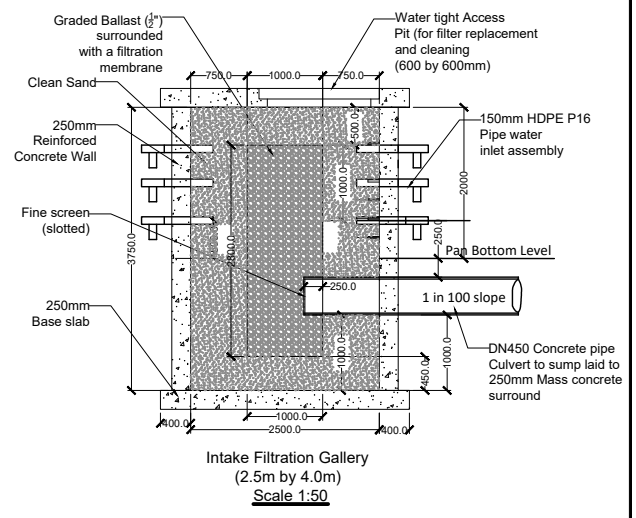
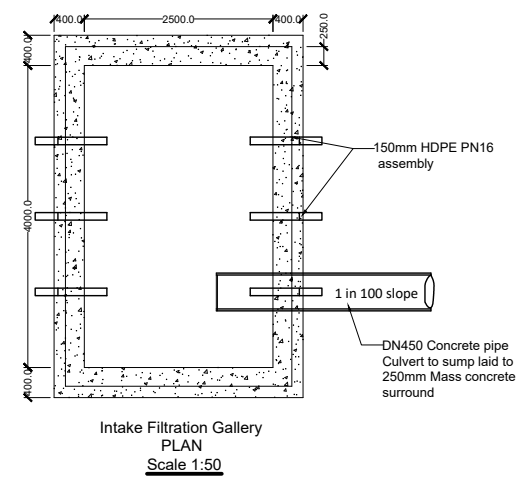
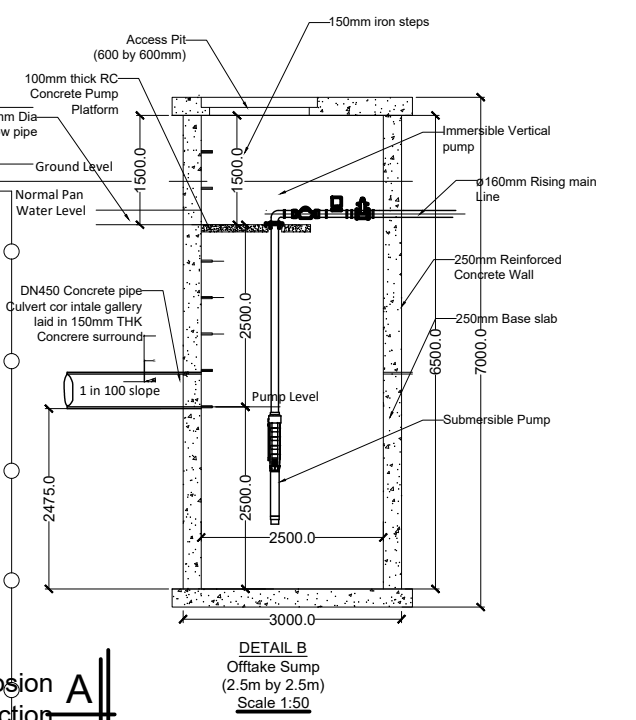
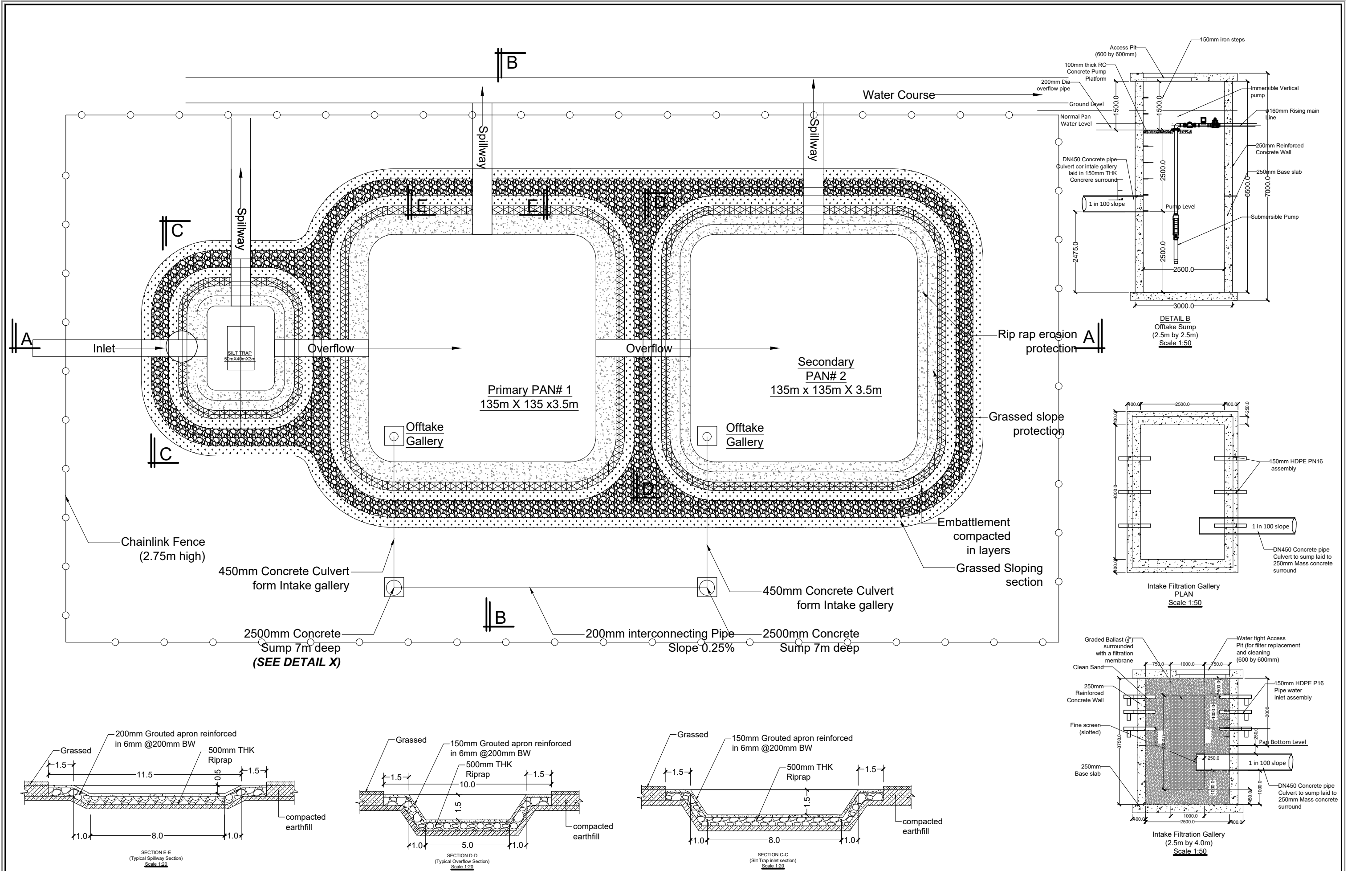


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Activity	Name	Sign	Date
Designed by:	NHA		
Drawn by:	OGO		
Checked by:			
Approved by:			

Drawing Title:	Sheet:
LAYOUT MAP	SHEET 1 OF 1
Scale: As Shown	Date:
	JUNE, 2020
	Drg. No.
	WSTF/MC/T-01



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MANDERA COUNTY GOVERNMENT



APPROVAL	DATE	REFERENCE	DWG No.

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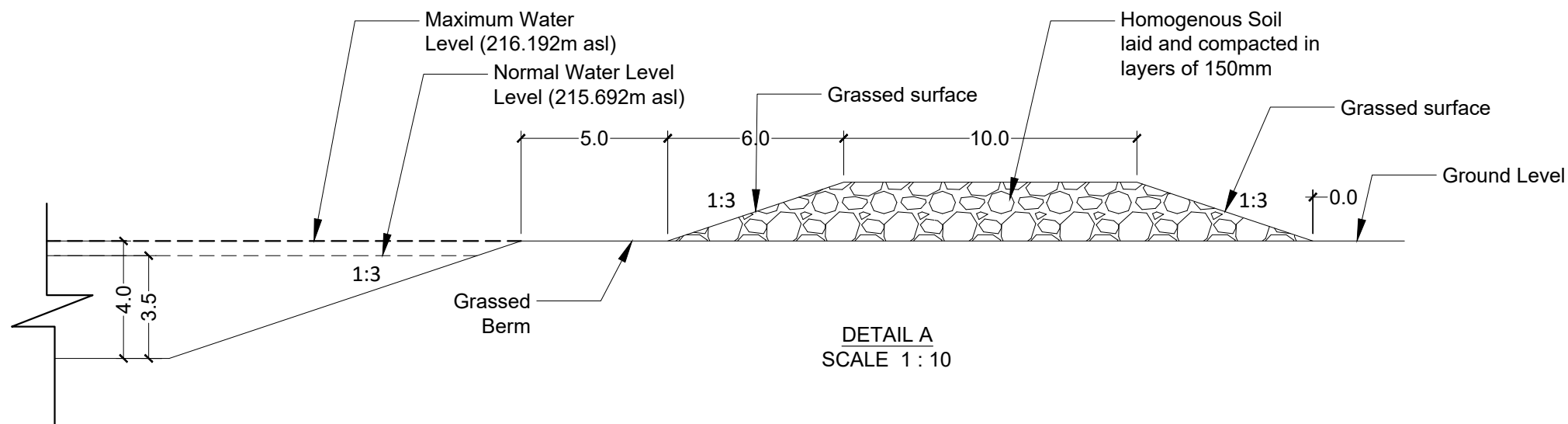
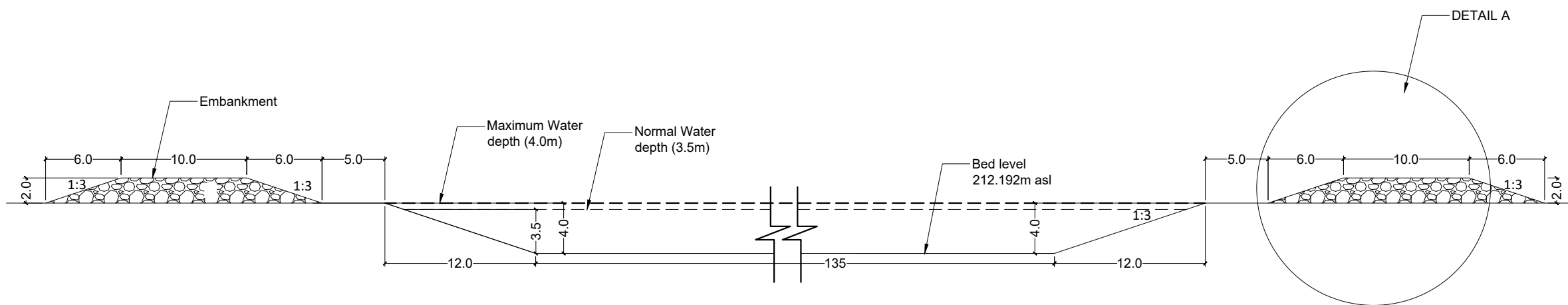
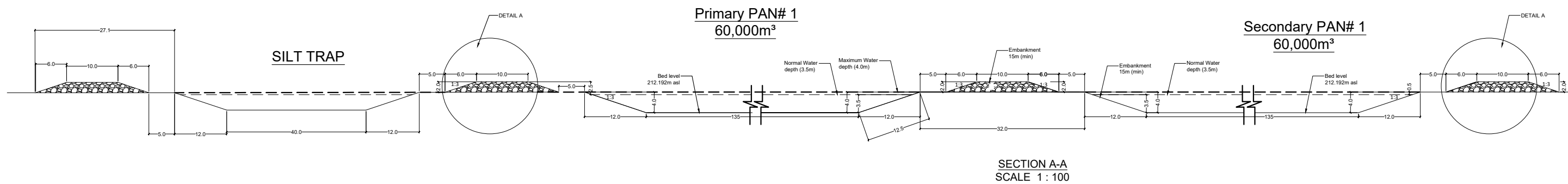
PROJECT
 PROPOSED 120,000 CM WATER PAN
 AT BOKLOW BANYOLE


TITLE:
 PROPOSED PAN LAYOUT MAP, INLET,
 OVERFLOW AND OUTLET DETAILS

Consultant

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DWG. No.	Sheet No.	Scale	Date
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MANDERA COUNTY GOVERNMENT



APPROVAL	DATE	REFERENCE	DWG No.

