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TENDER DOCUMENT

FOR

**CONSTRUCTION OF RURIE WATER SUPPLY PROJECT
IN NGURUBANI, WAMUMU WARD, MWEA WEST SUB
COUNTY, KIRINYAGA COUNTY**

KIRINYAGA COUNTY WATER AND SANITATION PLC

TENDER NO: KWSC/WSTF/RWSP/2025-26

AUGUST, 2025

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INVITATION TO TENDER

PROCURING ENTITY: *Kirinyaga County Water and Sanitation PLC (KICOWASCO)*

CONTRACT NAME AND DESCRIPTION: *Construction of Rurie Water Supply Project in Ngurubani, Wamumu ward, Mwea West Sub county, Kirinyaga County.*

The *Kirinyaga County Water and Sanitation PLC* invites sealed tenders for the construction of ***Rurie Water Supply Project in Ngurubani, Wamumu ward, Mwea West Sub county, Kirinyaga County***

Tendering will be conducted under open competitive method using a standardized tender document. Tendering is open to all qualified and interested Tenderers.

Qualified and interested tenderers may obtain further information and inspect the Tender Documents during office hours from **8a.m to 1 Pm and 2pm – 5 Pm from Monday to Friday excluding public holidays**.

A complete set of tender documents may be purchased or obtained by interested tenders upon payment of a non- refundable fees of **Kshs 1000** in Banker's Cheque and payable to the address given below. Tender documents may be obtained electronically from the Website(s). Tender documents obtained electronically will be free of charge.

Tender documents may be viewed and downloaded for free from the website www.kiriwasco.co.ke. Tenderers who download the tender document must forward their particulars immediately to Info@kicowasco.co.ke **Tel: 0746555368/0715413591, address: 360-10300 Kerugoya** to facilitate any further clarification or addendum.

Tenders shall be quoted be in Kenya Shillings and shall include all taxes. Tenders shall remain valid for 120 days from the date of opening of tenders.

All Tenders must be accompanied by a tender security of 2% of the tender sum

The Tenderer shall chronologically serialize all pages of the tender documents submitted.

Completed tenders must be delivered to the address below on or before **27th August, 2025 at 12.00 Noon**. Electronic Tenders *will not* be permitted.

Tenders will be opened immediately after the deadline date and time specified above or any deadline date and time specified later. Tenders will be publicly opened in the presence of the Tenderers' designated

Representatives who choose to attend at the address below.

Late tenders will be rejected.

Tenders will be opened immediately thereafter in the presence of the Candidates or their representatives who choose to attend at Kirinyaga Water and sanitation **Company main office situated at Kerugoya- Karatina road opposite Kerugoya Stadium, P.O Box 360-10300 KERUGOYA at our company Boardroom hall**

The addresses referred to above are:

Address for obtaining further information and for purchasing tender documents

The Managing Director,
Kirinyaga County Water and Sanitation PLC
P.O Box 360-10300
Kerugoya
Email: procurement@kicowasco.co.ke / info@kicowasco.co.ke Tel:
0746555368/0715413591

Address for Submission of Tenders.

The Managing Director,
Kirinyaga County Water and Sanitation PLC
P.O Box 360-10300
Kerugoya
Email: managingdirector@kicowasco.co.ke/info@kicowasco.co.ke
Tel: 0746555368/0715413591

Address for Opening of Tenders.

The Managing Director,
Kirinyaga County Water and Sanitation PLC
P.O Box 360-10300
Kerugoya
Email:
managingdirector@kicowasco.co.ke/info@kicowasco.co.ke
Tel: 0746555368/0715413591

[Authorized Official (name, designation, Signature and date)]

Name: DR. Cyrus Munyua Ph.D
Designation: Managing Director
Date: 12th August, 2025

PART 1 - TENDERING PROCEDURES

SECTION I: INSTRUCTIONS TO TENDERERS

A General Provisions

Scope of Tender

The Procuring Entity as defined in the Appendix to Conditions of Contract invites tenders for Works Contract as described in the tender documents. The name, identification, and number of lots (contracts) of this Tender Document are **specified in the TDS**.

Fraud and Corruption

The Procuring Entity requires compliance with the provisions of the Public Procurement and Asset Disposal Act, 2015, Section 62 “Declaration not to engage in corruption”. The tender submitted by a person shall include a declaration that the person shall not engage in any corrupt or fraudulent practice and a declaration that the person or his or her sub-contractors are not debarred from participating in public procurement proceedings.

The Procuring Entity requires compliance with the provisions of the Competition Act 2010, regarding collusive practices in contracting. Any tenderer found to have engaged in collusive conduct shall be disqualified and criminal and/or civil sanctions may be imposed. To this effect, Tenders shall be required to complete and sign the “Certificate of Independent Tender Determination” annexed to the Form of Tender.

Unfair Competitive Advantage - Fairness and transparency in the tender process require that the firms or their Affiliates competing for a specific assignment do not derive a competitive advantage from having provided consulting services related to this tender. To that end, the Procuring Entity shall indicate in the **Data Sheet** and make available to all the firms together with this tender document all information that would in that respect give such firm any unfair competitive advantage over competing firms.

Unfair Competitive Advantage -Fairness and transparency in the tender process require that the Firms or their Affiliates competing for a specific assignment do not derive a competitive advantage from having provided consulting services related to this tender being tendered for. The Procuring Entity shall indicate in the **TDS** firms (if any) that provided consulting services for the contract being tendered for. The Procuring Entity shall

check whether the owners or controllers of the Tenderer are same as those that provided consulting services. The Procuring Entity shall, upon request, make available to any tenderer information that would give such firm unfair competitive advantage over competing firms.

Eligible Tenderers

A Tenderer may be a firm that is a private entity, a state-owned enterprise or institution subject to ITT 3.7 or any combination of such entities in the form of a joint venture (JV) under an existing agreement or with the intent to enter into such an agreement supported by a letter of intent. Public employees and their close relatives (*spouses, children, brothers, sisters and uncles and aunts*) are not eligible to participate in the tender. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the tendering process and, in the event the JV is awarded the Contract, during contract execution. The maximum number of JV members shall be specified in the **TDS**.

Public Officers of the Procuring Entity, their Spouses, Child, Parent, Brothers or Sister. Child, Parent, Brother or Sister of a Spouse, their business associates or agents and firms/organizations in which they have a substantial or controlling interest shall not be eligible to tender or be awarded a contract. Public Officers are also not allowed to participate in any procurement proceedings.

A Tenderer shall not have a conflict of interest. Any tenderer found to have a conflict of interest shall be disqualified. A tenderer may be considered to have a conflict of interest for the purpose of this tendering process, if the tenderer:

Directly or indirectly controls, is controlled by or is under common control with another tenderer; or

Receives or has received any direct or indirect subsidy from another tenderer; or

Has the same legal representative as another tenderer; or

Has a relationship with another tenderer, directly or through common third parties, that puts it in a position to influence the tender of another tenderer, or influence the decisions of the Procuring Entity regarding this tendering process; or

Any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the tender; or

any of its affiliates has been hired (or is proposed to be hired) by the Procuring Entity as Engineer for the Contract implementation; or

Would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the contract specified in this Tender Document or

Has a close business or family relationship with a professional staff of the Procuring Entity who: are directly or indirectly involved in the preparation of the Tender document or specifications of the Contract, and/or the Tender evaluation process of such contract; or

ii) would be involved in the implementation or supervision of such Contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Procuring Entity throughout the tendering process and execution of the Contract.

Atenderer shall not be involved in corrupt, coercive, obstructive, collusive or fraudulent practice. Atenderer that is proven to have been involved any of these practices shall be automatically disqualified.

A Tenderer (either individually or as a JV member) shall not participate in more than one Tender, except for permitted alternative tenders. This includes participation as a subcontractor in other Tenders. Such participation shall result in the disqualification of all Tenders in which the firm is involved. A firm that is not a tenderer or a JV member may participate as a subcontractor in more than one tender. Members of a joint venture may not also make an individual tender, be a subcontractor in a separate tender or be part of another joint venture for the purposes of the same Tender.

A Tenderer may have the nationality of any country, subject to the restrictions pursuant to ITT 4.8. A Tenderer shall be deemed to have the nationality of a country if the Tenderer is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed subcontractors or sub-consultants for any part of the Contract including related Services.

Tenderer that has been debarred from participating in public procurement shall be ineligible to tender or be awarded a contract. The list of debarred firms and individuals is available from the website of PPRA www.ppra.go.ke.

Tenderers that are state-owned enterprises or institutions may be eligible to compete and be awarded a Contract(s) only if they are accredited by PPRA to be (i) a legal public entity of the state Government and/or public administration, (ii) financially autonomous and not receiving any significant subsidies or budget support from any public entity or Government, and (iii)

operating under commercial law and vested with legal rights and liabilities similar to any commercial enterprise to enable it compete with firms in the private sector on an equal basis.

Firms and individuals may be ineligible if their countries of origin (a) as a matter of law or official regulations, Kenya prohibits commercial relations with that country, or (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, Kenya prohibits any import of goods or contracting of works or services from that country, or any payments to any country, person, or entity in that country. A tenderer shall provide such documentary evidence of eligibility satisfactory to the Procuring Entity, as the Procuring Entity shall reasonably request.

Foreign tenderers are required to source at least forty (40%) percent of their contract inputs (in supplies, subcontracts and labor) from national suppliers and contractors. To this end, a foreign tenderer shall provide in its tender documentary evidence that this requirement is met. Foreign tenderers not meeting this criterion will be automatically disqualified. Information required to enable the Procuring Entity determine if this condition is met shall be provided in for this purpose is provided in “*SECTION III - EVALUATION AND QUALIFICATION CRITERIA, Item 9*”.

Pursuant to the eligibility requirements of ITT 4.10, a tender is considered a foreign tenderer, if the tenderer is not registered in Kenya or if the tenderer is registered in Kenya and has less than 51 percent ownership by Kenyan citizens. JVs are considered as foreign tenderers if the individual member firms are not registered in Kenya or if are registered in Kenya and have less than 51 percent ownership by Kenyan Citizens. The JV shall not subcontract to foreign firms more than 10 percent of the contract price, excluding provisional sums.

The National Construction Authority Act of Kenya requires that all local and foreign contractors be registered with the National Construction Authority and be issued with a Registration Certificate before they can undertake any construction works in Kenya. Registration shall not be a condition for tender, but it shall be a condition of contract award and signature. A selected tenderer shall be given opportunity to register before such award and signature of contract. Application for registration with National Construction Authority may be accessed from the website www.nca.go.ke.

The Competition Act of Kenya requires that firms wishing to tender as Joint Venture undertakings which may prevent, distort or lessen competition in provision of services are prohibited unless they are exempt in accordance with the provisions of Section 25 of the Competition Act, 2010. JVs will be required to seek for exemption from the Competition Authority. Exemption shall not be a condition for tender, but it shall be a

condition of contract award and signature. A JV tenderer shall be given opportunity to seek such exemption as a condition of award and signature of contract. Application for exemption from the Competition Authority of Kenya may be accessed from the website www.cak.go.ke

A Kenyan tenderer shall provide evidence of having fulfilled his/her tax obligations by producing a valid tax clearance certificate or tax exemption certificate issued by the Kenya Revenue Authority.

Eligible Goods, Equipment, and Services

Goods, equipment and services to be supplied under the Contract may have their origin in any country that is not eligible under ITT 3.9. At the Procuring Entity's request, Tenderers may be required to provide evidence of the origin of Goods, equipment and services.

Any goods, works and production processes with characteristics that have been declared by the relevant national environmental protection agency or by other competent authority as harmful to human beings and to the environment shall not be eligible for procurement.

Tenderer's Responsibilities

The tenderer shall bear all costs associated with the preparation and submission of his/her tender, and the Procuring Entity will in no case be responsible or liable for those costs.

The tenderer, at the tenderer's own responsibility and risk, is encouraged to visit and examine the Site of the Works and its surroundings, and obtain all information that may be necessary for preparing the tender and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the tenderer's own expense.

The Tenderer and any of its personnel or agents will be granted permission by the Procuring Entity to enter upon its premises and lands for the purpose of such visit. The Tenderer shall indemnify the Procuring Entity against all liability arising from death or personal injury, loss of or damage to property, and any other losses and expenses incurred as a result of the inspection.

The tenderer shall provide in the Form of Tender and Qualification Information, a preliminary description of the proposed work method and schedule, including charts, as necessary or required.

Contents of Tender Documents

Sections of Tender Document

The tender document consists of Parts 1, 2, and 3, which includes all the

sections specified below, and which should be read in conjunction with any Addenda issued in accordance with ITT 8.

PART 1 Tendering Procedures

Section I - Instructions to Tenderers (ITT)

Section II - Tender Data Sheet (TDS)

Section III - Evaluation and Qualification Criteria

Section IV - Tendering Forms

PART 2 Works Requirements

Section V - Drawings

Section VI - Specifications

Section VII - Bills of Quantities

PART 3 Conditions of Contract and Contract Forms

Section VIII - General Conditions of Contract (GCC)

Section IX - Special Conditions of Contract (SC)

Section X - Contract Forms

The Invitation to Tender Document (ITT) issued by the Procuring Entity is not part of the Contract documents.

Unless obtained directly from the Procuring Entity, the Procuring Entity is not responsible for the completeness of the Tender document, responses to requests for clarification, the minutes of the pre-Tender meeting (if any), or Addenda to the Tender document in accordance with ITT 8. In case of any contradiction, documents obtained directly from the Procuring Entity shall prevail.

The Tenderer is expected to examine all instructions, forms, terms, and specifications in the Tender Document and to furnish with its Tender all information and documentation as is required by the Tender document.

Site Visit

The Tenderer, at the Tenderer's own responsibility and risk, is encouraged to visit and examine and inspect the Site of the Required Services and its surroundings and obtain all information that may be necessary for preparing the Tender and entering into a contract for the Services. The costs of visiting the Site shall be at the Tenderer's own expense.

Pre-Tender Meeting

The Procuring Entity shall specify in the TDS if a pre-tender meeting will be held, when and where. The Procuring Entity shall also specify in the TDS if a pre-arranged pretender site visit will be held and when. The Tenderer's designated representative is invited to attend a pre-arranged

pretender visit of the site of the works. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

The Tenderer is requested to submit any questions in writing, to reach the Procuring Entity not later than the period specified in the TDS before the meeting.

Minutes of the pre-Tender meeting and the pre-arranged pretender site visit of the site of the works, if applicable, including the text of the questions asked by Tenderers and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Tenderers who have acquired the Tender Documents in accordance with ITT 6.3. Minutes shall not identify the source of the questions asked.

The Procuring Entity shall also promptly publish anonym ized (*no names*) Minutes of the pre- Tender meeting and the pre-arranged pretender visit of the site of the works at the web page identified in the TDS. Any modification to the Tender Documents that may become necessary as a result of the pre-tender meeting and the pre-arranged pretender site visit, shall be made by the Procuring Entity exclusively through the issue of an Addendum pursuant to ITT 8 and not through the minutes of the pre-Tender meeting. Nonattendance at the pre-Tender meeting will not be a cause for disqualification of a Tenderer.

Clarification and amendments of Tender Documents

A Tenderer requiring any clarification of the Tender Document shall contact the Procuring Entity in writing at the Procuring Entity's address specified in the TDS or raise its enquiries during the pre- Tender meeting and the pre- arranged pretender visit of the site of the works if provided for in accordance with ITT 8.4. The Procuring Entity will respond in writing to any request for clarification, provided that such request is received no later than the period specified in the TDS prior to the deadline for submission of tenders. The Procuring Entity shall forward copies of its response to all tenderers who have acquired the Tender Documents in accordance with ITT 6.3, including a description of the inquiry but without identifying its source. If specified in the TDS, the Procuring Entity shall also promptly publish its response at the web page identified in the TDS. Should the clarification result in changes to the essential elements of the Tender Documents, the Procuring Entity shall amend the Tender Documents appropriately following the procedure under ITT 8.4.

Amendment of Tendering Document

At any time prior to the deadline for submission of Tenders, the Procuring Entity may amend the Tendering document by issuing addenda.

Any addendum issued shall be part of the tendering document and shall be communicated in writing to all who have obtained the tendering document from the Procuring Entity in accordance with ITT 6.3. The Procuring Entity shall also promptly publish the addendum on the Procuring Entity's web page in accordance with ITT 8.4.

To give prospective Tenderers reasonable time in which to take an addendum into account in preparing their Tenders, the Procuring Entity shall extend, as necessary, the deadline for submission of Tenders, in accordance with ITT 25.2 below.

Preparation of Tenders

Cost of Tendering

The Tenderer shall bear all costs associated with the preparation and submission of its Tender, and the Procuring Entity shall not be responsible or liable for those costs, regardless of the conduct or outcome of the tendering process.

Language of Tender

The Tender, as well as all correspondence and documents relating to the tender exchanged by the tenderer and the Procuring Entity, shall be written in the English Language. Supporting documents and printed literature that are part of the Tender may be in another language provided they are accompanied by an accurate and notarized translation of the relevant passages into the English Language, in which case, for purposes of interpretation of the Tender, such translation shall govern.

Documents Comprising the Tender

The Tender shall comprise the following:

Form of Tender prepared in accordance with ITT 14;

Schedules including priced Bill of Quantities, completed in accordance with ITT 14 and ITT 16;

Tender Security or Tender-Securing Declaration, in accordance with ITT 21.1;

Alternative Tender, if permissible, in accordance with ITT 15;

Authorization: written confirmation authorizing the signatory of the Tender to commit the Tenderer, in accordance with ITT 22.3;

Qualifications: documentary evidence in accordance with ITT 19 establishing the Tenderer's qualifications to perform the Contract if its Tender is accepted;

Conformity: a technical proposal in accordance with ITT 18;

Any other document required in the **TDS**.

In addition to the requirements under ITT 11.1, Tenders submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful Tender shall be signed by all members and submitted with the Tender, together with a copy of the proposed agreement. The tenderer shall chronologically serialize pages of all tender documents submitted.

The Tenderer shall furnish in the Form of Tender information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Tender.

Form of Tender and Schedules

The Form of Tender and Schedules, including the Bill of Quantities, shall be prepared using the relevant forms furnished in Section IV, Tendering Forms. The forms must be completed without any alterations to the text, and no substitutes shall be accepted except as provided under ITT 20.3. All blank spaces shall be filled in with the information requested.

Alternative Tenders

Unless otherwise specified in the TDS, alternative Tenders shall not be considered.

When alternative times for completion are explicitly invited, a statement to that effect will be included in the TDS, and the method of evaluating different alternative times for completion will be described in Section III, Evaluation and Qualification Criteria.

Except as provided under ITT 13.4 below, Tenderers wishing to offer technical alternatives to the requirements of the Tender Documents must first price the Procuring Entity's design as described in the Tender Documents and shall further provide all information necessary for a complete evaluation of the alternative by the Procuring Entity, including drawings, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details. Only the technical alternatives, if any, of the Tenderer with the Winning Tender conforming to the basic technical requirements shall be considered by the Procuring Entity. When specified in the TDS, Tenderers are permitted to submit alternative technical solutions for specified parts of the Works, and such parts will be identified in the TDS, as will the method for their evaluating, and described in Section VII, Works' Requirements.

Tender Prices and Discounts

The prices and discounts (including any price reduction) quoted by the Tenderer in the Form of Tender and in the Bill of Quantities shall conform to the requirements specified below.

The Tenderer shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the Tenderer shall be deemed covered by the rates for other items in the Bill of Quantities and will not be paid for separately by the Procuring Entity. An item not listed in the priced Bill of Quantities shall be assumed to be not included in the Tender, and provided that the Tender is determined substantially responsive notwithstanding this omission, the average price of the item quoted by substantially responsive Tenderers will be added to the Tender price and the equivalent total cost of the Tender so determined will be used for price comparison.

The price to be quoted in the Form of Tender, in accordance with ITT 14.1, shall be the total price of the Tender, including any discounts offered.

The Tenderer shall quote any discounts and the methodology for their application in the Form of Tender, in accordance with ITT 14.1.

It will be specified in the TDS if the rates and prices quoted by the Tenderer are or are not subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract, except in cases where the contract is subject to fluctuations and adjustments, not fixed price. In such a case, the Tenderer shall furnish the indices and weightings for the price adjustment formulae in the Schedule of Adjustment Data and the Procuring Entity may require the Tenderer to justify its proposed indices and weightings.

Where tenders are being invited for individual lots (contracts) or for any combination of lots (packages), tenderers wishing to offer discounts for the award of more than one Contract shall specify in their Tender the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Discounts shall be submitted in accordance with ITT 16.4, provided the Tenders for all lots (contracts) are opened at the same time.

All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 30 days 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.

Currencies of Tender and Payment

Tenderers shall quote entirely in Kenya Shillings. The unit rates and the prices shall be quoted by the Tenderer in the Bill of Quantities, entirely in Kenya shillings. A Tenderer expecting to incur expenditures in other currencies for inputs to the Works supplied from outside Kenya shall device own ways of getting foreign currency to meet those expenditures.

Documents Comprising the Technical Proposal

The Tenderer shall furnish a technical proposal including a statement of work methods, equipment, personnel, schedule and any other information as stipulated in Section IV, Tender Forms, in sufficient detail to demonstrate the adequacy of the Tenderer's proposal to meet the work's requirements and the completion time.

Documents Establishing the Eligibility and Qualifications of the Tenderer

Tenderers shall complete the Form of Tender, included in Section IV, Tender Forms, to establish Tenderer's eligibility in accordance with ITT 4.

In accordance with Section III, Evaluation and Qualification Criteria, to establish its qualifications to perform the Contract the Tenderer shall provide the information requested in the corresponding information sheets included in Section IV, Tender Forms.

A margin of preference will not be allowed. Preference and reservations will be allowed, individually or in joint ventures. Applying for eligibility for Preference and reservations shall supply all information required to satisfy the criteria for eligibility specified in accordance with ITT 33.1.

Tenderers shall be asked to provide, as part of the data for qualification, such information, including details of ownership, as shall be required to determine whether, according to the classification established by the Procuring Entity, a contractor or group of contractors qualifies for a margin of preference. Further the information will enable the Procuring Entity identify any actual or potential conflict of interest in relation to the procurement and/or contract management processes, or a possibility of collusion between tenderers, and thereby help to prevent any corrupt influence in relation to the procurement process or contract management.

The purpose of the information described in ITT 19.4 above overrides any claims to confidentiality which a tenderer may have. There can be no circumstances in which it would be justified for a tenderer to keep information relating to its ownership and control confidential where it is tendering to undertake public sector work and receive public sector funds. Thus, confidentiality will not be accepted by the Procuring Entity as a justification for a Tenderer's failure to disclose, or failure to provide required information on its ownership and control.

The Tenderer shall provide further documentary proof, information or authorizations that the Procuring Entity may request in relation to ownership and control which information on any changes to the information which was provided by the tenderer under ITT 6.3. The obligations to require this information shall continue for the duration of the procurement process and contract performance and after completion of the contract, if any change to the information previously provided may reveal a conflict of interest in relation to the award or management of the contract.

All information provided by the tenderer pursuant to these requirements must be complete, current and accurate as at the date of provision to the Procuring Entity. In submitting the information required pursuant to these requirements, the Tenderer shall warrant that the information submitted is complete, current and accurate as at the date of submission to the Procuring Entity.

If a tenderer fails to submit the information required by these requirements, its tender will be rejected. Similarly, if the Procuring Entity is unable, after taking reasonable steps, to verify to a reasonable degree the information submitted by a tenderer pursuant to these requirements, then the tender will be rejected.

If information submitted by a tenderer pursuant to these requirements, or obtained by the Procuring Entity (whether through its own enquiries, through notification by the public or otherwise), shows any conflict of interest which could materially and improperly benefit the tenderer in relation to the procurement or contract management process, then:

if the procurement process is still ongoing, the tenderer will be disqualified from the procurement process,
if the contract has been awarded to that tenderer, the contract award will be set aside,
the tenderer will be referred to the relevant law enforcement authorities for investigation of whether the tenderer or any other persons have committed any criminal offence.

If a tenderer submits information pursuant to these requirements that is incomplete, inaccurate or out-of-date, or attempts to obstruct the verification process, then the consequences ITT 6.7 will ensue unless the tenderer can show to the reasonable satisfaction of the Procuring Entity that any such act was not material, or was due to genuine error which was not attributable to the intentional act, negligence or recklessness of the tenderer.

Period of Validity of Tenders

Tenders shall remain valid for the Tender Validity period specified in the TDS. The Tender Validity period starts from the date fixed for the Tender submission deadline (as prescribed by the Procuring Entity in accordance with ITT 24). A Tender valid for a shorter period shall be rejected by the Procuring Entity as non-responsive.

In exceptional circumstances, prior to the expiration of the Tender validity period, the Procuring Entity may request Tenderers to extend the period of validity of their Tenders. The request and the responses shall be made in writing. If a Tender Security is requested in accordance with ITT 21.1, it shall also be extended for thirty (30) days beyond the deadline of the extended validity period. A Tenderer may refuse the request without forfeiting its Tender security. A Tenderer granting the request shall not be required or permitted to modify its Tender, except as provided in ITT 20.3.

If the award is delayed by a period exceeding the number of days to be specified in the TDS days beyond the expiry of the initial tender validity period, the Contract price shall be determined as follows: in the case of fixed price contracts, the Contract price shall be the tender price adjusted by the factor specified in the TDS;

in the case of adjustable price contracts, no adjustment shall be made; or in any case, tender evaluation shall be based on the tender price without taking into consideration the applicable correction from those indicated above.

Tender Security

The Tenderer shall furnish as part of its Tender, either a Tender-Securing Declaration or a Tender Security as specified in the TDS, in original form and, in the case of a Tender Security, in the amount and currency specified in the TDS. A Tender-Securing Declaration shall use the form included in Section IV, Tender Forms.

If a Tender Security is specified pursuant to ITT 19.1, the Tender Security shall be a demand guarantee in any of the following forms at the Tenderer's option:

an unconditional Bank Guarantee issued by reputable commercial bank); or an irrevocable letter of credit;
a Banker's cheque issued by a reputable commercial bank; or another security specified in the TDS,

If an unconditional bank guarantee is issued by a bank located outside Kenya, the issuing bank shall have a correspondent bank located in Kenya to make it enforceable. The Tender Security shall be valid for thirty (30) days beyond the original validity period of the Tender, or beyond any period of extension if requested under ITT 20.2.

If a Tender Security or Tender-Securing Declaration is specified pursuant to ITT 19.1, any Tender not accompanied by a substantially responsive Tender Security or Tender-Securing Declaration shall be rejected by the Procuring Entity as non-responsive.

If a Tender Security is specified pursuant to ITT 21.1, the Tender Security of unsuccessful Tenderers shall be returned as promptly as possible upon the successful Tenderer's signing the Contract and furnishing the Performance Security and any other documents required in the TDS. The Procuring Entity shall also promptly return the tender security to the tenderers where the procurement proceedings are terminated, all tenders were determined nonresponsive or a bidder declines to extend tender validity period.

The Tender Security of the successful Tenderer shall be returned as promptly as possible once the successful Tenderer has signed the Contract and furnished the required Performance Security, and any other documents required in the TDS.

The Tender Security may be forfeited or the Tender-Securing Declaration executed:

if a Tenderer withdraws its Tender during the period of Tender validity specified by the Tenderer on the Form of Tender, or any extension thereto provided by the Tenderer; or

if the successful Tenderer fails to:

sign the Contract in accordance with ITT 50; or

furnish a Performance Security and if required in the TDS, and any other documents required in the TDS.

Where tender securing declaration is executed, the Procuring Entity shall recommend to the PPRA that PPRA debar the Tenderer from participating in public procurement as provided in the law.

The Tender Security or the Tender-Securing Declaration of a JV shall be in the name of the JV that submits the Tender. If the JV has not been legally constituted into a legally enforceable JV at the time of tendering, the Tender Security or the Tender-Securing Declaration shall be in the names of all future members as named in the letter of intent referred to in ITT 4.1 and ITT 11.2.

A tenderer shall not issue a tender security to guarantee itself.

Format and Signing of Tender

The Tenderer shall prepare one original of the documents comprising the Tender as described in ITT 13 and clearly mark it “ORIGINAL.” Alternative Tenders, if permitted in accordance with ITT 15, shall be clearly marked “ALTERNATIVE.” In addition, the Tenderer shall submit copies of the Tender, in the number specified in the TDS and clearly mark them “COPY.” In the event of any discrepancy between the original and the copies, the original shall prevail.

Tenderers shall mark as “CONFIDENTIAL” all information in their Tenders which is confidential to their business. This may include proprietary information, trade secrets, or commercial or financially sensitive information.

The original and all copies of the Tender shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Tenderer. This authorization shall consist of a written confirmation as specified in the TDS and shall be attached to the Tender. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Tender where entries or amendments have been made shall be signed or initialed by the person signing the Tender.

In case the Tenderer is a JV, the Tender shall be signed by an authorized representative of the JV on behalf of the JV, and to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives.

Any inter-lineation, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Tender.

Submission and Opening of Tenders

Sealing and Marking of Tenders

Depending on the sizes or quantities or weight of the tender documents, a tenderer may use an envelope, package or container. The Tenderer shall deliver the Tender in a single sealed envelope, or in a single sealed package, or in a single sealed container bearing the name and Reference number of the Tender, addressed to the Procuring Entity and a warning not to open before the time and date for Tender opening date. Within the single envelope, package or container, the Tenderer shall place the following separate, sealed envelopes:

in an envelope or package or container marked “ORIGINAL”, all documents comprising the Tender, as described in ITT 11; and

in an envelope or package or container marked “COPIES”, all required

copies of the Tender; and
if alternative Tenders are permitted in accordance with ITT 15, and if relevant:
in an envelope or package or container marked “ORIGINAL –
ALTERNATIVE TENDER”, the alternative Tender; and
in the envelope or package or container marked “COPIES- ALTERNATIVE TENDER”,
all required copies of the alternative Tender.

The inner envelopes or packages or containers shall:
bear the name and address of the Procuring Entity.
bear the name and address of the Tenderer; and
bear the name and Reference number of the Tender.

If an envelope or package or container is not sealed and marked as required, the *Procuring Entity* will assume no responsibility for the misplacement or premature opening of the Tender. Tenders that are misplaced or opened prematurely will not be accepted.

Deadline for Submission of Tenders

Tenders must be received by the Procuring Entity at the address specified in the TDS and no later than the date and time also specified in the TDS. When so specified in the TDS, Tenderers shall have the option of submitting their Tenders electronically. Tenderers submitting Tenders electronically shall follow the electronic Tender submission procedures specified in the TDS.

The Procuring Entity may, at its discretion, extend the deadline for the submission of Tenders by amending the Tender Documents in accordance with ITT 8, in which case all rights and obligations of the Procuring Entity and Tenderers previously subject to the deadline shall thereafter be subject to the deadline as extended.

Late Tenders

The Procuring Entity shall not consider any Tender that arrives after the deadline for submission of tenders, in accordance with ITT 24. Any Tender received by the Procuring Entity after the deadline for submission of Tenders shall be declared late, rejected, and returned unopened to the Tenderer.

Withdrawal, Substitution, and Modification of Tenders

A Tenderer may withdraw, substitute, or modify its Tender after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITT 22.3, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the Tender must accompany the respective written notice. All notices must be:

prepared and submitted in accordance with ITT 22 and ITT 23 (except that withdrawals notices do not require copies), and in addition, the respective envelopes shall be clearly marked “WITHDRAWAL,” “SUBSTITUTION,” “MODIFICATION;” and

received by the Procuring Entity prior to the deadline prescribed for submission of Tenders, in accordance with ITT 24.

Tenders requested to be withdrawn in accordance with ITT 26.1 shall be returned unopened to the Tenderers.

No Tender may be withdrawn, substituted, or modified in the interval between the deadline for submission of Tenders and the expiration of the period of Tender validity specified by the Tenderer on the Form of Tender or any extension thereof.

Tender Opening

Except in the cases specified in ITT 23 and ITT 26.2, the Procuring Entity shall publicly open and read out all Tenders received by the deadline, at the date, time and place specified in the TDS, in the presence of Tenderers' designated representatives who chooses to attend. Any specific electronic Tender opening procedures required if electronic Tendering is permitted in accordance with ITT 24.1, shall be as specified in the TDS.

First, envelopes marked "WITHDRAWAL" shall be opened and read out and the envelopes with the corresponding Tender shall not be opened, but returned to the Tenderer. No Tender withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at Tender opening.

Next, envelopes marked "SUBSTITUTION" shall be opened and read out and exchanged with the corresponding Tender being substituted, and the substituted Tender shall not be opened, but returned to the Tenderer. No Tender substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at Tender opening.

Next, envelopes marked "MODIFICATION" shall be opened and read out with the corresponding Tender. No Tender modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at Tender opening.

Next, all remaining envelopes shall be opened one at a time, reading out: the name of the Tenderer and whether there is a modification; the total Tender Price, per lot (contract) if applicable, including any discounts and alternative Tenders; the presence or absence of a Tender Security or Tender-Securing Declaration, if required; and any other details as the Procuring Entity may consider appropriate.

Only Tenders, alternative Tenders and discounts that are opened and read out at Tender opening shall be considered further for evaluation. The Form of Tender and pages of the Bills of Quantities are to be initialed by the members of the tender opening committee attending the opening. The number of representatives of the Procuring Entity to sign shall be specified in the TDS.

At the Tender Opening, the Procuring Entity shall neither discuss the merits of any Tender nor reject any Tender (except for late Tenders, in accordance with ITT 25.1).

The Procuring Entity shall prepare minutes of the Tender Opening that shall include, as a minimum:

- the name of the Tenderer and whether there is a withdrawal, substitution, or modification;
- the Tender Price, per lot (contract) if applicable, including any discounts;
- any alternative Tenders;
- the presence or absence of a Tender Security, if one was required.

number of pages of each tender document submitted.

The Tenderers' representatives who are present shall be requested to sign the minutes. The omission of a Tenderer's signature on the minutes shall not invalidate the contents and effect of the minutes. A copy of the tender opening register shall be distributed to all Tenderers upon request.

Evaluation and Comparison of Tenders

Confidentiality

Information relating to the evaluation of Tenders and recommendation of contract award shall not be disclosed to Tenderers or any other persons not officially concerned with the Tender process until information on Intention to Award the Contract is transmitted to all Tenderers in accordance with ITT 46.

Any effort by a Tenderer to influence the Procuring Entity in the evaluation of the Tenders or Contract award decisions may result in the rejection of its tender.

Notwithstanding ITT 28.2, from the time of tender opening to the time of contract award, if a tenderer wishes to contact the Procuring Entity on any matter related to the tendering process, it shall do so in writing.

Clarification of Tenders

To assist in the examination, evaluation, and comparison of the tenders, and qualification of the tenderers, the Procuring Entity may, at its discretion, ask any tenderer for a clarification of its tender, given a reasonable time for a response. Any clarification submitted by a tenderer that is not in response to a request by the Procuring Entity shall not be considered. The Procuring Entity's request for clarification and the response shall be in writing. No change, including any voluntary increase or decrease, in the prices or substance of the tender shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Procuring Entity in the evaluation of the tenders, in accordance with ITT 33.

If a tenderer does not provide clarifications of its tender by the date and time set in the Procuring Entity's request for clarification, its Tender may be rejected.

Deviations, Reservations, and Omissions

During the evaluation of tenders, the following definitions apply:

“Deviation” is a departure from the requirements specified in the tender document;

“Reservation” is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the tender document; and

“Omission” is the failure to submit part or all of the information or documentation required in the Tender document.

Determination of Responsiveness

The Procuring Entity's determination of a Tender's responsiveness is to be based on the contents of the tender itself, as defined in ITT 13.

A substantially responsive Tender is one that meets the requirements of the Tender document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that, if accepted, would:

affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or

limit in any substantial way, inconsistent with the tender document, the Procuring Entity's rights or the tenderer's obligations under the proposed contract; or
if rectified, would unfairly affect the competitive position of other tenderers presenting substantially responsive tenders.