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PROJECT
 PROPOSED 120,000 CM WATER PAN
 AT BOKOLOW BANYOLE

TITLE:
 PROPOSED PAN SECTIONS
 AND DETAILS

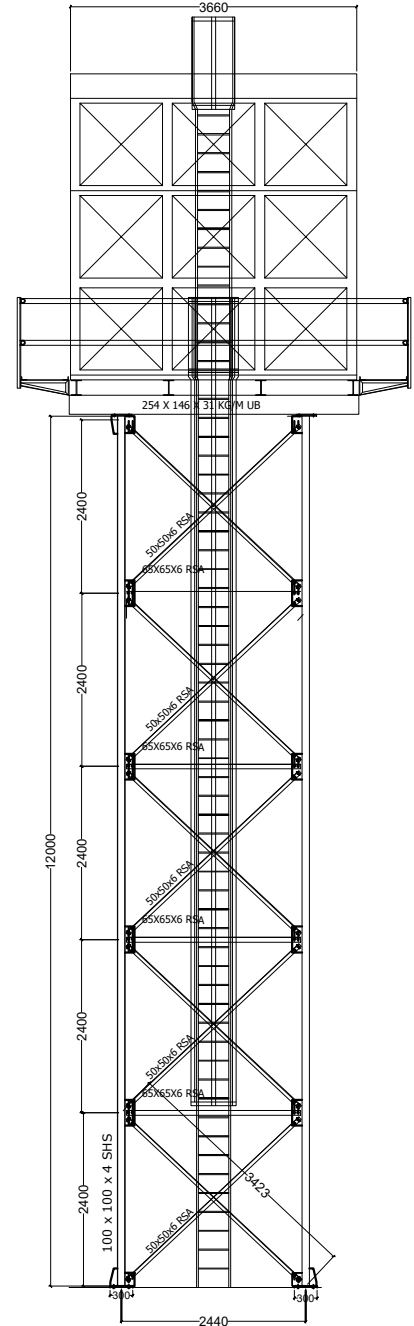
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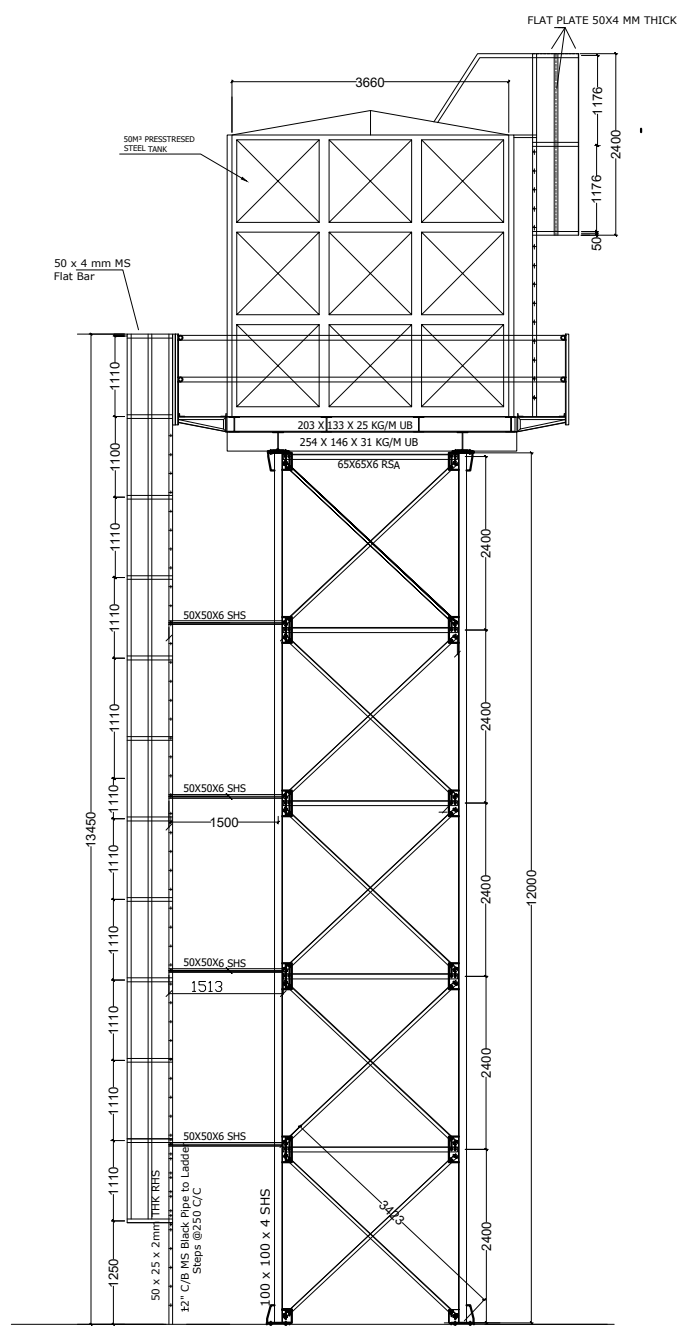
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WSTF-MC T-03	1 OF 1	1:250(A1)	JUNE 2018

GENERAL NOTES:

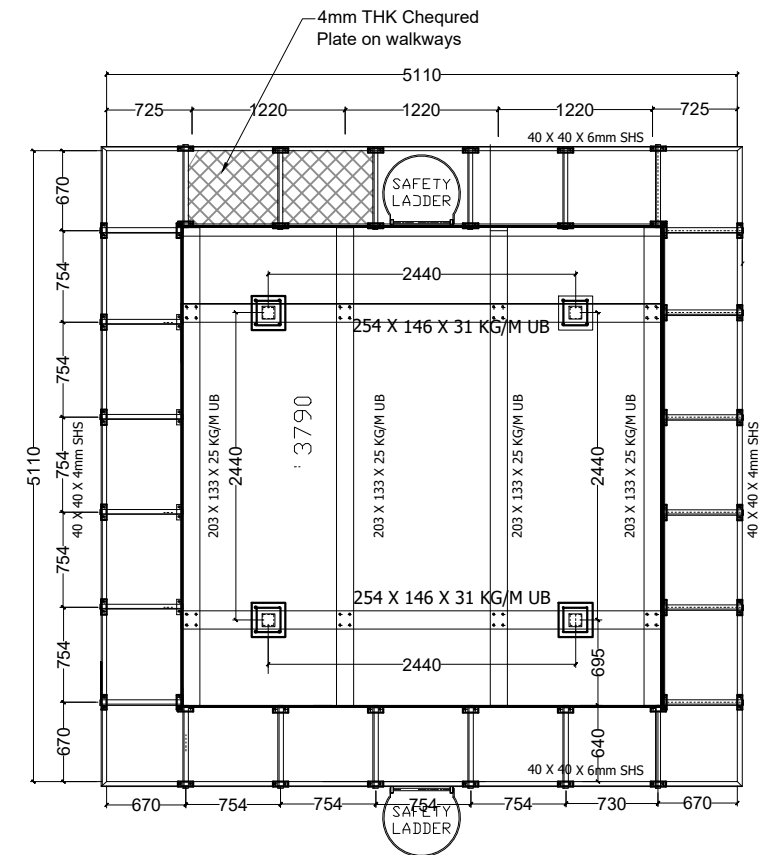
- 1: ALL CONCRETE TO BE CLASS 25/20 (1:1.5:3)
- 2: REINFORCEMENT TO BE HIGH YIELD SQUARE TWISTED "Y" AND MILD STEEL ROUND "R" AS INDICATED
- 3: MINIMUM COVER TO REINFORCEMENT TO BE BASES =50mm COLUMNS=40mm 100 KN@BAMS =25mm
- 4: ALL FOUNDATIONS TO BE TAKEN DOWN TO FIRM BEARING STRATA TO ENGINEER'S APPROVAL
- 5: FOUNDATIONS DESIGNED FOR ALLOWABLE BEARING PRESSURE OF
- 6: MINIMUM LAP LENGTH TO BE 50 TIMES BAR DIAMETER
- 7: STRUCTURAL DRAWING TO BE READ IN CONJUNCTION WITH ARCHITECT'S DRAWINGS
- 8: ALL THE REINFORCEMENT TO BE INSPECTED BY THE STRUCTURAL ENGINEER BEFORE CONCRETING
- 9: RWDP & SERVICE DUCTS & CLADDING REQUIREMENTS TO BE CO ORDINATED WITH ARCHITECT, ME & EE DRAWINGS



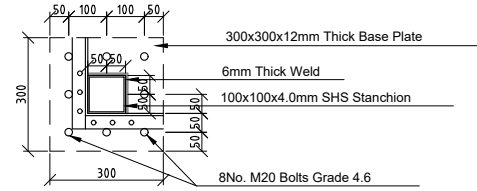
ELEVATION A
SCALE 1:50



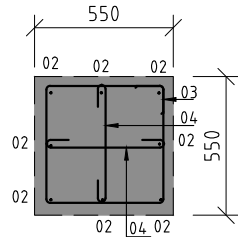
ELEVATION B
SCALE 1:50



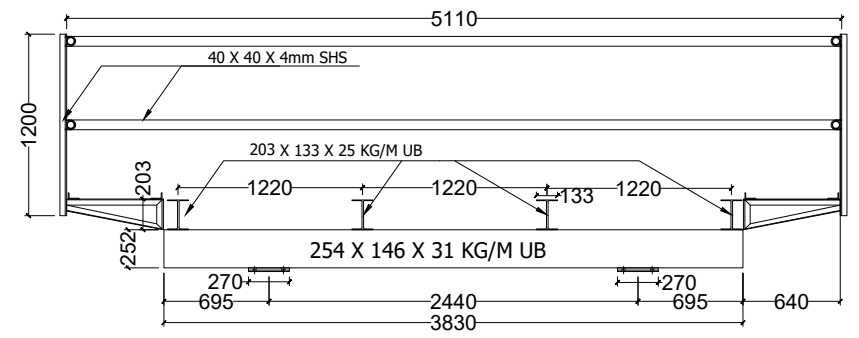
TANK SUPPORT PLATFORM
SCALE 1:25



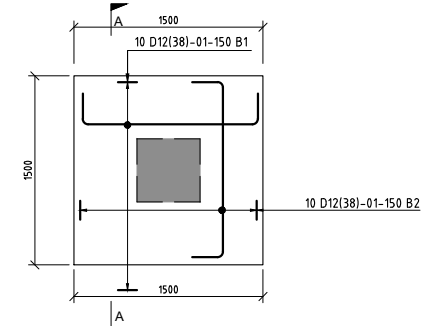
BASE PLATE DETAIL
(SCALE 1:10)



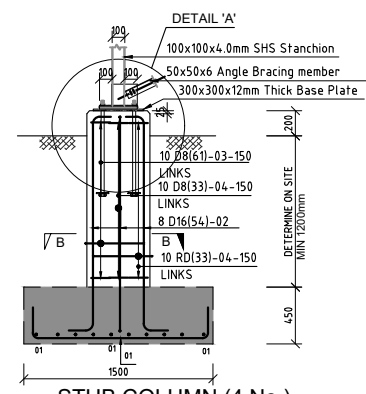
SECTION B-B
SCALE 1:15



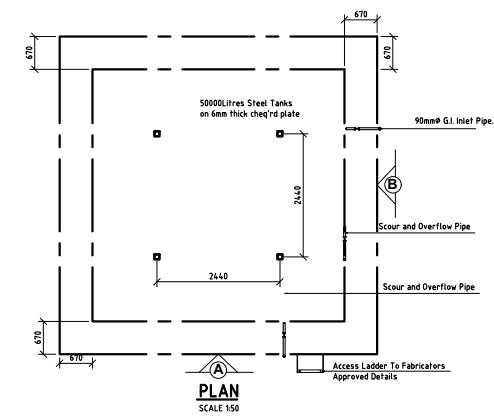
GRILLAGE FRONT VIEW
SCALE: 1:25



TYPICAL STUB COLUMN BASE
1500x1500x450mm (4No.)
SCALE 1:30



STUB COLUMN (4 No.)
SCALE 1:30



PLAN
SCALE 1:50

REPUBLIC OF KENYA
Department of Water, Environment,
Natural Resources & Energy
MANDERA COUNTY GOVERNMENT

PROJECT:
PROPOSED 120,000 CM WATER PAN AT BOKOLOW BANYOLE

FINANCED BY
WSTF

BATCH
P.O. Box 24033-00100, Nairobi, Kenya
Tel: +254 (0) 20 3627166
Fax: +254 (0) 20 2018176
Cell: +254 (0) 72462723 / +254 (0) 736451752
E-mail: info@batch.co.ke
Webmail: www.batch.co.ke

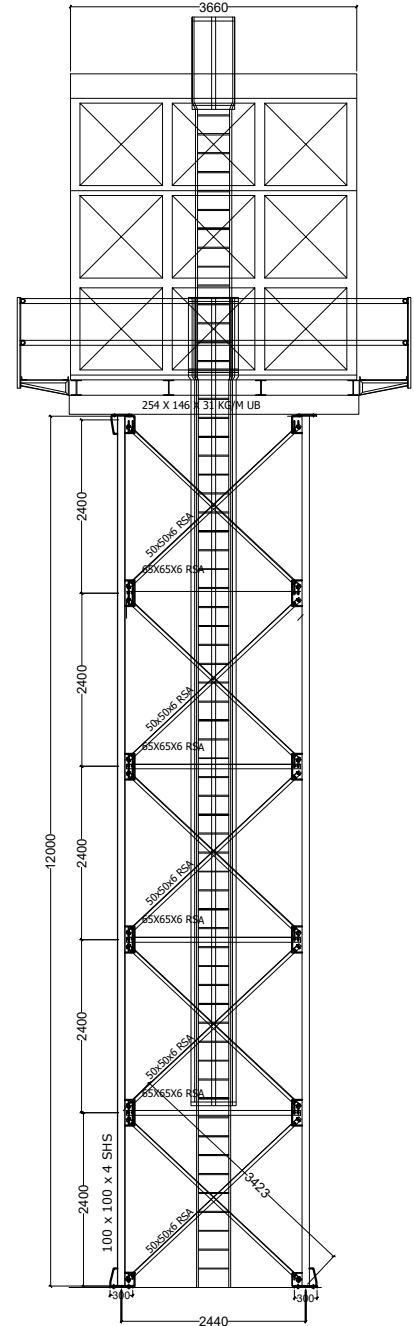
Figured dimensions only to be taken from this drawing

Activity	Name	Sign	Date
Designed by:			
Drawn by:			
Checked by:			
Approved by:			

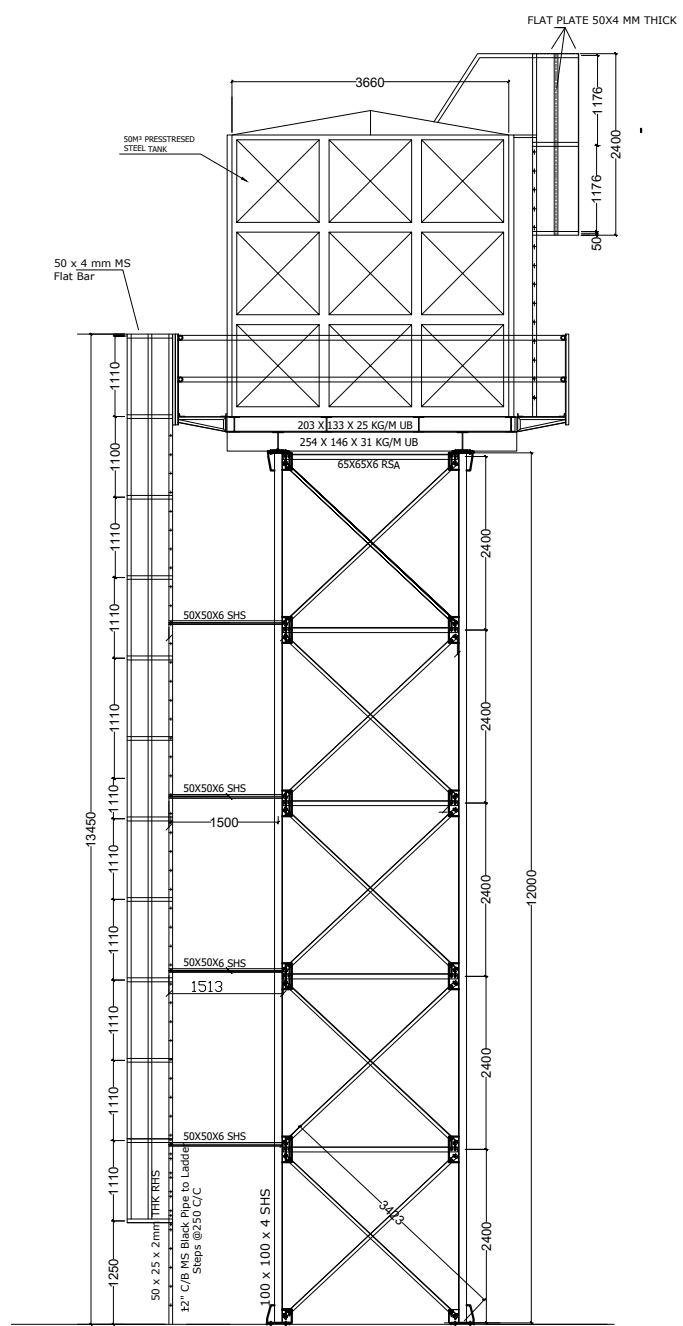
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Scale: AS SHOWN	Date: JUNE, 2020
	Drg. No. WSTF-MC/T-04

GENERAL NOTES:

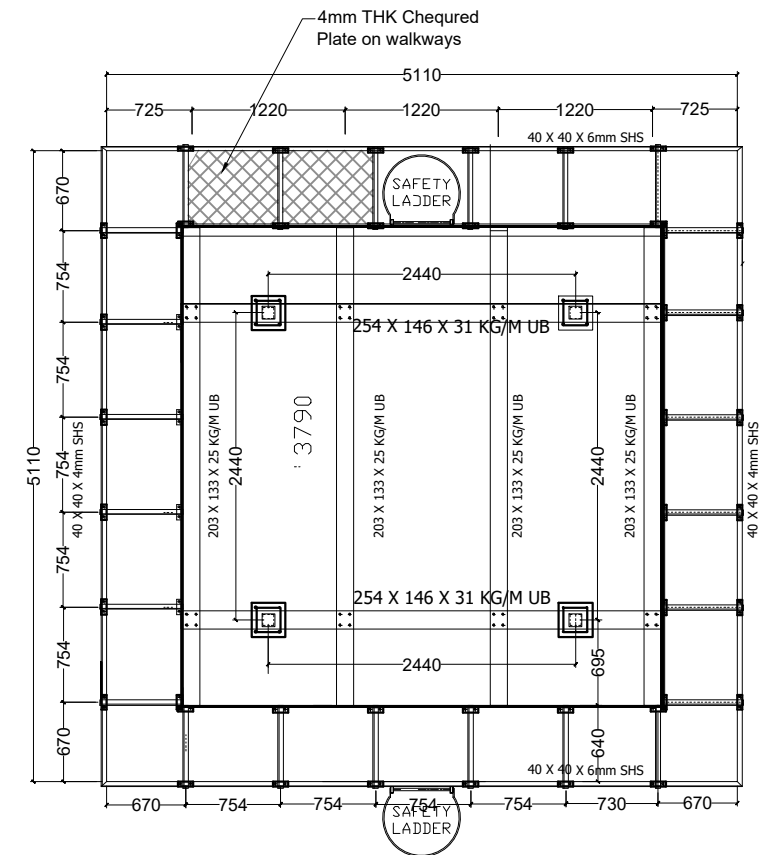
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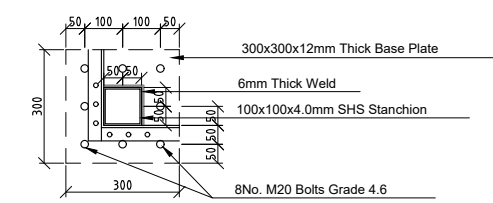
ELEVATION A
SCALE 1:50



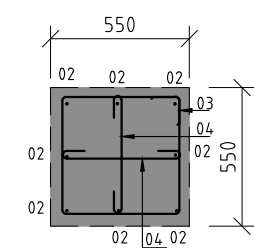
ELEVATION B
SCALE 1:50



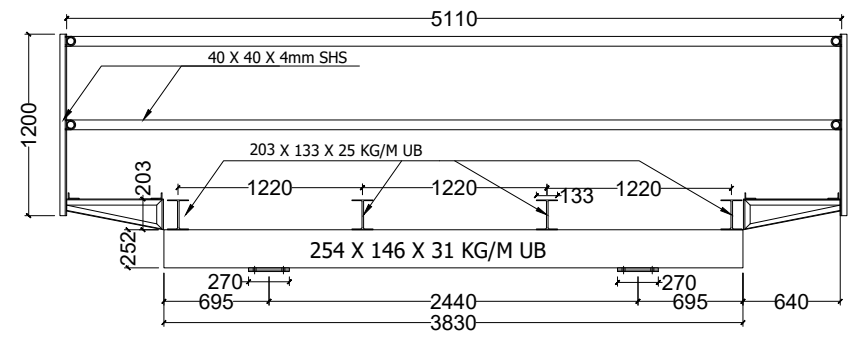
TANK SUPPORT PLATFORM
SCALE 1:25



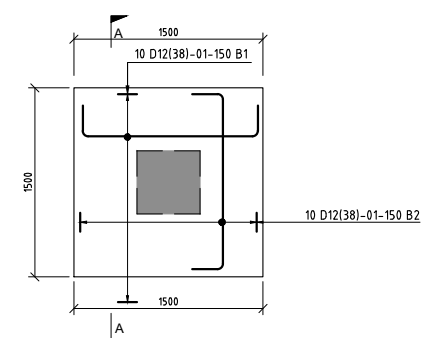
BASE PLATE DETAIL
(SCALE 1:10)



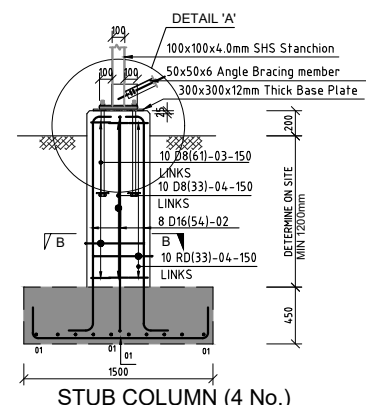
SECTION B-B
SCALE 1:15



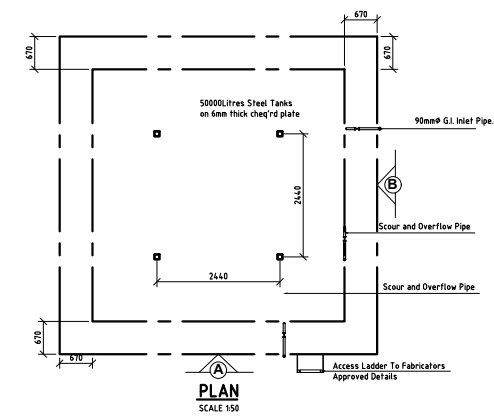
GRILLAGE FRONT VIEW
SCALE: 1:25



TYPICAL STUB COLUMN BASE
1500x1500x450mm (4No.)
SCALE 1:30



STUB COLUMN (4 No.)
SCALE 1:30



PLAN
SCALE 1:50

REPUBLIC OF KENYA
Department of Water, Environment,
Natural Resources & Energy
MANDERA COUNTY GOVERNMENT

PROJECT:
PROPOSED 120,000 CM WATER PAN AT BOKOLOW BANYOLE

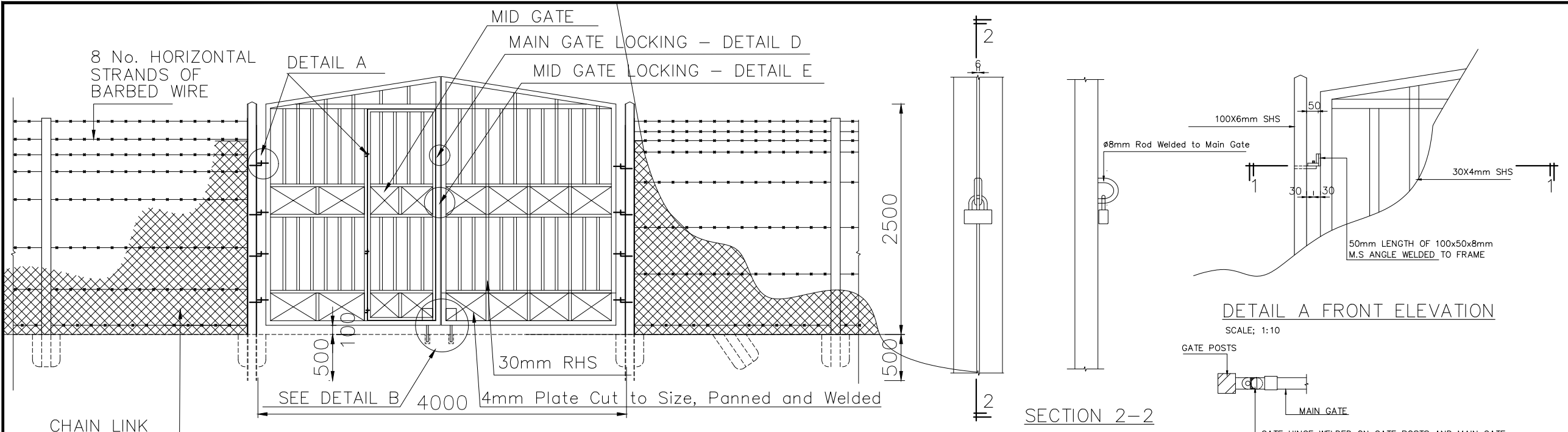
FINANCED BY
WSTF

BATCH
P.O. Box 24033-00100, Nairobi, Kenya
Tel: +254 (0) 20 3627166
Fax: +254 (0) 20 2018176
Cell: +254 (0) 72462723 / +254 (0) 736451752
E-mail: info@batch.co.ke
Webmail: www.batch.co.ke