The Procuring Entity shall examine the technical aspects of the tender submitted in accordance with ITT 18, to confirm that all requirements of Section VII, Works' Requirements have been met without any material deviation, reservation or omission.

If a tender is not substantially responsive to the requirements of the tender document, it shall be rejected by the Procuring Entity and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

Non-material Non-conformities

Provided that a tender is substantially responsive, the Procuring Entity may waive any non-conformities in the tender.

Provided that a Tender is substantially responsive, the Procuring Entity may request that the tenderer submit the necessary information or documentation, within a reasonable period, to rectify nonmaterial non-conformities in the tender related to documentation requirements. Requesting information or documentation on such non- conformities shall not be related to any aspect of the price of the tender. Failure of the tenderer to comply with the request may result in the rejection of its tender.

Provided that a tender is substantially responsive, the Procuring Entity shall rectify quantifiable nonmaterial non-conformities related to the Tender Price. To this effect, the Tender Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non- conforming item or component in the manner specified in the TDS.

Arithmetical Errors

The tender sum as submitted and read out during the tender opening shall be absolute and final and shall not be the subject of correction, adjustment or amendment in any way by any person or entity.

Provided that the Tender is substantially responsive, the Procuring Entity shall handle errors on the following basis:

Any error detected if considered a major deviation that affects the substance of the tender, shall lead to disqualification of the tender as non-responsive.

Any errors in the submitted tender arising from a miscalculation of unit price, quantity, and subtotal and total bid price shall be considered as a major deviation that affects the substance of the tender and shall lead to disqualification of the tender as non-responsive. and

if there is a discrepancy between words and figures, the amount in words shall prevail

33.2 Tenderers shall be notified of any error detected in their bid during the notification of a ward.

Currency provisions

Tenders will priced be in Kenya Shillings only. Tenderers quoting in currencies other than in Kenya shillings will be determined non-responsive and rejected.

Margin of Preference and Reservations

No margin of preference shall be allowed on contracts for small works.

Where it is intended to reserve the contract to specific groups under Small and Medium Enterprises, or enterprise of women, youth and/or persons living with disability, who are appropriately registered as such by the authority to be specified in the TDS, a procuring entity shall ensure that the invitation to tender specifically indicates that only businesses/firms belonging to those specified groups are the only ones eligible to tender. Otherwise if no so stated, the invitation will be open to all tenderers.

Nominated Subcontractors

Unless otherwise stated in the TDS, the Procuring Entity does not intend to execute any specific elements of the Works by subcontractors selected in advance by the Procuring Entity.

Tenderers may propose subcontracting up to the percentage of total value of contracts or the volume of works as specified in the TDS. Subcontractors proposed by the Tenderer shall be fully qualified for their parts of the Works.

The subcontractor's qualifications shall not be used by the Tenderer to qualify for the Works unless their specialized parts of the Works were previously designated by the Procuring Entity in the TDS as can be met by subcontractors referred to hereafter as 'Specialized Subcontractors', in which case, the qualifications of the Specialized Subcontractors proposed by the Tenderer may be added to the qualifications of the Tenderer.

Evaluation of Tenders

The Procuring Entity shall use the criteria and methodologies listed in this ITT and Section III, Evaluation and Qualification Criteria. No other evaluation criteria or methodologies shall be permitted. By applying the criteria and methodologies the Procuring Entity shall determine the Best Evaluated Tender in accordance with ITT 40.

To evaluate a Tender, the Procuring Entity shall consider the following:

price adjustment due to discounts offered in accordance with ITT 16;

converting the amount resulting from applying (a) and (b) above, if relevant, to a single currency in accordance with ITT 39;

price adjustment due to quantifiable nonmaterial non-conformities in accordance with ITT 30.3; and
any additional evaluation factors specified in the TDS and Section III, Evaluation and Qualification Criteria.

The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be considered in Tender evaluation.

In the case of multiple contracts or lots, Tenderers shall be allowed to tender for one or more lots and the methodology to determine the lowest evaluated cost of the lot (contract) combinations, including any discounts offered in the Form of Tender, is specified in Section III, Evaluation and Qualification Criteria.

Comparison of Tenders

The Procuring Entity shall compare the evaluated costs of all substantially responsive Tenders established in accordance with ITT 38.2 to determine the Tender that has the lowest evaluated cost.

Abnormally Low Tenders

An Abnormally Low Tender is one where the Tender price, in combination with other elements of the Tender, appears so low that it raises material concerns as to the capability of the Tenderer in regards to the Tenderer's ability to perform the Contract for the offered Tender Price or that genuine competition between Tenderers is compromised.

In the event of identification of a potentially Abnormally Low Tender, the Procuring Entity shall seek written clarifications from the Tenderer, including detailed price analyses of its Tender price in relation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the Tender document.

After evaluation of the price analyses, in the event that the Procuring Entity determines that the Tenderer has failed to demonstrate its capability to perform the Contract for the offered Tender Price, the Procuring Entity shall reject the Tender.

Abnormally High Tenders

An abnormally high price is one where the tender price, in combination with other constituent elements of the Tender, appears unreasonably too high to the extent that the Procuring Entity is concerned that it (the Procuring Entity) may not be getting value for money or it may be paying too high a price for the contract compared with market prices or that genuine competition between Tenderers is compromised.

In case of an abnormally high tender price, the Procuring Entity shall make a survey of the market prices, check if the estimated cost of the contract is correct and review the Tender Documents to check if the specifications, scope of work and conditions of contract are contributory to the abnormally high tenders. The Procuring Entity may also seek written clarification from the tenderer on the reason for the high tender price. The Procuring Entity shall proceed as follows:

If the tender price is abnormally high based on wrong estimated cost of the contract, the Procuring Entity may accept or not accept the tender depending on the Procuring Entity's budget considerations. If specifications, scope of work and/or conditions of contract are contributory to the abnormally high tender prices, the Procuring Entity shall reject all tenders and may retender for the contract based on revised estimates, specifications, scope of work and conditions of contract, as the case may be.

If the Procuring Entity determines that the Tender Price is abnormally too high because genuine competition between tenderers is compromised (*often due to collusion, corruption or other manipulations*), the Procuring Entity shall reject all Tenders and shall institute or cause competent Government Agencies to institute an investigation on the cause of the compromise, before retendering.

Unbalanced and/or Front-Loaded Tenders

If in the Procuring Entity's opinion, the Tender that is evaluated as the lowest evaluated price is seriously unbalanced and/or front loaded, the Procuring Entity may require the Tenderer to provide written clarifications. Clarifications may include detailed price analyses to demonstrate the consistency of the tender prices with the scope of works, proposed methodology, schedule and any other requirements of the Tender document.

After the evaluation of the information and detailed price analyses presented by the Tenderer, the Procuring Entity may as appropriate:

accept the Tender; or

require that the total amount of the Performance Security be increased at the expense of the Tenderer to a level not exceeding a 30% of the Contract Price; or
agree on a payment mode that eliminates the inherent risk of the Procuring Entity paying too much for undelivered works; or
reject the Tender,

Qualifications of the Tenderer

The Procuring Entity shall determine to its satisfaction whether the eligible Tenderer that is selected as having submitted the lowest evaluated cost and substantially responsive Tender, meets the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.

The determination shall be based upon an examination of the documentary evidence of the Tenderer's qualifications submitted by the Tenderer, pursuant to ITT 19. The determination shall not take into consideration the qualifications of other firms such as the Tenderer's subsidiaries, parent entities, affiliates, subcontractors (other than Specialized Subcontractors if permitted in the Tender document), or any other firm(s) different from the Tenderer.

An affirmative determination shall be a prerequisite for award of the Contract to the Tenderer. A negative determination shall result in disqualification of the Tender, in which event the Procuring Entity shall proceed to the Tenderer who offers a substantially responsive Tender with the next lowest evaluated price to make a similar determination of that Tenderer's qualifications to perform satisfactorily.

An Abnormally Low Tender is one where the Tender price, in combination with other elements of the Tender, appears so low that it raises material concerns as to the capability of the Tenderer in regards to the Tenderer's ability to perform the Contract for the offered Tender Price.

In the event of identification of a potentially Abnormally Low Tender, the Procuring Entity shall seek written clarifications from the Tenderer, including detailed price analyses of its Tender price in relation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the Tender document.

After evaluation of the price analyses, if the Procuring Entity determines that the Tenderer has failed to demonstrate its capability to perform the Contract for the offered Tender Price, the Procuring Entity shall reject the Tender.

Best Evaluated Tender

Having compared the evaluated prices of Tenders, the Procuring Entity shall determine the Best Evaluated Tender. The Best Evaluated Tender is the Tender of the Tenderer that meets the Qualification Criteria and whose Tender has been determined to be:

Most responsive to the Tender document; and
the lowest evaluated price.

Procuring Entity's Right to Accept Any Tender, and to Reject Any or All Tenders.

The Procuring Entity reserves the right to accept or reject any Tender and to annul the Tender process and reject all Tenders at any time prior to Contract Award, without thereby incurring any liability to Tenderers. In case of annulment, all Tenderers shall be notified with reasons and all Tenders submitted and specifically, Tender securities, shall be promptly returned to the Tenderers.

Award of Contract

Award Criteria

The Procuring Entity shall award the Contract to the successful tenderer whose tender has been determined to be the Lowest Evaluated Tender.

Notice of Intention to enter into a Contract

Upon award of the contract and Prior to the expiry of the Tender Validity Period the Procuring Entity shall issue a Notification of Intention to Enter into a Contract / Notification of award to all tenderers which shall contain, at a minimum, the following information:

the name and address of the Tenderer submitting the successful tender;

the Contract price of the successful tender;

a statement of the reason(s) the tender of the unsuccessful tenderer to whom the letter is addressed was unsuccessful, unless the price information in (c) above already reveals the reason;

the expiry date of the Standstill Period; and

instructions on how to request a debriefing and/or submit a complaint during the standstill period;

Standstill Period

The Contract shall not be signed earlier than the expiry of a Standstill Period of 14 days to allow any dissatisfied tender to launch a complaint. Where only one Tender is submitted, the Standstill Period shall not apply.

Where a Standstill Period applies, it shall commence when the Procuring Entity has transmitted to each Tenderer the Notification of Intention to Enter into a Contract with the successful Tenderer.

Debriefing by the Procuring Entity

On receipt of the Procuring Entity's Notification of Intention to Enter into a Contract referred to in ITT 46, an unsuccessful tenderer may make a written request to the Procuring Entity for a debriefing on specific issues or concerns regarding their tender. The Procuring Entity shall provide the debriefing within five days of receipt of the request.

Debriefings of unsuccessful Tenderers may be done in writing or verbally. The Tenderer shall bear its own costs of attending such a debriefing meeting.

Letter of Award

Prior to the expiry of the Tender Validity Period and upon expiry of the Standstill Period specified in ITT 42.1, upon addressing a complaint that has been filed within the Standstill Period, the Procuring Entity shall transmit the Letter of Award to the successful Tenderer. The letter of award shall request the successful tenderer to furnish the Performance Security within 21 days of the date of the letter.

Signing of Contract

Upon the expiry of the fourteen days of the Notification of Intention to enter into contract and upon the parties meeting their respective statutory requirements, the Procuring Entity shall send the successful Tenderer the Contract Agreement.

Within fourteen (14) days of receipt of the Contract Agreement, the successful Tenderer shall sign, date, and return it to the Procuring Entity.

The written contract shall be entered into within the period specified in the notification of award and before expiry of the tender validity period

Appointment of Adjudicator

The Procuring Entity proposes the person named in the TDS to be appointed as Adjudicator under the Contract, at the hourly fee specified in the TDS, plus reimbursable expenses. If the Tenderer disagrees with this proposal, the Tenderer should so state in his Tender. If, in the Letter of Acceptance, the Procuring Entity does not agree on the appointment of the Adjudicator, the Procuring Entity will request the Appointing Authority designated in the Special Conditions of Contract (SCC) pursuant to Clause 23.1 of the General Conditions of Contract (GCC), to appoint the Adjudicator.

Performance Security

Within twenty-one (21) days of the receipt of the Letter of Acceptance from the Procuring Entity, the successful Tenderer shall furnish the Performance Security and, any other documents required in the TDS, in accordance with the General Conditions of Contract, subject to ITT 40.2 (b), using the Performance Security and other Forms included in Section X, Contract Forms, or another form acceptable to the Procuring Entity. A foreign institution providing a bank guarantee shall have a correspondent financial institution located in Kenya, unless the Procuring Entity has agreed in writing that a correspondent bank is not required.

Failure of the successful Tenderer to submit the above-mentioned Performance Security and other documents required in the TDS, or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Tender Security. In that event the Procuring Entity may award the Contract to the Tenderer offering the next Best Evaluated Tender.

Performance security shall not be required for contracts estimated to cost less than Kenya shillings five million shillings.

Publication of Procurement Contract

Within fourteen days after signing the contract, the Procuring Entity shall publish the awarded contract at its notice boards and websites; and on the Website of the Authority. At the minimum, the notice shall contain the following information:

name and address of the Procuring Entity;

name and reference number of the contract being awarded, a summary of its scope and the selection method used;

the name of the successful Tenderer, the final total contract price, the contract duration.

dates of signature, commencement and completion of contract;

names of all Tenderers that submitted Tenders, and their Tender prices as read out at Tender opening.

Procurement Related Complaints and Administrative Review

The procedures for making Procurement-related Complaints are as specified in the TDS.

A request for administrative review shall be made in the form provided under contract forms

Section II - Tender Data Sheet (TDS)

The following specific data shall complement, supplement, or amend the provisions in the Instructions to Tenderers (ITT). Whenever there is a conflict, the provisions herein shall prevail over those in ITT.

ITT Reference	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	A. General
ITT 1.1	The name of the contract is: <i>Construction of Rurie Water Supply Project in Ngurubani, Wamumu Ward, Mwea West Sub county, Kirinyaga County</i> The reference number of the Contract is KWSC/WSTF/RWSP/2025-26 The number and identification of lots (contracts) comprising this Tender are N/A
ITT 2.3	The Information made available on competing firms is as follows: Cost of tendering shall be Kshs 1000 or free of charge if downloaded from www.kicowasco.co.ke
ITT 2.4	The firms that provided consulting services for the contract being tendered for are: N/A
ITT 3.1	Maximum number of members in the Joint Venture (JV) shall be: none
	B. Contents of Tender Document
8.1	Pre-Tender conference <i>shall not</i> take place at the following date, time and place: Date: N/A Time: N/A Place: N/A A pre-arranged pretender visit(compulsory) of the site of the works <i>shall</i> take place at the following date, time and place: Date: 19th August, 2025 Time: 9.30 a.m Place: KICOWASCO HQ office
ITT 8.2	The Tenderer will submit any questions in writing, to reach the Procuring Entity not later than 27th August, 2025

ITT Reference	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
ITT 8.4	The Procuring Entity's website where Minutes of the pre-Tender meeting and the pre-arranged pretender site visit will be published is www.kicowasco.co.ke
ITT 9.1	For Clarification of Tender purposes, for obtaining further information and for purchasing tender documents, the Procuring Entity's address is: Kirinyaga County Water and Sanitation PLC Kerugoya Town, Opposite Kerugoya stadium Postal Address: 360-10300 Kerugoya Addressed to the <i>Managing Director</i>, Tel: 0746555368/0715413591, email address: managingdirector@kicowasco.co.ke/info@kicowasco.co.ke
C. Preparation of Tenders	
ITP 13.1 (h)	The Tenderer shall submit the following additional documents in its Tender: <i>[list any additional document not already listed in ITT 13.1 that must be submitted with the Tender. The list of additional documents should include the following:]</i> <i>Valid Tax compliance certificate, Pin Certificate, Business Permit, Certificate of Incorporation/Registration, Self-Declaration not to engage in corruption, power of attorney, NCA 7 certificate and above, and Provide CV's of at least (3) Technical personnel in the organization.</i>
ITT 15.1	Alternative Tenders <i>shall not</i> be considered.
ITT 15.2	Alternative times for completion <i>shall not</i> be permitted.
ITT 15.4	Alternative technical solutions shall be permitted for the following parts of the Works: <i>N/A</i>
ITT 16.5	The prices quoted by the Tenderer shall be: <i>fixed</i>
ITT 20.1	The Tender validity period shall be <i>182</i> days.
ITT 20.3 (a)	The delayed to exceeding <i>N/A</i> number of days. The Tender price shall be adjusted by the following percentages of the tender price: <i>N/A</i>

ITT Reference	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	By ___% of the local currency portion of the Contract price adjusted to reflect local inflation during the period of extension, N/A and By___% the foreign currency portion of the Contract price adjusted to reflect the international inflation during the period of extension.N/A
ITT 21.1	<i>[If a Tender Security shall be required, a Tender-Securing Declaration shall not be required, and vice versa.]</i> A Tender Security shall be required. A Tender-Securing Declaration shall be required. If a Tender Security shall be required, the amount and currency of the Tender Security shall be 2% of the tender bids. <i>[If a Tender Security is required, insert amount and currency of the Tender Security. Otherwise insert “Not Applicable”.] [In case of lots, please insert amount and currency of the Tender Security for each lot]</i> <i>Note: Tender Security is required for each lot as per amounts indicated against each lot. Tenderers have the option of submitting one Tender Security for all lots (for the combined total amount of all lots) for which Tenders have been submitted, however if the amount of Tender Security is less than the total required amount, the Procuring Entity will determine for which lot or lots the Tender Security amount shall be applied.]</i>
ITT 21.2 (d)	The other Tender Security shall be none
ITT 21.5	On the Performance Security, other documents required shall be: performance guarantee _____
ITT 22.1	In addition to the original of the Tender, the number of copies is: 2
ITT 22.3	The written confirmation of authorization to sign on behalf of the Tenderer shall consist of: <i>Attorney in-fact</i> <i>Governing Law, Liability of Attorney in – fact</i> <i>Effective Date, Powers of Attorney in - fact</i>
D. Submission and Opening of Tenders	
ITT 24.1	(A) For <u>Tender submission purposes</u> only, the Procuring Entity’s address is:

ITT Reference	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	Kirinyaga County Water and Sanitation PLC Kerugoya Town, Opposite Kerugoya stadium Postal Address: 360-10300 Kerugoya Addressed to the <i>Managing Director</i>, <i>el:</i> 0746555368/0715413591, <i>email address:</i> managingdirector@kicowasco.co.ke/info@kicowasco.co.ke Date and time for submission of Tenders on or before Wednesday 27th August, 2025 at 12:00 Noon (5) Tenders shall <i>shall not submit</i> tenders electronically.
ITT 27.1	The Tender opening shall take place at the time and the address for Opening of Tenders provided below: Kirinyaga County Water and Sanitation PLC Kerugoya Town, Opposite Kerugoya stadium Postal Address: 360-10300 Kerugoya Addressed to the <i>Managing Director</i>, <i>Tel:</i> 0746555368/0715413591, <i>email address:</i> managingdirector@kicowasco.co.ke/info@kicowasco.co.ke Wednesday 27th August 2025 at 12:00 Noon
ITT 27.1	If Tenderers are allowed to submit Tenders electronically, they shall follow the electronic tender submission procedures specified below: N/A
ITT 27.6	The number of representatives of the Procuring Entity to sign is _____1_____.
E. Evaluation, and Comparison of Tenders	
ITT 32.3	The adjustment shall be based on the <i>average</i> price of the item or component as quoted in other substantially responsive Tenders. If the price of the item or component cannot be derived from the price of other substantially responsive Tenders, the Procuring Entity shall use its best estimate.

ITT Reference	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
ITT 35.2	The invitation to tender is extended to the following groups that qualify for Reservations <u>N/A</u> <i>(These groups are Small and Medium Enterprises, Women Enterprises, Youth Enterprises and Enterprises of persons living with disability, as the case may be; describe precisely which groups qualify).</i>
ITT 36.1	At this time, the Procuring Entity <i>does not intend</i> to execute certain specific parts of the Works by subcontractors selected in advance.
ITT 36.2	Contractor's may propose subcontracting: Maximum percentage of subcontracting permitted is: <u>N/A</u> % of the total contract amount. Tenderers planning to subcontract more than 10% of total volume of work shall specify, in the Form of Tender, the activity (ies) or parts of the Works to be subcontracted along with complete details of the subcontractors and their qualification and experience.
ITT 36.3	The parts of the Works for which the Procuring Entity permits Tenderers to propose Specialized Subcontractors are designated as follows: N/A For the above-designated parts of the Works that may require Specialized Subcontractors, the relevant qualifications of the proposed Specialized Subcontractors will be added to the qualifications of the Tenderer for the purpose of evaluation.
ITT 37.2 (d)	Additional requirements apply. These are detailed in the evaluation criteria in Section III, Evaluation and Qualification Criteria.
ITT 51.1	The person named to be appointed as Adjudicator is chairperson of Chartered Institute of Arbitrators, Nairobi (<i>pride tel. no. full postal and email addresses</i>) at an hourly fee of Shs. 20,000 per day.
ITT 52.2	Other documents required are <u>N/A</u>
ITT 54.1	The procedures for making a Procurement-related Complaints are detailed in the "Regulations" available from the PPRA Website www.ppra.go.ke or email complaints@ppra.go.ke. If a Tenderer wishes to make a Procurement- related Complaint, the Tenderer should submit its complaint following these procedures, in writing (by the quickest means available, that is either by hand delivery or email to: For the attention: DR. Cyrus Munyua Ph.D Title/position: Managing Director

ITT Reference	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	Procuring Entity: <i>Kirinyaga County Water and Sanitation PLC</i> Email address: procurement@kicowasco.co.ke/info@kicowasco.co.ke In summary, a Procurement-related Complaint may challenge any of the following: the terms of the Tender Documents; and the Procuring Entity's decision to award the contract.

SECTION III - EVALUATION AND QUALIFICATION CRITERIA

General Provisions

Wherever a Tenderer is required to state a monetary amount, Tenderers should indicate the Kenya Shilling equivalent using the rate of exchange determined as follows:

For construction turnover or financial data required for each year - Exchange rate prevailing on the last day of the respective calendar year (in which the amounts for that year is to be converted) was originally established.

Value of single contract - Exchange rate prevailing on the date of the contract signature.

Exchange rates shall be taken from the publicly available source identified in the ITT 14.3.

Any error in determining the exchange rates in the Tender may be corrected by the Procuring Entity.

This section contains the criteria that the Employer shall use to evaluate tender and qualify tenderers. No other factors, methods or criteria shall be used other than specified in this tender document. The Tenderer shall provide all the information requested in the forms included in Section IV, Tendering Forms. The Procuring Entity should use **the Standard Tender Evaluation Document for Goods and Works** for evaluating Tenders.

Evaluation and contract award Criteria

The Procuring Entity shall use the criteria and methodologies listed in this Section to evaluate tenders and arrive at the Lowest Evaluated Tender. The tender that (i) meets the qualification criteria, (ii) has been determined to be substantially responsive to the Tender Documents, and (iii) is determined to have the Lowest Evaluated Tender price shall be selected for award of contract.

Preliminary examination for Determination of Responsiveness

The Procuring Entity will start by examining all tenders to ensure they meet in all respects the eligibility criteria and other requirements in the ITT, and that the tender is complete in all aspects in meeting the requirements of “Part 2 – Procuring Entity's Works Requirements”, including checking for tenders with unacceptable errors, abnormally low tenders, abnormally high tenders and tenders that are front loaded. The Standard Tender Evaluation Report Document for Goods and Works for evaluating Tenders provides very clear guide on how to deal with review of these requirements. Tenders that do not pass the Preliminary Examination will be considered irresponsive and will not be considered further.

NO	PRELIMINARY REQUIREMENTS	POINTS (YES/NO)	REMARKS
1.	Company registration certificate (registration certificate / Certificate of Incorporation).		
2.	VAT/ PIN Registration.		
3.	Valid Tax Compliance Certificate.		
4.	Provide CVs of at least (3) Technical personnel in the organization.		
5.	Provide a copy of NCA 7 certificate and above.		
6.	Provide a Bid Security (2% of the Tender Sum).		

7.	CR 12 Form obtained in the period not exceeding nominee year showing the shareholders of the firm and their nationality /Partnership deed for partnerships.		
8.	Certified financial Audited accounts for the last two years (2023 and 2024).The accounts must be duly signed and Stamped by a certified accountant /Auditor.		
9.	Duly filled business questionnaire with disclosure of directors / partners/sole proprietor.		
	Must submit a dully filled, signed and stamped price schedule in the format provided for in the Tender Document.		
11.	Duly filled, Signed & Stamped Form of Tender.		
12.	Serialized bid document in the format of 1, 2, 3, 4....		
13.	Valid Business Permit/ Trade License.		
14.	Attended the site visit.		
15.	All submitted documents should be certified by commissioner for Oaths.		
16.	Litigation History should not have pending litigations related to tenders.		
17.	All forms in the tender document must be dully filled, signed & Stamped.		
18.	Power of attorney should be dully filled, Signed & Stamped		

Note: Copies of the above documents **MUST** be provided for a firm to be qualified to proceed to the next level of evaluations.

PART 2: Technical Evaluations

	Requirements	MAX. Points	Score
1	Supplier Availability Name provided 1 point Physical address provided 1 point Town/city provided 1 point Street provided 1 point Contact Person (s) provided 2 points Telephone Number provided 2 points Postal Address 2 points Email Address 2 points Website 2 points	14	
2	Enclose letters, copies of certificate and curriculum vitae of Directors, Supervisors and duly signed by the staff, Professionally qualified (2 points) key personnel with at least two (2) years relevant experience: - Directors (2 points) Supervisors (2 points) 2 Key Personnel (10 points)	14	

3	Experience Must have evidence of similar Works for Five (5) Years (Certificate of completion / Award letters/ LPO/LSO) to be enclosed	20	
4	Financial Capability: 1) Audited Financial Accounts for the last 2 years. Attach Bank Statements for the last 6 months	20	
5	Financial Stability Evidence of profit making in the attached 2 years (3 points per year) Value of Business the firm has handled at once (Attach evidence) Less than Kshs 500,000.00 (2 points) Kshs 500,001.00 - 1,000,000.00 3 points Kshs 1,000,000.00 - 5,000,000.00 (4 points) Kshs 5,000,001 and above (5 points)	7	
6	Value that business can handle at one time attach evidence Indicate Credit Period willing to offer -Below Kshs 500,000.00 (2 points) -Below Kshs 1,000,000.00 (4 points) - Above Kshs 1,000,000.00 (10 points)	10	
7	Credit facility 30 days – (5 points) 60 days – (10 points) 90 days – (15 points)	20	

Note:

For a tenderer to qualify for the recommendation of the award, they must meet a minimum score of 70%.

Validity of the documents below is subject to confirmation by the evaluation committees

Tender Evaluation (ITT 35)

Price evaluation: in addition to the criteria listed in ITT 35.2 (a) – (c) the

following criteria shall apply:

Alternative Compensation Times, if permitted under ITT 13.2, will be evaluated as follows:

.....

Alternative Technical Solutions for specified parts of the Works, if permitted under ITT 13.4, will be evaluated as follows:

.....

Other Criteria; if permitted under ITT 35.2(d):

.....

Multiple Contracts

Multiple contracts will be permitted in accordance with ITT 35.4. Tenderers are evaluated on basis of Lots and the lowest evaluated tenderer identified for each Lot. The Procuring Entity will select one Option of the two Options listed below for award of Contracts.

OPTION 1

If a tenderer wins only one Lot, the tenderer will be awarded a contract for that Lot, provided the tenderer meets the Eligibility and Qualification Criteria for that Lot.

If a tenderer wins more than one Lot, the tender will be awarded contracts for all won Lots, provided the tenderer meets the aggregate Eligibility and Qualification Criteria for all the Lots. The tenderer will be awarded the combination of Lots for which the tenderer qualifies and the others will be considered for award to second lowest the tenderers.

OPTION 2

The Procuring Entity will consider all possible combinations of won Lots [contract(s)] and determine the combinations with the lowest evaluated price. Tenders will then be awarded to the Tenderer or Tenderers in the combinations provided the tenderer meets the aggregate Eligibility and Qualification Criteria for all the won Lots.

Alternative Tenders (ITT 13.1)

An alternative if permitted under ITT 13.1, will be evaluated as follows:

The Procuring Entity shall consider Tenders offered for alternatives as specified in Part 2- Works Requirements. Only the technical alternatives, if any, of the Tenderer with the Best Evaluated Tender conforming to the basic technical requirements shall be considered by the Procuring Entity.

Margin of Preference is not applicable

Post qualification and Contract award (ITT 39), more specifically,

In case the tender was subject to post-qualification, the contract shall be awarded to the lowest evaluated tenderer, subject to confirmation of pre-qualification data, if so required.

In case the tender was not subject to post-qualification, the tender that has been determined to be the lowest evaluated tenderer shall be considered for contract award, subject to meeting each of the following conditions.

The Tenderer shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow of Kenya Shillings _____.

Minimum average annual construction turnover of Kenya Shillings *[insert amount]*, equivalent calculated as total certified payments received for contracts in progress and/or completed within the last *[insert of year]* years.

At least _____ (*insert number*) of contract(s) of a similar nature executed within Kenya, or the East African Community or abroad, that have been satisfactorily and substantially completed as a prime contractor, or joint venture member or sub-contractor each of minimum value Kenya shillings _____ equivalent.

Contractor's Representative and Key Personnel, which are specified as

Contractors key equipment listed on the table "Contractor's Equipment" below and more specifically listed as *[specify requirements for each lot as applicable]*

Other conditions depending on their seriousness.

History of non-performing contracts:

Tenderer and each member of JV in case the Tenderer is a JV, shall demonstrate that Non-

performance of a contract did not occur because of the default of the Tenderer, or the member of a JV in the last _____(*specify years*). The required information shall be furnished in the appropriate form.

Pending Litigation

Financial position and prospective long-term profitability of the Single Tenderer, and in the case the Tenderer is a JV, of each member of the JV, shall remain sound according to criteria established with respect to Financial Capability under Paragraph (i) above if all pending litigation will be resolved against the Tenderer. Tenderer shall provide information on pending litigations in the appropriate form.

Litigation History

There shall be no consistent history of court/arbitral award decisions against the Tenderer, in the last _____(*specify years*). All parties to the contract shall furnish the information in the appropriate form about any litigation or arbitration resulting from contracts completed or ongoing under its execution over the years specified. A consistent history of awards against the Tenderer or any member of a JV may result in rejection of the tender.

QUALIFICATION FORM
SUMMARY

1	2	3	4	5
Item No.	Qualification Subject	Qualification Requirement	Document To be Completed by Tenderer	For Procuring Entity's Use (Qualification met or Not Met)
1	Nationality	Nationality in accordance with ITT 3.6	Forms ELI – 1.1 and 1.2, with attachments	
2	Tax Obligations for Kenyan Tenderers	Has produced a current tax clearance certificate or tax exemption certificate issued by the the Kenya Revenue Authority in accordance with ITT 3.14.	Form of Tender	
3	Conflict of Interest	No conflicts of interest in accordance with ITT 3.3	Form of Tender	
4	PPRA Eligibility	Not having been declared ineligible by the PPRA as described in ITT 3.8	Form of Tender	
5	State- owned Enterprise	Meets conditions of ITT 3.7	Forms ELI – 1.1 and 1.2, with attachments	
6	Goods, equipment and services to be supplied under the contract	To have their origin in any country that is not determined ineligible under ITT 4.1	Forms ELI – 1.1 and 1.2, with attachments	
7	History of Non-Performing Contracts	Non-performance of a contract did not occur as a result of contractor default since 1 st January [.....].	Form CON-2	
8	Suspension Based on Execution of Tender/Proposal Securing Declaration by the Procuring Entity	Not under suspension based on-execution of a Tender/Proposal Securing Declaration pursuant to ITT 19.9	Form of Tender	
9	Pending Litigation	Tender's financial position and prospective long-term profitability still sound according to criteria established in 3.1 and assuming that all pending litigation will NOT be resolved against the Tenderer.	Form CON – 2	

1	2	3	4	5
Item No.	Qualification Subject	Qualification Requirement	Document To be Completed by Tenderer	For Procuring Entity's Use (Qualification met or Not Met)
10	Litigation History	No consistent history of court/arbitral award decisions against the Tenderer since 1 st January <i>[insert year]</i>	Form CON – 2	
11	Financial Capabilities	The Tenderer shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated as Kenya Shillings <i>[insert amount]</i> equivalent for the subject contract(s) net of the Tenderer's other commitments. The Tenderers shall also demonstrate, to the satisfaction of the Procuring Entity, that it has adequate sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments. The audited balance sheets or, if not required by the laws of the Tenderer's country, other financial statements acceptable to the Procuring Entity, for the last <i>[insert number of years]</i> years shall be submitted and must demonstrate the current soundness of the Tenderer's financial position and indicate its prospective long-term profitability.	Form FIN – 3.1, with attachments	
12	Average Annual Construction Turnover	Minimum average annual construction turnover of Kenya Shillings <i>[insert amount]</i> , equivalent calculated as total certified payments received for contracts in	Form FIN – 3.2	

1	2	3	4	5
Item No.	Qualification Subject	Qualification Requirement	Document To be Completed by Tenderer	For Procuring Entity's Use (Qualification met or Not Met)
		progress and/or completed within the last <i>[insert of year]</i> years, divided by <i>[insert number of years]</i> years		
13	General Construction Experience	Experience under construction contracts in the role of prime contractor, JV member, sub-contractor, or management contractor for at least the last <i>[insert number of years]</i> years, starting 1 st January <i>[insert year]</i> .	Form EXP – 4.1	
	Specific Construction & Contract Management Experience	A minimum number of <i>[state the number]</i> similar contracts specified below that have been satisfactorily and substantially completed as a prime contractor, joint venture member, management contractor or sub-contractor between 1st January <i>[insert year]</i> and tender submission deadline i.e. (number) contracts, each of minimum value Kenya shillingsequivalent. <i>[In case the Works are to be tender as individual contracts under multiple contract procedure, the minimum number of contracts required for purposes of evaluating qualification shall be selected from the options mentioned in ITT 35.4]</i> The similarity of the contracts shall be based on the following: <i>[Based on Section VII, Scope of Works, specify the minimum key requirements in terms of physical size, complexity, construction method, technology and/or other characteristics including part of the requirements that may be met by specialized</i>	Form EXP 4.2(a)	

1	2	3	4	5
Item No.	Qualification Subject	Qualification Requirement	Document To be Completed by Tenderer	For Procuring Entity's Use (Qualification met or Not Met)
		subcontractors, if permitted in accordance with ITT 34.3]		

QUALIFICATION FORMS

FORM EQU: EQUIPMENT

The Tenderer shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key equipment listed in Section III, Evaluation and Qualification Criteria. A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Tenderer.

Item of equipment		
Equipment information	Name of manufacturer	Model and power rating
	Capacity	Year of manufacture
Current status	Current location	
	Details of current commitments	
Source	Indicate source of the equipment ☐ Owned ☐ Rented ☐ Leased ☐ Specially manufactured	

Omit the following information for equipment owned by the Tenderer.

Owner	Name of owner	
	Address of owner	
	Telephone	Contact name and title
	Fax	Telex
Agreements	Details of rental / lease / manufacture agreements specific to the project	

FORM PER-1

Contractor's Representative and Key Personnel Schedule

Tenderers should provide the names and details of the suitably qualified Contractor's Representative and Key Personnel to perform the Contract. The data on their experience should be supplied using the Form PER-2 below for each candidate.

Contractor' Representative and Key Personnel

1.	Title of position: Contractor's Representative	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
2.	Title of position: [_____]	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
3.	Title of position: [_____]	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
4.	Title of position: [_____]	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>

	Expected schedule for this position:	time for this position: [insert the expected time schedule for this position (e.g. attach high level Gantt chart)]
5.	Title of position: [insert title]	
	Name of candidate	
	Duration of appointment:	[insert the whole period (start and end dates) for which this position will be engaged]
	Time commitment: for this position:	[insert the number of days/week/months/ that has been scheduled for this position]
	Expected schedule for this position:	time for this position: [insert the expected time schedule for this position (e.g. attach high level Gantt chart)]

FORM PER-2:

Resume and Declaration - Contractor's Representative and Key Personnel.