Figured dimensions only to be taken from this drawing

Activity	Name	Sign	Date
Designed by:			
Drawn by:			
Checked by:			
Approved by:			

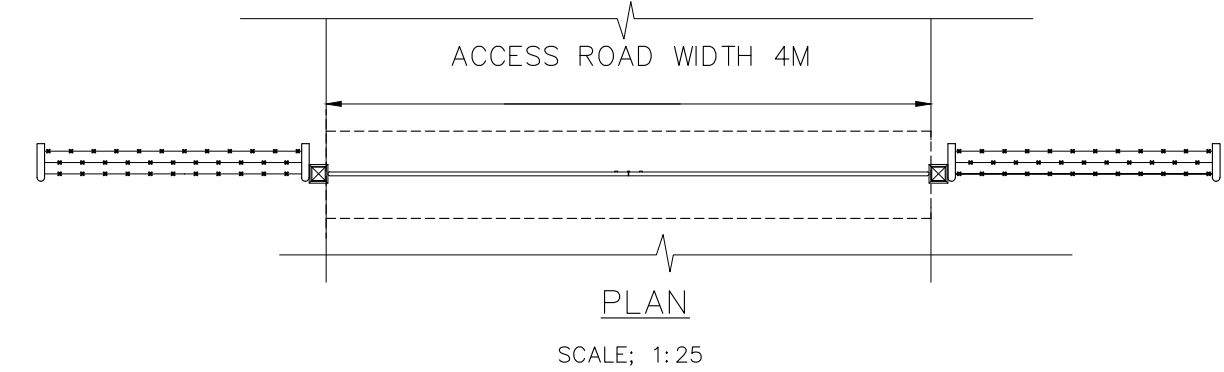
Drawing Title: 50M ³ ELEVATED STEEL WATER TANK	Sheet: WSTF-MC/T-04
Scale: AS SHOWN	Date: JUNE, 2020
	Drg. No. WSTF-MC/T-04



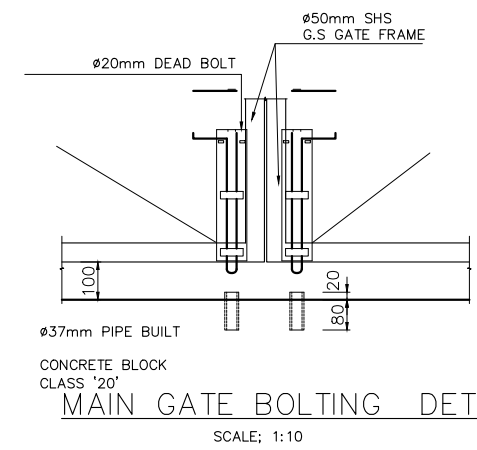
GATE AND FENCE DETAILS ELEVATION
SCALE: 1:25

SECTION 2-2 MAIN GATE DETAIL D
SCALE: 1:5

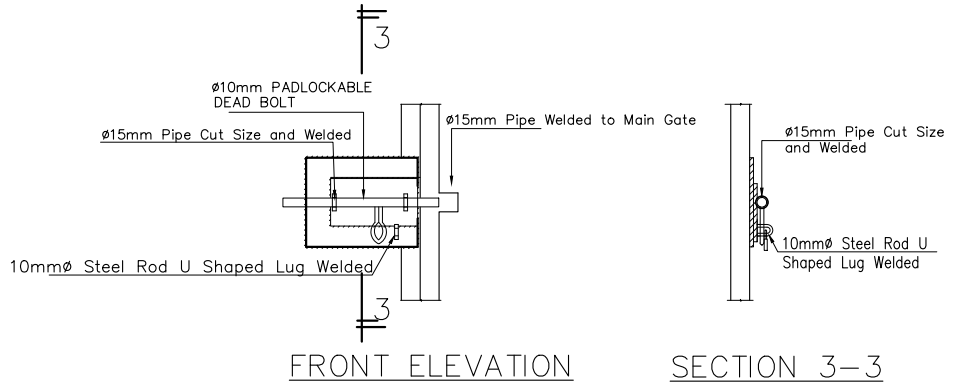
DETAIL A FRONT ELEVATION
SCALE: 1:10
GATE HINGE DETAIL A
SCALE: 1:10



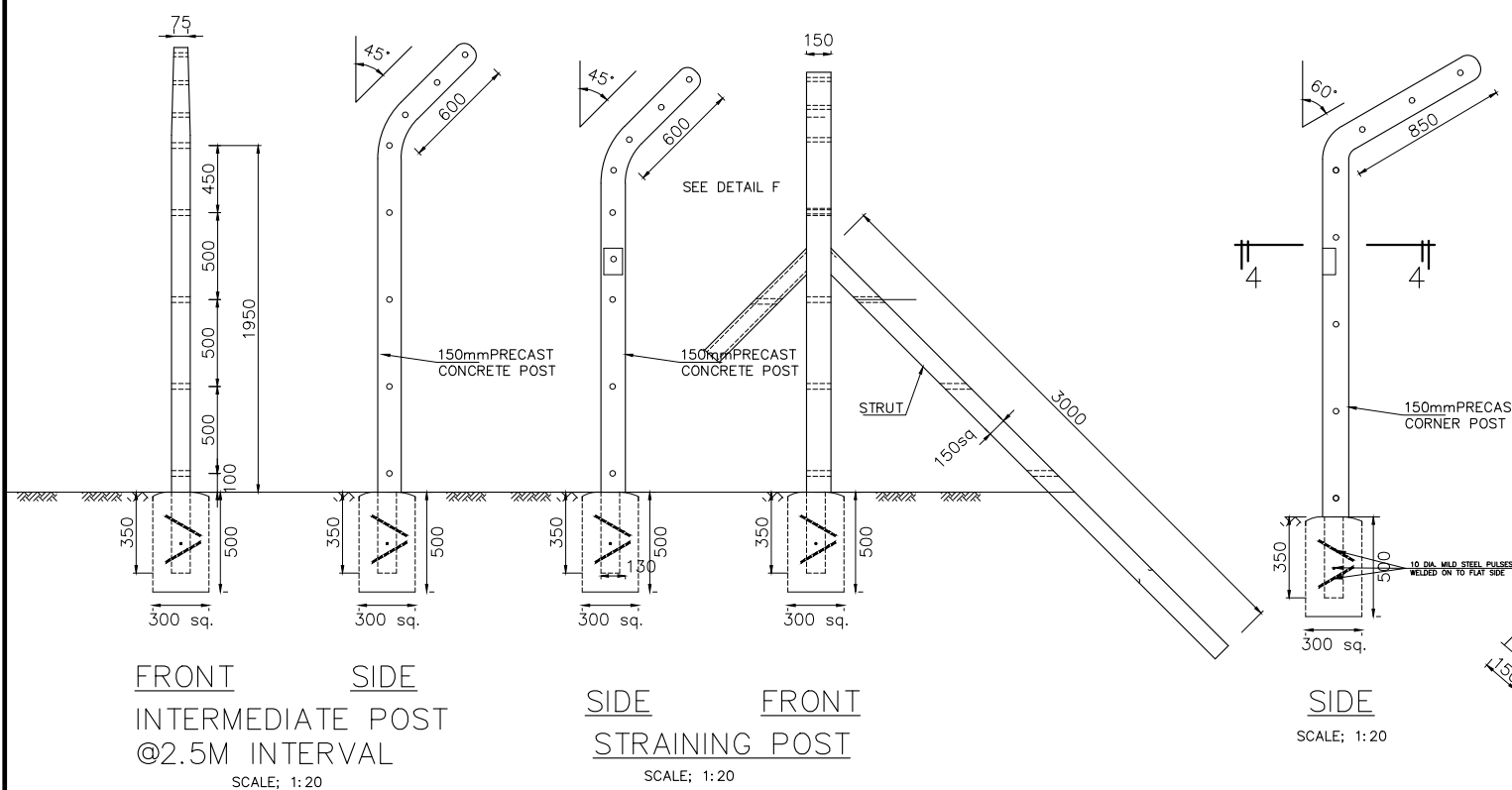
PLAN
SCALE: 1:25



MAIN GATE BOLTING DETAIL B
SCALE: 1:10



FRONT ELEVATION SECTION 3-3
MID GATE LOCKING DETAIL E
SCALE: 1:10



FRONT INTERMEDIATE POST @2.5M INTERVAL
SCALE: 1:20

SIDE STRAINING POST
SCALE: 1:20

SIDE
SCALE: 1:20

DETAIL F
SCALE: 1:10

SECTION 5-5
SCALE: 1:10

SECTION 4-4
SCALE: 1:10

- GENERAL NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED
 2. ALL STEELWORKS IS TO BE CLEANED IN ACCORDANCE WITH THE SPECIFICATION ON DIPPED GALVANISED
 3. ALL PRECAST ITEM TO BE CLASS'20'
 5. INTERMEDIATE POSTS TO BE AT 2.5M INTERVAL
 6. STRAINING POSTS TO BE AT 25M INTERVAL

REPUBLIC OF KENYA
Department of Water, Environment,
Natural Resources & Energy
MANDERA COUNTY GOVERNMENT

PROJECT:
PROPOSED 120,000 CM WATER PAN AT BOKOLOW BANYOLE

FINANCED BY
WSTF

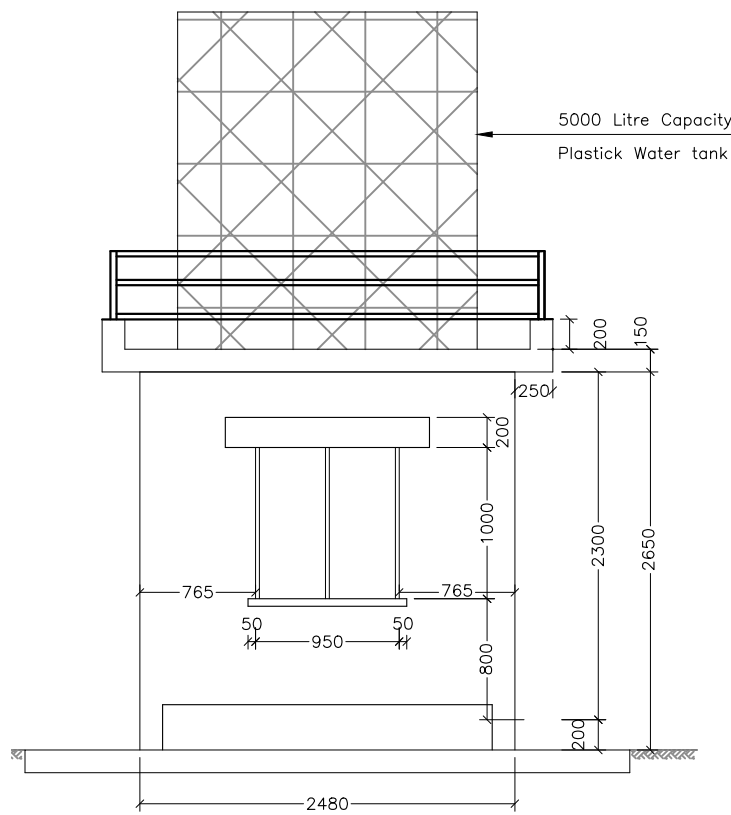
Consultants
BATCH

P.O. Box 24033-00100, Nairobi, Kenya
Tel: +254 (0) 20 2621866
Fax: +254 (0) 20 2018176
Cell: +254 (0) 721462713 / +254 (0) 736451752
E-mail: info@batchkenya.co.ke
Webmail: www.batchkenya.co.ke