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

Name of Tenderer

Position [#1]: <i>[title of position from Form PER-1]</i>		
Personnel information	Name:	Date of birth:
	Address:	E-mail:
	Professional qualifications:	
	Academic qualifications:	
	Language proficiency: <i>[language and levels of speaking, reading and writing skills]</i>	
Details	Address of Procuring Entity:	
	Telephone:	Contact (manager / personnel officer):
	Fax:	
	Job title:	Years with present Procuring Entity:

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

Project	Role	Duration of involvement	Relevant experience
<i>[main project details]</i>	<i>[role and responsibilities on the project]</i>	<i>[time in role]</i>	<i>[describe the experience relevant to this position]</i>

Declaration

I, the undersigned *[insert either “Contractor's Representative” or “Key Personnel” as applicable]*, certify that to the best of my knowledge and belief, the information contained in this Form PER-2 correctly describes myself, my qualifications and my experience.

I confirm that I am available as certified in the following table and throughout the expected time schedule for this position as provided in the Tender:

Commitment	Details
Commitment to duration of contract:	<i>[insert period (start and end dates) for which this Contractor's Representative or Key Personnel is available to work on this contract]</i>
Time commitment:	<i>[insert period (start and end dates) for which this Contractor's Representative or Key Personnel is available to work on this contract]</i>

I understand that any misrepresentation or omission in this Form may:
be taken into consideration during Tender evaluation;
result in my disqualification from participating in the Tender;
result in my dismissal from the contract.

Name of Contractor's Representative or Key Personnel: *[insert name]*

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Tenderer:

Signature: _____ Date: _____

(day month year): _____

TENDERER'S QUALIFICATIONWITHOUT PRE-QUALIFICATION

To establish its qualifications to perform the contract in accordance with Section III, Evaluation and Qualification Criteria the Tenderer shall provide the information requested in the corresponding Information Sheets included hereunder.

FORM ELI -1.1

Tenderer Information Form

Date: _____

ITT No. and title: _____

Tenderer's name
In case of Joint Venture (JV), name of each member:
Tenderer's actual or intended country of registration: <i>[indicate country of Constitution]</i>
Tenderer's actual or intended year of incorporation:
Tenderer's legal address [in country of registration]:
Tenderer's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
Attached are copies of original documents of Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITT 3.6 In case of JV, letter of intent to form JV or JV agreement, in accordance with ITT 3.5 In case of state-owned enterprise or institution, in accordance with ITT 3.8, documents establishing: Legal and financial autonomy Operation under commercial law Establishing that the Tenderer is not under the supervision of the Procuring Entity 2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

FORM ELI -1.2

**Tenderer's JV Information Form
(to be completed for each member of Tenderer's JV)**

Date: _____

ITT No. and title: _____

Tenderer's JV name:
JV member's name:
JV member's country of registration:
JV member's year of constitution:
JV member's legal address in country of constitution:
JV member's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
Attached are copies of original documents of Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITT 3.6. In case of a state-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and that they are not under the supervision of the Procuring Entity, in accordance with ITT 3.8. 2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

FORM CON – 2**Historical Contract Non-Performance, Pending Litigation and Litigation History**

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title: _____

Non-Performed Contracts in accordance with Section III, Evaluation and Qualification Criteria			
Contract non-performance did not occur since 1 st January <i>[insert year]</i> specified in Section III, Evaluation and Qualification Criteria, Sub-Factor 2.1.			
Contract(s) not performed since 1 st January <i>[insert year]</i> specified in Section III, Evaluation and Qualification Criteria, requirement 2.1			
Year	Non-performed portion of contract	Contract Identification	Total Contract Amount (current value, currency, exchange rate and Kenya Shilling equivalent)
<i>[insert year]</i>	<i>[insert amount and percentage]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Procuring Entity: <i>[insert full name]</i> Address of Procuring Entity: <i>[insert street/city/country]</i> Reason(s) for nonperformance: <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>
Pending Litigation, in accordance with Section III, Evaluation and Qualification Criteria			
No pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3.			
Pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3 as indicated below.			

Year dispute	of	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), Kenya Shilling Equivalent (exchange rate)
--------------	----	------------------------------	-------------------------	---

		Contract Identification: _____ Name of Procuring Entity: _____ Address of Procuring Entity: _____ Matter in dispute: _____ Party who initiated the dispute: _____ Status of dispute: _____	
		Contract Identification: _____ Name of Procuring Entity: _____ Address of Procuring Entity: _____ Matter in dispute: _____ Party who initiated the dispute: _____ Status of dispute: _____	
Litigation History in accordance with Section III, Evaluation and Qualification Criteria			
No Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4.			
Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4 as indicated below.			
Year of award	Outcome as percentage of Net Worth	Contract Identification	Total Contract Amount (currency), Kenya Shilling Equivalent (exchange rate)
[insert year]	[insert percentage]	Contract Identification: [indicate complete contract name, number, and any other identification] Name of Procuring Entity: [insert full name] Address of Procuring Entity: [insert street/city/country] Matter in dispute: [indicate main issues in dispute] Party who initiated the dispute: [indicate "Procuring Entity" or "Contractor"] Reason(s) for Litigation and award decision [indicate main reason(s)]	[insert amount]

FORM FIN – 3.1:**Financial Situation and Performance**

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title: _____

4.4.1. Financial Data

Type of Financial information in _____ (currency)	Historic information for previous _____ years, (amount in currency, currency, exchange rate*, USD equivalent)				
	Year 1	Year 2	Year 3	Year 4	Year 5
Statement of Financial Position (Information from Balance Sheet)					
Total Assets (TA)					
Total Liabilities (TL)					
Total Equity/Net Worth (NW)					
Current Assets (CA)					
Current Liabilities (CL)					
Working Capital (WC)					
Information from Income Statement					
Total Revenue (TR)					
Profits Before Taxes (PBT)					
Cash Flow Information					
Cash Flow from Operating Activities					

*Refer to ITT 15 for the exchange rate

Sources of Finance

Specify sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.

No.	Source of finance	Amount (Kenya Shilling equivalent)
1		
2		
3		

Financial documents

The Tenderer and its parties shall provide copies of financial statements for _____ years pursuant Section III, Evaluation and Qualifications Criteria, Sub-factor 3.1. The financial statements shall:
reflect the financial situation of the Tenderer or in case of JV member, and not an affiliated entity (such as parent company or group member).
be independently audited or certified in accordance with local legislation.
be complete, including all notes to the financial statements.
correspond to accounting periods already completed and audited.
Attached are copies of financial statements¹ for the _____ years required above; and complying with the requirements

¹ If the most recent set of financial statements is for a period earlier than 12 months from the date of Tender, the reason for this should be justified.

FORM FIN – 3.2:**Average Annual Construction Turnover**

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title: _____

Annual turnover data (construction only)			
Year	Amount Currency	Exchange rate	Kenya Shilling equivalent
<i>[indicate year]</i>	<i>[insert amount and indicate currency]</i>		
Average Annual Construction Turnover *			

* See Section III, Evaluation and Qualification Criteria, Sub-Factor 3.2.

FORM FIN – 3.3:**Financial Resources**

Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total construction cash flow demands of the subject contract or contracts as specified in Section III, Evaluation and Qualification Criteria

Financial Resources			
No.	Source of financing	Amount (Kenya Shilling equivalent)	
1			
2			
3			

FORM FIN – 3.4:

Current Contract Commitments / Works in Progress

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

	Name of Contract	Procuring Entity's Contact Address, Tel,	Value of Outstanding Work [Current Kenya Shilling /month Equivalent]	Estimated Completion Date	Average Invoicing Six [Kenya /month]	Monthly Over Last Months Shilling
1						
2						
3						
4						
5						

FORM EXP - 4.1

General Construction Experience

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title: _____

Page _____ of _____ pages

Starting Year	Ending Year	Contract Identification	Role of Tenderer
		Contract name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Procuring Entity: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Procuring Entity: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Procuring Entity: _____ Address: _____	

FORM EXP - 4.2(a)

Specific Construction and Contract Management Experience

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title: _____

Similar Contract No.	Information			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor ☐	Member in JV	Management Contractor	Sub-contractor
Total Contract Amount	Kenya Shilling			
If member in a JV or sub-contractor, specify participation in total Contract amount				
Procuring Entity's Name:				
Address: Telephone/fax number E-mail:				

FORM EXP - 4.2 (a) (cont.)

Specific Construction and Contract Management Experience (cont.)

Similar Contract No.	Information
Description of the similarity in accordance with Sub-Factor 4.2(a) of Section III:	
1. Amount	
2. Physical size of required works items	
3. Complexity	
4. Methods/Technology	

5. Construction rate for key activities	
6. Other Characteristics	

FORM EXP - 4.2(b)

Construction Experience in Key Activities

Tenderer's Name: _____

Date: _____

Tenderer's JV Member Name: _____

Sub-contractor's Name² (as per ITT 34): _____

ITT No. and title: _____

All Sub-contractors for key activities must complete the information in this form as per ITT 34 and Section III, Evaluation and Qualification Criteria, Sub-Factor 4.2.

1.Key Activity No One:

Information				
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor ☐	Member in JV ☐	Management Contractor ☐	Sub-contractor ☐
Total Contract Amount		Kenya Shilling		
Quantity (Volume, number or rate of production, as applicable) performed under the contract per year or part of the year	Total quantity in the contract (i)	Percentage participation (ii)		Actual Quantity Performed (i) x (ii)
Year 1				
Year 2				
Year 3				
Year 4				

² If applicable

	Information
Procuring Entity's Name:	
Address: Telephone/fax number E-mail:	

	Information
Description of the key activities in accordance with Sub-Factor 4.2(b) of Section III:	

OTHER FORMS

FORM OF TENDER

INSTRUCTIONS TO TENDERERS

The Tenderer must prepare this Form of Tender on stationery with its letterhead clearly showing the Tenderer's complete name and business address.

All italicized text is to help Tenderer in preparing this form.

Tenderer must complete and sign CERTIFICATE OF INDEPENDENT TENDER DETERMINATION and the SELF DECLARATION OF THE TENDERER attached to this Form of Tender.

The Form of Tender shall include the following Forms duly completed and signed by the Tenderer.

Tenderer's Eligibility- Confidential Business Questionnaire

Certificate of Independent Tender Determination

Self-Declaration of the Tenderer

Date of this Tender submission: *[insert date (as day, month and year) of Tender submission]*

Request for Tender No.: *[insert identification]*

Name and description of Tender *[Insert as per ITT]*

Alternative No.: *[insert identification No if this is a Tender for an alternative]*

To: *[insert complete name of Procuring Entity]* Dear Sirs,

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 and complete the Works and remedy any defects therein for the sum of Kenya Shillings
[[Amount in figures]

Kenya Shillings [amount in words].

The above amount includes foreign currency amount (s) of *[state figure or a percentage and currency]* [figures]_____ [words]_____.

The percentage or amount quoted above does not include provisional sums, and only allows not more than two foreign currencies.

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 Special Conditions of Contract.

We agree to adhere by this tender until _____ *[Insert date]*, and it shall remain binding upon us and may be accepted at any time before that date.

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. We further understand that you are not bound to accept the lowest or any tender you may receive.

We, the undersigned, further declare that:

No reservations: We have examined and have no reservations to the tender document, including Addenda issued in accordance with ITT 28;

Eligibility: We meet the eligibility requirements and have no conflict of interest in accordance with ITT 3 and 4;

Tender-Securing Declaration: We have not been suspended nor declared ineligible by the Procuring Entity based on execution of a Tender-Securing or Proposal-Securing Declaration in the Procuring Entity's Country in accordance with ITT 19.8;

Conformity: We offer to execute in conformity with the tendering documents and in accordance with the implementation and completion specified in the construction schedule, the following Works: *[insert a brief description of the Works]*;

Tender Price: The total price of our Tender, excluding any discounts offered in item 1 above is: *[Insert one of the options below as appropriate]*

vi Option 1, in case of one lot: Total price is: *[insert the total price of the Tender in words and figures, indicating the various amounts and the respective currencies]*; Or

Option 2, in case of multiple lots:

Total price of each lot *[insert the total price of each lot in words and figures, indicating the various amounts and the respective currencies]*; and

Total price of all lots (sum of all lots) *[insert the total price of all lots in words and figures, indicating the various amounts and the respective currencies]*;

Discounts: The discounts offered and the methodology for their application are:

The discounts offered are: *[Specify in detail each discount offered.]*

The exact method of calculations to determine the net price after application of discounts is shown below: *[Specify in detail the method that shall be used to apply the discounts]*;

Tender Validity Period: Our Tender shall be valid for the period specified in TDS 18.1 (as amended, if applicable) from the date fixed for the Tender submission deadline specified in TDS 22.1 (as amended, if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

Performance Security: If our Tender is accepted, we commit to obtain a Performance Security in accordance with the Tendering document;

One Tender Per Tender: We are not submitting any other Tender(s) as an individual Tender, and we are not participating in any other Tender(s) as a Joint Venture member or as a subcontractor, and meet the requirements of ITT 3.4, other than alternative Tenders submitted in accordance with ITT 13.3;

Suspension and Debarment: We, along with any of our subcontractors, suppliers, Project Manager, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the Public Procurement Regulatory Authority or any other entity of the Government of Kenya, or any international organization.

State-owned enterprise or institution: [select the appropriate option and delete the other] [We are not a state-owned enterprise or institution] / [We are a state-owned enterprise or institution but meet the requirements of ITT 3.8];

Commissions, gratuities, fees: We have paid, or will pay the following commissions, gratuities, or fees with respect to the tender process or execution of the Contract: [insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity].

Name of Recipient	Address	Reason	Amount

(If none has been paid or is to be paid, indicate “none.”)

Binding Contract: We understand that this Tender, together with your written acceptance thereof included in your Letter of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed;

Not Bound to Accept: We understand that you are not bound to accept the lowest evaluated cost Tender, the Most Advantageous Tender or any other Tender that you may receive;

Fraud and Corruption: We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf engages in any type of Fraud and Corruption;

Collusive practices: We hereby certify and confirm that the tender is

genuine, non-collusive and made with the intention of accepting the contract if awarded. To this effect we have signed the “Certificate of Independent Tender Determination” attached below.

We undertake to adhere by the Code of Ethics for Persons Participating in Public Procurement and Asset Disposal, copy available from _____(specify website) during the procurement process and the execution of any resulting contract.

We, the Tenderer, have completed fully and signed the following Forms as part of our Tender: Tenderer's Eligibility; Confidential Business Questionnaire – to establish we are not in any conflict to interest.

Certificate of Independent Tender Determination – to declare that we completed the tender without colluding with other tenderers.

Self-Declaration of the Tenderer – to declare that we will, if awarded a contract, not engage in any form of fraud and corruption.

Declaration and commitment to the Code of Ethics for Persons Participating in Public Procurement and Asset Disposal

Further, we confirm that we have read and understood the full content and scope of fraud and corruption as informed in “**Appendix 1- Fraud and Corruption**” attached to the Form of Tender.

Name of the Tenderer: *[insert complete name of person signing the Tender]

Name of the person duly authorized to sign the Tender on behalf of the Tenderer:

**[insert complete name of person duly authorized to sign the Tender]

Title of the person signing the Tender: [insert complete title of the person signing the Tender]

Signature of the person named above: [insert signature of person whose name and capacity are

shown above] **Date signed** [insert date of signing] day of [insert month], [insert year]

Date signed _____ day of _____,

Notes

* In the case of the Tender submitted by joint venture specify the name of the Joint Venture as Tenderer

** Person signing the Tender shall have the power of attorney given by the Tenderer to be attached with the Tender.

TENDERER'S ELIGIBILITY- CONFIDENTIAL BUSINESS QUESTIONNAIRE

Instruction to Tenderer

Tender is instructed to complete the particulars required in this Form, *one form for each entity if Tender is a JV*. Tenderer is further reminded that it is an offence to give false information on this Form.

Tenderer's details

	ITEM	DESCRIPTION
1	Name of the Procuring Entity	
2	Reference Number of the Tender	
3	Date and Time of Tender Opening	
4	Name of the Tenderer	
5	Full Address and Contact Details of the Tenderer.	Country City Location Building Floor Postal Address Name and email of contact person.
6	Current Trade License Registration Number and Expiring date	
7	Name, country and full address (<i>postal and physical addresses, email, and telephone number</i>) of Registering Body/Agency	
8	Description of Nature of Business	
9	Maximum value of business which the Tenderer handles.	
10	State if Tenders Company is listed in stock exchange, give name and full address (<i>postal and physical addresses, email, and telephone number</i>) of state which stock exchange	

General and Specific Details

Sole Proprietor, provide the following details.

Name in full _____ Age _____
Nationality _____ Country of Origin _____
Citizenship _____

Partnership, provide the following details.

	Names of Partners	Nationality	Citizenship	% Shares owned
1				
2				
3				

Registered Company, provide the following details.

Private or public Company

State the nominal and issued capital of the Company Nominal Kenya

Shillings

(Equivalent). Issued

Kenya Shillings (Equivalent).....

Give details of Directors as follows.

	Names of Director	Nationality	Citizenship	% Shares owned
1				
2				
3				

DISCLOSURE OF INTEREST- Interest of the Firm in the Procuring Entity.

Are there any person/persons in(Name of Procuring Entity) who has/have an interest or relationship in this firm? Yes/No.....

If yes, provide details as follows.

	Names of Person	Designation in the Procuring Entity	Interest or Relationship with Tenderer
1			
2			
3			

Conflict of interest disclosure

	Type of Conflict	Disclosure YES OR NO	If YES provide details of the relationship with Tenderer
1	Tenderer is directly or indirectly controls, is controlled by or is under common control with another tenderer.		
2	Tenderer receives or has received any direct or indirect subsidy from another tenderer.		
3	Tenderer has the same legal representative as another tenderer		
4	Tender has a relationship with another tenderer, directly or through common third parties, that puts it in a position to influence the tender of another tenderer, or influence the decisions of the Procuring Entity regarding this tendering process.		
5	Any of the Tenderer's affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the tender.		
6	Tenderer would be providing goods, works, non-consulting services or consulting services during implementation of the contract specified in this Tender Document.		
7	Tenderer has a close business or family relationship with a professional staff of the Procuring Entity who are directly or indirectly involved in the preparation of the Tender document or specifications of the Contract, and/or the Tender evaluation process of such contract.		
8	Tenderer has a close business or family relationship with a professional staff of the Procuring Entity who would be involved in the implementation or supervision of the such Contract.		
9	Has the conflict stemming from such relationship stated in item 7 and 8 above been resolved in a manner acceptable to the Procuring Entity throughout the tendering process and execution of the Contract.		

Certification

On behalf of the Tenderer, I certify that the information given above is complete, current and accurate as at the date of submission.

Full Name_____Title or
Designation

(Signature) (Date)

CERTIFICATE OF INDEPENDENT TENDER DETERMINATION

I, _____ the undersigned, in submitting the accompanying Letter of Tender to the _____ [Name of Procuring Entity] for: _____ [Name and number of tender] in response to the request for tenders made by: _____ [Name of Tenderer] do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of _____ [Name of Tenderer] that:

I have read and I understand the contents of this Certificate;

I understand that the Tender will be disqualified if this Certificate is found not to be true and complete in every respect;

I am the authorized representative of the Tenderer with authority to sign this Certificate, and to submit the Tender on behalf of the Tenderer;

For the purposes of this Certificate and the Tender, I understand that the word “competitor” shall include any individual or organization, other than the Tenderer, whether or not affiliated with the Tenderer, who:
has been requested to submit a Tender in response to this request for tenders;
could potentially submit a tender in response to this request for tenders, based on their qualifications, abilities or experience;

The Tenderer discloses that [check one of the following, as applicable:

The Tenderer has arrived at the Tender independently from, and without consultation, communication, agreement or arrangement with, any competitor;
the Tenderer has entered into consultations, communications, agreements or arrangements with one or more competitors regarding this request for tenders, and the Tenderer discloses, in the attached document(s), complete details thereof, including the names of the competitors and the nature of, and reasons for, such consultations, communications, agreements or arrangements;

In particular, without limiting the generality of paragraphs (5)(a) or (5)(b) above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
prices;
methods, factors or formulas used to calculate prices;
the intention or decision to submit, or not to submit, a tender; or
the submission of a tender which does not meet the specifications of the request for Tenders; except as specifically disclosed pursuant to paragraph (5)(b) above;

In addition, there has been no consultation, communication, agreement or arrangement with any competitor regarding the quality, quantity, specifications or delivery particulars of the works or services to which this request for tenders relates, except as specifically authorized by the procuring authority or as specifically disclosed pursuant to paragraph (5)(b) above;

the terms of the Tender have not been, and will not be, knowingly disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official tender opening, or of the awarding of the Contract, whichever comes first, unless otherwise required by law or as specifically disclosed pursuant to paragraph (5)(b) above.

Name_____Title__Date

[Name, title and signature of authorized agent of Tenderer and Date].

SELF - DECLARATION FORMS

FORM SD1

SELF DECLARATION THAT THE PERSON/TENDERER IS NOT DEBARRED IN THE MATTER OF THE PUBLIC PROCUREMENT AND ASSET DISPOSAL ACT 2015.

I,, of Post Office Boxbeing a resident of in the Republic of..... do hereby make a statement as follows: -

THAT I am the Company Secretary/ Chief Executive/Managing Director/Principal Officer/Director of (*insert name of the Company*) who is a Bidder in respect of Tender No. for (*insert tender title/description*) for (*insert name of the Procuring entity*) and duly authorized and competent to make this statement.

THAT the aforesaid Bidder, its Directors and subcontractors have not been debarred from participating in procurement proceeding under Part IV of the Act.

THAT what is deposed to herein above is true to the best of my knowledge, information and belief.

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

Bidder Official Stamp

FORM SD2

SELF DECLARATION THAT THE PERSON/TENDERER WILL NOT ENGAGE IN ANY CORRUPT OR FRAUDULENT PRACTICE

I, of P. O. Box..... being
a resident of
..... in the Republic of..... do hereby make a
statement as follows: -

THAT I am the Chief Executive/Managing Director/Principal Officer/Director of
..... (*insert name of the Company*) who is a Bidder in respect
of Tender No. for
..... (*insert tender title/description*) for..... (*insert
name of the Procuring entity*) and duly authorized and competent to make this statement.

THAT the aforesaid Bidder, its servants and/or agents /subcontractors will not engage in any
corrupt or fraudulent practice and has not been requested to pay any inducement to any member of
the Board, Management, Staff and/or employees and/or agents of (*insert name of the Procuring
entity*) which
is the procuring entity.

THAT the aforesaid Bidder, its servants and/or agents /subcontractors have not offered any
inducement to any member of the Board, Management, Staff and/or employees and/or agents of
(name of the procuring entity)

THAT the aforesaid Bidder will not engage /has not engaged in any corrosive practice with other
bidders participating in the subject tender

THAT what is deponed to herein above is true to the best of my knowledge information
and belief.

.....
.....
(Title)

.....
.....
(Signature)

(Date)

Bidder's Official Stamp

DECLARATION AND COMMITMENT TO THE CODE OF ETHICS

I (person) on behalf of (*Name of the Business/ Company/Firm*)declare that I have read and fully understood the contents of the Public Procurement & Asset Disposal Act, 2015, Regulations and the Code of Ethics for persons participating in Public Procurement and Asset Disposal and my responsibilities under the Code.

I do hereby commit to abide by the provisions of the Code of Ethics for persons participating in Public Procurement and Asset Disposal.

Name of Authorized signatory.....
Sign.....

Position.....
.....

Office address.....

Telephone.....E-
mail.....
.....

Name of the
Firm/Company.....
..... Date.....

(Company Seal/ Rubber Stamp where applicable)

Witness

Name Sign.....

Date.....

APPENDIX 1- FRAUD AND CORRUPTION

(Appendix 1 shall not be modified)

Purpose

The Government of Kenya's Anti-Corruption and Economic Crime laws and their sanction's policies and procedures, Public Procurement and Asset Disposal Act (*no. 33 of 2015*) and its Regulation, and any other Kenya's Acts or Regulations related to Fraud and Corruption, and similar offences, shall apply with respect to Public Procurement Processes and Contracts that are governed by the laws of Kenya.

Requirements

The Government of Kenya requires that all parties including Procuring Entities, Tenderers, (applicants/proposers), Consultants, Contractors and Suppliers; any Sub- contractors, Sub-consultants, Service providers or Suppliers; any Agents (whether declared or not); and any of their Personnel, involved and engaged in procurement under Kenya's Laws and Regulation, observe the highest standard of ethics during the procurement process, selection and contract execution of all contracts, and refrain from Fraud and Corruption and fully comply with Kenya's laws and Regulations as per paragraphs 1.1 above.

Kenya's public procurement and asset disposal act (*no. 33 of 2015*) under Section 66 describes rules to be followed and actions to be taken in dealing with Corrupt, Coercive, Obstructive, Collusive or Fraudulent practices, and Conflicts of Interest in procurement including consequences for offences committed. A few of the provisions noted below highlight Kenya's policy of no tolerance for such practices and behavior: -

a person to whom this Act applies shall not be involved in any corrupt, coercive, obstructive, collusive or fraudulent practice; or conflicts of interest in any procurement or asset disposal proceeding;

A person referred to under subsection (1) who contravenes the provisions of that sub-section commits an offence;

Without limiting the generality of the subsection (1) and (2), the person shall be: -

disqualified from entering into a contract for a procurement or asset disposal proceeding; or

if a contract has already been entered into with the person, the contract shall be voidable;

The voiding of a contract by the procuring entity under subsection (7) does not limit any legal remedy the procuring entity may have;

An employee or agent of the procuring entity or a member of the Board or

committee of the procuring entity who has a conflict of interest with respect to a procurement: -

shall not take part in the procurement proceedings;

shall not, after a procurement contract has been entered into, take part in any decision relating to the procurement or contract; and

shall not be a subcontractor for the bidder to whom was awarded contract, or a member of the group of bidders to whom the contract was awarded, but the subcontractor appointed shall meet all the requirements of this Act.

An employee, agent or member described in subsection (1) who refrains from doing anything prohibited under that subsection, but for that subsection, would have been within his or her duties shall disclose the conflict of interest to the procuring entity;

If a person contravenes subsection (1) with respect to a conflict of interest described in subsection (5)(a) and the contract is awarded to the person or his relative or to another person in whom one of them had a direct or indirect pecuniary interest, the contract shall be terminated and all costs incurred by the public entity shall be made good by the awarding officer. Etc.

In compliance with Kenya's laws, regulations and policies mentioned above, the Procuring Entity:

Defines broadly, for the purposes of the above provisions, the terms set forth below as follows:

“corrupt practice” is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;

“fraudulent practice” is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;

“collusive practice” is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;

“coercive practice” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;

“obstructive practice” is:

deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede investigation by Public Procurement Regulatory Authority (PPRA) or any other appropriate authority appointed by Government of Kenya into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or

acts intended to materially impede the exercise of the PPRA's or the appointed authority's inspection and audit rights provided for under paragraph 2.3 e. below.

Defines more specifically, in accordance with the above procurement Act provisions set forth for fraudulent and collusive practices as follows:

"fraudulent practice" includes a misrepresentation of fact in order to influence a procurement or disposal process or the exercise of a contract to the detriment of the procuring entity or the tenderer or the contractor, and includes collusive practices amongst tenderers prior to or after tender submission designed to establish tender prices at artificial non-competitive levels and to deprive the procuring entity of the benefits of free and open competition.

Rejects a proposal for award¹ of a contract if PPRA determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;

Pursuant to the Kenya's above stated Acts and Regulations, may sanction or recommend to appropriate authority (ies) for sanctioning and debarment of a firm or individual, as applicable under the Acts and Regulations;

Requires that a clause be included in Tender documents and Request for Proposal documents requiring (i) Tenderers (applicants/proposers), Consultants, Contractors, and Suppliers, and their Sub-contractors, Sub- consultants, Service providers, Suppliers, Agents personnel, permit the PPRA or any other appropriate authority appointed by Government of Kenya to inspect² all accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the PPRA or any other appropriate authority appointed by Government of Kenya; and

Pursuant to Section 62 of the above Act, requires Applicants/Tenderers to submit along with their Applications/Tenders/Proposals a "Self-Declaration Form" as included in the procurement document declaring that they and all parties involved in the procurement process and contract execution have not engaged/will not engage in any corrupt or fraudulent practices.

¹For the avoidance of doubt, a party's ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and tendering, either directly or as a nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of

such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract.

² Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Investigating Authority or persons appointed by the Procuring Entity to address specific matters related to investigations/audits, such as evaluating the veracity of an allegation of possible Fraud and Corruption, through the appropriate mechanisms. Such activity includes but is not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data and information (whether in hard copy or electronic format) deemed relevant for the investigation/audit, and making copies thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information.

FORM OF TENDER SECURITY- [Option 1–Demand Bank Guarantee]

Beneficiary: _____
Request for Tenders No: _____ **Date:** _____
TENDER GUARANTEE No.: _____
Guarantor: _____

We have been informed that _____ (here inafter called "the Applicant") has submitted or will submit to the Beneficiary its Tender (here inafter called " the Tender") for the execution of _____ under Request for Tenders No. _____ ("the ITT").

Furthermore, we understand that, according to the Beneficiary's conditions, Tenders must be supported by a Tender guarantee.

At the request of the Applicant, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of (____) upon receipt by us of the Beneficiary's complying demand, supported by the Beneficiary's statement, whether in the demand itself or a separate signed document accompanying or identifying the demand, stating that either the Applicant:

(a) has withdrawn its Tender during the period of Tender validity set forth in the Applicant's Letter of Tender ("the Tender Validity Period"), or any extension thereto provided by the Applicant; or

b) having been notified of the acceptance of its Tender by the Beneficiary during the Tender Validity Period or any extension there to provided by the Applicant, (i) has failed to execute the contract agreement, or (ii) has failed to furnish the Performance.

This guarantee will expire: (a) if the Applicant is the successful Tenderer, upon our receipt of copies of the contract agreement signed by the Applicant and the Performance Security and, or (b) if the Applicant is not the successful Tenderer, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the Tendering process; or (ii) thirty days after the end of the Tender Validity Period.

Consequently, any demand for payment under this guarantee must be received by us at the office indicated above on/or before that date.

[signature(s)]

FORMAT OF TENDER SECURITY [Option 2–Insurance Guarantee]

TENDER GUARANTEE No.: _____

Whereas [*Name of the tenderer*] (hereinafter called “the tenderer”) has submitted its tender dated [*Date of submission of tender*] for the [*Name and/or description of the tender*] (hereinafter called “the Tender”) for the execution of ____ under Request for Tenders No. (“the ITT”).

KNOW ALL PEOPLE by these presents that WE of [**Name of Insurance Company**] having our registered office at (hereinafter called “the Guarantor”), are bound unto [*Name of Procuring Entity*] (hereinafter called “the Procuring Entity”) in the sum of (Currency and guarantee amount) for which payment well and truly to be made to the said Procuring Entity, the Guarantor binds itself, its successors and assigns, jointly and severally, firmly by these presents.

Sealed with the Common Seal of the said Guarantor this ____ day of _____ 20 ____.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Applicant:

has withdrawn its Tender during the period of Tender validity set forth in the Principal's Letter of Tender (“the Tender Validity Period”), or any extension thereto provided by the Principal; or

having been notified of the acceptance of its Tender by the Procuring Entity during the Tender Validity Period or any extension thereto provided by the Principal; (i) failed to execute the Contract agreement; or (ii) has failed to furnish the Performance Security, in accordance with the Instructions to tenderers (“ITT”) of the Procuring Entity's Tendering document.

then the guarantee undertakes to immediately pay to the Procuring Entity up to the above amount upon receipt of the Procuring Entity's first written demand, without the Procuring Entity having to substantiate its demand, provided that in its demand the Procuring Entity shall state that the demand arises from the occurrence of any of the above events, specifying which event(s) has occurred.

This guarantee will expire: (a) if the Applicant is the successful Tenderer, upon our receipt of copies of the contract agreement signed by the Applicant and the Performance Security and, or (b) if the Applicant is not the successful Tenderer, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the Tendering process; or (ii) twenty-eight days after the end of the Tender Validity Period.

Consequently, any demand for payment under this guarantee must be received by

us at the office indicated above on or before that date.

[Date]

[Signature of the Guarantor]

[Witness]

[Seal]

Note: all italicized texts is for use in preparing this form and shall be deleted from the final product

TENDER-SECURING DECLARATION FORM

[The Bidder shall complete this Form in accordance with the instructions indicated]

Date: *[insert date (as day, month and year) of Tender Submission]*

Tender No.....*[insert number of tendering process]*

To:..... *[insert complete name of Purchaser]* I/We, the undersigned, declare

that:

I/We understand that, according to your conditions, bids must be supported by a Tender-Securing Declaration.

I/We accept that I/we will automatically be suspended from being eligible for tendering in any contract with the Purchaser for the period of time of [insert number of months or years] starting on [insert date], if we are in breach of our obligation(s) under the bid conditions, because we – (a) have withdrawn our tender during the period of tender validity specified by us in the Tendering Data Sheet; or (b) having been notified of the acceptance of our Bid by the Purchaser during the period of bid validity, (i) fail or refuse to execute the Contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the instructions to tenders.

I/We understand that this Tender Securing Declaration shall expire if we are not the successful Tenderer(s), upon the earlier of:
our receipt of a copy of your notification of the name of the successful Tenderer; or
thirty days after the expiration of our Tender.

I/We understand that if I am/we are/in a Joint Venture, the Tender Securing Declaration must be in the name of the Joint Venture that submits the bid, and the Joint Venture has not been legally constituted at the time of bidding, the Tender Securing Declaration shall be in the names of all future partners as named in the letter of intent.

Signed:..... Capacity / title

(director or partner or sole proprietor, etc.) Name:

.....

Duly authorized to sign the bid for and on behalf of: *[insert complete name of Tenderer]*

Dated on day of..... *[Insert date of signing]* Seal or

stamp

Appendix to Tender

Schedule of Currency requirements

Summary of currencies of the Tender for _____ *[insert name of Section of the Works]*

<i>Name of currency</i>	<i>Amounts payable</i>
Local currency: _____	
Foreign currency #1: _____	
Foreign currency #2: _____	
Foreign currency #3: _____	
Provisional sums expressed in local currency _____	[To be entered by the Procuring Entity]

PART II – WORK REQUIREMENTS

SECTION V - DRAWINGS

The following drawings are annexed to this document:

Raw water main drawings

Composite filtration unit drawings

Elevated tank drawings

Water kiosk drawings

SECTION VI - SPECIFICATIONS

Scope of works

Rehabilitation of existing intake chamber

Construction of 5,652m raw water and treated mains OD 110mm HDPE pipeline

Construction of 200m³ Composite filtration unit

Construction of 9m high steel tower

Provision of 200no. DN 15mm polymer consumer meters

Project construction period is 9 months, and 6months defects liability period.

GENERAL SPECIFICATIONS

Extent of Contract

The works specified under this Contract shall include all general works preparatory to the construction of the works and materials and work of any kind necessary. The project timeline is 9 months.

Standards Specifications

For convenience, and in order to establish the necessary standards of quality, reference will be made to specifications issued by national or other widely recognized bodies. Such specifications shall be referred to as "Standard Specifications" and shall be the latest editions of such Standard Specifications issued prior to the issue of the Bid Documents, together with such additions and amendments as may have been issued prior to the same date.

Subject to the written approval of the Engineer, any other internationally accepted Standard, which requires an equal quality of work, may be used. If the Contractor proposes to use a Standard Specification other than that specified, three copies of the proposed Standard Specification, in the English language, shall be submitted to the Engineer not less than twenty- eight days before approval of the Standard Specification is required.

Mixture of different standards in one trade will not be allowed. For instance, if pipes are to be provided to I.S.O Standard, then all the pipes in the works are to be to I.S.O. Standard.

Where the dimension in one standard does not completely correspond to the dimensions of the other standard, which is being used for construction of works, ruling of the Engineer will be sought and any decision given by the Engineer will be final and binding upon the Contractor.

Level Datum

It shall be the responsibility of the Contractor before commencing work to obtain from the Engineer in writing the values and locations of the benchmarks to be used in these Works. All temporary benchmarks shall be referred thereto. The Contractor shall construct such temporary benchmarks as the Engineer may direct and shall agree the levels thereof with the Engineer. The establishment of such temporary benchmarks shall be deemed to be part of the Contractor's responsibility in setting out the works.

Units

In this Specification, on the Drawings, and in the Bills of Quantities, the metric system of dimensioning has been adopted except where it is understood that suppliers and manufacturers are not yet able to provide materials in metric sizes.

Where dimensions are given in metric units for materials which are only available in Imperial system dimensions, and vice versa, the Contractor may, subject to his obtaining the prior approval of the Engineer, substitute the nearest equivalent available standard size in the other system.

Setting Out

The Contractor shall appoint and employ the necessary qualified and experienced staff to set out the works accurately.

The Contractor shall establish and locate all lines and levels and be responsible for the correct location of all works.

Where directed by the Engineer, the Contractor shall take such levels and dimensions as may be required for the purposes of measurement before disturbance of the ground. These shall be agreed between the Contractor and the Engineer in writing before any ground surface is disturbed or covered up. Any work commenced without taking the said levels and dimensions shall be measured on the Engineer's reckoning of their values before disturbance. The Engineer's decision on this matter shall be final.

Construction and checking of work

The Contractor shall be solely responsible for and shall provide all labour, tools, lifting tackle, and other equipment required for the construction and checking of the works.

No operative shall be allowed to execute any type of work which is normally carried out by a skilled tradesman, unless the operative is thoroughly experienced and proficient in the trade concerned.

Supervisors and operatives may be required to demonstrate their proficiency or produce certificates of competence to the satisfaction of the Engineer.

As each part of the work is carried out, it shall be subject to the approval of the Engineer.

Supervision and Labour

The Contractor will be required to maintain a competent supervising Engineer and staff on Site throughout the construction period until completion of the works, and thereafter as may be required during the Defects Liability Period. The Engineer shall give prior approval to the appointment of this supervising Engineer and shall have the authority to withdraw this approval at any time in accordance with the Conditions of Contract.

All staff and labour employed on the works shall be employed in accordance with the labour and employment laws and regulations of the Republic of Kenya.

Specialist Sub-Contractors

Where subcontractors are not nominated, the Contractor shall appoint specialist subcontractors for any sections of the works described herein in which he is not himself an experienced, recognized and approved operator.

A subcontractor nominated by the Employer or the Engineer will be required to hold the Contractor indemnified against all claims, accidents, damage or loss occasioned by any act of the subcontractor in the performance of the subcontract.

The Contractor shall allow for phasing the work to meet the requirements of subcontractors and for varying his Programme, or otherwise, to comply with the Programme of the subcontractors.

Works executed by the Employer or other Contractors

The Employer reserves the right to execute, on the site, works not included under this Contract and to employ for this purpose either his own employees or other Contractors whose Contracts may be either a sub-Contract under this Contract, or an entirely separate Contract. The Contractor shall ensure that neither his own operations nor trespass by his employees shall interfere with the operations of the Employer, or his Contractors employed on such works and the same obligations shall be imposed on the Employer or other Contractors in respect of work being executed under this Contract.

Materials for the works

All materials shall comply with the appropriate Standard Specifications unless otherwise required hereinafter.

The Contractor, shall, before placing any order of materials, manufactured articles or machinery for incorporation in the works, submit for the approval of the Engineer the names of the suppliers from whom he proposes to obtain such materials, manufactured articles or machinery, together with a list of the same, giving the origin, quality, weight, strength, description and other relevant details. No materials, manufactured articles or machinery shall be ordered or obtained from any suppliers not approved in writing by the Engineer.

All materials shall be delivered to the Site a sufficient period of time before they are required for use in the works, to enable the Engineer to take such samples as he may wish for testing and approval.

Notwithstanding the fact that approval has been given to the source of supply, the Engineer may forbid the use of any materials if, upon delivery, they are found to be defective, or he considers them unsuitable for incorporation in the works. Such rejected materials shall be removed from the site forthwith.

The Contractor may propose alternative materials of equivalent quality to those specified, and subject to the Engineer's approval, such materials may be used in the works.

The Contractor shall have no claim against the Employer in respect of any financial loss which he may suffer as a result of the rejection of any such materials, and he shall also bear the cost of removing them from the Site.

The Engineer shall have the right to inspect materials and plant for the permanent works during the course of manufacture. The Contractor shall arrange for the right of access to manufacturing premises for the Engineer and his staff during normal working hours. The Contractor shall give the Engineer sufficient notice to allow him to observe the testing of any materials for the works at the place of manufacture. The Engineer shall also be given the opportunity to inspect any material or plant in their completed state before packing for transport to the site.

If requested by the Engineer, the Contractor shall provide the Engineer with copies of orders for the supply of goods or materials required for the works.

Contractor's site offices, workshops, storage and working areas

The Contractor shall negotiate the areas of land he requires for his site offices, stores, and working areas.

The Contractor shall be responsible for providing all buildings, fences, etc. that he may require and on completion of the works shall be required to remove the same and restore the land to its original condition to the satisfaction of the Engineer.

The location of all offices, stores and the like, shall be to the approval of the Engineer.

Plans for operations and temporary Works

The Contractor shall and before commencing work on site, submit to the Engineer a fully detailed Programme showing the order of procedure and methods by which he proposes to carry out the construction and completion of the Works, and particulars of the organization and staff proposed to direct and administer the performance of the Contract.

The Works shall be carried forward to completion with the greatest possible expedition, to the satisfaction of the Engineer, in accordance with the Programme.

The information to be supplied to the Engineer shall include drawings showing the general arrangement of the temporary offices, camps, storage sheds, buildings and access roads, and details of Constructional Plant and Temporary Works Proposed.

Program for the execution of the Works

the Contractor, upon receiving Engineer's order to commence, shall within 28 days draw up a working programme setting out order in which the works are to be carried out with appropriate dates thereof together with delivery dates for materials.

The Contractor shall together with his work programme supply an expenditure chart showing monthly anticipated expenditure.

The programme shall be deemed to have taken into account normal variations in climatic conditions to provide for completion of the works in the order and within the times specified therein.

The order in which it is proposed to execute the permanent works shall be subject to adjustment and approval by the Engineer, and Contractor's price shall be held to include for any reasonable and necessary adjustment required by the Engineer during the course of the works.

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

Once the proposed programme is approved by the Engineer, the Contractor shall not depart from the programme without the written consent of the Engineer. In the event of unforeseen difficulties or disturbances arising, which forces the Contractor to depart from the approved programme of works, he shall advise the Engineer in writing of such occurrences without delay

and submit proposals for any necessary remedial measures, for which he shall obtain the Engineer's approval before putting such measures into effect.

The Contractor shall furnish the Engineer with a monthly statement of all works done on the Contract and of all materials on site.

Substantial (practical) Completion

Substantial or Practical Completion of works is to be understood as a state of completion, which leaves out only minor outstanding items that can be readily completed within a period of less than one month without interfering with the normal operation of the works.

The works will not be considered as substantially or practically completed without the works being capable of being used by the Employer in accordance with the purpose of the works.

The Contractor shall allow for a period of one month for the completion by others of 'as built' drawings before the works are handed over to the Employer.

Existing Services

The Contractor shall acquaint himself with the positions of all existing works and services including water mains, sewers, storm water drains, cables for electricity, and lighting poles before any excavation is commenced.

The Contractor will be held responsible for any damage, however caused, in the course of the execution of the Works, to such existing works and services.

Such existing works and services, where exposed by the execution of the works, shall be properly shored, hung-up and supported to the satisfaction of the Engineer and of the authority concerned. Notwithstanding the foregoing requirements and without lessening the Contractor's responsibility, the Contractor shall inform the Engineer immediately any existing works have been exposed and shall comply with any requirements of the authority concerned.

Damage to existing services

The Contractor shall be held liable for all damage and interference to mains and pipes, to electric cables or lines of any kind either above or below ground caused by him or his sub-Contractors in execution of the works, whether such services are located on the Contract drawings or not. The Contractor must make good or report to the appropriate authorities the same without delay and do any further work considered by the Engineer or owner. The Contractor shall provide for these contingencies in his rates.

Existing access

Existing access to lands, property and all other places shall be maintained by the Contractor during the continuance of the Works to the Engineer's satisfaction.

Weather Conditions

The Contractor shall be deemed to have taken into account all possible weather conditions when preparing his bid and he shall not be entitled to extra payment by reason of the occurrence or effect of high winds, excessive rainfall, temperature or any other meteorological phenomena.

Protection from weather

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

No separate payment will be made for this and the Contractor will allow in his rates for this.

Sanitation

The site shall be kept in a clean and proper sanitary condition. No nuisance shall be committed on or around the work, and latrines for the workmen and staff shall be provided in accordance with the requirements of the Medical Officer or Sanitary Authorities. The Contractor shall be responsible for the sanitary discipline of his labour.

Medical Facilities

The Contractor's attention is drawn to Legal Notice No. 79 of 22nd September, 1978 by which it is mandatory that every Contractor employing more than twenty people should appoint (in writing) a safety supervisor. A safety supervisor advise the management on all matters regarding safety, hygiene and welfare of the people affected by the Contractor's undertaking on the site.

The safety officer may in addition carry out other duties.

The Contractor shall provide adequate first aid equipment on the site, and ensure that at least two of his site staff is competently trained in first aid.

Signboards

Before the erection of any sign boards or posters by the Contractor, the Contractor shall obtain the approval of the Employer to the size, location and wording of such sign boards or posters.

Backfilling of holes and trenches

The Contractor shall immediately upon approval of any work at his own expense and to the satisfaction of the Engineer backfill all holes, trenches and temporary quarries which have been made.

Inspection of works

The Contractor must give due notice in writing to the Engineer when any part of the works is ready for inspection

Site meetings

Site meetings will normally be held monthly, but will be called for whenever the progress of the works so require or when demanded by the Engineer.

The Contractor shall at all meetings be represented by a responsible representative other than the Site Agent, who has the powers to commit the Contractor in all matters concerning the Contract.

In the event, no responsible representative of the Contractor is present at the meetings; any decision taken by the Engineer at the meeting will be binding upon the Contractor.

Compliance with Statutes and local regulations

The Contractor shall be responsible for acquainting himself with all current valid statute ordinance or bye-laws or regulations which may affect the works and shall include these in the item provided in the Bills of Quantities. This applies to training levy and other similar taxes for which no claim on the part of the Contractor other than the one inserted in the Bills of Quantities will be allowed.

Safety Supervisor

The Contractor's attention is drawn to the Circular Ref: KA/17/A/2(4) from Factories Inspectorate, Ministry of Labour, Notice No. 79 gazetted in the Kenya Gazette No. 56 (Legislative Supplement No. 38) in respect of the appointment of Safety Supervisors on Building and Works of Engineering Construction. In accordance with this requirement, the Contractor shall appoint a Safety Supervisor.

Pollution Control

During the execution of the Works, the Contractor shall ensure that no pollution of existing watercourses is allowed to take place as a result of his operations. The Contractor shall take all reasonable steps to protect the environment on and off the site and to avoid damage or nuisance to persons or to property of the republic or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation.

Removal of camps

On the completion of the Contract, the Contractor shall if so requested take down and remove all structures connected with his camp, and shall take up all pipes, drains and culverts, backfill trenches, fill up all latrine pits, soak ways and other sewage disposal excavations and shall restore the site as far as practicable to its origin condition and leave it neat and tidy to the satisfaction of the Employer.

EXCAVATION AND EARTHWORKS FOR PERMANENT WORKS**Clearance of ground**

Before commencing any site clearance, general clearance, clearance of pipelines etc. the Contractor shall inform the Engineer or his authorized representative of his intention. The Engineer or his representative will be visiting the section of works concerned, determine the extent of the clearance expressly required.

Stripping of top soil

Stripping shall consist of removing, transporting and disposing of topsoil, stumps, roots, buried logs, debris, humus and similar objectionable matter. Areas to be stripped are all areas required for the permanent constructional works, borrow-pits and embankment fills. The limits of stripping shall extend 2 meters beyond the limits of excavation or toes of fills.

The depth of stripping shall normally be 0.25 m, but deeper stripping might be needed to remove stumps.

Disposal

Materials from stripping suitable as topsoil shall be spread in approved areas. All other non-combustible materials shall be buried in approved disposal area; covered with a minimum of 0.5 m of excavation spoil. These disposal areas shall be left with neatly graded surfaces and stable slopes that assure drainage. Alternatively, the noncombustible material shall be removed from the area by the Contractor.

Excavation

Excavation shall be made to such lengths, depths and inclinations as may be necessary for the construction of the works or as shown on the drawings or as the Engineer may direct.

Classification of Excavation

For purposes of measurement, excavation is classified as follows:

Hard Material

Hard material shall be material which cannot be ripped to an average depth of greater than 300mm by a track type crawler tractor complying with the following:

in good order complete with all equipment and accessories as supplied;

rated 300 BHP flywheel power or over;

with an operating weight of not less than 37.2 tons;

equipped with a hydraulically operated single tine ripper compatible with the tractor used; and

Operated by a qualified operator in accordance with the manufacturer's recommendations and to the satisfaction of the Engineer.

The Engineer and the Contractor shall agree the classification of excavation as the work proceeds.

Where it is impractical to prove hard material by the above method then the quantity of hard material, if any, shall be determined by the Engineer and shall be binding to both parties.

Where excavation contains individual boulders of hard material greater than 0.3m³ each in volume then such boulders shall be classified as hard material.

The fact that compressed air picks are required for the excavation of certain materials shall not qualify the materials to be classed as hard material.

All loose, shattered or fractured rock shall be removed from excavations in hard material. Where excavations in hard material are carried out by blasting, the manner and extent of the blasting shall be such as will prevent damage to the surrounding strata or ground or to the Works.

No excavations in hard material shall be carried out by blasting where damage to surrounding strata or ground or properties or to the Works would result thereby. The rates for excavation in hard material shall be held to include for excavation by a means, as the circumstances require.

Soft material

Soft material shall be all materials other than hard material.

Classification of Rock Excavation

The following definitions of earthwork materials shall apply to this and other Clauses of the Specification in which reference is made to the defined materials:

"Top soil" shall mean the top layer of soil that can support vegetation

"Suitable material" shall comprise all material which arises from excavations within the Site and which is approved by the Engineer as acceptable for use in the works

"Unsuitable material" shall mean other than suitable material and shall comprise:

material from swamps, marshes and bogs

logs, stumps and perishable materials

Material susceptible to spontaneous combustion

Clay of liquid limit exceeding ninety (90) and/or plasticity index exceeding sixty five (65)

Black cotton soil is unsuitable for roadworks

"Natural ground" material shall mean all material other than that defined as "rock" or "artificial hard material" hereunder

"Rock" or "artificial hard material" shall mean any hard natural or artificial material requiring the use of blasting or approved pneumatic tools for its removal but excluding individual masses less than 1 cubic metre. Decomposed rock, altered rock, agglomerates, tuffs and hard-consolidated bound laterite (hardpan) will not be considered as rock. The breaking of concrete or road surface or road base will not be considered or paid for as rock excavation. The Engineer's decisions on classification of rock and the necessity or otherwise of rock excavating methods or appliances shall be final.

Preparation, Inspection and blinding of foundations

The faces of excavations shall be clean and trimmed to the required lines and levels. Any parts of the formation inconsistent with the nature and texture of the main formation shall be removed if instructed by the Engineer, and the voids so formed filled with material and in a manner approved by the Engineer.

Where shown on the Drawings, or otherwise required the formation shall be compacted by watering and rolling, or other approved method, so as to achieve the required density.

The Contractor shall give due notice to the Engineer whenever any work on a foundation is about to be ready for examination and no further work shall be done on the foundation until it is approved by the Engineer.

The Contractor shall at all times protect the exposed formation to prevent deterioration and, where applicable, blinding concrete shall be laid immediately following the Engineer's approval of the formation.

Foundation cast against existing ground

Where shown on the drawings or directed by the Engineer that concrete shall be cast against the existing ground, the excavation shall be neatly excavated to the shape required.

Where the foundation is inadvertently over-excavated, the space between the foundation and the excavated face shall be backfilled with concrete or as directed by the Engineer.

Reinstatement of surfaces

Generally, all trenches and backfilled excavations shall be reinstated to equal surfaces as before excavation.

Before expiration of the maintenance period, the Contractor shall make good any defaults in reinstatements.

Removal of surplus excavated material

Excavated material, which is not needed either for backfilling trenches or other excavations or use in embankments or otherwise, shall be removed and disposed off to tipping places obtained by the Contractor. All rubbish and waste material shall similarly be removed by the Contractor. All surplus excavated material shall be spread and levelled in the tipping places in accordance with such directions as the Engineer may give, and the Contractor's rates for disposal shall include for the costs of such operations.

The Contractor shall take every practical precaution against causing any nuisance, damage, injury or inconvenience in the handling, stacking, carting or disposal of excavated materials or any other operation matter or thing in connection therewith.

Should the Engineer direct the Contractor to tip certain surplus excavated materials in a particular place (other than the tipping places obtained by the Contractor), the Contractor shall abide by such instruction and shall make no charge in consequence thereof unless the place specified entails a longer haul than what would be incurred by tipping at the place obtained by the Contractor.

Borrow pits

No borrow pits will be allowed to be opened on the site unless permission in writing has been obtained from the Engineer.

Before the excavation of an approved borrow area is commenced, the Contractor shall clear the surface and strip the topsoil.

Borrow excavations shall be regular in width and shape and shall be properly graded and drained and finished with neatly trimmed slopes, and if so directed soiled and grassed.

Hardcore filling

Hardcore fill shall consist of clean hard broken stone or rubble with measurements not below 200mm and not exceeding 500mm in any one direction with sufficient murram added to fill the interstices. The hardcore shall be well packed, rammed and where possible rolled with a 5-ton roller. Where rolling is impossible, compaction shall be by hand or by mechanical tampers.

Before any concrete is laid on hardcore, the hardcore shall be levelled and blinded with fine stone chipping, rolled and watered as necessary. Hardcore filling is measured after compaction.

Top soil and grassing

Top soil shall be selected vegetable soil, well compacted and except where otherwise specified of 150mm thickness.

The Contractor shall trim the faces of the side slopes to open channels and elsewhere where directed to the dimensions, inclinations and curves shown on the drawings, remove all excess material and make good all depressions with suitable material.

Where instructed by the Engineer, the Contractor shall plant Kikuyu or other approved grass at the rate of 16 plants per m² corresponding to 250mm c/c. The Engineer shall satisfy himself that natural growth of grass will not take place within a reasonable time before instructing the Contractor to grass specified areas.

The Contractor shall be responsible for obtaining suitable grass plants and for making all necessary arrangements with the owners and/or occupiers of the land from which they are to be obtained. The Contractor shall be responsible for the preparation of the embankment for planting, and for maintaining adequate grass cover and necessary watering during the Contract and Maintenance Period.

Ant Proofing

Where an ant-proof course has been specified, it should be made by application of Rentokil Termite Soil Concentrate or equal diluted one-part concentrate to forty parts water (by weight) at the rate of 5 litres solution to 1 square meter to the whole area of the building immediately before (36 hours' maximum) the concrete is poured. Additionally, to all critical areas, i.e. both sides of wall foundations, piers and porches the application should be 5 litres per running meter.

Treatment should not be made when the soil is excessively wet. Precautions should be taken to prevent disturbance of the treated areas before they are covered.

Clearing the site on completion

On completion of the works, the Contractor shall clear the site of all plant, building, spoils, dumps, rubbish, etc. and leave the site to the satisfaction of the Engineer.

Borrow pits and temporary quarries shall be made good and covered with vegetable soil. Dumps for waste material shall be covered with at least 0.5m of soil of which at least a 0.10m layer in top shall be vegetable soil.

STEEL REINFORCEMENT

Materials

Unless otherwise directed or otherwise shown on the Drawings, hot rolled high yield reinforcement shall be used throughout the works.

Where required, mild steel reinforcement, medium tensile steel reinforcement and high tensile steel reinforcement shall comply with BS 4449:2005+A2:2009:2005+A2:2009. Cold twisted steel reinforcement shall comply with BS 4483:2005:2005.

All reinforcement shall be from an approved manufacturer and the Contractor shall submit a test certificate of the rollings. The Contractor shall, when requested by the Engineer, provide sample pieces 1.0 metres long for testing.

Tying wire shall be 1.6 millimeters diameter soft annealed iron wire.

All reinforcement shall be free from scale, rust, grease, paint or other substances likely to reduce the bond between the steel and the concrete.

Fabricating reinforcement

Bar reinforcements shall be bent to the shapes shown on the Drawings and bending schedules.

All bars shall be bent cold, unless otherwise permitted by the Engineer. All hooks, bends, and the like, unless otherwise shown on the Drawings, shall be to BS 8666:2000. The Contractor shall satisfy himself as to the accuracy of any bar bending schedules supplied and shall provide all reinforcement in accordance with the Drawing. Bar reinforcement shall be bundled and each bundle of steel shall be tagged with identifying tags, showing the size and mark of the bar. The bundles shall be stacked clear of the ground in easily accessible positions that do not in any way hinder the progress of work and shall be kept clean.

Reinforcement shown on the drawings will be that required for structural purposes only. The Contractor shall be responsible for designing all reinforcement necessary for positioning and supporting structural reinforcement (chairs, spacing bars and the like).

Fixing reinforcement

When placed in the work reinforcement shall be free from coatings or dirt, detrimental scale, paint, oil or other foreign substances. When steel has on its surface rust, loose scale and dust which is easily removable, it may be cleaned by a method approved by the Engineer.

All reinforcing bars, ties, links and fabric shall be fixed in the positions shown on the Drawings within the tolerances specified in BS 8666:2000. In no case shall the cover specified on the Drawings be increased by more than 5 millimeters.

Displacement of reinforcement beyond the specified tolerance shall be prevented by supporting the bars sufficiently and securely fixing them together at intersections where necessary.

The ends of all tying wires shall be turned into the body of the concrete and not allowed to project towards the surfaces of the concrete.

Spacers shall be used to maintain the cover to all steel and shall be made of dense cement mortar of one-part cement and two parts sand.

Spacers shall be triangular in section and only one acute edge shall bear against the formwork, the flat side shall bear against the steel. Wire cast into the blocks to fix them to the reinforcement shall be 1.6 millimeters diameter soft annealed iron. The Engineer may approve the use of spacers made of other materials. Spacers shall not be used on the wet face of water retaining or water excluding structures. Chairs, stools, etc. shall be used to maintain clearance between two or more layers of reinforcement.

Nothing shall be allowed to interfere with the specified position of reinforcement. The fixing of reinforcement shall be checked before and during concreting, and particular attention shall be given to the position of top steel in cantilever sections. During concrete placing a competent steel fixer shall be in attendance to adjust and correct the position of any reinforcement which may be displaced.

Splicing and lapping

All reinforcement shall be provided in full lengths as indicated on the Drawings or bending schedules. Splicing of bars, except where shown on the Drawings, shall not be permitted without the written approval of the Engineer. Splices shall be staggered as far as possible. Bar reinforcement shall not be welded without the Engineer's written permission.

In lapped splices, the bars shall be placed in contact and wired together in such manner as to maintain a clearance between bars of not less than 50 millimeters.

Mesh or mar reinforcement shall overlap sufficiently to maintain a uniform strength and shall be securely fastened at ends and edges. The edge lap shall not be less than 40 diameters of the mesh reinforcement bar or two mesh widths whichever is greater.

FORMWORK

Definitions

Forms, formwork or shuttering shall mean all temporary moulds forming the concrete to the required shape together with any special lining that may be required to produce the concrete finish specified.

Falsework or centering shall mean the furnishing, placing and removal of all temporary construction such as framing, props and struts required for the support of forms.

Materials

The formwork may of seasoned, planed, tongued and grooved timber, plywood, blockboard, tempered hardboard, steel or as specified on the Drawings.

All timber used for formwork shall be sound wood, well-seasoned and free from loose knots, shakes, large checks, warping and other defects. Before use on the work, it shall be properly stacked and protected from injury from any source. Any timber which becomes badly warped or cracked, prior to the placing of concrete shall be rejected. All formwork for outside surfaces before final ground level shall be either tongued and grooved or provided with a suitable lining to produce a smooth surface finish.

Forms

All forms shall be of wood or metal and shall be built grout-tight and of sufficient rigidity to prevent distortion due to the pressure of the concrete and other loads incidental to the construction operations. Forms shall be constructed and maintained so as to prevent warping and the openings of joints due to shrinkage of the timber.

The forms shall be substantial and unyielding and shall be so designed that the finished concrete will conform to the proper dimensions and contours. The design of the forms shall take into account the effect of vibration of concrete as it is placed.

All formwork shall, unless otherwise directed, be provided with 25 millimeters by 25 millimeters angle fillets so as to form splays on internal and external angles.

A grout check formed from 25 millimetres square hardwood timber shall be incorporated in the formwork to provide a clean, level, horizontal joint on exposed concrete surfaces at the top of each lift.

All joints in the formwork shall be either horizontal or vertical. End formwork shall be square across the mass of concrete.

Where concrete is to be deposited to a slope steeper than 20 degrees to the horizontal, top formwork shall be used to enable the concrete to be properly compacted unless the Engineer agrees otherwise.

All formwork shall be approved by the Engineer before concrete is placed within it. The Contractor shall, if required by the Engineer, provide copies of calculations of the strength and stability of the formwork and Falsework. Notwithstanding the Engineer's approval of these calculations, the Contractor shall be held responsible for the safety and adequacy of formwork.

Falsework and centering

Detailed plans for a falsework or centering shall be supplied by the Contractor to the Engineer at least 14 days in advance of the time the Contractor begins construction of the falsework.

Notwithstanding the approval of the Engineer of any designs for falsework submitted by the Contractor, the Contractor shall be solely responsible for the strength, safety and adequacy of the falsework or centering.

All falsework shall be designed and constructed to provide the necessary rigidity and to support the loads from the weight of green concrete and shuttering and incidental construction loads.

Falsework or centering shall be founded upon a solid footing safe against undermining and protected from softening. Falsework which cannot be founded on satisfactory footings shall be supported on piling which shall be spaced, driven and removed in a manner approved by the Engineer. The Engineer may require the Contractor to employ screw jacks, or hard wood wedges to take up any settlement in the formwork either before or during the placing of concrete.

Forms and Joints

Where permanent or temporary joints are to be made in horizontal or inclined members, stout stopping off boards shall be securely fixed across the mould to form a water-tight joint. The form of the permanent joint shall be as shown on the Drawings.

Where reinforcement or waterstops pass through the face of a joint the stopping off board shall be drilled so that the bars or waterstop can pass through, or the board shall be made in sections with a half round indentation in the joint faces for each bar so that when placed the board is neat and accurate fit and no grout leaks from the concrete through the bar holes, joints or around the waterstop.

Release agents

Only approved chemical release agents, mould creams (emulsions of water in oil) or oils containing a proportion of surfactant not exceeding 2 percent will be permitted. Water soluble emulsions and oils without surfactant shall not be used. Oil based release agents shall be applied at a rate of 7 square metres per litre one day in advance of concreting, preferably by spray or roller. Chemical release agents shall be applied in accordance with the manufacturer's recommendations.

New timber face work shall be given three coats of release agent before use on the work to ensure uniformity of porosity on the surface.

On no account shall the release agent come into contact with the reinforcement.

Removal of formwork

Formwork shall be carefully removed without shock or disturbance to the concrete. No formwork shall be removed until the concrete has gained sufficient strength to withstand safely any stresses to which it may thereby be subjected.

The minimum periods which shall elapse between completion of placing concrete and removal of forms are given in the following Table 3.2, and apply to ambient temperatures higher than 10°C. At lower temperatures or if cements other than ordinary Portland are involved, the Engineer may instruct longer periods.

Alternatively, formwork may be removed when the concrete has attained the strength set out in Table 3-2, provided that the attained strength is determined by making test cubes and curing them under the same conditions as the concrete to which they refer.

Compliance with these requirements shall not relieve the Contractor of his obligation to delay removal of formwork until such removal can be completed without damage to the concrete.

Table 3.2: Minimum Periods for Formwork Removal

Position of Formwork	Minimum Period for Temps over 10°C	Strength to be Attained
Vertical or near vertical faces of mass concrete	24 hours	0.2C
Vertical or near vertical faces of reinforced walls, beams and columns	48 hours	0.3C
Underside of arches beams and slabs (formwork only)	4 days	0.5C
Supports to underside of arches, beams and slabs	14 days	C
Arched linings in tunnels and underground works	24 hours	4N/mm ²

NOTE: C is the nominal strength for the class of concrete used. If the Contractor wishes to strip formwork from the underside of arches beams and slabs before the expiry of the period (or supports set out above), it shall be designed so that it can be removed without disturbing the supports. The Contractor shall not remove supports temporarily for the purpose of stripping formwork and subsequently replace them. As soon as the formwork has been removed, bolt holes in concrete faces other than construction joints which are not required

for subsequent operations shall be completely filled with mortar sufficiently dry to prevent any slumping at the face. The mortar shall be mixed in the same proportions as the fine aggregate and cement in the surrounding concrete and with the same materials and shall be finished flush with the face of the concrete.

Surface Finishes

General

After removal of the formwork no treatment of any kind other than that required for curing the concrete shall be applied to the concrete faces until after inspection by the Engineer. All honeycombed areas, deformed surfaces or other defective surfaces shall then be repaired at the direction of the Engineer. Immediately following the Engineer's inspection of surface finish, all tie bolt cavities shall be filled with sand cement mortar and the surface left smooth, sound, even and uniform in colour.

Should the finishes surface either as-stuck or after repair exhibit a non-uniform colour or texture, the Engineer shall have the right to order that the surface be given a skim coat and then painted.

Formed surfaces

All joints between panels shall be vertical and horizontal unless otherwise directed. Suitable joints shall be provided between sheets to maintain accurate alignment in the plane of the sheets.

For warped surfaces, facings shall be built up of laminated splines cut to make a tight surface which shall then be dressed and sanded to the required curvature.

Type F1: This finish is for surfaces against which backfill or further concrete will be placed. Formwork shall consist of sawn boards, sheet metal or any other suitable material which will prevent the loss of grout when the concrete is being placed.

Type F2: This finish is for surfaces which are permanently exposed to view but where the highest standard of finish is not required. Forms to provide a Type F2 finish shall be faced with wrought thicknesses tongued and grooved boards with square edges arranged in a uniform pattern and close jointed or with suitable sheet material. The thickness of boards or sheets shall be such that there shall be no visible deflection under the pressure exerted by the concrete placed against them. Joints between boards or panels shall be horizontal and vertical unless otherwise directed. This finish shall be such as to require no general filling of surface pitting, but fins, surface discoloration and other minor defects shall be remedied by methods agreed by the Engineer.

Type F3: This finish is for surfaces which will be contact with water flowing at high velocity and for surfaces permanently exposed to view where good appearance and alignment are of importance. To achieve this finish, which shall be free of boardmarks, the formwork shall be

faced with plywood complying with BS 1088-1:2003 or equivalent material in large sheets. The sheets shall be arranged in an approved, uniform pattern. Wherever possible, joints between sheets shall be arranged to coincide with architectural features or changes in direction of the surface. Suitable joints shall be provided between sheets to maintain accurate alignment in the place of the sheets. Unfaced wrought boarding or standard steel panels will not be permitted for Type F3 finish. The Contractor shall ensure that the surface is protected from rust marks, spillages and stains of all kinds.

Type F4: This finish is similar to that required for type F3 but is used in places where a first class alignment and a dense surface free from airholes and other defects is required, suitable for the application of decorative finishes, in very high velocity water channels and in other similar circumstances.

Unformed surfaces

Type U1: This is screed finish for surfaces of roads of foundations, beds, slabs, and structural members to be covered by backfill, subsequent stages of construction, bonded concrete topping or cement mortar beds to receive pavings, and on exposed surfaces of paving where a superior finish is not required. It is also the first stage of Type U2 and U3 finishes. The finishing operations shall consist of levelling and screeding the concrete to produce a uniform, plane or ridged surface, surplus concrete being struck off by a straight edge immediately after compaction.

Type U2: This is a floated finish for exposed surfaces where a hard smooth steel trowelled surface is not required. Floating shall be done only after the concrete has hardened sufficiently, and may be by hand or machine. Care should be taken that the concrete is worked no more than is necessary to produce a uniform surface free from float marks.

Type U3: This is a hard smooth steel trowelled finish for surfaces exposed to water flowing at high velocity. Trowelling shall not commence until the moisture film has disappeared and the concrete has hardened sufficiently to prevent excess laitance from being worked to the surface. The surface shall be trowelled under firm pressure and left free from trowel marks.

Type U4: This finish is similar to Type U3 finish but the permissible tolerances are smaller.

STONEMWORK

Stones

Stone for all purposes shall be the best of its kind, sound and durable, free from flaws and from soft, weathered or decomposed parts. The stone and the quarry from which it is obtained shall be subject to the approval of the Engineer, samples shall be submitted by the Contractor of the stone he proposes to use in the Works and the Engineer's approval shall be obtained before such stone is used or any order is placed. The stone used shall be clean and must be washed if deemed necessary in the opinion of the Engineer.

Stones for face work shall be as far as possible quarry split and not bullnosed or hammer dressed. A moderate amount of dressing to trim off large projections will however be permitted. Exposed faces of stones for masonry shall be free from tool marks except such as are inherent in the nature of any dressing that may be specified. In rock-faced work the roughness on the surface shall not project more than 40 mm for stone less than 0.3 m² face area and not more than 60 mm for large stones.

Stone Masonry

For face work the stones shall show a face of not less than 0.025 m² and not more than 0.1 m² in area and none shall be less than 100 mm in depth; they shall be laid to give a uniformly random appearance and shall be selected in laying so as to present an even distribution of large and small stones on the face.

For the arises, stones shall be roughly squared, quarry split and of a size to give out bands varying from 300 mm to 500 mm in length and in bands from 150 mm to 250 mm. The alignment of arises shall be set true to the required lines.

The stones shall be set in mortar with their natural bedding plane (if any) as near normal as possible to the face or normal to the line of thrust in the case of load bearing structures. Particular care must be given to obtaining a sound bond both longitudinally and transversely and there shall be at least one bonder, or length not less than two-thirds of the wall thickness, in each square yard of wall face.

The mortar, unless otherwise specified, shall be machine mixed cement and sand in the proportion of one part to three (1:3) parts generally as described in the specification. Mortar shall completely fill all interstices between the stones.

The face joints in rubble masonry may vary in thickness from 10 mm to 20 mm. They shall be finished as a neat weathered joint with mortar while the work proceeds where the masonry is specified to be "un-pointed". Where pointing is specified, the joints in each day's work shall be raked out to a depth of not less than 25 mm before the mortar has set. Subsequently the joint shall be filled with mortar and finished in accordance with Clause 4.6. The face of the masonry is to be kept wet while the pointing is proceeding. Provision shall be made to clean all exposed

faces both as work proceeds and on completion so that they are left in a neat, tidy and clean condition.

Building of masonry will not be allowed in heavy rain without the written consent of the Engineer. Building shall only proceed when suitable precautions to the satisfaction of the Engineer shall be taken against the action of rain on newly placed mortar. If for any reason of urgency, the consent of the Engineer should be desired to a departure from these provisions, the Contractor shall submit to the Engineer for approval their proposals for protecting the materials and work from the weather.

Pointing of Joints in Masonry

Unless otherwise shown on the Drawings, pointing to masonry joints shall be flush and shall be formed by raking the joint clean and then filling it with pointing consistency mortar which shall be given a flush face with a steel trowel.

FENCING

All fencing shall be erected in exact vertical position and to straight lines as shown on the drawings. The materials and workmanship shall comply with the recommendations in BS 1722.

Concrete Posts

Precast concrete posts shall be cast of concrete Grade 20 as specified in Section 4, to the sizes shown on the drawings. The posts shall be securely placed in performed holes and cast in concrete to depth as shown on the drawings.