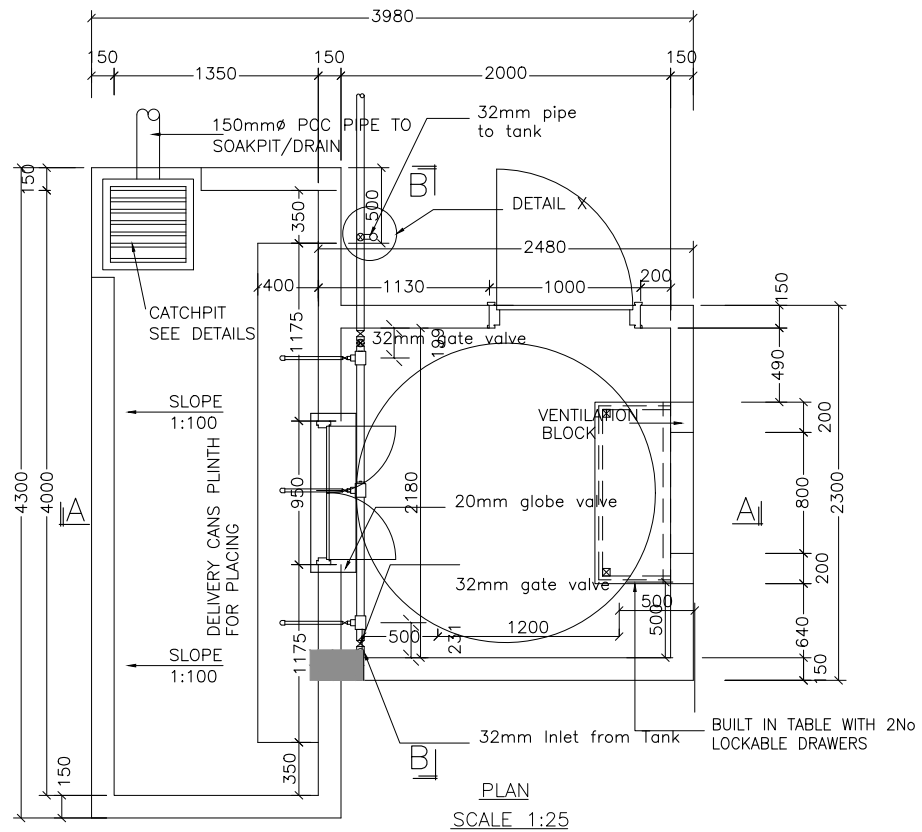
Figured dimensions only to be taken from this drawing

Activity	Name	Sign	Date
Designed by:	GAWALA R.O.		
Drawn by:	A.H.Feer.		
Checked by:			
Approved by:			

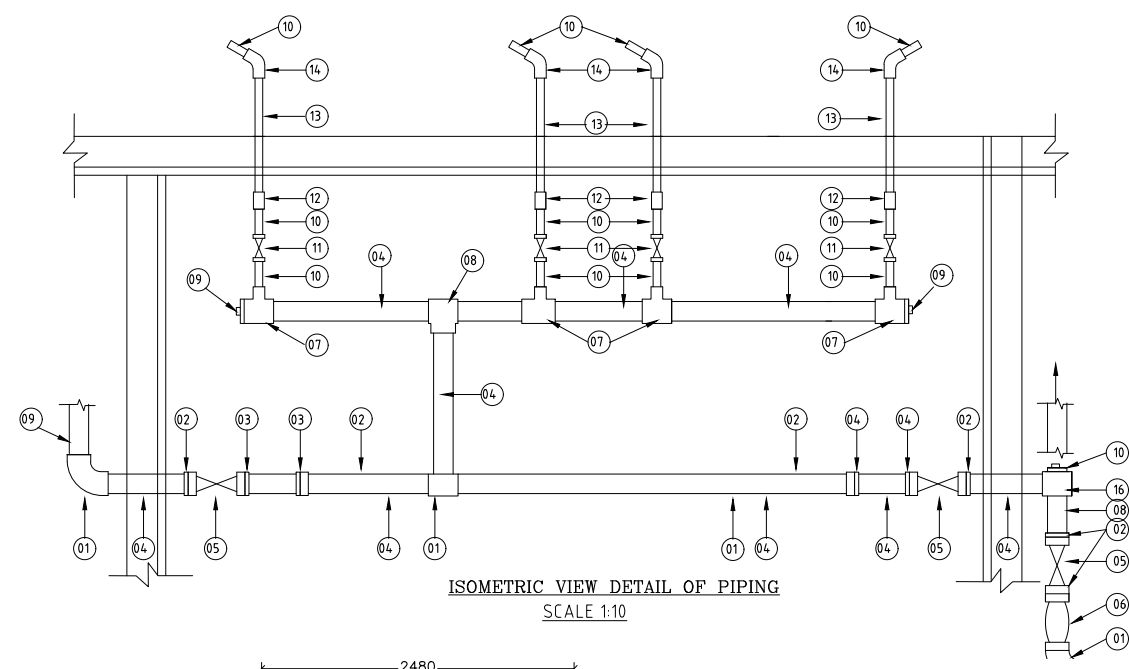
Drawing Title: FENCE AND GATE DETAILS	Sheet: 1 OF 1
Scale: As Shown	Date: JUNE 2020
	Drg. No. WSTF-MC/T-07



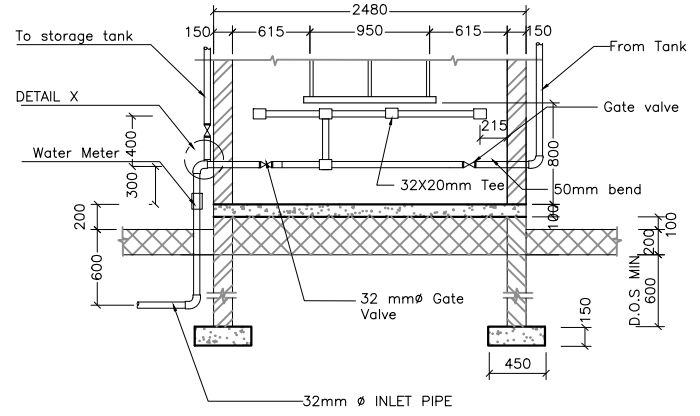
FRONT ELEVATION
SCALE 1:25



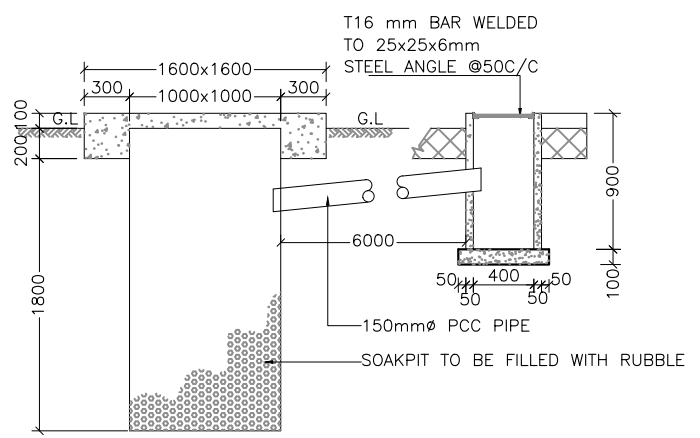
PLAN
SCALE 1:25



ISOMETRIC VIEW DETAIL OF PIPING
SCALE 1:10



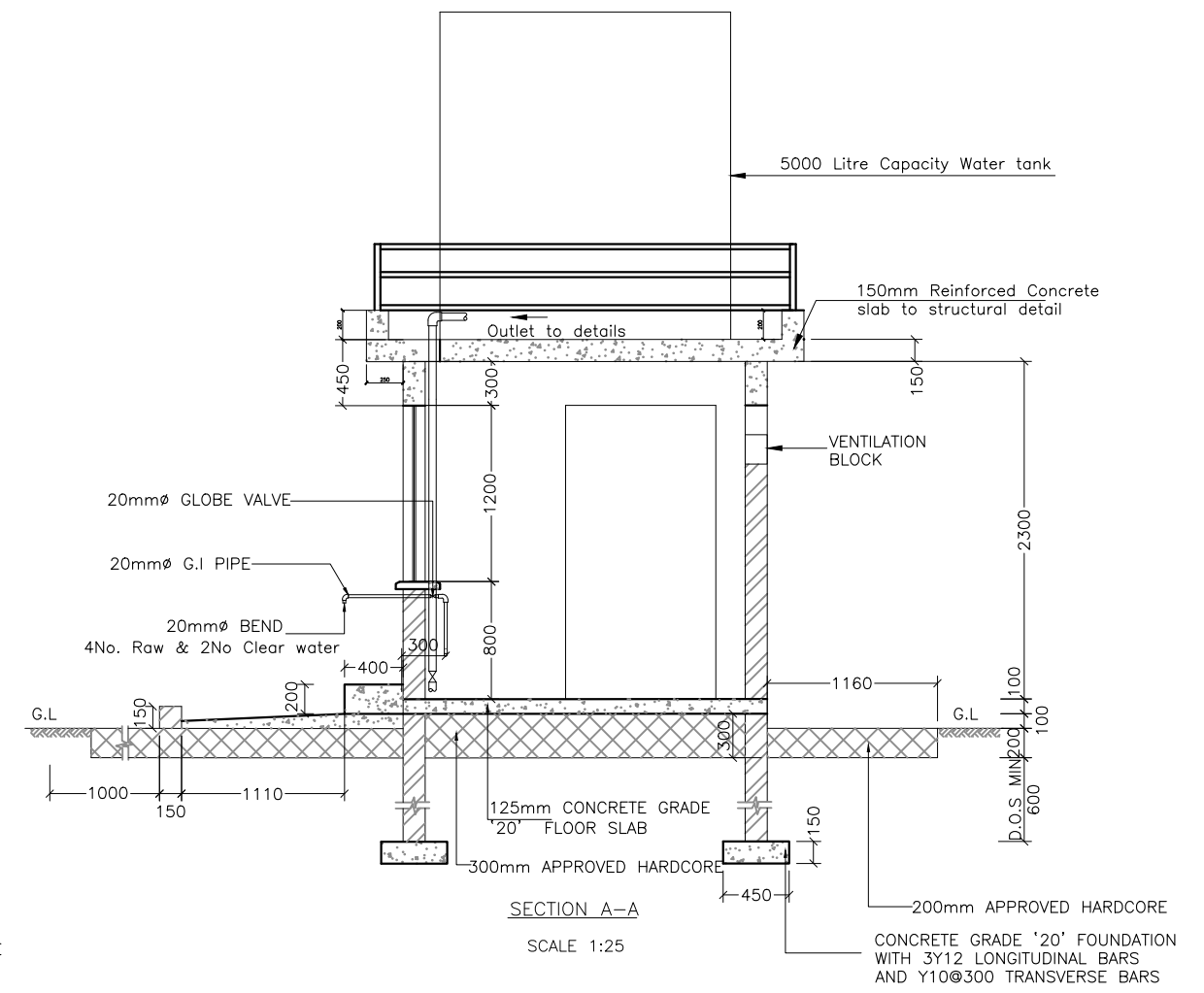
SECTION B-B
SCALE 1:30





SOAKPIT & CATCHPIT DETAILS
SCALE 1:25

LIST OF PIPE MATERIAL			
ITEM	DESCRIPTION	UNIT	QUANTITY
15	20X20 EQUAL TEE	PIECES	4000mm
14	20mm ELBOW PIPE	PIECES	6
13	20mm G.S PIPE	PIECES	3000mm
12	20mm UNION	PIECES	6
11	20mm BALL VALVE	PIECES	6
10	20mm BARREL NIPPLE	PIECES	12
9	32mm PLUG	PIECES	5
8	32mm BARREL NIPPLE	PIECES	8
7	32X20 REDUCING TEE	PIECES	6
6	32mm WATER METER	PIECES	2
5	32mm GATE VALVE	PIECES	3
4	32mm GI PIPE	PIECES	4000mm
3	32mm VALVE SOCKET	PIECES	3
2	32/20mm REDUCING BUSH	PIECES	6
1	32mm ELBOW	PIECES	5

SCHEDULE OF OF
PIPES AND FITTINGS



SECTION A-A
SCALE 1:25

CLIENT:

REPUBLIC OF KENYA
 Department of Water, Environment,
 Natural Resources & Energy
MANDERA COUNTY GOVERNMENT


APPROVAL	DATE	REFERENCE	DWG No.