Bracings shall be provided at all corners, and at intervals of not more than 50 metres on straight lines of fencing. Maximum distance between posts is 4.5m concrete posts and bracings are measured in numbers, and the rate shall include for supply, excavation, erection and backfilling.

Chain Link

The chain link fencing shall be supplied in rolls of 2130mm (7 feet) width and shall be with 65mm mesh of 12 ½ gauge, fitted to 4 rows of line wires with binding wire at 130mm centres.

The cranked top of the posts shall be fitted with 3 strands of 12 ½ gauge barbed wire with four point barbs at 150mm centres. All members of the fencing shall be hot dip galvanized.

Fencing is measured in linear metres and the rate shall include all waste and cutting, as well as fixings to posts and all line wires, barbed wires and binding wires.

Gates

If not otherwise stated gates shall be 4 metres wide double leaf gates, made from 40mm galvanized steel tube frame (medium class) with 8 gauge galvanized weld mesh welded to the frame. Bracings, hinges, tower bolts and locking arrangement shall be as shown on the drawings or of other approved type. The top of the gates shall be fitted with 3 strands of 12 ½ gauge barbed wire. The price for the gate shall include for the manufacture, installation, all bolts and padlocks etc. and painting all as shown on the drawing. Gate posts made of rolled hollow square sections as shown on the drawings are measured separately.

BUILDING WORKS

Concrete Block walling

precast concrete blocks

Concrete blocks shall comply with BS 2028. The blocks shall be Type A, solid or hollow, as specified on drawings, with a minimum compressive strength of 3.5 N/mm², tested as described in BS 2028.

All blocks must be left with good sharp edges. The standard face size of blocks for use in the works shall be 457 mm x 228 mm and this size of blocks shall be used wherever practicable. No work with concrete blocks shall commence prior to a test report being presented to and accepted by the Engineer.

The Contractor shall be responsible for making test blocks and experimenting with available materials to ascertain what mix will be necessary to attain the required strengths. If suitable materials are not available locally, the Contractor shall obtain them from other approved sources.

Manufacture shall be carried out under shelter and after casting the blocks shall be stacked under shelter to protect them from sun and weather, and properly cured by covering with sand or sacks and sprayed daily for not less than 14 days.

Wall Reinforcement

Reinforcement in walls made of solid blocks shall, where so specified, consist of a 25 mm wide strip of “Exempt” or similar brick reinforcement centrally in joints at approximately – 50 mm centres (vertically) for the full length of the walls, lapped and crimped 300 mm at running joints and full width of walls at angles and intersections.

Cement

The cement shall be as described in “Concrete Work”.

Sand

The sand for mortars shall be as described in “Concrete Work”, except that it shall be fine sand.

Mortar

The cement mortar shall consist of one part of Portland Cement to three parts of sand by volume.

The ingredients of mortar shall be measured in proper gauge boxes on a boarded platform, the ingredients being thoroughly mixed dry, and again whilst adding water. In the case of cement lime mortar. The sand and lime shall be mixed first, and then the cement added. All mortar is to be thoroughly mixed to a uniform consistency with only sufficient water to

obtain a plastic condition suitable for troweling. No mortar, that has commenced to set, is to be used or remixed for use.

Damp proof course

All damp-proof courses shall be of bituminous felt to BS 743 weighing not less than 3 kg per m², free from tears and holes, lapped 150 mm at running joints and for full width of wall at angles and intersections and bedded on and including a 12mm levelled screed of cement mortar.

Measurement

Walls are measured in square metres for each thickness of walls. The prices shall include for all straight cutting, bonding, plumbing angles, forming reveals, pinning up to underside of concrete soffits and cutting up to sides of columns and cutting and pinning ends of lintels and sills.

Plasterworks and other floor, wall and ceiling finishes

Cement

The cement shall be as previously described in “Concrete Works”.

Sand

The sand shall be as described for fine aggregate, but that for plastering shall be light in colour and well graded to a suitable fineness in accordance with the nature of the work in order to obtain the finish directed.

Lime

The lime for plastering shall comply with BS 890 Clause “A” for non-hydraulic lime and shall be as rich as obtainable and to approval. It must be freshly burnt and shall be slaked at least one month before being used by trenching with water, well broken up and mixed and the wet mixture shall be passed through a sieve of 3 mm meshes. Lime putty shall consist of freshly slaked lime as described above, saturated with water until semi-fluid and passed through a fine sieve: it shall then be allowed to stand until superfluous water has evaporated and it has become of the consistency of thick paste, in no case for a shorter period than one month before being used, turning which time it must be kept damp and clean and no portion of it allowed to become dry.

Alternatively, hydrated lime with 70/5 average calcium oxide content may be used and it must be protected from dam until required for use. It shall be soaked to a putty at least 24 hours before use.

Finish Generally

All screeds and paving's shall be finished smooth, even and truly level unless otherwise specified. Rendering and plastering shall be finished plumb, square, smooth and even. All surfaces to be plastered shall be thoroughly wetted before any plastering is commenced. On no account may finished plaster surface be chased and made good. All work shall be to the approval of the Engineer and any work not complying with the above shall be hacked away and replaced at the contractor's expense.

Cement pavings, screeds etc

Cement screeds shall consist of cement and sand mix 1:2 laid in panels and finished with a steel trowel if not otherwise specified/ Where specified as waterproof “Puddle” or similar waterproofing compound shall be added to the cement paving or screeds strictly in accordance with the Manufacturer’s instructions. Where practicable, screeds are to be laid while the concrete is still green. When this is not practicable the concrete is to be well washed and brushed perfectly clean with a steel wire brush, to remove all laitance and to give a roughened face as a key and then kept wet for at least seven days before the screed is laid. On the day of laying the surface is to be only damp with all surplus water removed and has to be painted with cement and sand mix 1:1 grout immediately before commencing laying of the screed. The grout is to be applied continuously in front of the screed, and not in large areas that will dry out before the screed is applied. Screed shall be protected during the first stage of hardening from the harmful effects of sunshine, drying winds, rain or water. In exposed positions the screed shall be covered with a well wetted layer of sawdust, hessian or other approved material and this layer shall be damp for at least seven days, during which period no traffic is to be allowed over the screed.

Carpentry and Joinery

Timber materials

All timber shall be in accordance with the latest approved Grading rules issued by the Government of Kenya (Legal Notice No. 358). The quality shall be as First (or Prime) Grade. All timber work to be carried out in accordance with BS 1186 and CP 112. Any of the following timber may be used:

All timber, as it arrives on the Site, shall be inspected by the Engineer, and any timber brought on the site and not complying with the Specification or not approved, must be removed forthwith from the Site, and only timber as approved shall be used in the works. The Contractor shall upon signing the Contract, purchase sufficient supplies of specified hardwoods to avoid possible shortages at a later date. All timber shall be free of live borer beetle or other insect attack when brought upon the Site. The Contractor shall be responsible up to the end of the maintenance period for executing at his own cost all work necessary to eradicate insect attack of timber which becomes evident – including the replacement of timber attacked or suspected of being attacked, notwithstanding that the timber concerned may have already been inspected and passed as fit for use. All timber shall be seasoned to a moisture content of not more than 15%.

Boards and sheets

Fibreboard shall be 12 mm “Celotex” or other approved fibreboard complying with BS 1142, Part 3.

Plywood shall be laminated board faced on in both sides with 4 mm plywood.

Exposed edges shall be lipped with 20 mm hardwood and rates shall include for lipping. Plastic

Sheeting shall be “Formula” sheeting 1.3 mm thick and securely fixed with approved type waterproof adhesive, and in the colours approve by the Engineer. Flush doors shall be 45 mm thick, and shall be obtained from an approved manufacturer. The doors shall comply with BS 459, Part 2. External doors shall be framed, ledged and braced as shown on the drawings, and they shall comply with BS 459, Part 4.

Roofing

The roof sheeting shall be as prescribed in the bill of quantities

Ironmongery and other fittings

All ironmongery shall be approved by the Engineer. The approved samples shall be regarded as the standard for work

Locks

All locks and ironmongery shall be with screws, etc. to match. Before the door etc., is painted, handles shall be removed, carefully stored and prefixed after completion of painting. Locks shall be oiled and left in perfect working order. 25mm diameter rubber door stops shall be provided at all doors and securely plugged and screwed to floors or walls. All external doors shall be provided with locks of cylinder type. All internal doors to be provided with approved latch locks and handles. All locks shall have two keys with attached labels with door references before being handed over to the Engineer.

Sanitary fittings

All sanitary fittings shall be of approved manufacture and installed in accordance with the manufacturer's recommendations.

Glazing

Glass

All glass shall comply with BS 952 and be free from flaws, bubbles, specks and other imperfections. Glass panes will be cut to sizes to fit the opening with not more than 2 mm play all round and where puttied shall be clipped to the frames. Clear sheet glass shall be ordinary glazing quality

Cleaning

On completion remove all broken, scratched or cracked panes and replace with new to the satisfaction of the Engineer. Clean inside and out with approved liquid cleaner. On no account shall windows be cleaned by scraping with glass.

Painting, Decorating and other surface treatments

General

The Contractor shall so arrange his programme of work that all other trades are completed and the workmen are away from the area to be painted, when painting begins. Before painting, the Contractor must remove all concrete and mortar dropping and the like from all work to be decorated and remove all stains as to obtain uniform colour to work to be oiled and polished. All plaster, metal, wood and other surfaces which are to receive finishes of paint, stain, distemper or paintwork of any description are to be carefully inspected by the Contractor before he allows any of his painters to commence work. The Contractor will be

held solely responsible for all defective work condemned as a result of his painter's failure to insist on receiving from the other traders surfaces in the proper condition to allow first class finishes of the various kinds specified being applied to them.

Painting Generally

All materials to be applied externally shall be of exterior quality and/or recommended by the manufacturers for external use, all in accordance with CP 231. All materials shall be delivered on site intact in the original sealed drums or tins and shall be mixed and applied strictly in accordance with the manufacturer's instruction and to the approval of the Engineer. Unless specially instructed or approved by the Engineer, no paints are to be thinned or otherwise adulterated, but are to be used as supplied by the manufacturers and direct from the tins. The priming, undercoats and finishing coats shall each be of differing tints and the priming and undercoats shall be the correct brands and tints to suit the respective finishing coats in accordance with the manufacturer's instruction. All finishing coats shall be of colours and tints selected by the Engineer. Each coat must be approved by the Engineer before the next coat is applied. All paints, emulsion paints and distempers shall be applied by means of a brush or spray gun or rollers of an approved type where so agreed by the Engineer. No painting is to be done in wet weather or on surfaces which are not thoroughly dry. Each coat shall be properly dry and in the case of oil or enamel paints shall be well rubbed down with fine glass paper before the next coat is applied. The paintwork shall be finished smooth and free from brush marks. The rates for painting shall include for preparation of surfaces, rubbing down between each coat, stopping, knotting, etc. and all other work in connection and as described and as necessary to obtain a first class and proper finish to the Engineer's approval.

Preparation and priming of plaster

Surfaces shall be perfectly smooth, free from defects and ready for decoration. All such surfaces shall be allowed to dry for a minimum period of six weeks, stopped with approved plaster compound stopping and rubbed down flush, as necessary, and then be thoroughly brushed down and left free from all efflorescence, dirt and dust immediately prior to decorating. Plaster surfaces, which are to be finished with emulsion, oil or enamel paint, shall be primed with an alkali resisting primer complying with the particular paint Manufacturer's specification and applied in accordance with their instructions. Fibreboard or similar surfaces shall be lightly brushed down to remove all dirt, dust and loose particles and have all nail holes or other defects stopped with an approved plaster compound stopping rubbed down flush and left with a texture to match surrounding material.

Preparation of Priming of Metalwork

All surfaces shall be thoroughly brushed down with wire brushes and scraped where necessary to remove all scale, rust, etc. immediately prior to decorating. Where severe rust exists and if approved by the Engineer, a proprietary de-rusting solution may be used in accordance with the manufacturer's instructions. Shop primed and unprimed surfaces shall be given one coat of metal chromate primer or lead oxide primer. Galvanized surfaces shall be treated before priming with an approved proprietary mordant or de-greasing solution. The surfaces shall be thoroughly washed down with water, allowed to dry and primed as last.

Coated surfaces already treated with bituminous solution, shall be scraped to remove soft

parts and then receive two isolating coats of aluminum primer or other approved anti-tar primer.

Preparation of Priming of Metalwork

All woodwork shall be rubbed down, all knots, covered with a thick coat of good shellac or aluminum knotting; primed with one coat of approved ready-mixed proprietary wood primer and all cracks, nail holes, defects and uneven surfaces, etc., stopped and faced up with hard stopping rubbed down flush.

Cement Paint

Shall be Super Snowcap or equal and approved. Two coats shall be applied after preparation as specified above.

Emulsion Paint

After preparation as specified above a minimum of THREE coats shall be applied using a thinning medium or water only if and as recommended by the Manufacturer. An approved plaster primer tinted to match may be substituted for the first coat.

ELECTRICAL WORKS

Regulations

All the Electrical Works shall be carried out strictly in accordance with the following: -

the 13th Edition of the “Regulations for the Electrical Equipment of Buildings” issued by the Institute of Electrical Engineers of Great Britain with Kenya amendments.

The Licensee’s By-Laws

The Government Electrical Specification (G.E.S. No 1 and No. 2).

The Power Act

Relevant British Standard Specifications and Codes of Practice published by the British Institution (hereafter referred to as BS and GP, respectively).

The Specifications

The Contract Drawings and the working drawings produced by the Contractor and approved by the Engineer.

The Engineer’s instructions

The Contractor shall undertake all modifications demanded by the authorities in order to comply with the regulations, and produce all certificates, if any, from the authorities without extra charge.

After completion of the work, the Contractor shall deliver a complete set of “as built” drawings showing the complete installation including all alternations and modifications. The set of drawings shall include but is not limited to all floor plans and diagrams.

Materials

All materials, fittings and accessories are to be new and in accordance with the requirements of the current rules and regulations where such exist, and with the relevant British Standard Specification.

Uniformity of type and manufacture of fittings or accessories is to be preserved as far as practicable throughout the whole work.

Wherever in this Specification the practice is adopted of specifying a particular item as ‘similar’ to that listed in a particular firm’s catalogue, it is to be clearly understood that this is to indicate the type and quality of the equipment required. No attempt is being made to give preference to the equipment supplied by the firm whose catalogue is quoted.

Where particular manufactures are specified herein, no alternative makes will be considered without weighty reasons and the Engineer shall have the right to reject any other makes.

The Contractor shall if required by the Engineer submit samples of materials for their approval before placing an order.

The Contractor will be entirely responsible for all materials; apparatus, equipment etc. furnished by him in connection with his work, and shall take all special care to protect all parts of finished work from damage until handed over to the Employer.

The work shall be carried out by competent workmen under skilled and experienced supervision. The Engineer shall have the right to have any part of the work taken down or changed at the Contractor's expense which is executed in an unsatisfactory manner.

Such materials supplied by others for installation and/or connection by the Contractor shall be carefully examined before installation and connection. Any defects noted shall immediately be reported to the Engineer.

Wiring

All wiring must be carried out in P.V.C single core, copper cables to British Standard. The contractor shall provide the wiring certificates to the engineer upon completion in compliance to EPRA standards.

The wiring throughout shall be carried out by looping cables from point to point and no tees or other joint will be permitted. The entire wiring shall be so organized that later change and renewal can take place without cutting down structural parts. The Contractor must allow in his Tender for all measures of efficient fixing of all wiring items.

The Contractor shall comply with colour code requirements of the regulations.

Low voltage cables and medium voltage cables shall be enclosed in entirely separate conduits.

All cables shall be drawn-in after the installation of the entire conduit system and after plaster has dried out. Draw wires shall not be threaded in at the time of the conduits being installed.

Great care shall be taken to ensure that no crossed cables are allowed to enter conduits.

Cable and Conductors

All cables shall be delivered to the site in their original packing with all seals intact.

Cable dimensions shall comply with the rules and regulations and with the information given on the Drawings or in the Specification.

All cables shall conform to relevant British Standard. No cable dimensions smaller than 1.5sqmm for light and control circuits shall be used.

Where aluminum cables are connected to copper or brass elements in switchboards, etc., an anti-corrosive paste shall be used.

Common saddles shall be used where cables are grouped. All cables shall be terminated with suitable compression type cable glands of the correct size.

All low voltage cables shall be thoroughly soldered or joined with connectors of absolutely reliable type, which hold the conductors in a firm grip, without damaging the wire and without any possibility of vibrating loose. Underground cables shall be laid in trenches excavated at a minimum depth of 500mm below ground level in the following manner:-

The Contractor shall trim the trench bottom level and if in hard material shall lay 75mm of sand. Cables shall be laid and covered by a further layer of sand to provide 75mm minimum cover. Interlocking concrete or other approved cable covers indelibly marked 'DANGER HATARI' shall be provided and laid on the sand covering by the Contractor. Backfilling of the trench shall then be completed.

Cables shall be separated by minimum 50mm of sand filling and kept a minimum of 250mm from other services.

Cables shall cross roads and enter buildings by means of 100mm diameter pitch-fibre or similar noncorrosive pipes. These shall be laid at a minimum depth of 350mm and extend a distance of 600mm on either side of road, etc. The ducts shall be provided and laid by the Contractor. The Contractor shall supply and install concrete marker posts at each entry into building, each change of direction, each road or pathway crossing and throughout the length of the cable at intervals not exceeding 50 metres. Underground ducts must be trained and ducts entering buildings shall be sealed in the end nearest to the building.

The position of all cable markers shall be agreed with the Engineer before installation.

Lighting fittings

All light fittings shall be supplied by the Contractor. The Contractor shall include in his tender for clearing, installation, connection and supply of light sources in accordance with the schedule of light fittings and drawings.

Fluorescent fittings shall except where otherwise specified be phase compensated by means of a phase capacitor, LC coupling or M coupling

Power Installation

The installation for power shall be concealed in walls and floors in PVC conduits. Precise positions of these and control switches shall be ascertained by the contractor. The Contractor shall supply, fix and connect isolators to equipment as shown below. The tender price shall be based on the following heights for isolators and socket outlets, unless specifically stated otherwise on the, drawings.

Isolators 1400mm above -finished -floor level. Socket outlets -flush at 250mm above finished floor level.

Earthing and Bonding

Earthing and bonding shall be carried out to the requirements of the current 14th edition of the IEE regulations and GES 1 and 2. In particular, attention is drawn to IEE regulation D5, D6, D7 and D29.

An earth electrical system shall be installed at point adjacent to the main supply intake and at every building served by external distribution System.

Each earth electrode shall be a 12mm diameter copper rod driven to 1300 mm. in rocky soil conditions, where this depth is difficult to obtain the Contractor shall obtain written approval from the engineer for an alternative earth electrode system.

The electrode shall be connected via a green PVC insulated copper to an earth terminal adjacent to the incoming supply, to which all cable armoring, conduit, trucking, switchgear etc. shall be bonded, together with all other metallic incoming services, e.g.-. Water etc. Provision shall also be made for connection with the neutral of the incoming supply.

Where P.M.E. is approved and after the Supply Authority has made its connection, the Contractor shall similarly connect the neutral of each distributor main to earth at its remote end.

The bonding of other services or connections of neutral to earth shall be made after satisfactory completion of earth continuity and line earth loop impedance test. Tests of the resistance to earth of each electrode system shall also be carried out and the results recorded.

The maximum reading shall not exceed that laid down by Kenya Power & lighting Co. Ltd and in any case shall not exceed 2 ohms.

Means shall be provided, e.g. a test clamp, to isolate the electrode from the system for periodic testing-

Internal earthing and bonding shall comply with the current edition of the IEE Regulations except that insulated switches and Lighting fittings need not be earthed from a safety aspect. Certain fittings however, may require to be earthed to effect proper operation.

All cable glands for SWA underground type cable, where installed, shall be fitted with an approved earthing washer having a tag for the Connection of an earth lead. Every such washer installed shall- be connected by an insulated earthing lead to a proper earthing terminal by means of a lug or washers on the adjacent: switcher or other equipment.

SAFETY, HEALTH AND ENVIRONMENT

Introduction

The prevention of injury and/or illness to the site personnel and the public, damage to the Works and to public and private property, protection of the environment, and compliance with applicable laws, are primary objectives of the Employer. Because of the importance the Employer places on meeting these objectives, selected minimum requirements are outlined in these Safety, Health and Environmental Specifications with which Contractors shall comply while working on this contract. Given that these Specifications cannot cover every eventuality, the Contractor shall be expected to exercise good judgment in all such matters, even though not mentioned in these Specifications, and shall take any and all additional measures, as required or necessary, to meet his responsibility for safety, health and environmental matters during the period of the Contract.

The Employer nor its representatives shall not be held liable for any actions taken by the Contractor that are attributed to following the minimum requirements stated hereinafter. The Contractor shall throughout the execution and completion of the Works and the remedying of any defects therein:

have full regard for the safety of all persons on the Site and keep the Site and the Works in an orderly state appropriate to the avoidance of danger to any person;

know and understand all laws governing his activities along with any site requirements and work site hazards. Such information shall be communicated by the Contractor to his personnel and subcontractors;

take all necessary measures to protect his personnel, the Employer's personnel, other persons, the general public and the environment;

avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequent of carrying out the Works.

Compliance with Specifications

The Contractor shall comply with the requirements of these Safety, Health and Environmental Specifications and all other applicable regulations or requirements under Kenyan laws, laid down by relevant authorities or issued by the Employer or the Project Manager concerning safety, health and the environment, in force or introduced or issued from time to time during the period of the Contract.

In so far as these Specifications are applicable, they shall apply to sites and personnel outside the Site associated with the performance of the Contract.

The Specifications equally apply to subcontractors and all other parties engaged by the Contractor and their personnel. The Contractor shall ensure all such parties are fully aware of and comply with the Specifications.

The Contractor shall comply with all notifications and written or verbal instruction regarding safety issued pursuant to these Specifications by the Employer, Project Manager or relevant authorities within the time specified in the notification or instruction.

The Contractor shall adopt a positive approach, awareness and responsibility towards safety, health and the environment, and take appropriate action, by:

ensuring the Specifications are enforced and followed by the Contractor's personnel. Any failure by the Contractor's personnel to follow the Specifications shall be regarded as a failure by the contractor

paying attention to possible injury to unauthorized persons entering the site, particularly children.

Whenever in these Specifications the Contractor is required to provide test certificates for equipment and personnel and to comply with the relevant authorities' requirements and no independent test facilities are available or no relevant authorities exist in Kenya, the Contractor shall provide:

in lieu of independent test certificates:

for equipment – details of the tests that have been carried out by the Contractor and a written statement that the Contractor has satisfied himself that the item of equipment is fit and safe for use;

for personnel – details of the training and experience of the personnel and a written statement that the Contractor has satisfied himself that they have the required level of competency;

in lieu of relevant authorities' requirements – details of the Contractor's own rules, regulations, requirements and procedures regarding safety, health and the environment.

If the Project Manager is dissatisfied with the details provided by the Contractor, the Contractor shall provide further details or carry out further tests or provide further written statements as may be reasonably required by the Project Manager.

When the Project Manager has satisfied himself regarding the Contractor's own rules, regulations, requirements and procedures provided in accordance with (b) above, such rules, etc. shall be deemed to form part of these Specifications and to which Clause 3 shall equally apply.

Control of Substances Hazardous to Health

Hazardous materials shall be stored in approved safety containers and handled in a manner specified by the manufacturers and/or prescribed by relevant authorities.

Only properly trained and equipped personnel shall handle hazardous materials.

Accident Reporting

The Contractor shall report all accidents and dangerous occurrences to the Project Manager. The Contractor shall prepare a report on each accident or dangerous occurrence and a copy of the report, together with witness statements and any other relevant information, shall be submitted to the Project Manager. A reportable accident or dangerous occurrence shall include any accident to any person on site requiring medical attention or resulting in the loss of working hours or any

incident that resulted, or could have resulted, in injury, damage or a danger to the Works, persons, property or the environment.

In the event of an accident or dangerous occurrence, the Contractor shall be responsible for completing all statutory notifications and reports. Copies of all statutory notifications and reports shall be passed to the Project Manager.

All accidents and dangerous occurrences shall be recorded in a Site Accident Book. The Site Accident Book shall be available at all times for inspection by the Project Manager.

The Contractor shall immediately rectify any situation or condition that could result in injury, damage or a danger to the Works, person, property or the environment. If the situation or condition cannot be corrected immediately, the Contractor shall provide temporary barriers and appropriate warning signs and devices and/or take other appropriate action necessary for the protection of persons, property and the environment.

Notices, Signs, Etc.

All safety, health, environmental and other notices and signs shall be clearly displayed and written in English. All requirements, instructions, procedures, etc. issued by the Contractor concerning these Specifications shall be printed in English and displayed and readily available to the Contractor's personnel.

PIPELINES, PIPEWORK

Equivalency of Goods, Materials and Plant

Wherever reference is made in the Contract, including Specifications, Drawings and Bill of Quantities, to specified manufacturers or suppliers for the supply of goods, materials and plant for the Works, goods, materials and plant from alternative manufacturers and suppliers will be permitted, unless otherwise expressly stated in the Contract, providing these other goods, materials and plant are substantially equal or of a higher quality than those of the specified manufacturer or supplier and are approved in writing by the Project Manager. Differences between the specified goods, materials or plant and the proposed alternative shall be described in writing by the Contractor and submitted to the Project Manager, together with such manufacturer's or supplier's technical literature and samples as the Project Manager may reasonably require. At least 28 days prior to the date when the Contractor desires the Project Manager's consent. In the event the Project Manager determines that such proposed alternative goods, materials or plant do not ensure substantially equal or higher quality, the Contractor shall obtain the goods, materials or plant from the manufacturer or supplier specified in the Contract.

Materials

Any material which will come into contact with potable water or water to be used for potable supply shall comply with the UK regulations on the use of materials for potable water supply. Water Supply (Water Quality) Regulations 1989 and 15th Statement of the Department of Environment Committee on Chemical and Materials of Construction for use in public water supplies and swimming pools, published by the Department of the Environment, UK or national standards adopted for use in Kenya.

Approvals

As soon as possible after commencement of the Contract, the Contractor shall submit to the Project Manager for his approval a list of his proposed suppliers, sources of materials and proposed standards. No materials, plant or equipment shall be procured for the Contract without first obtaining the Project Manager's approval. Samples of materials shall be submitted to the Project Manager for approval as required by the Project Manager. Materials subsequently supplied shall conform to the quality of the samples which have been approved by the Project Manager. No standards, method of manufacture or specification shall be changed without the approval of the Project Manager. Where possible, plant shall be supplied to the same standards or to compatible standards.

The Contractor shall provide secure storage for all samples submitted to the Project Manager

Receipt, Storage, Handling and Transportation

Plant, equipment and materials shall be stored in such a manner as to preserve its quality and condition to the standards required by the Contract. The Project Manager shall refuse to accept or shall reject any materials of Plant that in his opinion is defective or otherwise fails to comply with the standards required by the Contract. All such defective items shall be removed from the Site as directed by the Project Manager. Repairs shall be carried out in accordance with procedures approved by the Project Manager and shall be completed to the Project Manager's satisfaction.

Manufacturer's Certificates

The Contractor shall furnish the Project Manager with a manufacturer's certificate conforming compliance to the specification in respect of all items of Plant, equipment and materials. The original and one copy of the manufacturer's certificate shall be delivered to the Project Manager not later than 14 days prior to the intended date of delivery of the item to Site.

Samples and Storage of Materials

Where required by the Project Manager the Contractor shall submit to the Project Manager for approval samples of pipes, fittings and materials prior to procurement. The Contractor shall only store pipe, fittings and other material at places approved by the Project Manager and shall at all times provide adequate supervision and watchmen to prevent theft or damage. Any loss or damage incurred will be the Contractor's responsibility.

Pipes shall not be stacked higher than recommended by the manufacturer. The area on which the pipes are to be stacked shall be free draining, the grass or other vegetation shall be kept cut and suitable timber cradles shall be provided on which the pipes shall be laid. End stops to all stacks shall be provided.

Fittings and valves shall not be stacked more than one tier high and they shall be supported off the ground by suitable timbers.

Air valves, rubber joint rings, gaskets, bolts and similar fittings and materials shall be kept in approved locked premises and such fittings and materials shall not be distributed to the trench side until immediately prior to laying, fitting, jointing or assemble thereof. All rubber joint rings and gaskets must be stored in a cool damp location and all fittings and materials shall at all times be stored in the shade under cover and protected from the weather to the satisfaction of the Project Manager.

Flanges

Flanges shall be faced and drilled to conform to the dimensions specified in BS 4504. Flanges shall be compatible with the pressure rating of the adjacent pipework or as stated on the drawings. Bolts, nuts and washers (two washers per bolt) shall be to BS EN 1092-3; 2003. No bolt shall project less than two full threads beyond its nut after tightening. In no circumstances shall the shortening of excessively long bolts by cutting be allowed. Gaskets shall comply with replaced by BS EN 1514 (1997) and replaced by BS EN 681-2 (200) and BS 681-1 (1996) Type W. Flanges shall be painted with two coats of epoxy resin paint. Puddle flanges shall be fitted to all pipework passing through water-retaining structures and manholes greater than 2.5m deep.

Mechanical couplings

Unless otherwise specified or shown in the Drawings pipes and fittings shall be supplied with flexible joints. Mechanical couplings shall be of the Dresser, Viking Johnson type without a Centre register. Joints rings used shall be of the ethylene propylene rubber (EPDM) or other material approved by the Project Manager. All mechanical couplings and flange adapters including nuts, bolts and washers shall be supplied with 'Rilsan' nylon thermoplastic polyamide applied by fluidized bed dipping or similar approved.

Materials for the Assembly of Flexible Joints

Lubricant shall be of a kind not conducive to the growth of bacteria and shall have no deleterious effects on either the joint rings or pipes. Lubricants for water supply shall not impart to water, taste, colour, or any effect known to be injurious to health.

Steel pipes

General

Steel pipes shall be manufactured to BS EN 10224 or AWWA C200 and shall be suitable for the pressure ratings required by the Contract. Fittings shall conform dimensionally to BS EN 10224, AWWA 208-59 or AWWA M11. Unless otherwise specified or necessary to meet the requirements of the Contract steel pipes shall be manufactured as follows:

DN300mm and below shall be manufactured to minimum of Grade L235 or API 5L Grade B.

DN350mm and above shall be manufactured to a minimum of Grade L275 or API 5L Grade X42. The pipes and fittings of diameter 600mm or less shall be supplied with push-fit spigot and socket type joints with integral gasket of EPDM rubber or similar to BS EN 10224 or BS CP 2010. Pipes greater than 600mm shall be supplied with ends cut square suitable for use with flexible couplings and the external weld ground back sufficiently.

The Contractor shall supply 5% of the straight pipes as half length pipes (not exceeding 6m). Each pipe shall be supplied complete with a coupling for jointing.

Corrosion Protection

Steel pipes and fittings shall be protected externally at the manufacturer's works with fusion bonded epoxy resin in accordance with AWWA C213. Pipes greater than 600mm and all fittings shall also be lined internally with fusion bonded epoxy to AWWA C213. Pipes 600mm or less shall be lined with cement mortar to AWWA C205 or BS EN 10298. All lining and coating materials shall be approved for contact with potable water by an internationally recognized body like the Drinking Water Inspectorate of UK.

Where required by the Bills of Quantities, the Supplier shall also price for the provision of an alternative 3LPE coating to DIN 30670 or AWWA C215 of a triple wrap system of fusion bonded or sprayed epoxy primer, an intermediate polymer adhesive layer and an extruded high density polyethylene coating in general conformance with ISO/DIS 21809-1 Class B as appropriate.

HDPE Pipes and Fittings

General

Polyethylene pipes up to nominal size 63mm for below ground use shall be coloured blue and comply with the relevant provisions of BS 6572. Polyethylene pipes for use in nominal diameters greater than 63mm shall be as specified below.

The pipes shall be clearly and indelibly marked to show the name of the manufacturer, diameter, pressure class and date of manufacture.

House connection pipework downstream of the manifold shall be PE80; all other HDPE pipework shall be PE100.

Compound Material

The material from which the pipes are made shall be in accordance with ISO 4427-1. All pipes shall be manufactured using pre-compounded carbon black, bimodal, high density polyethylene MRS 10.0 material (PE100). The use of natural PE100 with a Carbon black master batch is strictly not allowed. Carbon black should be well dispersed to give outstanding UV resistance, and should have a minimum carbon content of 2%. Pipes should be manufactured from certified PE100+ material with batch certification available with pipe delivery.

Identification compound

The compound used for identification stripes shall be manufactured from a PE polymer manufactured from the same type of base polymer as used in the compound for pipe production.

General Appearance

When viewed without magnification, the internal and external surfaces of pipes shall be smooth, clean and free from scoring, cavities and other surface defects such as would prevent conformity of the pipe to ISO 4427. The pipe ends shall be cut cleanly and square to the axis of the pipe.

Colour

The pipes shall be black with coloured identification stripes.

Markings

All pipes shall be permanently and legibly marked in such a way that the marking does not initiate cracks or other types of failure and such that normal storage, weathering, handling, installation and use does not affect the legibility of the marking.

The colour of the printed information shall differ from the basic colour of the product. The marking shall be such that it is legible without magnification. The frequency of marking shall not be less than once per meter. Markings should be made using a hot embossed foil stamp printing.

Each pipe shall have a minimum of 3 equispaced blue longitudinal stripes indicating medium of fluid transported in the pipes. A summary of marking requirements is given in the table below.

Aspect	Marking
Standard Number	ISO 4427
Manufacturer's identification	Name or symbol
Dimensions (dn × en)	e.g. 125X11.4
SDR series (for DN > 32)	e.g. SDR 11
Material and designation	PE 100
Pressure rating in bar	e.g. PN 16

Production period (date or code)	e.g. 0204 ^a
Country of Production	Kenya
Coils shall be sequentially marked with the metreage, indicating the length remaining on the coil	
In clear figures or in code providing traceability to the production period within year month and, if the manufacturer is producing at different sites, the production site.	

Jointing of pipes

Unless otherwise specified or approved by the Project Manager, Polyethylene pipes shall be electro fusion welded. Joints between polyethylene pipes supplied from different manufactures or not manufactured from the same grade of polymer shall only be jointed by electro fusion or by push fit mechanical couplings. Mechanical couplers and compression type fittings shall incorporate a serrated internal liner to support the pipe against compression loads exerted by the fitting and to prevent pullout under axial load.

Butt or socket fusion joint techniques shall only be applied between pipes supplied from single source and manufactured from the same grade of base polymer. Fusion welding of polyethylene pipes shall only be undertaken by skilled operatives using appropriate specialized tooling. Pipes to be jointed shall be free from contamination and care shall be used to protect fusion jointing operations from wind and against the effects of inclement weather. Mechanical jigs or other approved methods shall be used to ensure correct alignment of the pipe when making butt fusion joints. Details of fusion welding procedures including details of tools, operatives, materials and method statements shall be submitted to the Project Manager for approval prior to any jointing.

Steel and iron pipe fittings shall comply with the relevant provision of BS EN 545 (1995) replaced by BS EN 10224 but also current.

Gate Valves

General

Valves for normal duty on water pipelines with pressure ratings up to PN25 shall be key operated cast iron flanged gate valves for waterworks purposes generally complying with the requirements of BS 5163 (Type B). All Gate Valves shall be supplied with a 10 year manufacturer's warranty.

Cast iron gate valves for pressure ratings to PN14 shall be cast iron flanged valves complying with BS 5150 replaced by BS EN 1171 (both BS 5150 and BS 5151) or cast iron parallel slide valves complying with BS 5151.

Butterfly valves for pressure ratings of up to PN14 shall be double flanged wafer type butterfly valves complying with BS 5155.

Unless otherwise specified valves for use on steel pipes shall be flanged, where butt- weld ends are specified valves shall comply with BS EN 1984, or BS EN 13709.