FINANCED BY WSTF

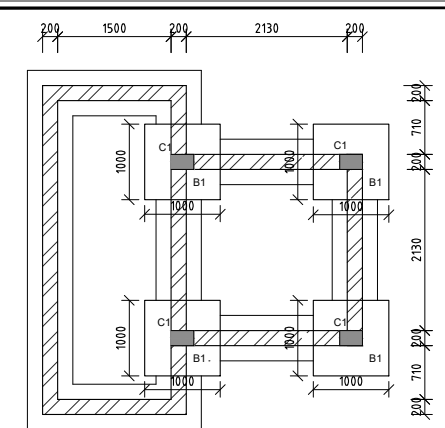


PROJECT
PROPOSED 120,000 CM WATER PAN
AT BOKOLW BANYOLE
TITLE:
 WATER KIOSK PLAN, SECTIONS
 AND DETAILS

Consultant

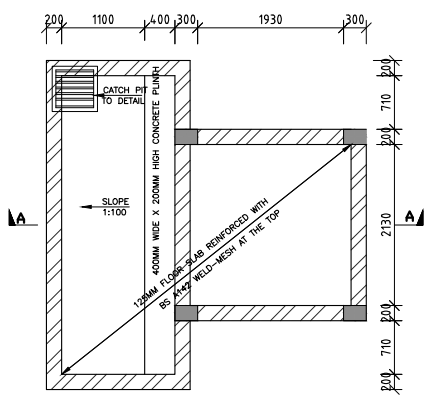
 P.O Box 24103-00100, Nairobi, Kenya
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DWG. No.	Sheet No.	Scale	Date
WSTF-MC: /T-08	1 OF 2	AS SHOWN	JUNE 2020



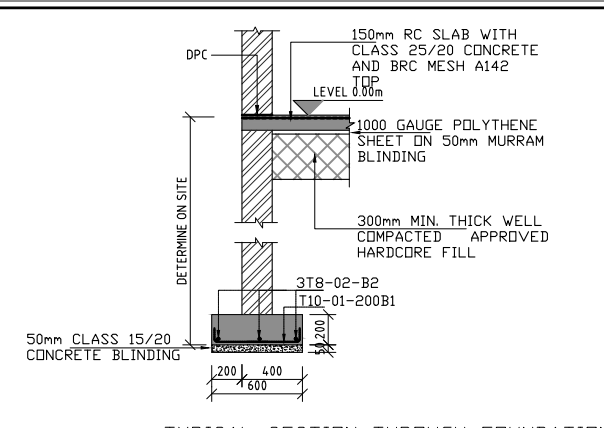
FOUNDATION LAYOUT

(SCALE: 1:50)



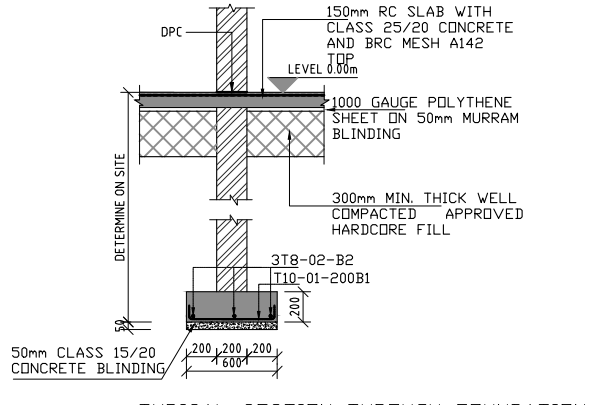
GROUND FLOOR LAYOUT

(SCALE: 1:50)



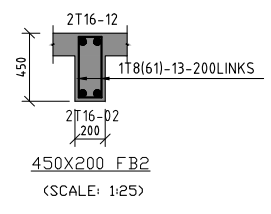
TYPICAL SECTION THROUGH FOUNDATION AND FLOOR SLAB

(SCALE: 1:25)



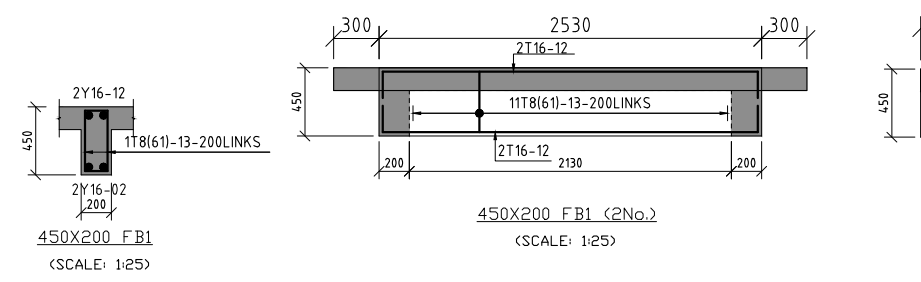
TYPICAL SECTION THROUGH FOUNDATION AND FLOOR SLAB

(SCALE: 1:25)



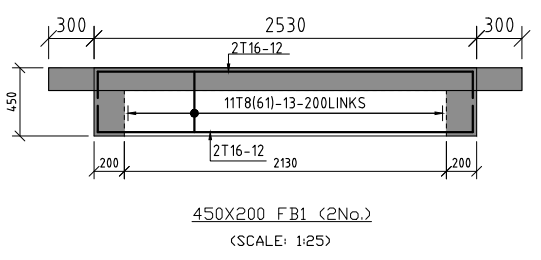
450X200 FB2

(SCALE: 1:25)



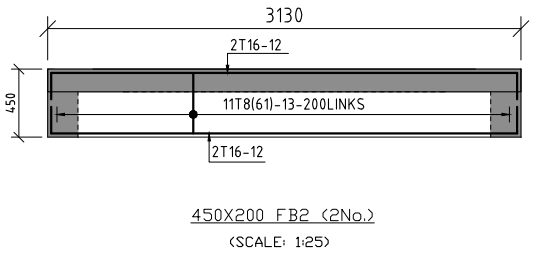
450X200 FB1

(SCALE: 1:25)



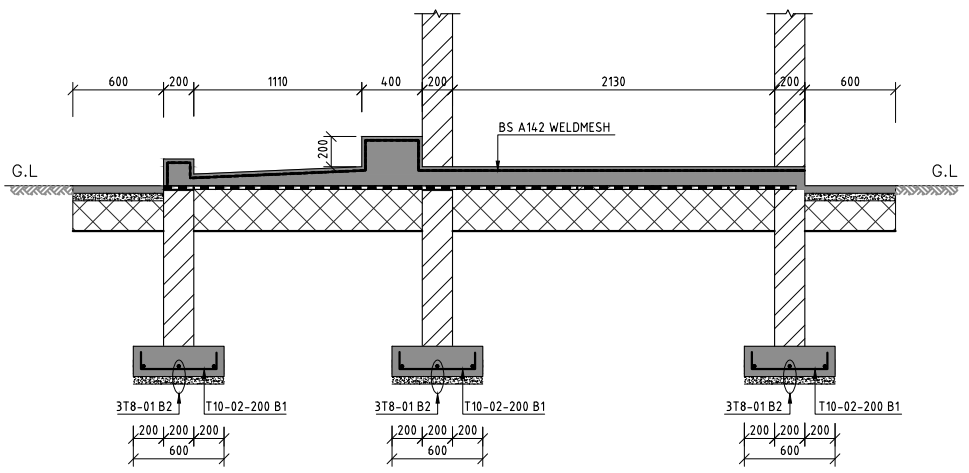
450X200 FB1 (2No.)

(SCALE: 1:25)



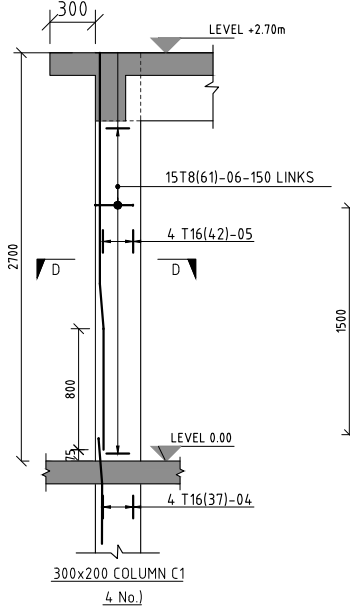
450X200 FB2 (2No.)

(SCALE: 1:25)



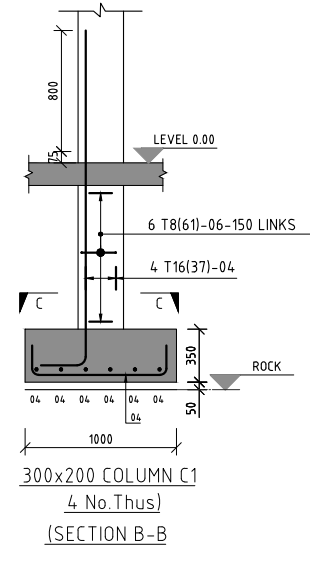
SECTION A-A

(SCALE: 1:25)



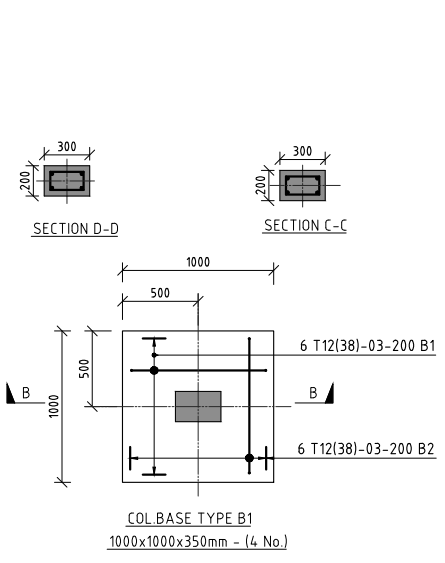
300x200 COLUMN C1

(4 No.)



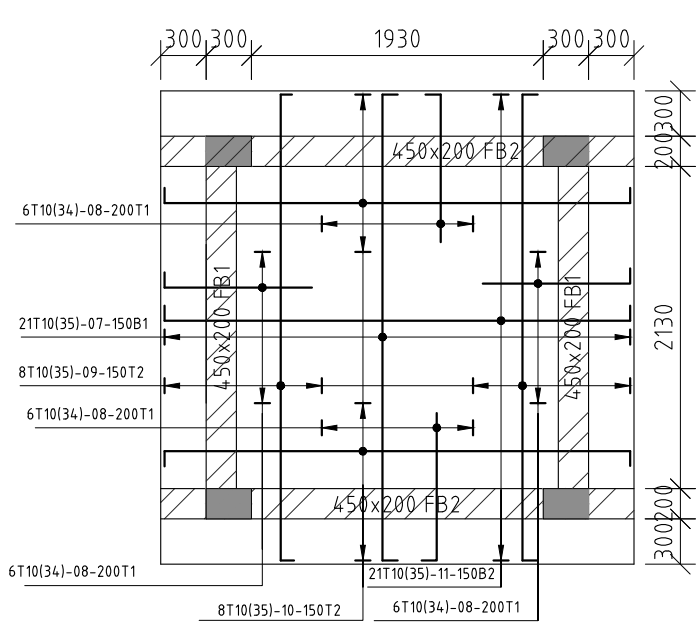
300x200 COLUMN C1

(4 No. Thus)



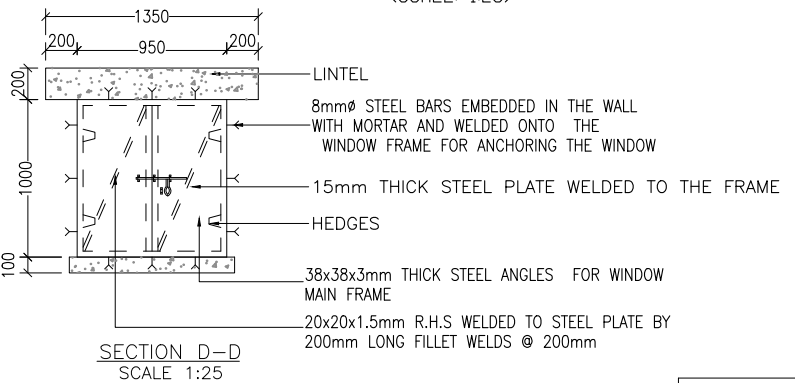
COL BASE TYPE B1

1000x1000x350mm - (4 No.)