Air valves

Air valves shall be either:

Single (small) orifice valves (SAV), for the discharge of air during the normal operation of the pipeline.

Double orifice valves (DAV), consisting of a large orifice and a small orifice. These shall permit the bulk discharge of air from the main during filling and air inflow when emptying in addition to the discharge of small quantities of air during normal operating conditions.

Air valves shall be supplied with an independent isolating butterfly valve (DAV) or cock (SAV) which permits the complete removal of the air valve from the main, without affecting the flow of water in the main.

Each air valve assembly shall be suitable for connection to a flange on the pipeline. At the connection between the air valve and its isolating valve a BSP tapping shall be made suitable for fitting of a pressure gauge. All tapings shall be sealed by a brass plug and copper compression ring gasket.

Air valves shall operate automatically and be constructed so that the operating mechanism will not jam in either the open or closed positions.

Pipeline Construction

General

The requirement of this section shall apply to the construction of potable and raw water pipelines and pipework.

Within this section 'Plant' refers to pipe fittings, valves, surface boxes and chamber covers, and other such materials required for pipelines, mains and pipework at reservoirs and elevated tanks.

All Plant shall be suitable for waterworks purposes for the conveyance of potable water in the climatic conditions prevailing in Kenya and in particular at the location of the Works.

The Project Manager shall provide details of each pipeline diameter, pressure rating, hydraulic characteristics and the approximate alignment. The Contractor shall, in consultation with the Project Manager set out the proposed pipeline alignments, making any changes that the Project Manager may deem necessary, confirming also the exact locations of all manholes, valves, air valves, washouts, hydrants, and the like.

Topographical surveys

Topographic surveys along pipeline routes shall be either: -

Plan and profile surveys, or

Line and level traverse surveys, as instructed by the Project Manager.

Plan and profile surveys shall cover a strip of 10.0m wide centrally on the proposed center line of the pipeline. The contractor shall carry out survey of the pipeline and submit to the project manager for approval.

Line and level surveys shall comprise a traverse line along the center line of the pipeline as established by the Project Manager.

Handling and Transport of pipes and fittings

The loading, transporting, unloading and handling of pipes and fittings shall be carried out such that no damage is caused. All in accordance with the recommendations of the manufacturer and to the approval of the Project Manager. The use of lifting hooks is not permitted. Pillows shall be provided between lashing (ropes, wires or chains) and the pipes. All cradles and lashings shall be of such widths as to prevent damage to the coating of the pipe, or distortion of the pipes.

Valves and fittings shall be transported in timber packing and where possible in the manufacturer's original packaging. Protective cover and other protective materials provided by the manufacturer shall not be permanently removed until immediately prior to installation.

In the event of any damage being caused to a pipe, the Project Manager shall determine whether damaged piece shall be replaced or repaired. Repair to coating only shall be allowed and shall be as directed by the Project Manager.

In all instances when along trench sides, ferrous pipes shall be supported within 1 metre of either end on sand filled bags such that no part of the wall of the pipe touches the ground, and in the case of pipes over 6 metres long with additional central sand bags.

When pipes are being loaded into vehicles care shall be taken to avoid their coming into contact with any sharp corners such as cope irons, loose nail heads, etc. Whilst in transit, pipes shall be well secured over their entire length and not allowed to project unsecured over the tailboard of the lorry.

Pipes may not be offloaded from lorries by rolling them, suitable carnage shall be used. Pipes shall not be rolled or dragged along the ground.

Stringing and Examination of Pipes Prior to laying

All DI and Steel Pipes and their coatings and linings shall be carefully inspected on Site prior to laying.

Inspection of the pipe will be made by the Project Manager after delivery and again immediately prior to laying. Any pipe shall be subject to rejection at any time on account of failure to meet any of the Specification requirements, even though pipes may have

been accepted as satisfactory at the place of manufacture. Pipe rejected after delivery shall be marked for identification and shall immediately be removed from the site.

All pipe or fittings shall be examined before laying and no piece shall be installed which is found to be defective. Any damage to the pipe linings or coatings shall be repaired as directed by the Project Manager. Handling and laying of pipe and fittings shall be in accordance with the Manufacturer's written instructions and as specified herein.

Before lowering into the trench or placing in position each ductile iron pipe or casting shall be slung and sounded with a mallet to test for hair cracks. Pipes that do not ring true will be discarded.

All cement mortar linings shall be visually inspected for defects such as cracking or spalling and crack widths shall be measured to confirm that width is such that natural re-sealing will occur once put into service; otherwise cracks as well as any spalling shall be made good before laying in accordance with the manufacturer's written instructions.

All epoxy linings and all coatings shall be subjected to holiday detection tests, in accordance with NACE RP 0490, the voltage of the holiday detector being selected appropriate for the material and its thickness. No pipe shall be laid having failed the holiday tests until the defective area is made good in accordance with the manufacturer's written instructions and retested satisfactorily before use.

All pipe and fittings shall be thoroughly cleaned before laying, and shall be kept clean until they are used in the work, and when laid, shall conform to the lines and grades required. Pipe shall not be laid unless the trench is free of water and in a satisfactory condition. Ductile iron pipe and fittings shall be installed in accordance with the requirements of AWWA C600 except as otherwise provided herein. If any defective pipe is discovered after it has been laid, it shall be removed and replaced with a sound pipe in a satisfactory manner by the Contractor, at his own expense.

When laying is not in progress, including any work break exceeding 30 minutes, the open ends of the pipe shall be closed by watertight plugs or other approved means. Good alignment shall be preserved in laying. The deflection at joints shall not exceed that recommended by the Manufacturer. End caps shall not be removed until such time as the pipe is to be inspected and laid.

Where the pipeline crosses roads, tracks or any other access or where directed by the Project Manager, the Contractor shall place the pipes so that access to the public is not in any way prohibited.

Shortly before laying or fixing any valve, pipe or fitting, the Contractor shall examine each valve, pipe and fitting to ascertain that there is no damage or defect. The Contractor shall give the Project Manager not less than 48 hours notice of his intention to undertake such examination. The Contractor shall not lay such pipes and fittings until he has received approval from the Project Manager.

Linings shall be inspected prior to laying and any defect made good.

Laying of Pipes

Immediately before any pipe is lowered into the trench the plug shall be removed from the end of the last pipe laid and the new pipe shall be carefully lowered into the trench.

Each pipe and fitting shall be laid true to alignment curve and gradient in accordance with the Drawings or as directed by the Project Manager. The minimum gradient shall not be flatter than 1 in 500.

Pipes shall be boned to gradient and sight rails shall be provided for this purpose at intervals not exceeding 50m and at all changes in grade. No dips or summits shall be permitted other than as shown on the Drawings.

Pipes laid in trench

Pipes and fittings laid in trench shall have at least the minimum cover stated in the Drawings. Long radius curves in buried pipelines shall be negotiated by deflections taken up in the joints of one or more pipes. The deflection at joints shall not exceed 75% of the manufacturer's maximum specified limits. Designs have been based upon the use of 6m long pipes. If the Contractor provides longer pipes sufficient short lengths shall be provided to enable the proposed pipe curvature without additional bends or deep excavation.

Pipes shall not be dragged along the trench bottom. Pipes laid in trenches shall be laid and firmly bedded on an even and uniform bed. Where pipes are not laid on a granular bed, the bottom of the trench shall be smooth and free from stones or other projections. Joint holes shall be excavated below the trench bottom and shall be as small as possible and shall be filled in and compacted after the pipes are laid and before the refilling of the trench is commenced.

Pipe bedding and surround

For polyethylene, uPVC and GRP pipelines, Class S bedding shall be used where the cover is equal to or greater than 1.0m. Where there is less than 0.6m cover, Class A concrete surround shall be used. In between the Project Manager shall decide upon the bedding type dependent upon the assessed risk of damage to the pipe.

Pipe bedding and surround

Pipelines to be laid above ground shall be constructed of flanged ductile iron pipes with mechanical type expansion joints. Supports shall be provided at a maximum spacing of one pipe length and adjacent to the flanged joints.

The expansion joints shall compensate for a variation of ambient temperature between zero and 40° C on the adjoining pipeline. Anchorages shall be provided immediately uphill of each expansion joint and at each change in vertical and horizontal alignment.

The ground/rock surface under the pipeline shall be re-graded as necessary to allow a satisfactory vertical alignment of the pipeline.

The Contractor may propose, as an alternative to the use of mechanical expansion joints, either of the following methods for accommodating thermal expansion:

A zigzag pipeline alignment whereby the thermal movement is accommodated by deflection of the bends. A rigid form of construction with the thermal movement being constrained within the pipe walls by the use of substantial anchor blocks.

Joints shall be made in compliance with the manufacturer's instructions as approved by the Project Manager. Care shall be taken to ensure the absolute cleanliness of the pipe ends and joint components. Only the recommended approved lubricants shall be used. Jointing shall only be carried out by experienced personnel under close supervision by the Contractor.

The Contractor shall ensure that no dirty water or other extraneous matter is allowed to enter the pipes during or after laying. In the event of dirty water or extraneous matter entering the pipes the Contractor shall immediately carry out cleaning and disinfection as directed by the Project Manager.

Except when necessary for jointing, the end of the last pipe laid shall be kept plugged to the satisfaction of the Project Manager to prevent the ingress of dust, dirt, rocks and other debris. The Contractor shall be liable for any damage caused to the Employer's Plant and apparatus or other equipment as a result of foreign matter of any kind not having been cleared out of pipelines before Taking-Over.

Pipe trenches shall not be backfilled until approved by the Project Manager. Once approved trenches shall be backfilled without delay to at least the minimum extent required for pressure testing.

Fixing Valves and Penstocks

Valves, penstocks and other fittings shall be securely fixed. Extension spindles and headstocks shall be properly aligned and fixed in a vertical position and valve caps shall be fixed securely using the locking nut.

Thrust and anchor blocks

Concrete thrust and anchor blocks shall be formed at bends, tees and valves in accordance with the details shown on the Drawings or as directed by the Project Manager. Excavation shall be made after pipe laying and the blocks concreted immediately after excavation. The back supports and blocks shall abut in to solid undisturbed ground with all loose material being removed before concreting.

No pressure shall be applied in any section of main until the concrete has achieved adequate strength and at least three day's curing.

Flexible joints shall not normally be cast in. Where the size of the block does not make this possible, additional flexible joints shall be provided no greater than half a pipe diameter beyond each face of the block.

Floataction of pipes

The Contractor shall ensure that flotation of the pipeline does not occur during construction. Sufficient backfill shall be placed over each pipe after laying and before testing to prevent flotation.

Testing of water supply pipelines

All pressure pipelines shall be hydrostatically tested. Site test pressures shall be 1.5 times the maximum working pressure or allowance pressure plus 5 bar whichever is the smaller measured at the lowest part of the pipeline, unless otherwise specified on the drawings.

The Contractor shall give the Project Manager not less than 48 hours' notice of his intention to carry out a pressure test. Testing shall not commence without the Project Manager's approval. Before a length of pipe is tested, each pipe shall be securely anchored. All thrust and anchor blocks shall have been constructed and, the barrel of each pipe shall be backfilled to the extent necessary to prevent flotation or movement of the pipeline and shall be not less than 600mm.

Normally joints shall be left exposed until pressure testing has been satisfactorily completed. Any need to backfill a pipeline before pressure testing shall not relieve the Contractor of his responsibility to excavate to locate and repair any leaks.

Pressure testing shall be carried out as the work proceeds in such lengths as are convenient but not exceeding 500m. The ends of the length of pipeline under test shall be closed by means of securely anchored caps or blank flanges. Pipeline valves shall not be used for this purpose. All washout valves shall be fitted with blank flanges and the valves opened before the commencement of any pressure test. At each air valve location, a special air release arrangement shall be provided to allow manual release of air during filling operations. Pressure testing shall not be carried out with permanent air valves in place.

The pipeline to be tested shall be filled slowly with water in such a manner that all air is expelled. Air vents shall be checked to ensure that no air is trapped at high points.

The pressure in the pipeline shall slowly be raised to the working pressure, the test pump disconnected and the pipeline left charged under pressure with air valves opened for a period of not less than 24 hours to allow air in the pipeline to be expelled and pipe linings and pipe walls of absorbent materials to become saturated. At the end of this period of time air valves shall be closed and the test pump shall be reconnected and the pressure in the pipeline raised to the test pressure and this pressure maintained for a period of 24 hours or such other period as directed by the Project Manager.

Throughout this period the pressure in the pipeline shall not be allowed to fall or rise more than 6m head of water above the test pressure and this shall be accomplished by pumping water into or releasing water from the pipeline as required. The volume of water pumped into or released from the pipelines shall be carefully measured. At the end of the test period the pressure in the pipeline shall be adjusted to the test pressure by pumping water into or releasing water from the pipeline as required.

The apparent leakage from the pipeline shall be ascertained from the net volume of water that has been pumped into the pipeline during the test period. The permissible loss shall not exceed 2 litres per meter nominal bore per kilometer length per m head per 24 hours.

During the pressure test exposed joints shall be inspected and any leakage or seeping joints shall be remedied. All signs of leakage shall be remedied whether total apparent leakage from the pipeline under test is less than the apparent allowable leakage or not. Should any length of pipeline fail to pass the pressure test the Contractor shall at his own expense carry out all work necessary to locate and remedy the faults and to retest the pipeline until it satisfactorily passes the test.

A low pressure air test (not exceeding 0.3 bar) may be used as a preliminary joint tightness test prior to backfilling and hydrostatic testing. The water used for pressure testing shall be provided by the contractor and shall be free from impurities and of such a quality which will not pollute or injure the pipeline. The Contractor shall be responsible for obtaining the water, transporting it and for its safe disposal on completion

Cleansing and Sterilizing of water supply pipelines

After the pipelines have been completed and pressure tested satisfactorily as herein specified the Contractor shall flush out and cleanse the pipelines. Where water is provided by the Employer, the cost of this will be reimbursable under a provisional sum.

Diameters 300 mm and greater: Pipelines shall be cleansed in sections and this shall be carried out by means of passing through polyurethane foam swabs. The swabs shall be to the approval of the Project Manager.

Diameters less than 300 mm: Pipelines shall be cleansed in sections by flushing with potable water, for a period of time to be decided by the Project Manager's Representative.

Cleansing of any section shall be repeated as required by the Project Manager's Representative in the event of the initial or subsequent operation not being to his satisfaction. The cost of such water shall be charged to the Contractor.

The Contractor shall supply all necessary equipment for the cleansing and sterilizing operations, including all swabs and swab detectors which shall be handed over to the Employer on completion of the Works.

Swabs shall be passed through pipelines at speeds of between 0.2 and 0.4 metres per second to obtain the best cleaning results with the minimum number of passes. Should

it be apparent from the debris collected by the swab that damage to the lining has occurred, the Contractor shall be wholly responsible for repairing the lining to the satisfaction of the Project Manager's Representative.

The swabbing operation shall be controlled by an experienced Project Manager to ensure that no undue surges in the pipeline, heavy docking of the pig or pressurizing of the pipeline occur causing damage to any of the permanent works. Any damage caused shall be made good by the Contractor to the satisfaction of the Project Manager's Representative.

When the pipelines have been cleansed to the satisfaction of the Project Manager's Representative the Contractor shall introduce at a slow rate of water flow by a portable chlorinator or other approved means of a solution of sterilizing agent in such quantity and of such strengths as will result in the concentration of chlorine throughout the length of the pipelines of not less than 30 parts per million. This sterilizing charge shall be allowed to remain in the pipelines for 24 hours after which time the pipelines shall be thoroughly flushed using the supply water to remove chlorine in excess of that in the supply water.

When this flushing has been satisfactorily completed samples of water will be taken by the Project Manager's Representative for bacteriological analysis by the Employer. If any of the results of the analyses are unsatisfactory when compared with those of the control sample of the supply water the sterilizing process shall be repeated until satisfactory results are obtained. On completion of sterilizing and flushing the pipelines shall be left full of supply water.

The Contractor shall be solely responsible for the provision of all labour, materials and chemicals necessary for carrying out the foregoing operations.

The cost of water used for repeated cleansing, sterilizing and flushing pipelines in accordance with this clause of the Specification will be charged to the Contractor and the Contractor shall be responsible for all temporary works and other arrangements in connection with cleansing, sterilizing and flushing the pipelines.

The costs of the initial sampling analyses and preparing reports on the bacteriological quality of the water shall be borne by the Employer but the costs of any subsequent sampling analyses and preparing reports should the initial reports be unsatisfactory shall be borne by the Contractor.

ELEVATED TANK

General

The proposed steel tank shall be of square base whose dimensions shall be provided (LxWxH) and should be made of pressed steel panels bolted together to give the required capacity. All materials used in construction and manufacturing shall conform to BS4360 Grade 43A.

Steel tank panels

The panels shall be 1000mm square modules which are hydraulically cold-pressed in one piece and embossed with a distinctive star pressing at the center to strengthen the panels. Standard plate thickness shall be of either 4mm, 5mm and 6mm and are determined by the tank sizes. The design of the panels with flanges at 45° and 90° to the face gives a high degree of flexibility with the flanges being holed through jigs, according to the position they will occupy in the tank. A simple system of marking shall be used to enable various panel types to be easily identifiable for erection purpose. These panels shall be erected on concrete piers or steel beams. Nozzle connections shall be provided on the panels to suit the final use of the tank.

Covers

Flat steel plates shall be used with a pitch at the center and suitably supported to allow for external loads. A standard square manhole with hinged lockable cover and vent shall be provided.

Internal Bracings and Brackets

Internal bracings and brackets shall be designed to ensure the strength, rigidity and absolute uniformity of each tank depending on sizes.

Fasteners

All bolts used in the assembly of the tank shall be of High Tensile Grade 8.8 for rigid holding. They shall be zinc coated to protect against any rust forming.

Joint Materials

A non-toxic strip joining material shall be used between the flanges of tank plates, under the internal brackets and for sealing the cover plates to make all joints completely leak proof.

Fittings

The Steel tank shall be provided with suitable standard nozzles either threaded or flanged depending on the requirements. Sizes and orientations are to be provided by the time of ordering. The tank shall be provided with Inlet, Outlet, Overflow, Drain Vent, Level Indicators and Internal & External Ladder. Any other additional fittings shall be provided on request.

Tower

These shall be designed to the designed height complete with a hooped cat-ladder.

SECTION VII – BILL OF QUANTITIES

Re-Tender: Rurie Water Supply Project CFU		
Summary Page		
Item No	BILL DESCRIPTION	BOQ AMOUNT Kshs
A	Sub closed water Kiosk (2600mm * 2600mm)	
B	Sub Total 9m high elevated water tank (96m3)	
C	Sub total for Raw water Main (0.330km)	
D	Sub total for Treated water main (0.102km)	
E	Sub Total for intake chamber	
F	Sub total for Composite filtration Unit (200m3)	
TOTALS		
ADD 5% Contingencies		
TOTAL TENDER PRICE Carried forward to form of Tender		

CLOSED WATER KIOSK					
Item	Description	Unit	Qty	Rate (kshs)	BOQ Amount (Kshs)
	<u>SUBSTRUCTURE.</u>				
1	Excavation including maintaining and supporting sides and keeping bottoms free from water and mud or other fallen material.				
1.1	Excavate oversite average 150 mm deep to remove vegetable soil and cart away to spoil heaps average distance 10 m from site	SM	0.00		
1.2	Excavate trenches not exceeding 0.9 metre deep.	CM	0.00		
1.3	Extra over excavation for excavating in rock.(Provisional)	CM	0.00		
2	Disposal				
2.1	Backfilling selected excavated material around foundation	CM	0.00		
2.2	Load excavated material and cart away within 20m from site .	CM	0.00		
3	Filling				
3.1	Level and compact bottom of foundations to receive concrete	SM	0.00		
3.2	150 mm Hardcore filling levelled and blinded with 50mm thick murram to receive concrete	SM	0.00		
3.3	Damp proof membrane (1000 gauge)	SM	0.00		
4	In situ concrete				
4.1	Provide concrete grade 15, 20mm aggregate	CM	0.00		
4.2	Provide concrete grade 25, 20mm aggregate	CM	0.00		
5	Place Mass concrete				
	Blinding				
5.1	Thickness 50mm	CM	0.00		
6	Place reinforced concrete				
	Footings and floor slab				
6.1	thickness 200mm	CM	0.00		
7	Reinforcement				
7.1	High yield steel bars to SSRN 126 or 127				

CLOSED WATER KIOSK					
Item	Description	Unit	Qty	Rate (kshs)	Amount
7.2	Y12(In columns)	kgs	0.00		
7.3	Y10(in strip footing)	kgs	0.00		
7.4	R8(in columns)	kgs	0.00		
7.5	BRC A142(in floor slab)	SM	0.00		
7.6	50 x 50 x 3 mm thick angle sections (per 6 m)	No	0.00		
7.7	Binding wire	kgs	0.00		
8	Concrete Ancillaries				
	formwork				
8.1	150x25mm (in columns & floor slab edges)	LM	0.00		
8.2	50mm diameter props (in columns) (3 m)	NO.	0.00		
9	Sub wall				
9.1	200mm thick masonry wall or equivalent	SM	0.00		
B	SUPER STRUCTURE				
1	Super wall				
1.1	200mm wide under wall D.P.C	LM	0.00		
1.2	200mm thick masonry or equivalent	SM	0.00		
1.3	Hoop iron	kgs	0.00		
2	Place Reinforced Concrete				
	columns, beams and slabs				
2.1	Thickness 200mm	CM	0.00		
3	Reinforcement				
	High yield steel bars to SSRN 126 or 127				
3.1	Y12	kgs	53.00		
3.2	Y10	kgs	43.95		
3.3	Y8	kgs	42.66		
3.4	Binding wire	kgs	7.00		
4	Concrete Ancillaries				
	formwork(Columns, beams and slab)				
4.1	150x25mm	LM	0.00		
4.2	50mm diameter props (in columns) (3 m)	NO	0.00		
5	Concrete Accessories				
5.1	Plastering	SM	35.10		
5.2	Key pointing to external surface of walls	SM	11.70		
6	Doors, windows and shelves				
6.1	Door to detail	NO	0.00		
6.2	Windows to detail	NO	0.00		
6.3	Shelves to detail	NO	3.00		

CLOSED WATER KIOSK					
Item	Description	Unit	Qty	Rate (kshs)	Amount
7	Painting and Decorating				
	Internally				
7.1	Prepare and apply one coat of primer and two high gloss finishing coats to: - Plastered walls, up to 1.4 m above floor	SM	20.08		
7.2	Prepare and apply three coats plastic emulsion premium paint, to: - Plastered walls, from 1.4 m above floor	SM	20.66		

CLOSED WATER KIOSK					
Item	Description	Unit	Qty	Rate (kshs)	Amount
	Prepare, Prime and Apply three coats hard gloss oil premium paint to metal work.				
7.3	Surfaces door and window	LM	10.00		
8	Plumbing				
8.1	PPR Pipe 25mm diameter	NO	3.00		
8.2	Gate valve 25mm diameter (peglar)	NO	2.00		
8.3	Water meter 25mm diameter	NO	1.00		
8.4	Heavy duty taps 25mm diameter	NO	3.00		
8.5	Non-return valve 25mm diameter (Italian)	NO	1.00		
8.6	Union 25mm diameter	NO	3.00		
8.7	Nipple 25mm diameter	NO	8.00		
8.8	Equal tee 25 mm diameter	NO	6.00		
8.9	Elbows 25 mm diameter	NO	10.00		
9	Bend 25 mm diameter	NO	4.00		
9.1	Long threaded nipple 25 mm diameter	NO	2.00		
9.2	Back nut 25 mm diameter	NO	4.00		
9.3	Jute hemp thread	LM	2.00		
10	Storage Tank				
10.1	Kentainer tank, 5000 litres or equivalent	NO	1.00		
10.2	Ball valve 25mm diameter	NO	1.00		
10.3	Metal grill (steel cage) to detail	NO	1.00		
10.4	Timber platform to receive the tank to detail	NO	1.00		
	TOTAL CARRIED TO SUMMARY PAGE				

B ELEVATED TANK(TOWER 9m HIGH)					
Item	Description	Unit	BOQ QTY	Rate (kshs)	BOQ Amount (Kshs)
A	Excavation				
1	Excavation shall include for strutting, shuttering, stabilizing excavated surfaces and keeping excavations free of water bailing out, pumping or other means				
1.1	Excavate to reduced levels in top soil for depth not exceeding 0.25m	CM	0		
1.2	Excavate for tank foundation 0.25 – 0.5m	CM	0		
1.3	Ditto but in material other than top soil, rock or artificially hard material depth 0.5 – 1m	CM	0		
1.4	Ditto but in material other than top soil, rock or artificially hard material depth 1 – 2m	CM	0		
1.5	Ditto but in rock depth 1-2m (provisional)	CM	0		
2	Filling				
	Filling to completed structure including compaction as specified				
2.1	Level and compact bottom of foundations to receive concrete	SM	0		
2.2	150 mm Hardcore filling levelled and blinded with 50mm thick murrum to receive concrete	SM	0		
3	Disposal of Excavated materials				
3.1	Dispose excavated materials other than rock or artificially hard materials on site as directed by the Engineer	CM	0		
4	In situ Concrete: Provision and placing. Rate to include for shuttering				
	Mass concrete Class 15/20				
4.1	Blinding layer 50mm thick	CM	0		

B ELEVATED TANK(TOWER 9m HIGH)					
Item	Description	Unit	BOQ QTY	Rate (kshs)	BOQ Amount (Kshs)
	Reinforced Vibrated Concrete Class 25/20				
4.2	Footing and stub columns for steel columns	CM	0		
5	Reinforcement:				
	High yield hot rolled ribbed bars to BS 4449. Rate to include for supply, delivering, cutting, bending, supporting and securing in concrete.				
5.1	Y16	kgs	0		
5.2	Y12 bars	kgs	0		
5.3	Y10 bars	kgs	0		
5.4	Supply and install a 9m steel tower frames with a complete access ladder and roof hatch as detailed in the drawings. The rates includes bolts and nuts, jointing materials and antirust protective paint	LS	1		
5.5	Supply and install steel tank side panels on 9m tower. Rates to include sealing compound, bolts and nuts, struts, stays and cleats.	LS	1		
6	Painting				
6.1	Supply and apply two coats of black bituminous paint to the inside of the tank.	m2	164		
6.2	Supply and apply two coats of silver aluminium paint to the outside of the tank	m2	164		
6.3	Supply and apply two coats of silver aluminium paint to the tank tower, platform, pipes and cage ladder.	LM	20		
7	Plumbing				

B ELEVATED TANK(TOWER 9m HIGH)					
Item	Description	Unit	BOQ QTY	Rate (kshs)	BOQ Amount (Kshs)
	Inlet				
7.1	DN 40mm steel pipe inlet and outlet pipes (6m length)	no	3		
7.2	steel elbows DN 75mm	no	4		
7.3	DN 75m float valve	no	1		
8	Gate valves				
8.1	DN 75mm original pegler gate valves	no	2		
9	Testing				
9.1	Supply and apply recommended disinfectant and test the tank	ltrs	60		
TOTAL CARRIED TO SUMMARY PAGE					

C Raw Water Main: OD 110 MM HDPE RAW WATER MAIN					
Item	Description	Unit	BOQ QTY	Rate (kshs)	BOQ Amount (Kshs)
	General items				
1	Testing of works				
	Carry out pressure testing ,cleansing and sterilizing of the pipeline with the specifications				
1.1	OD 110mm HDPE PN10	LM	2,760.00		
1.2	Demolition and site clearance	ha	-		
	General clearance				
2	Pipework - pipes				
2	Supply, handle, deliver to site, lay joint and test (rate to include cutting to size, fixing and jointing materials inclusive of sockets mechanical joints or rubber rings where applicable) a hdpe pressure pipes, SDR11, HDPE PN10with butt fusion(seamless)jointing unless otherwise stated. The rates to include dewatering and keeping the trenches free of water.				
2.1	OD 110mm HDPE PN10	m	270.00		
3	Pipework- Fittings and valves				
3.1	OD 110mm 45degress HDPE bend	nr	0		
4	Tapers couplings				
4.1	DN 110mm HDPE adaptors	nr	2.00		
4.2	OD 100mm VJ Couplings	nr	1.00		
5	Sluice valves				
5.1	Supply and install DN100 double flanged rubber sealed sluice valve with all associated fittings as directed by the engineer	nr	1.00		
6	Bulk water meter				
6.1	Supply and install DN100 mm electromagnetic bulk water meter with all associated fittings as directed by the engineer.	nr	1.00		
7	Pipework -support and protection bends				
7.1	Selected granular material	m	0.00		
7.2	Thrust blocks - RC Volume 0.2- 0.5 m3 for bend	nr	0.00		
8	Chambers				

C Raw Water Main: OD 110 MM HDPE RAW WATER MAIN					
Item	Description	Unit	BOQ QTY	Rate (kshs)	BOQ Amount (Kshs)
8.1	Sluice valve and bulk master chamber, size 1500 x 1500mm internal dimensions, depth as directed by the engineer.	nr	1.00		
9	Crossings				
9.1	OD 110mm (Provisional)	m	10.00		
9.2	Canal crossing 1 - 3 (Provisional) Firmly fix the pipe at the bridge and the canal crossing	nr	2.00		
	Steel Pipes and fittings for river crossings				
9.3	Single flanged steel pipe 100 mm dia. length =6000mm	nr	0.00		
10	Marker posts				
	Supply and erect pre-cast concrete marker posts for the following				
10.1	Sluice valves	nr	2.00		
10.2	Bulk meter	nr	1.00		
10.3	Pipeline	nr	5.00		
TOTAL CARRIED TO SUMMARY PAGE					

D. Treated Water Gravity Main					
OD 9 0MM HDPE TREATED WATER MAIN					
Item	Description	Unit	BOQ QTY	Rate (kshs)	BOQ Amount (Kshs)
	General items				
1	Carry out pressure Testing, cleansing and sterilizing of the pipeline with the specifications				
1.1	OD 90mm HDPE PN10	m	2,652.00		
	Demolition and site clearance				
1.2	General clearance	ha	0		
2	Pipework - pipes				
	Supply, handle, deliver to site, lay joint and test (rate to include cutting to size, fixing and jointing materials inclusive of sockets mechanical joints or rubber rings where applicable) a hdpe pressure pipes, SDR11, HDPE PN10with butt fusion(seamless)jointing unless otherwise stated. The rates to include dewatering and keeping the trenches free of water.				
2.1	OD 90mm HDPE PN10	m	102.00		
3	Pipework- Fittings and valves				
3.1	OD 90mm 45 degrees HDPE bend	nr	0		
4	Taper couplings				
4.1	DN 90mm HDPE adaptors	nr	4.00		
5	Sluice valves				
5.1	Supply and install DN90 double flanged rubber sealed sluice valve with associated fittings as directed by engineer.	nr	2.00		
6	Bulk water meter				
6.1	Supply and install DN 90 mm electromagnetic bulk water meter with associated fittings as directed by engineer.	nr	1.00		
7	Pipework -support and protection bends				
7.1	Selected granular material	nr	0.00		

D. Treated Water Gravity Main					
OD 9 0MM HDPE TREATED WATER MAIN					
Item	Description	Unit	BOQ QTY	Rate (kshs)	BOQ Amount (Kshs)
7.2	Thrust blocks - RC Volume 0.2- 0.5 m3 for bend	nr	2.00		
8	Chambers				
8.1	Chambers				
8.2	Valve chambers (size 1500 x 1500mm internal dimensions, depth n.e 1.5 m)	nr	2.00		
9	Crossings				
9.1	OD 90mm (Provisional)	m	10.00		
9.2	Canal crossing 1 - 3 (Provisional)	nr	3		
	Steel Pipes and fittings for river crossings				
9.3	Single flanged steel pipes 90 mm dia. length =6000mm	nr	0.00		
10	Marker posts				
	Supply and erect pre-cast concrete marker posts for the following as directed by the engineer				
10.1	Sluice valves	nr	2.00		
10.2	bulk meter	nr	1.00		
10.3	Pipeline	nr	9.00		
TOTAL CARRIED TO SUMMARY PAGE					

E. INTAKE CHAMBER					
Item	Description	Unit	BOQ QTY	Rate (kshs)	BOQ Amount (Kshs)
1	Reinforced Concrete intake chamber				
1.1	Demolition and site clearance				
1.2	General clearance	ha	0		
2	Excavation for Intake chamber				
2.0	Excavation including maintaining and supporting sides and keeping bottoms free from water and mud or other fallen material.				
2.1	Excavate oversite average 150mm deep to remove vegetable soil and cart away to spoil heaps average distance 10m from site	CM	0.30		
2.2	In class II material max. depth 2-5m for disposal	CM	3.00		
3	Filling and compaction				
3.1	50mm stone dust blinding	CM	0.10		
3.2	100mm compacted hardcore	CM	0.20		
4	In situ Concrete:Provision and placing.Rate to include for shuttering				
	Mass concrete Class 15/20				
4.1	Blinding layer 50mm thick	CM	0.10		
	Reinforced vibrated concrete class 25/20				
4.2	200mm thick for foundation and top slab	CM	1		
5	Reinforcement:				
	High yield hot rolled ribbed bars to BS 4449.Rate to include for supply, delivering, cutting, blending, supporting and securing in concrete				
5.1	Y10 Bars	kgs	93		
5.2	Y8 Bars	kgs	0		
6	Concrete Ancillaries				
6.1	Formwork	M ²	22.00		
7	Walling				
7.1	Reinforced vibrated concrete class 25	CM	3.5		
8	Screens				
8.1	20mm galvanized screen 1.2m*1.2m	No	1.00		
8.2	Bulk meter chamber, size 1500 x 1500mm internal dimensions, depth n.e 1.5 m	No	0.00		