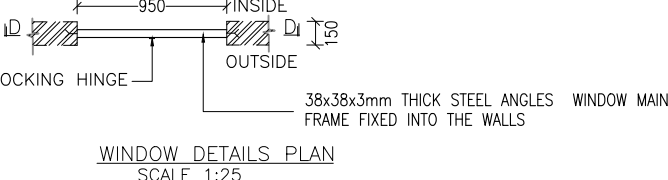
ROOF SLAB DETAILS

(SCALE: 1:25)



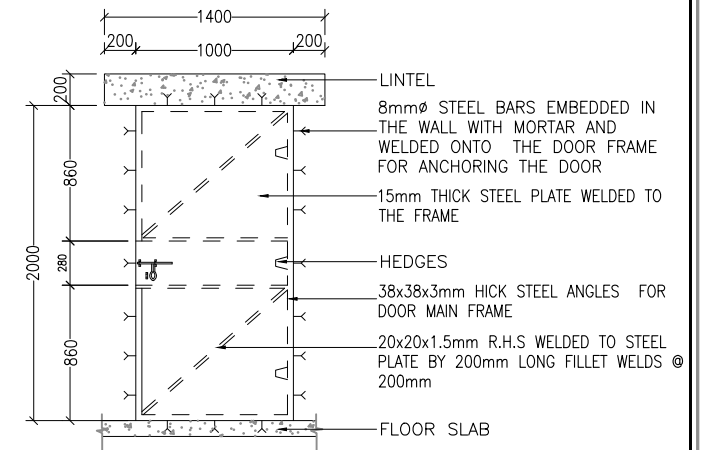
SECTION D-D

SCALE: 1:25



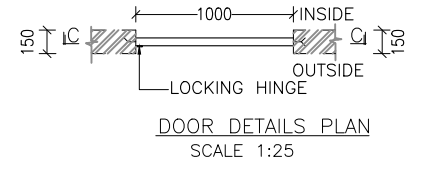
WINDOW DETAILS PLAN

SCALE: 1:25



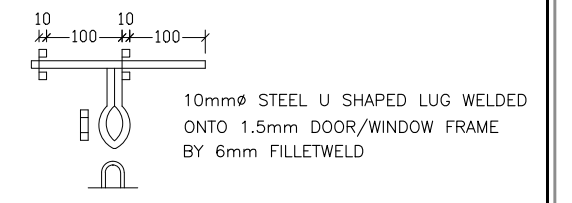
SECTION C-C

SCALE: 1:25



DOOR DETAILS PLAN

SCALE: 1:25



LOCKING HINGE DETAILS

SCALE: 1:5

Member	Bar mark	Type and size	No. of mbrs	No. of bars in each	Total no.	Length of each bar (mm)	Shape code	A* (mm)	B* (mm)	C* (mm)	D* (mm)	E/R* (mm)	Rev letter
FOUNDATION	01	T8	1	3	3	12000							Cut, Bend and lap to suit on site
	02	T10	1	96	96	725	38	110	500				
BASE TYPE B1	03	T12	4	12	48	1400	38	250	900				
COLUMN C1	04	T16	4	4	16	2150	37	200	1950				
	05	T16	4	4	16	2750	37	150	2600				
	06	T8	4	21	84	950	60	260	160				
ROOF SLAB	07	T10	1	21	21	3255	35	110	3030	110			
	08	T10	1	24	24	1050	34	110	925				
	09	T10	1	8	8	3255	35	110	3030	110			
	10	T10	1	8	8	3255	35	110	3030	110			
	11	T10	1	21	21	3255	35	110	3030	110			
BEAM FB1	12	T16	4	4	16	2825	38	200	2475	200			
	13	T8	4	11	44	1225	60	390	160				

CLIENT: REPUBLIC OF KENYA
 Department of Water, Environment, Natural Resources & Energy
 MANDERA COUNTY GOVERNMENT



APPROVAL	DATE	REFERENCE	DWG No.

FINANCED BY WSTF

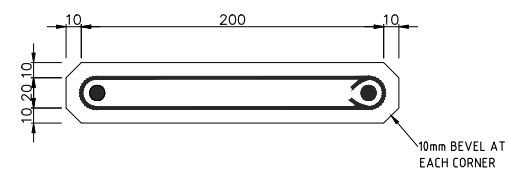
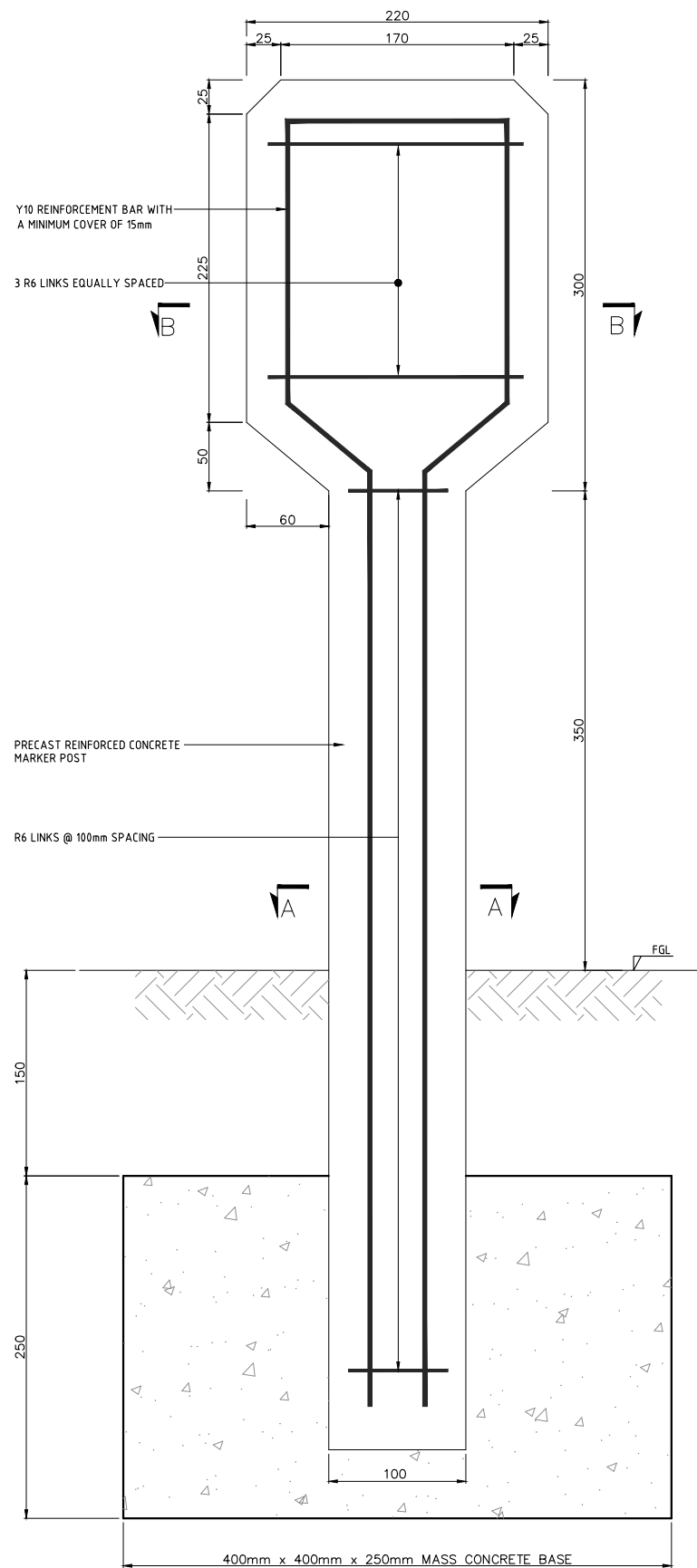
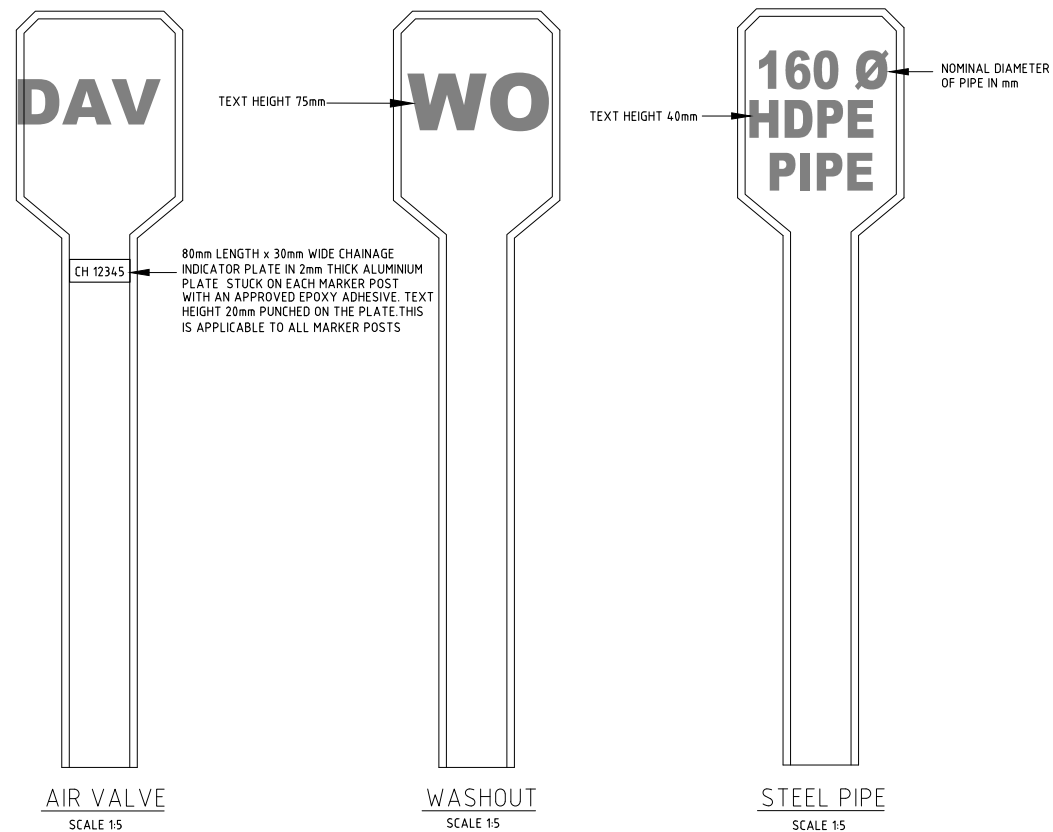
PROJECT
 PROPOSED 120,000 CM WATER PAN AT BOKOLOW BANYOLE

TITLE:
 TYPICAL WATER KIOSKS STRUCTURAL DETAILS

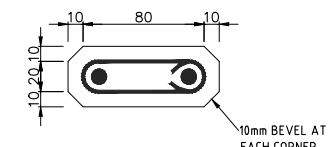
Consultant

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 Fax: +254 (0) 20 2018176
 Cell: +254 0713462213 / +254 07136451732
 E-mail: info@batchassociates.co.ke
 Webmail: www.batchassociates.co.ke

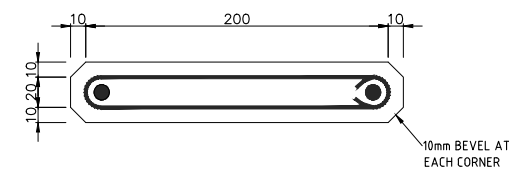
DWG. No.	Sheet No.	Scale	Date
WSTF-MC: /T-09	2 OF 2	AS SHOWN	JUNE 2020



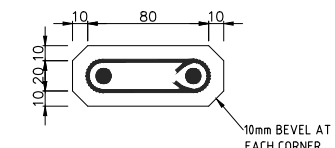
SECTION B-B
SCALE 1:2.5



SECTION A-A
SCALE 1:2.5



SECTION B-B
SCALE 1:2.5



SECTION A-A
SCALE 1:2.5

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED
2. ALL LEVELS ARE IN METRES UNLESS OTHERWISE STATED
3. ALL CONCRETE IS CLASS '25' UNLESS OTHERWISE STATED
4. ALL EXPOSED CONCRETE EDGES SHALL HAVE 20x20mm CHAMFER

LEGEND

- F.A - FLANGE ADAPTOR
- V.J - VIKING JOHNSON
- G.I - GALVANISED IRON
- I.L - INVERT LEVEL
- D.I - DUCTILE IRON

REPUBLIC OF KENYA
Department of Water, Environment,
Natural Resources & Energy
MANDERA COUNTY GOVERNMENT

PROJECT:
**PROPOSED 120,000 CM WATER PAN
AT BOKOLOW BANYOLE**

FINANCED BY
WSTF

EUROPEAN UNION

Consultants
BATCH
P.O. Box 24032-0100, Nairobi, Kenya
Tel: +254 (0) 20 2621166
Fax: +254 (0) 20 2081876
Cell: +254 (0) 714617213 / +254 (0) 786451752
E-mail: info@batchassociates.co.ke
Webmail: www.batchassociates.co.ke