E. INTAKE CHAMBER					
Item	Description	Unit	BOQ QTY	Rate (kshs)	BOQ Amount (Kshs)
9	pipework-fittings				
	Provide, handle, install and test the following GI pipes and fittings, valves and specials. Rates shall include for completion and pipe protection at all pipe joints as specified in specifications and drawings				
	DN 200 mm flanged bell mouth	nr	1.00		
9.1	Supply GI 150mm dia double flanged pipe.	nr	1.00		
9.2	Supply GI 150mm x 100mm double flanged reducer with	No	1.00		
9.3	Supply and install 100mm dia double flanged Sluice valve with all associated fittings as directed by the engineer	no	1.00		
TOTAL CARRIED TO SUMMARY PAGE					

f Composite Filtration Unit					
Item	Description	Unit	BOQ QTY	Rate (kshs)	BOQ Amount (Kshs)
1	Demolition and site clearance				
1.1	Clear the site of all bushes,grass,shrubs etc grub up roots and cart away to tips as directed	m2	0		
2	Excavation				
	The rates should include for all strutting stabilising the excavation and keeping the excavation free from water by pumping bailing or other means.Excavate for foundation part back fill after construction and remainder cart away to tips or use as fill on site all as directed.The cost shold include for channels where appropriate				
2.1	Strip top soil average 200mm dispose	m2	0		
2.2	In normal soil(material) to a depth not exceeding 1.5m	cm	0		
2.3	E.O for item 2 for excavation in rock(provisional)	cm	0		
3	Filling and compaction				
3.1	50mm stone dusting blinding	cm	0		
3.2	150mm compacted hardcore	cm	0		
4	In situ concrete:Provision and placing.Rate to include for shuttering				
	Mass concrete Class 15/20				
4.1	Blinding layer 50mm thick	cm	0		
4.2	Ditto but for footing	cm	0		
4.3	Ditto but for benching and shaped as per the drawing	cm	0		
4.4	Mass concrete thickness 300mm-700mm(1:3:6) for surround to Hudo nozzles and wash water channel	cm	0		
4.5	Mass concrete class 10/40 for pipe surround.	cm	0		
	Reinforced vibrated concrete class 25/20		0		
4.6	150mm thick floor slab	cm	0		
4.7	Reinforced concrete class 20/20 for beams	cm	0		
4.8	cement motor mix 1:2 for 50mm screed to fall on base slab (average25mm thick)	cm	0		

f Composite Filtration Unit					
Item	Description	Unit	BOQ QTY	Rate (kshs)	BOQ Amount (Kshs)
5	Reinforcement:				
	High yield hot rolled ribbed bars to BS 4449. Rate to include for supply, delivering, cutting, bending, supporting and securing in concrete.				
5.1	Y12 bars	kgs	0		
5.2	Y10 bars	kgs	0		
6	Concrete Ancillaries				
	formwork				
	Provide and fix shuttering including propping, strutting and striking all as specified allowing for curvature where necessary				
6.1	sides of base slab	sm	0		
6.2	sides of thickening base slab for pipes	sm	0		
6.3	sides for beams (vertical and horizontal)	sm	0		
6.4	sides for ring beam	sm	0		
7	Sealer				
7.1	Provide and lay plastic joint 25mm x 25mm sealer or approved equivalent on base slab/external walls	m	0		
8	Walls				
8.1	construct stone masonry walls with cement mortar 1:3 thickness 225mm	sm	0		
8.2	construct stone masonry walls with cement mortar 1:3 thickness 150mm	sm	0		
8.3	Provide for bituminous felt and paint d.p.c to foot walls	sm	0		
9	Pipes and fittings				
9	Supply, lay and fit all pipe work and fittings including concrete surrounds etc. to the filter unit as specified in the drawing	no	1		
9.1	150mm dia GS pipe with sockets	m	8		
9.2	100mm dia GS pipe with sockets	m	4		
9.3	75mm dia GS pipe with sockets	m	4		
9.4	150 x 225 mm GS bell mouth	no	1		
9.5	150mm dia GS flanged sluice valve	no	1		
9.6	150mm dia GS flanged equal tee	no	2		
9.7	150mm dia GS elbow	no	2		
9.8	150mm dia GS nipple	no	6		
9.9	150mm dia GS puddle flange	no	2		
10	150mm dia GS pains socket	no	2		

f Composite Filtration Unit					
Item	Description	Unit	BOQ QTY	Rate (kshs)	BOQ Amount (Kshs)
10.1	150x100mm dia GS bell mouth	no	1		
10.2	100mm dia GS 900 bend	no	4		
10.3	100mmdia GS with sockets	no	3		
10.4	100mmdia GS sluice valve	no	5		
11	pipe works				
11.1	100mmx50mmdiaGS reducing tee	no	2		
11.2	75mmdia GS socket	no	2		
11.3	75mmdia GS bend	no	2		
11.4	75mmdia GS endcap	no	2		
11.5	150mmdia Gs drilled flanges	no	12		
11.6	100mmdia GS drilled flanges	no	6		
11.7	supply and install flap valve as specified	no	4		
11.8					
11.9	Allow for formation of a 100mm wide,18m long channel in weak concrete benching as required	no	0.5		
12	Install 6mm G.M.S steel plate 1200mmx200mmx2050mm long channel for wash water to be set in mass concrete class 15/20	no	2		
12.1	install 6mm G.M.S steel plate 250mmx2100mm long cover for water channel with slots size 20mmx150mm at 200c/c	no	2		
12.2	supply and install 50mm dia . G.m.s pipe, 1700mm with 9No .19mm dia. Nozzles as shown on the drawing	no	2		
12.3	supply and install 50mm dia G.M.S pipe , 2100mm with 11No.19mm dia.Nozzles as shown on the drawing	no	4		
12.4	supply and install 50mm dia. G.M.S pipe, 900mm with 5No.19mmdia .Nozzles as shown on the drawing	no	4		
12.5	Supply and install 50mm dia .G.M.S pipe, 1300mm with 7No.19mm dia.nozzles as shown on the drawing	no	2		
12.6	supply and install 'Hudo'Nozzles in underdran pieps as shown on the drawing	no	96		
13	filter Media				
13.1	38 —54mm size gravel in layer, 300 mm thick	cm	1.5		
13.2	Ditto 16 - 23mm size gravel in layer 75 mm thick.	cm	0.5		
13.3	Ditto 5.6--8mm size gravel in 750 mm thick	cm	3.5		

f Composite Filtration Unit					
Item	Description	Unit	BOQ QTY	Rate (kshs)	BOQ Amount (Kshs)
13.4	Allow for connection of the composite filtration unit to the inflow 110mm dia. G.S pipe and outflow as directed	no	1		
13.5	Test and commission the composite filtration unit including disinfection of media for 24hrs	Is	1		
14 Collection V-notched Weir					
14.1	Provide and fix GMS sheet 6mm thick settled water collection length 3000	no	1		
15 Chambers					
15.1	Construct valve and overflow chambers 1500mm internal dimension. Depth n.e 1.5M. This includes construction of dosing platforms	no	1		
16 DOZING UNITS					
16.1	Supply and install FRN gravity solution dozer rate of dosing not less than 181l/h	no	4		
16.2	Allow for outlet pipe connection DN 100MM GI to the clear water tank	m	10		
16.3	Allow for the construction of a steel an chequered plate for the ladder, walkway with handrails and a dosing platform for the two sets of dosing's as directed by the engineer	No	3		
17	Allow a sum for construction of 50m3 masonry clear water tank	LS	1		
18	Supply, install and commission 3No. submersible water pump and associated fittings and connect to the inlet of the elevated tank as directed by the Engineer	No	3		
19	Allow for power connection to the grid	LS	1		
20	Carry out electrical works as directed	LS	1		
22	Erect sign board as directed by the project manager	no	1		
	TOTAL CARRIED TO SUMMARY PAGE				

ARCHITECTURAL
DRAWINGS

TABLE OF CONTENTS			
No.	Dwg. Title	Dwg. No.	Page
1	Floor plan	arc - 01	01
2	Section X	arc - 02	02
3	Section Y	arc - 03	03
4	Front Elevation X	arc - 04	04
5	Side elevation	arc - 05	05
6	Plumbing detail	arc - 06	06
7	Steel Window Detail	arc - 07	07
8	Gully trap (GT) Detail	arc - 08	08
9	Steel door Detail	arc - 09	09
10	Steel cage Detail	arc - 10	10

600 x 600 x 50 mm conc. paving slab around the external wall

(pg 03)

200 x 200mm RC column

to details (pg STR 03)

(pg 06)

RC column to details (pg STR 03)

drainage grooves detail (pg 08)

lockable steel window detail (pg 07)

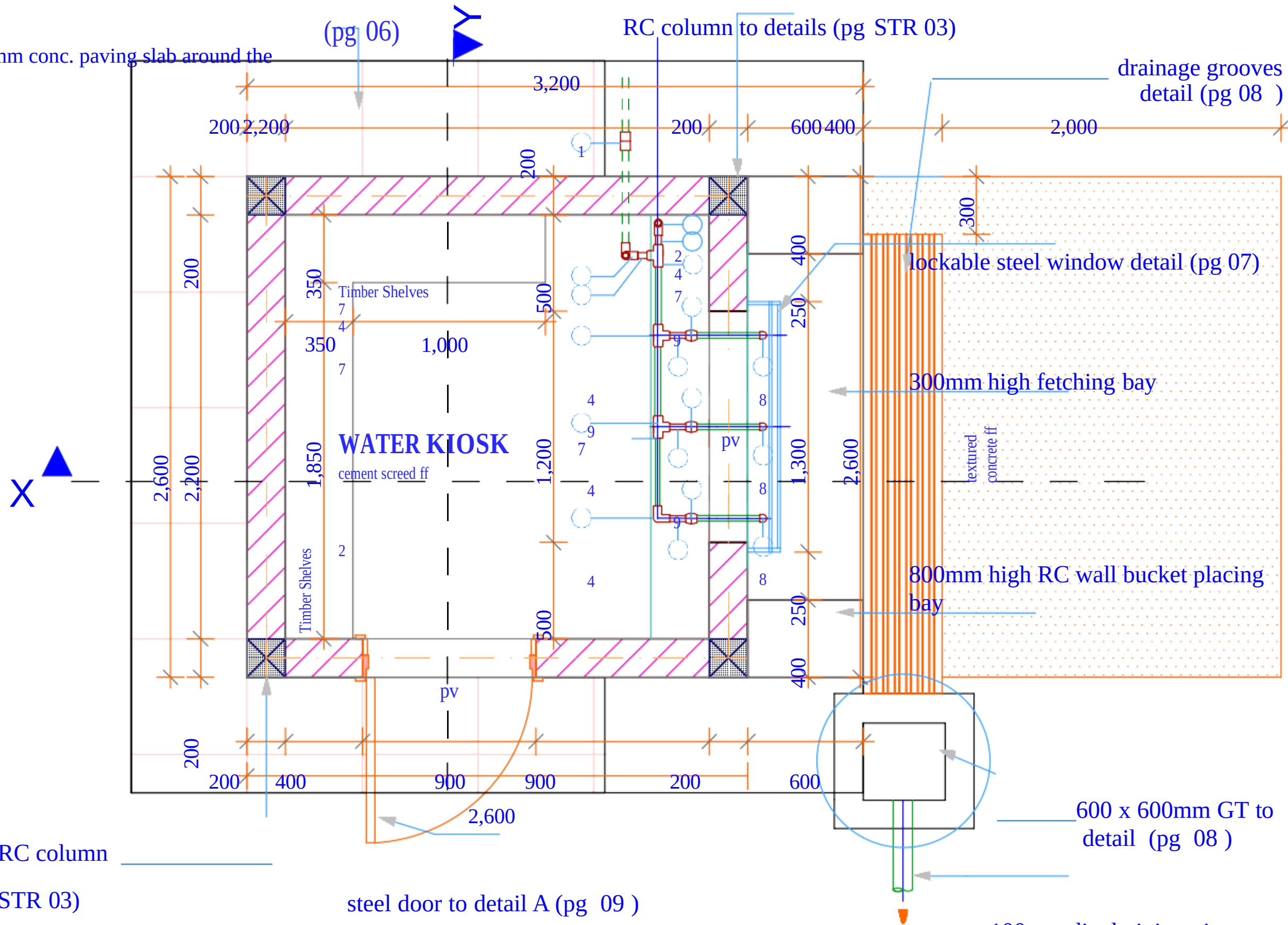
300mm high fetching bay

800mm high RC wall bucket placing bay

600 x 600mm GT to detail (pg 08)

100mm dia draining pipe to soak away pit

FLOOR PLAN

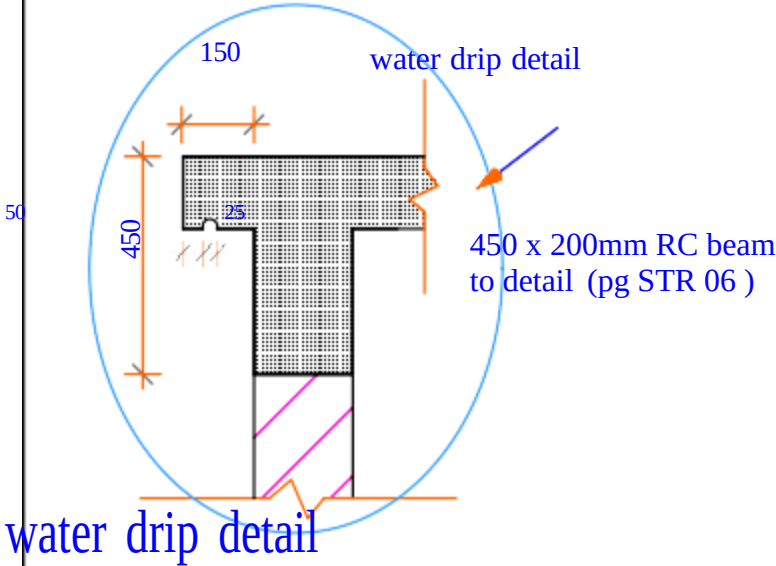


<u>Project Title:</u> WATER KIOSK (Type Closed)	<u>Client:</u> WATER SERVICES TRUST FUND (WSTF)	<u>drg title:</u> FLOOR PLAN	<u>drg no:</u> ARC 01	<u>Consultant:</u> Edward Kung'u	<u>Checked By</u> CEO - Water Services Trust Fund John Orwa Signature.....	<u>Approved by</u>	<u>Scale</u> 1 : 20 <u>Page</u> 01
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Steel frame surrounding the tank to prevent from theft detail (pg 10)

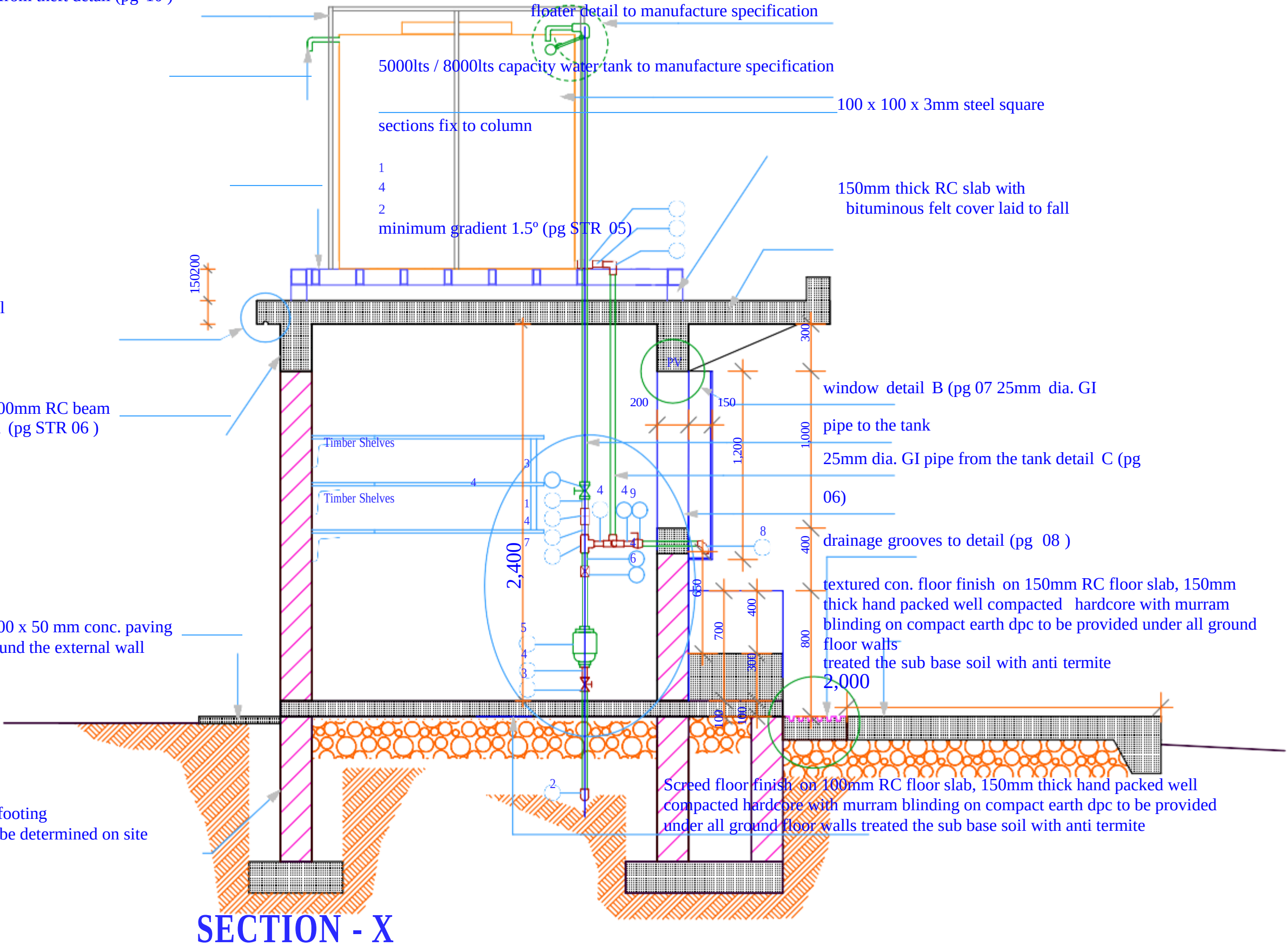
25mm dia. overflow
GI pipe fix to approval

50 x 100 x 3mm steel rectangular
sections spaced at 350mm c/c
to form a square platform
of 2000 x 2000mm



600 x 600 x 50 mm conc. paving
slab around the external wall

200mm foundation wall on (600x200) strip footing
to Eng's details (pg STR 02). foundation to be determined on site



Project Title:

WATER KIOSK
(Type Closed)

Client:

WATER SERVICES TRUST
FUND (WSTF)

drq title:

SECTION

drq no:

ARC 02

Consultant:

Edward Kung'u

Checked By

CEO - Water Services Trust Fund
John Orwa

Signature.....

Approved by

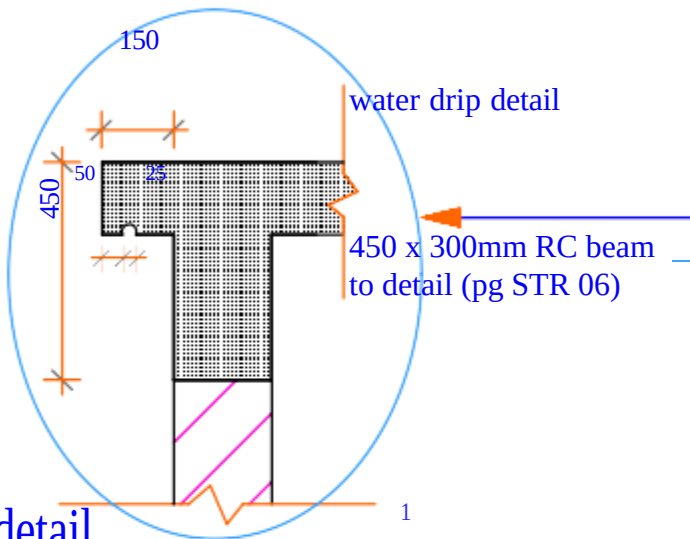
Scale 1 : 25

page
02

Steel frame surrounding the tank to prevent from theft detail (pg 10)

5000lts capacity water tank
to manufacture specification

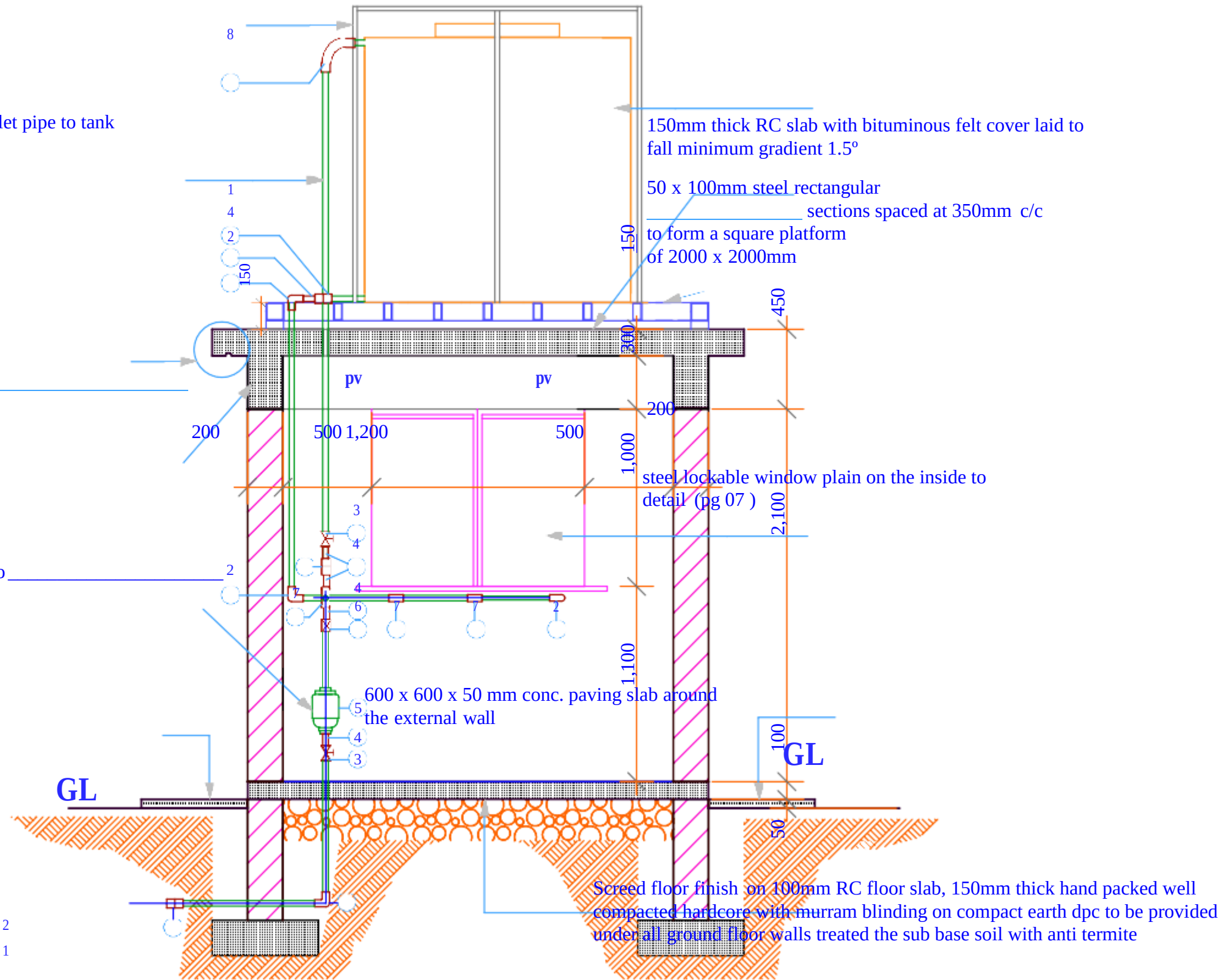
25mm dia. galvanised iron inlet pipe to tank



water drip detail

25mm dia. water meter to
water providers approval

600 x 600 x 50 mm conc.
paving slab around
the external wall



SECTION - Y

<u>Project Title:</u> WATER KIOSK (Type Closed)	<u>Client:</u> WATER SERVICES TRUST FUND (WSTF)	<u>drg title:</u> SECTION	<u>drg no:</u> ARC 03	<u>Consultant:</u> Edward Kung'u	<u>Checked By</u> CEO - Water Services Trust Fund John Orwa Signature.....	<u>Approved by</u>	<u>Scale</u> 1 : 25 <u>Page</u> 03
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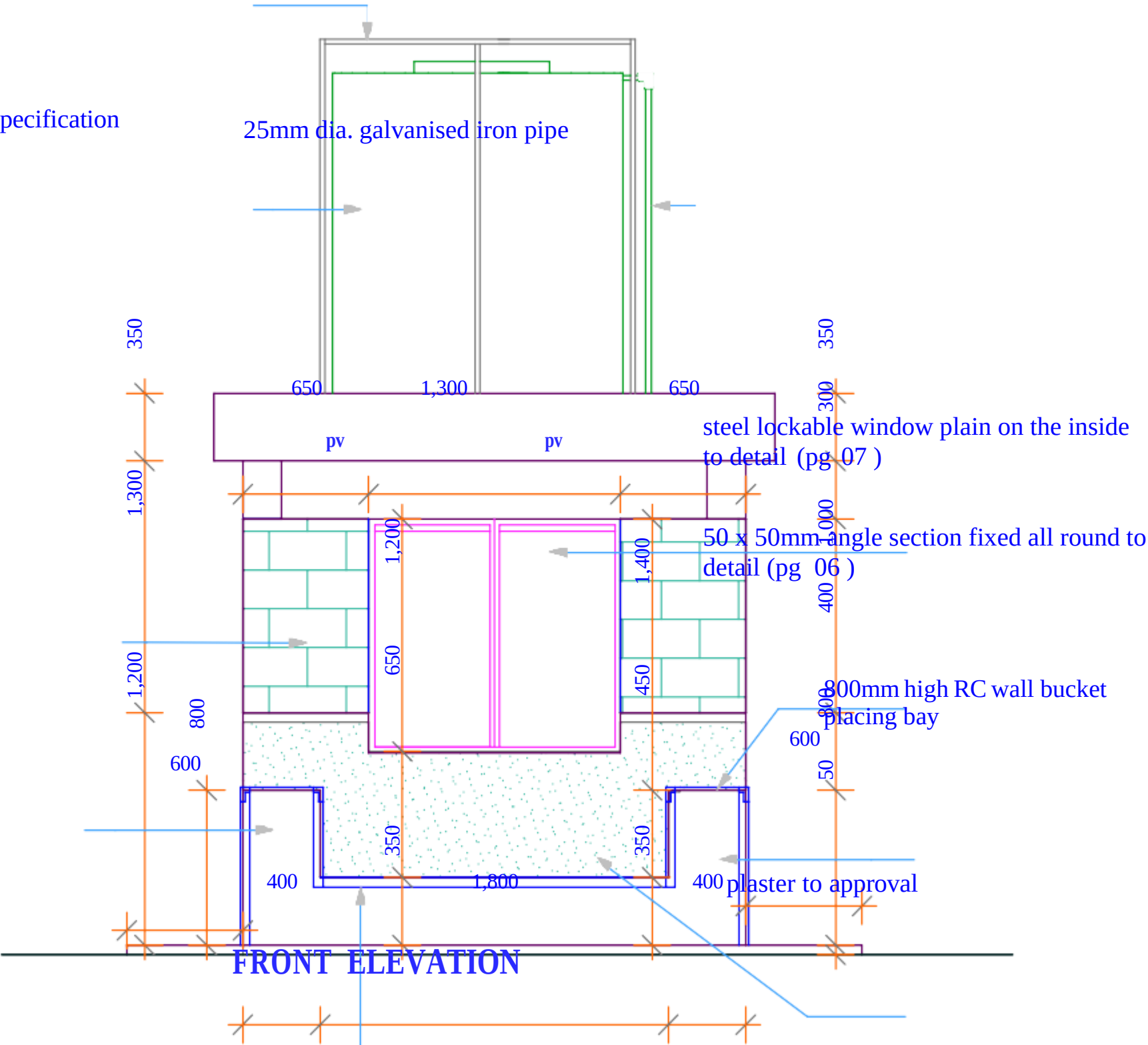
Steel frame surrounding the tank to prevent from theft. detail (pg 10)

5000lts / 8000lts capacity water tank to manufacture specification

masonry wall keyed to approval

800mm high RC wall bucket placing bay

50 x 50mm angle section
fixed to approval detail (pg 06)



<u>Project Title:</u> WATER KIOSK (Type Closed)	<u>Client:</u> WATER SERVICES TRUST FUND (WSTF)	<u>drq title:</u> FRONT ELEVATION	<u>drq no:</u> ARC 04	<u>Consultant:</u> Edward Kung'u	<u>Checked By</u> CEO - Water Services Trust Fund John Orwa Signature.....	<u>Approved by</u>	<u>Scale</u> 1 : 25 <u>page</u> 04
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Steel frame surrounding the tank to prevent from theft
detail (pg 10)

25mm dia overflow
GI pipe fix to approval

100mm x 100mm x 3mm steel square sections fix to column

50mm x 100mm x 3mm steel rectangular sections spaced at 350mm c/c
to
form a square platform
of 2000 x 2000mm

180mm thick masonry wall keyed to approval

800mm high RC wall bucket placing bay

steel door to detail (pg 09)

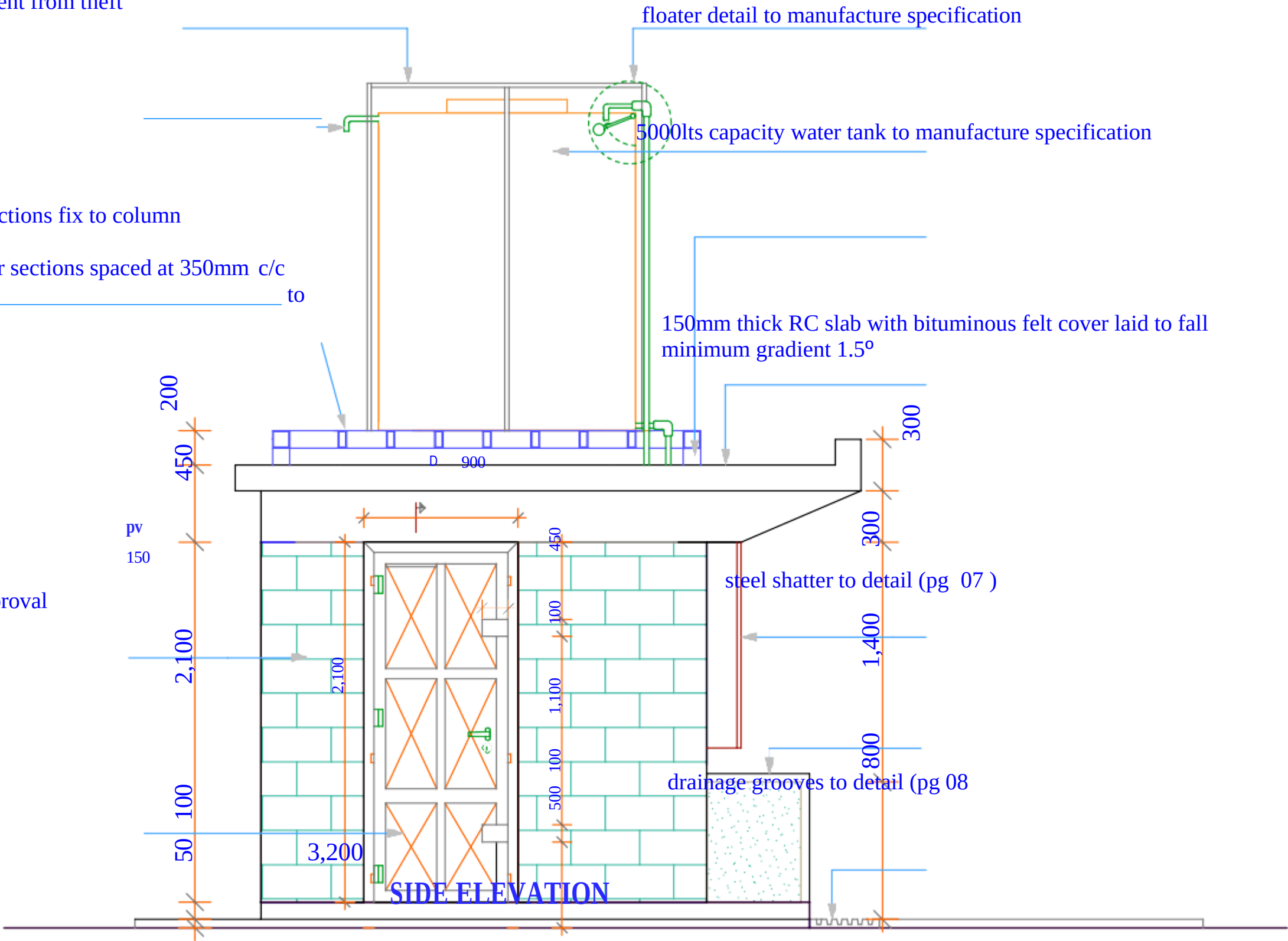
floator detail to manufacture specification

5000lts capacity water tank to manufacture specification

150mm thick RC slab with bituminous felt cover laid to fall
minimum gradient 1.5°

steel shutter to detail (pg 07)

drainage grooves to detail (pg 08)



<u>Project Title:</u> WATER KIOSK (Type Closed)	<u>Client:</u> WATER SERVICES TRUST FUND (WSTF)	<u>drw title:</u> SIDE ELEVATION	<u>drw no:</u> ARC 05	<u>Consultant:</u> Edward Kung'u	<u>Checked By</u> CEO - Water Services Trust Fund John Orwa Signature.....	<u>Approved by</u>	<u>Scale</u> 1 : 25 <u>page</u> 05
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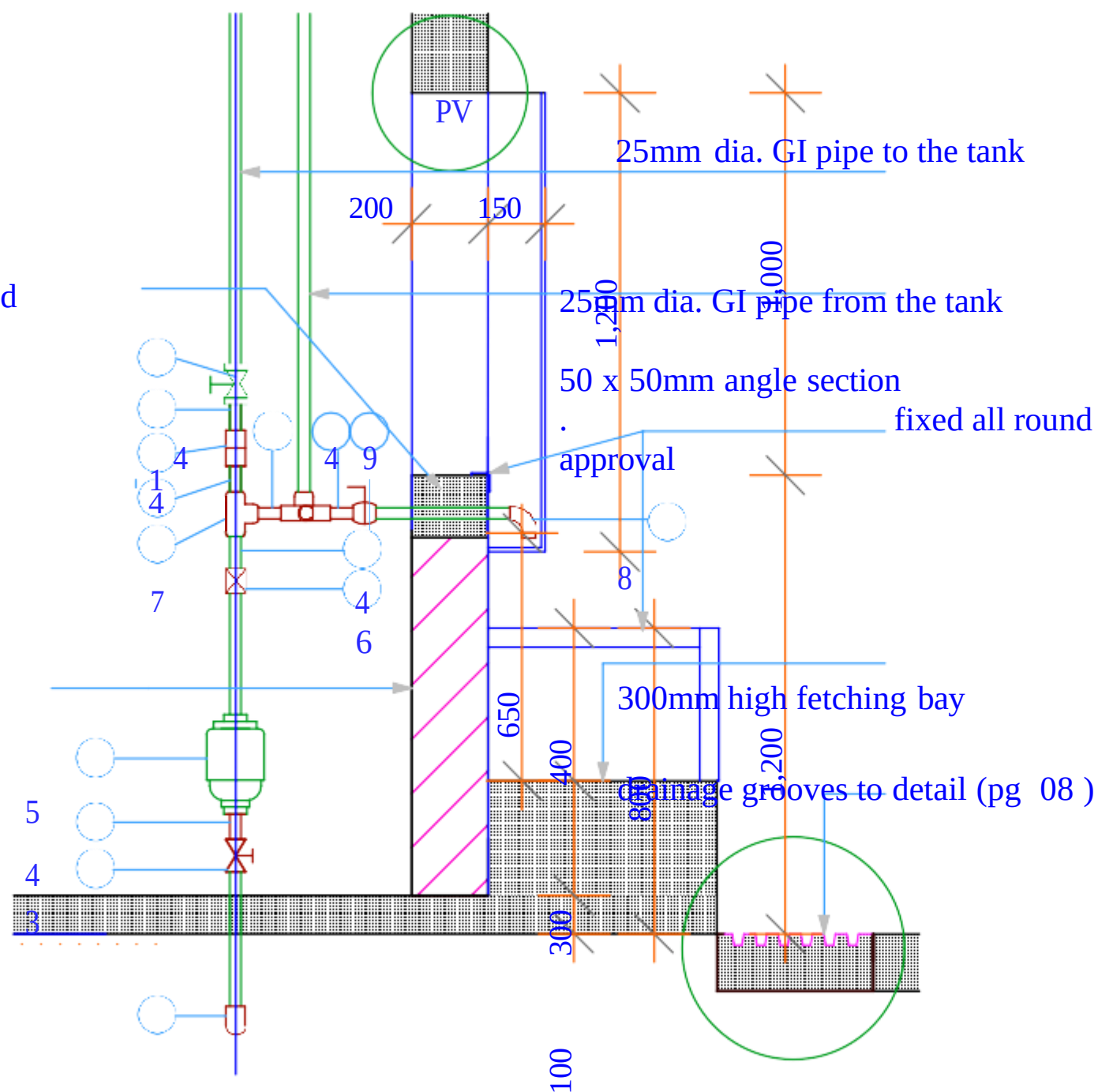
50
angle section