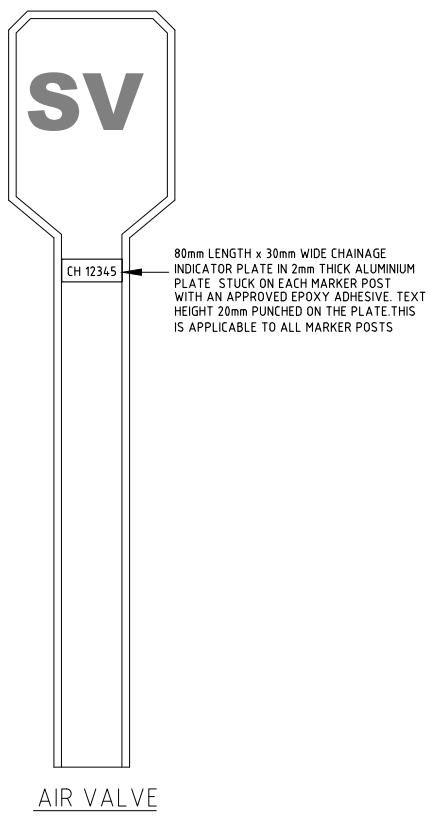
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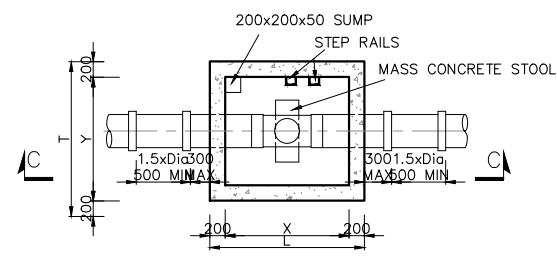
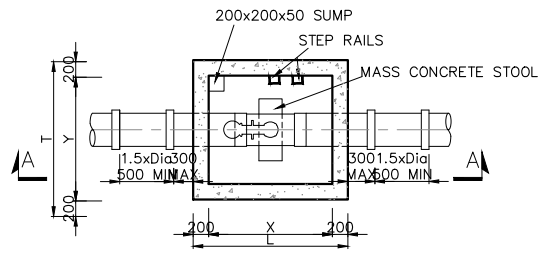
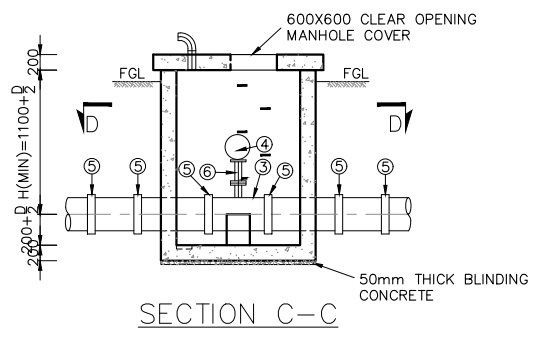
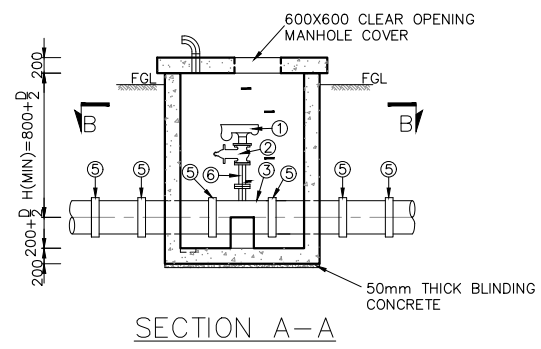
Activity	Name	Sign	Date
Designed by:	NHA		
Drawn by:	AGO		
Checked by:	NHA		
Approved by:	NHA		

Drawing Title:
**PIPELINE MARKER POSTS AND TEMPORARY
BENCHMARK DETAILS**

Sheet: Sheet 1 of 1	Date: JUNE, 2020
Scale: AS SHOWN	Drg. No. WSTF-MC/T-10

SCALE 1:5

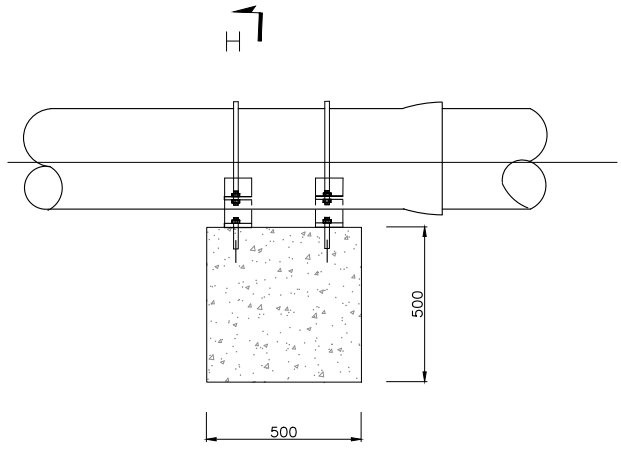
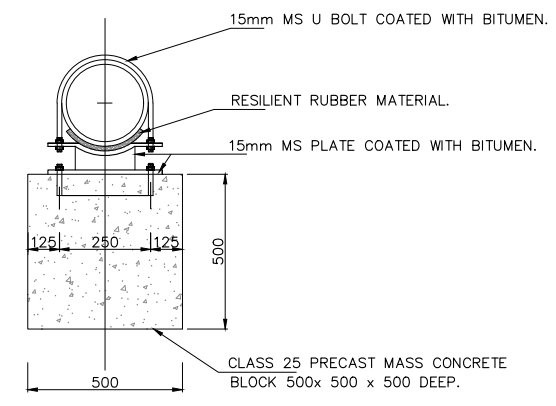




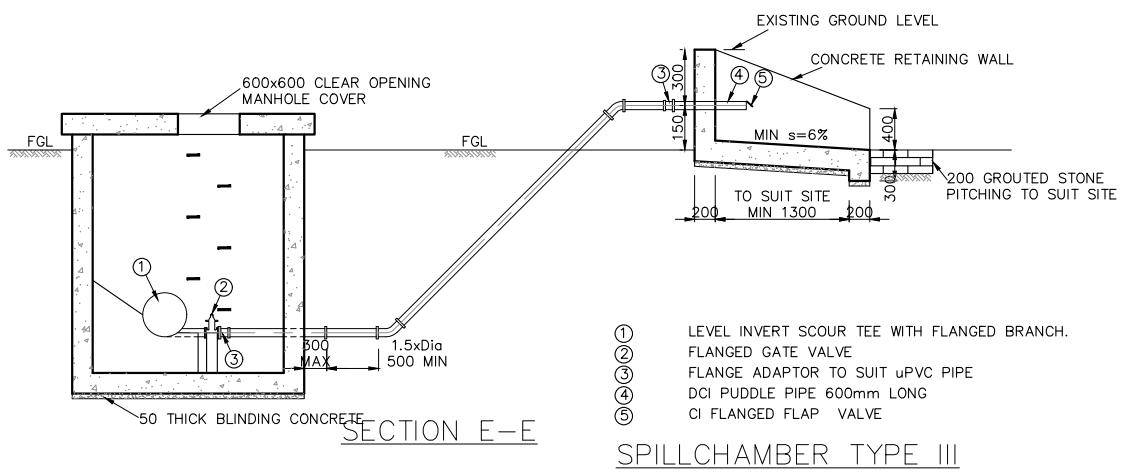
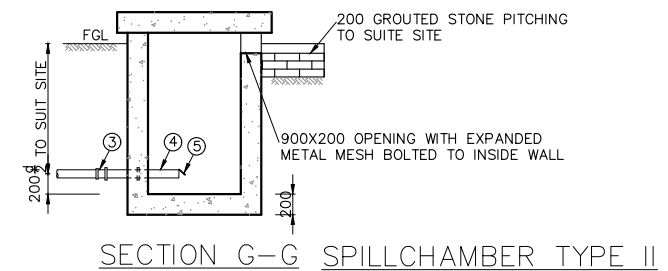
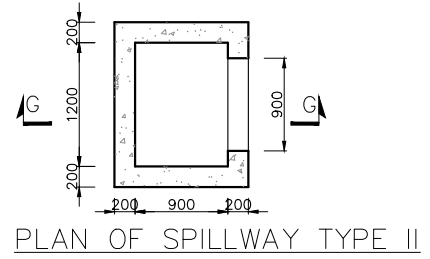
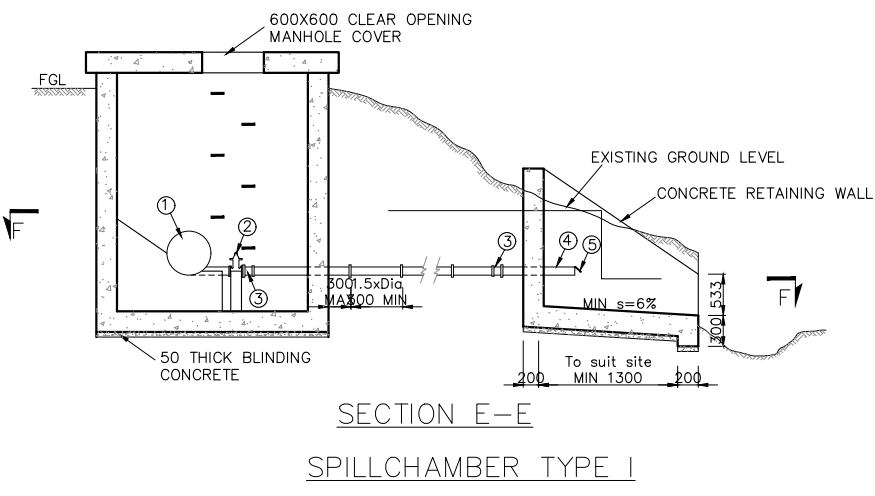
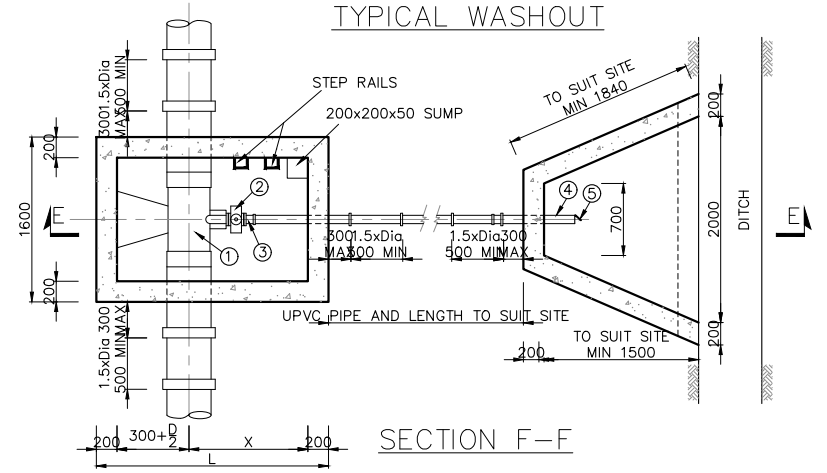
- ① DOUBLE ORIFICE AIR VALVE
- ② FLANGED GATE VALVE (50mm)
- ③ FLANGED BRANCH TEE
- ④ SMALL ORIFICE SINGLE AIR VALVE WITH ISOLATING COCK AND DN 25 THREADED BRANCH
- ⑤ FLEXIBLE COUPLINGS
- ⑥ DOUBLE FLANGED PIPE PIECE 50Ø mm

DIMENSIONS FOR DOUBLE & SINGLE AIR VALVES

DN	80	100	150	200
X	1000	1000	1000	1000
L	1400	1400	1400	1400
Y	800	800	800	1000
T	1200	1200	1200	1400



PIPE ANCHORAGE DETAIL IN WATERLOGGED AREAS



- ① LEVEL INVERT SCOUR TEE WITH FLANGED BRANCH.
- ② FLANGED GATE VALVE
- ③ FLANGE ADAPTOR TO SUIT uPVC PIPE
- ④ DCI PUDDLE PIPE 600mm LONG
- ⑤ CI FLANGED FLAP VALVE

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Figured dimensions only to be taken from this drawing

Activity	Name	Sign	Date
Designed by:	NHA		
Drawn by:	AGO		
Checked by:	NHA		
Approved by:	NHA		

Drawing Title:
TYPICAL AIR VALVE AND WASHOUT DETAILS

Sheet: Sheet 1 of 1	Date: JUNE, 2020
Scale: AS SHOWN	Drg. No. WSTF-MC/T-11