150mm thick reinforced
concrete cover

3
4
4/10
RB - 150

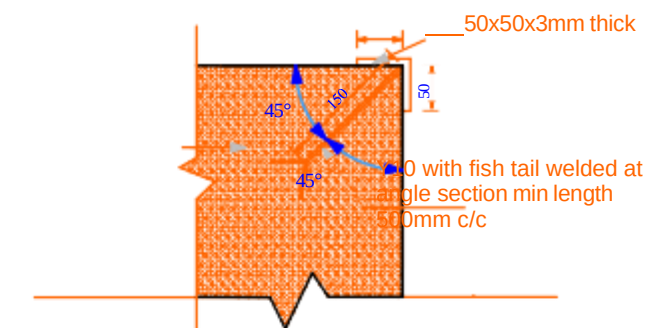
200

200 mm masonry wall

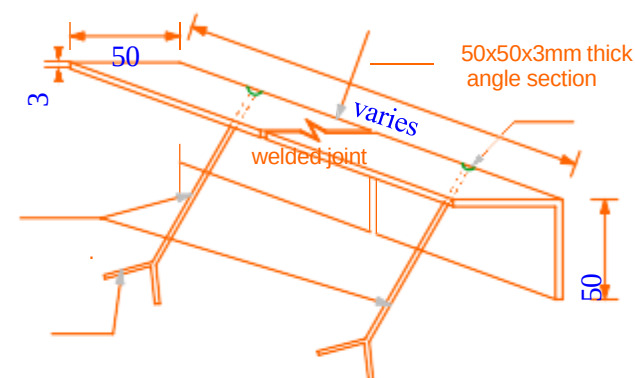


2
DETAIL C

mass conc. bed



SECTION

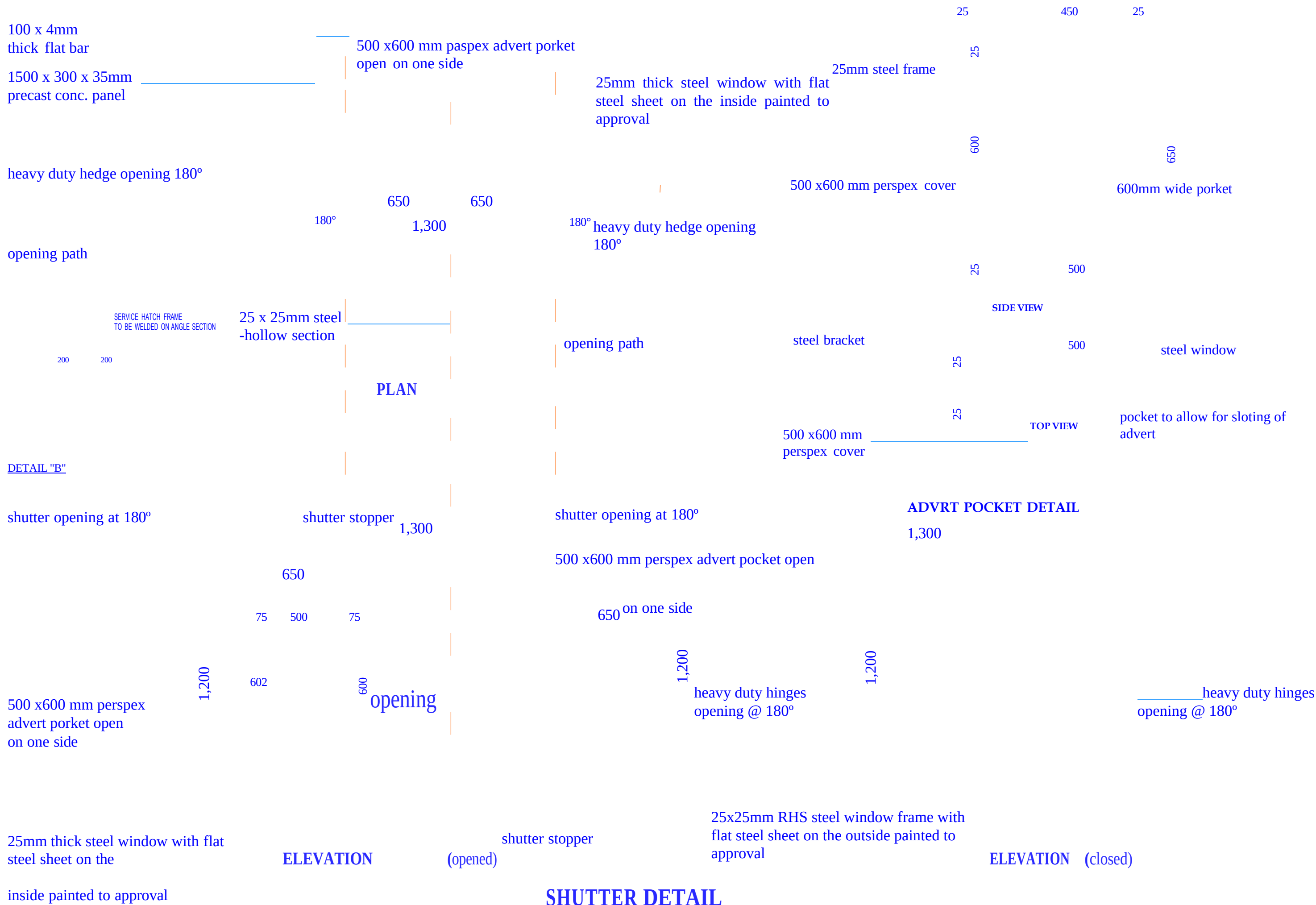


fish tail

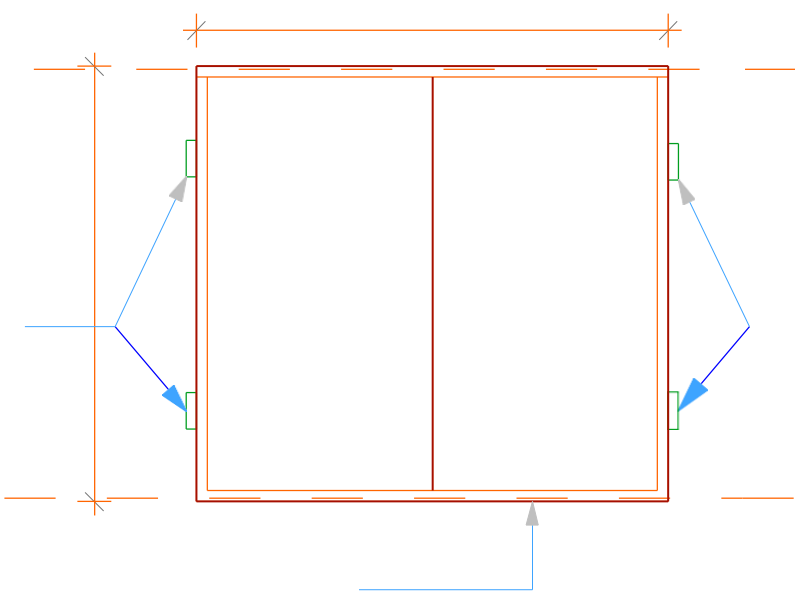
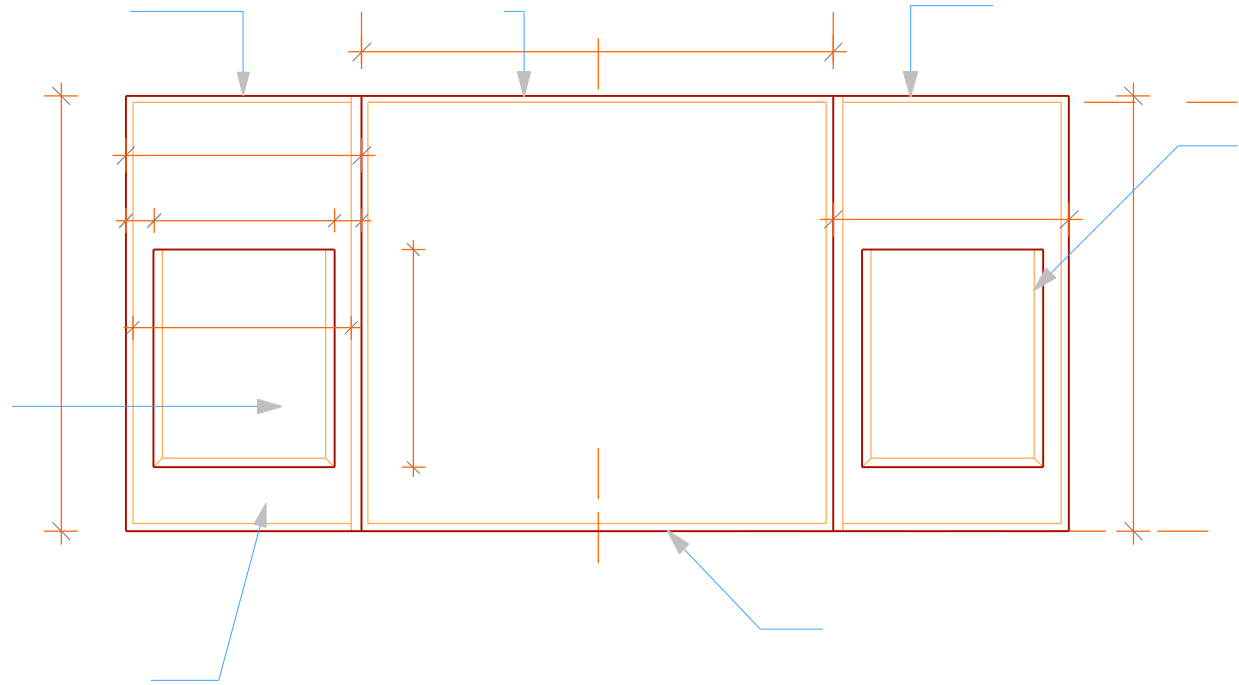
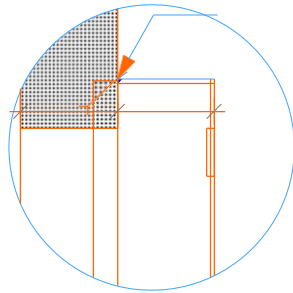
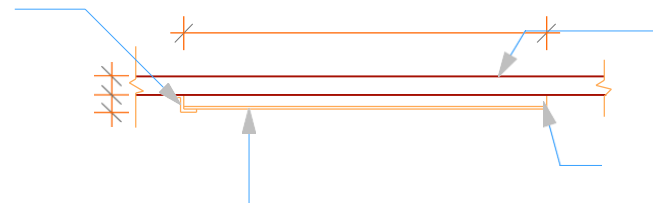
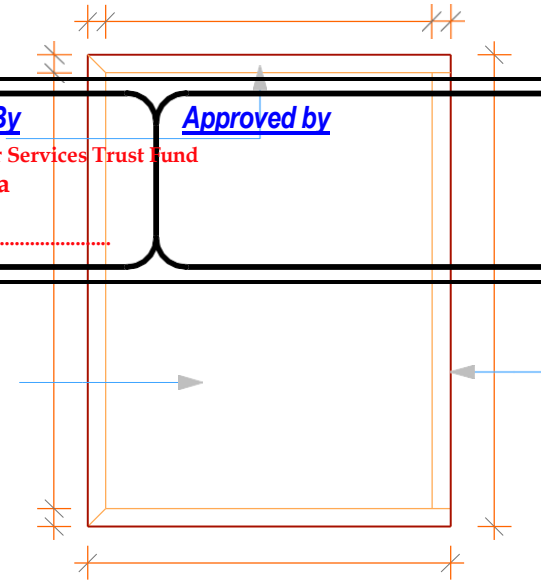
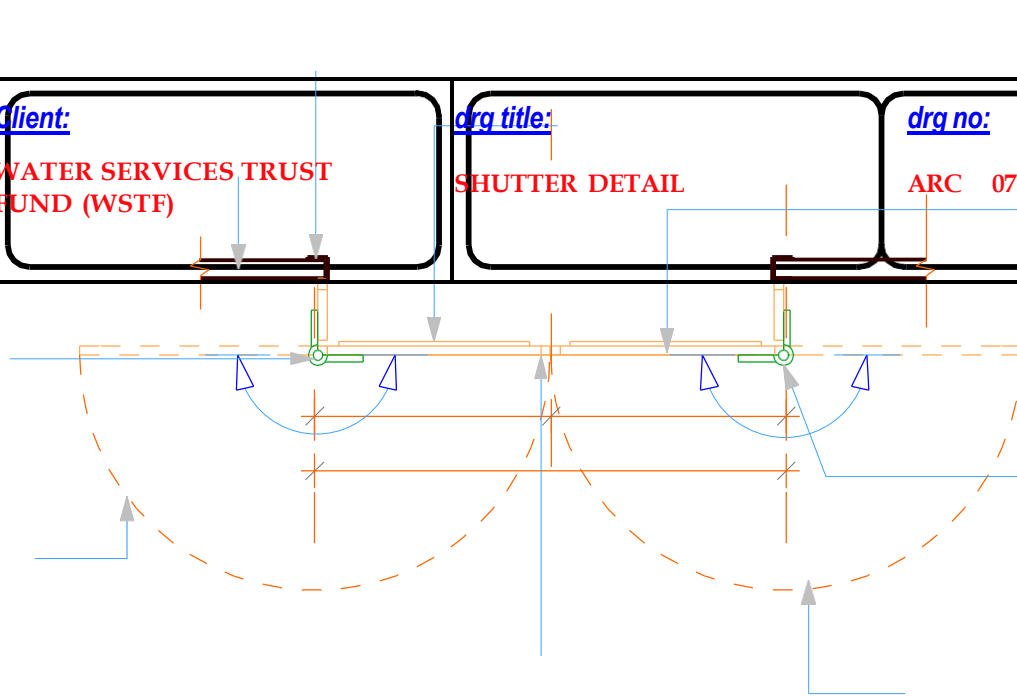
AXONOMETRIC VIEW
SHOWING ANGLE SECTION
ANCHORING DETAIL

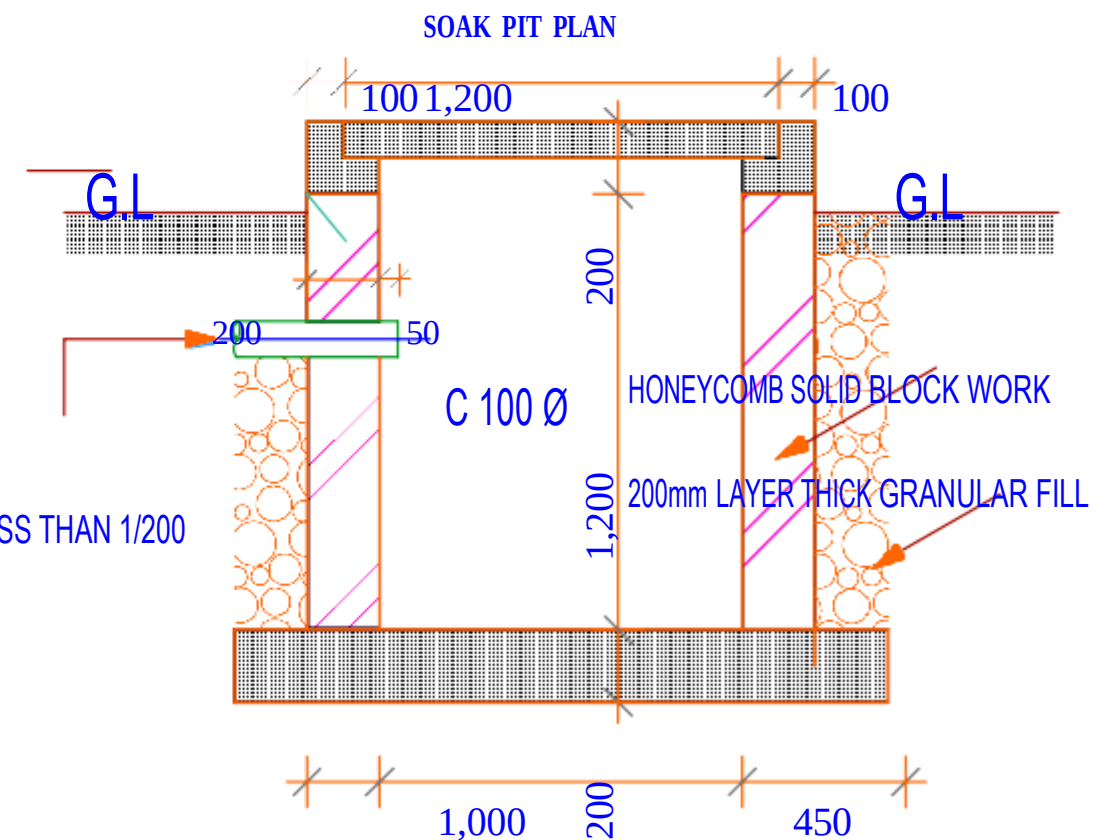
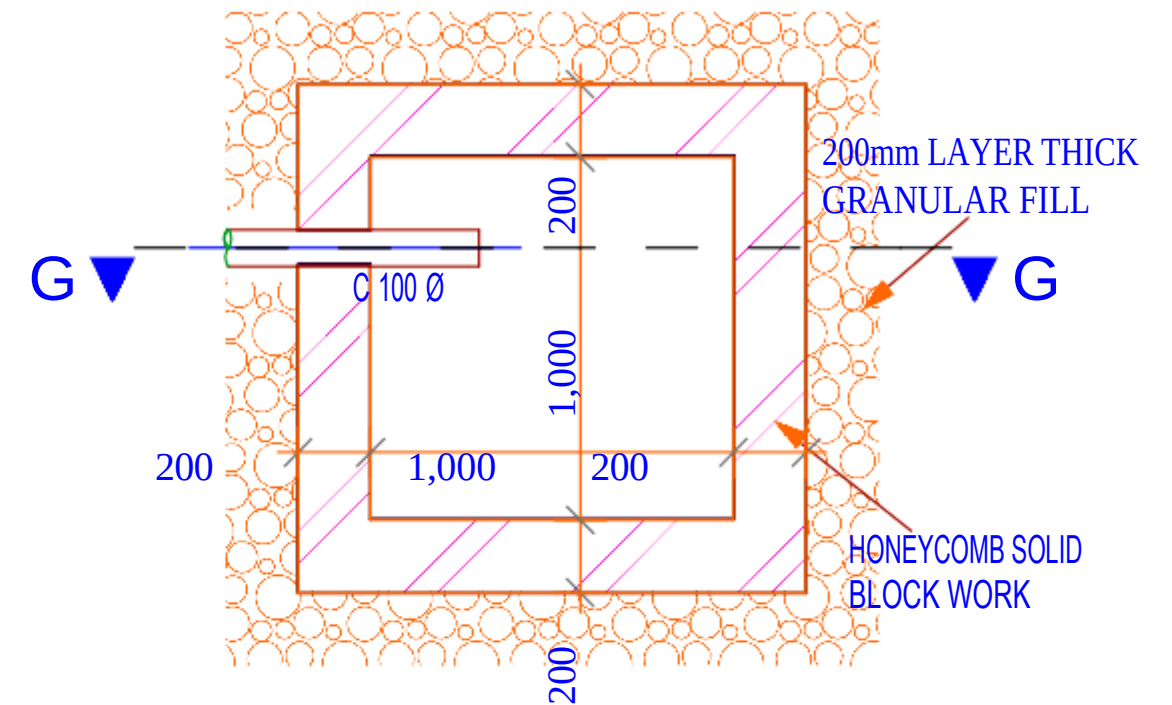
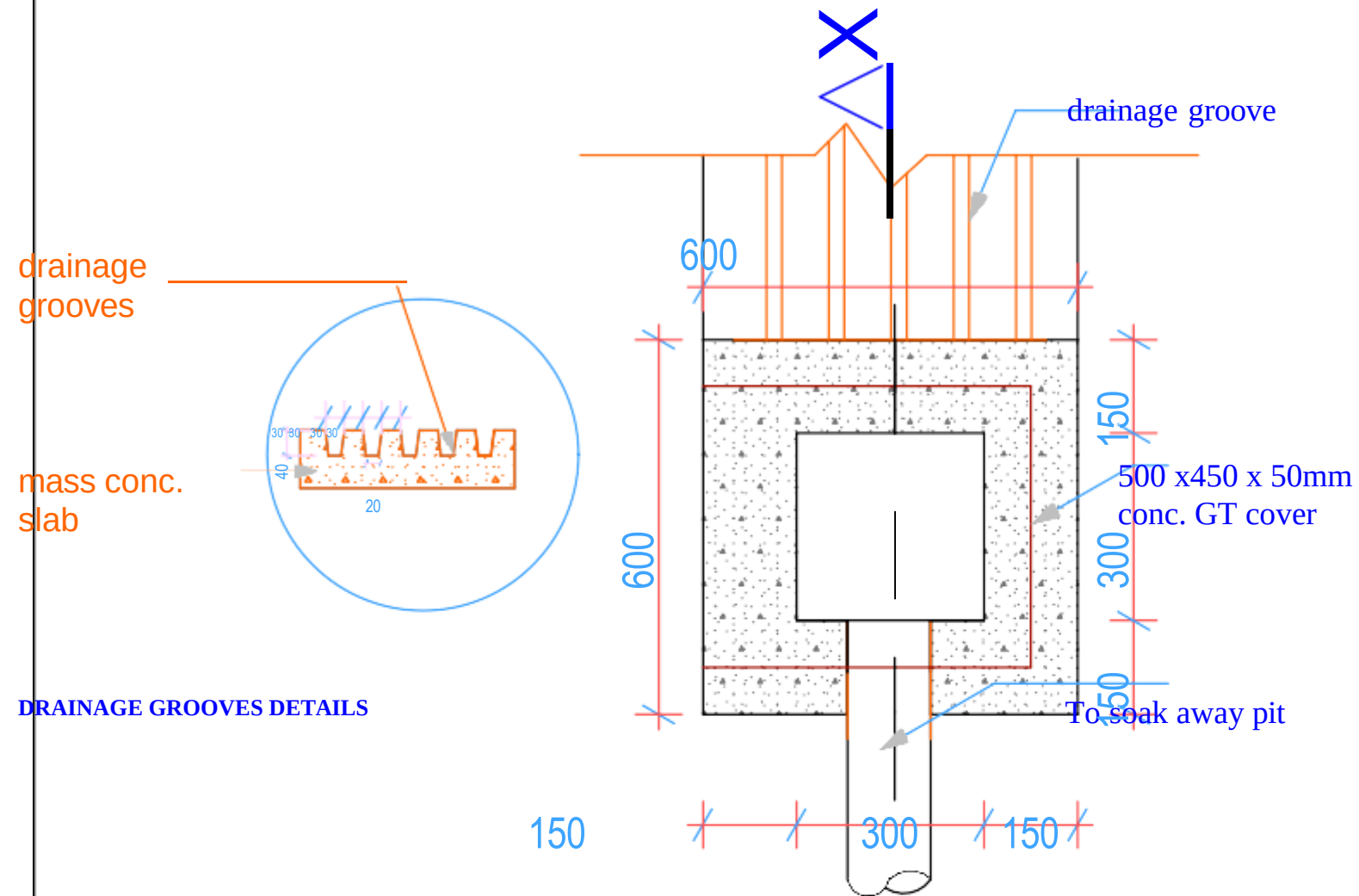
ITEM NUMBER	DESCRIPTION (ALL 25 mm DIA.)	UNIT	QTY
1	Galvanized Iron Union	No.	3
2	Galvanized Iron Elbows	No.	3
3	Galvanized Iron Gate valve (pegler)	No.	2
4	Galvanized Iron Nipples	No.	11
5	Water meter	No.	1
6	Non return valve	No.	1
7	Galvanized Iron Equal Tee	No.	5
8	Galvanized Iron B end	No.	4
9	Ball cock water taps	No.	3
10	Galvanized Iron Long thread nipple	No.	2
11	Galvanized Iron Black nut	No.	4
12	Galvanized Iron Class B pipes (per 6 metres)	No.	4
13	Boss white (400g)	No.	3
14	Hemp thread	LM	2

<u>Project Title:</u> WATER KIOSK (Type Closed)	<u>Client:</u> WATER SERVICES TRUST FUND (WSTF)	<u>drg title:</u> PLUMBING DETAIL	<u>drg no:</u> ARC 06	<u>Consultant:</u> Edward Kung'u	<u>Checked By</u> CEO - Water Services Trust Fund John Orwa Signature.....	<u>Approved by</u>	<u>Scale</u> 1 : 10 <u>Page</u> 06
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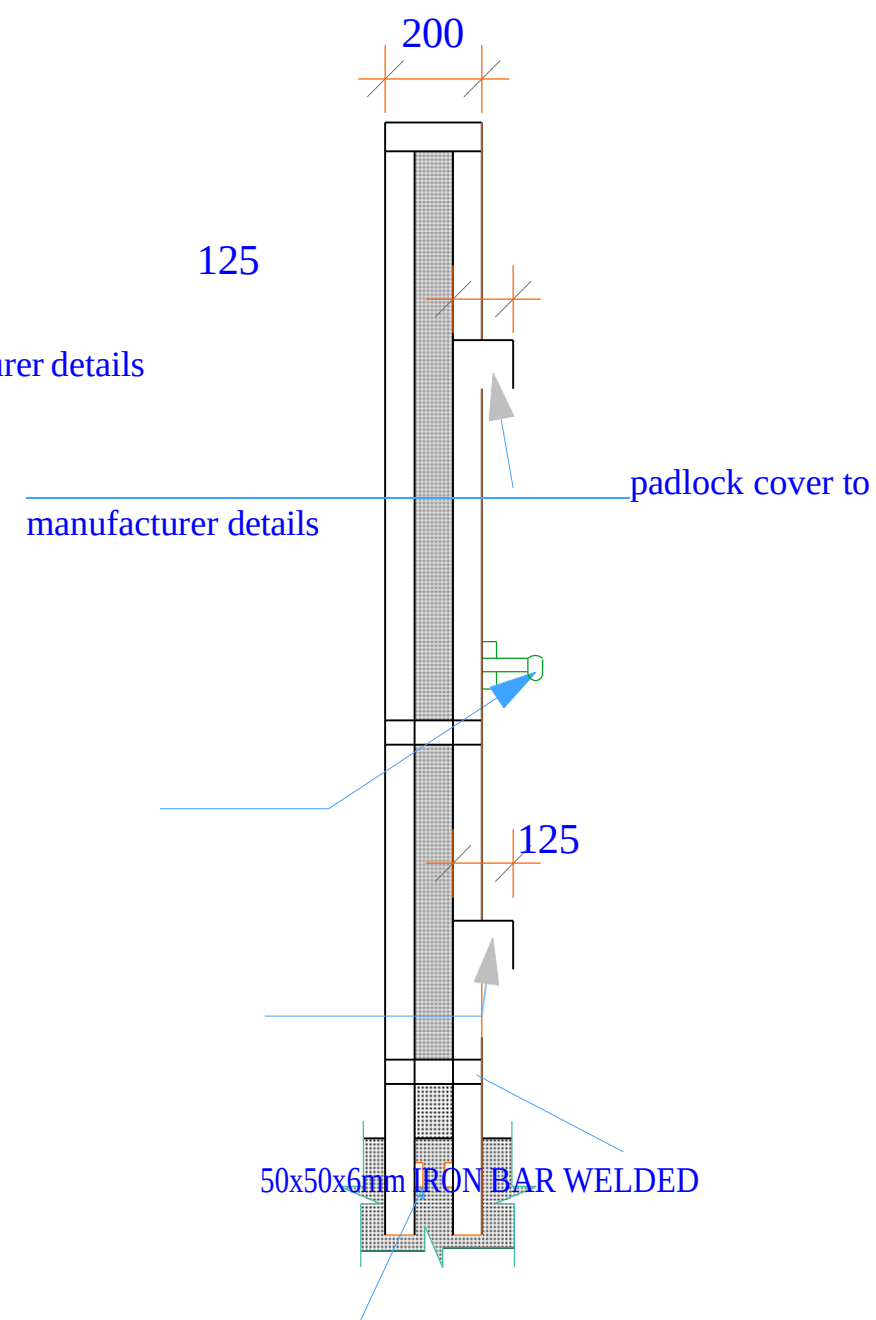
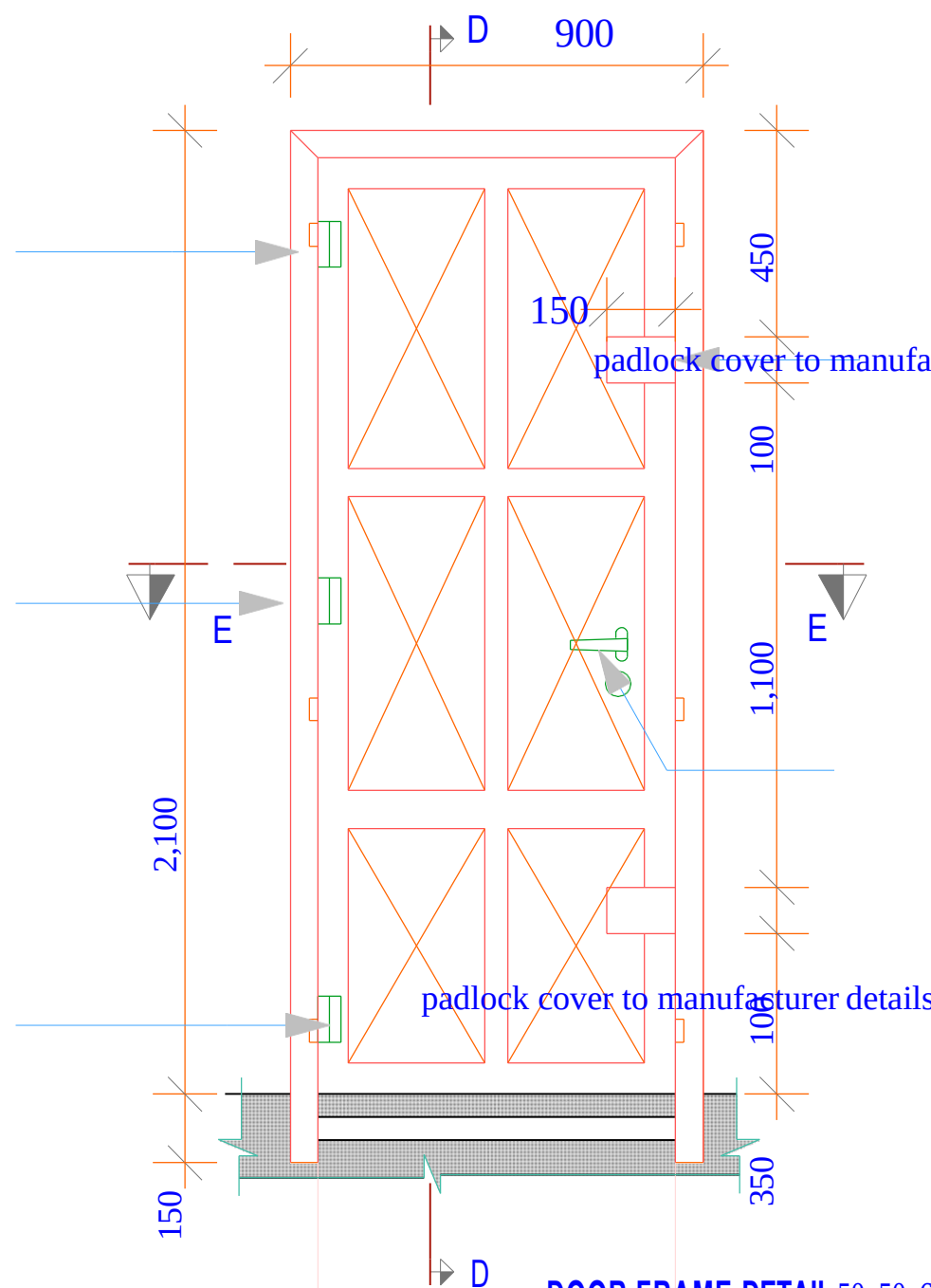


<u>Project Title:</u> WATER KIOSK (Type Closed)	<u>Client:</u> WATER SERVICES TRUST FUND (WSTF)	<u>drw title:</u> SHUTTER DETAIL	<u>drw no:</u> ARC 07	<u>Consultant:</u> Edward Kung'u	<u>Checked By</u> CEO - Water Services Trust Fund John Orwa Signature.....	<u>Approved by</u>	<u>Scale</u> 1 : 20 <u>Page</u> 07
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<u>Project Title:</u> WATER KIOSK (Type Closed)	<u>Client:</u> WATER SERVICES TRUST FUND (WSTF)	<u>drg title:</u> DRAINAGE DETAILS	<u>drg no:</u> ARC 08	<u>Consultant:</u> Edward Kung'u	<u>Checked By</u> John Orwa	<u>Approved by</u> CEO - Water Services Trust Fund Signature.....	<u>Scale</u> 1 : 10 1 : 20 <u>page</u> 08
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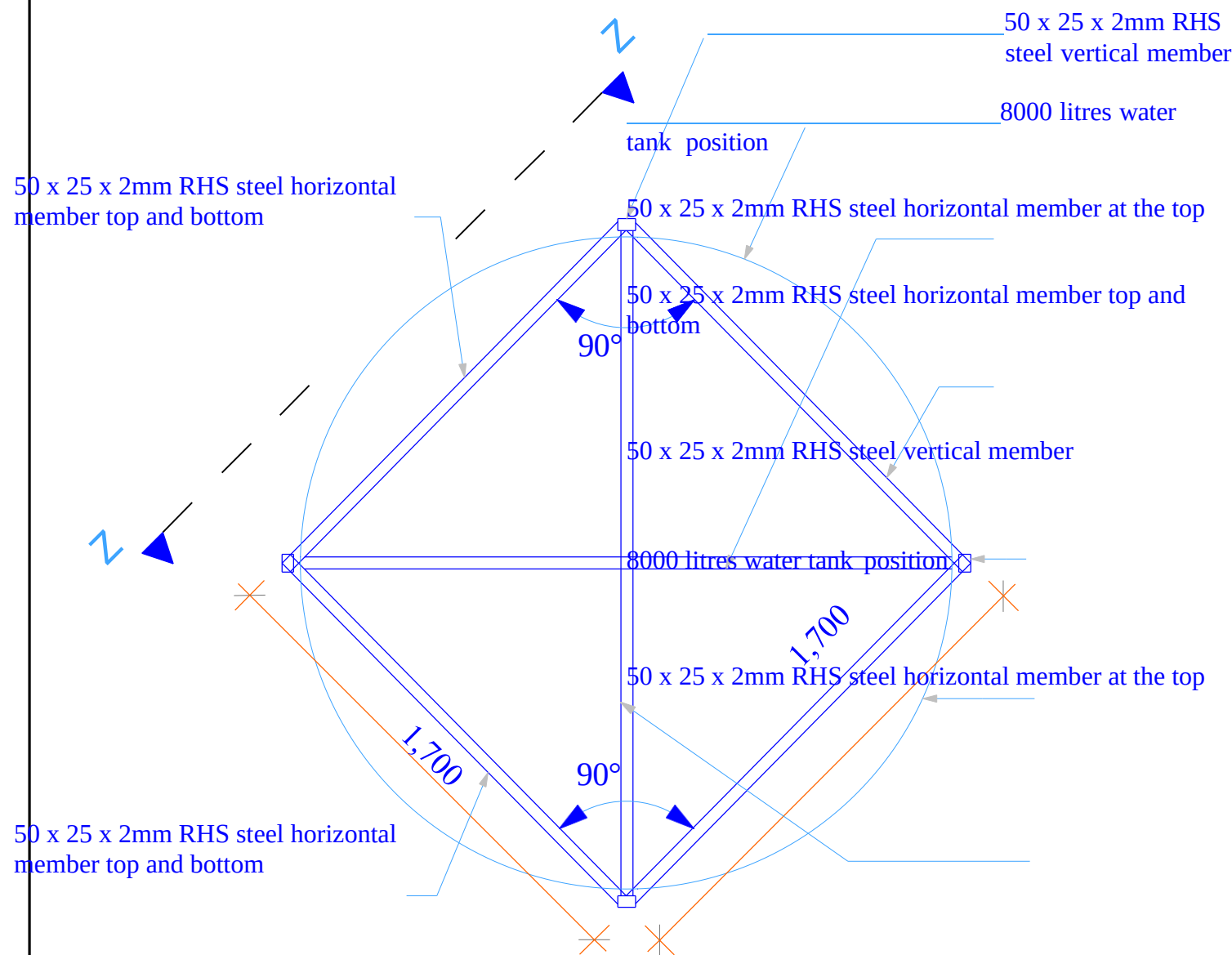
SECTION D-D

PLAN E-E

STEEL DOOR 25mm THICK

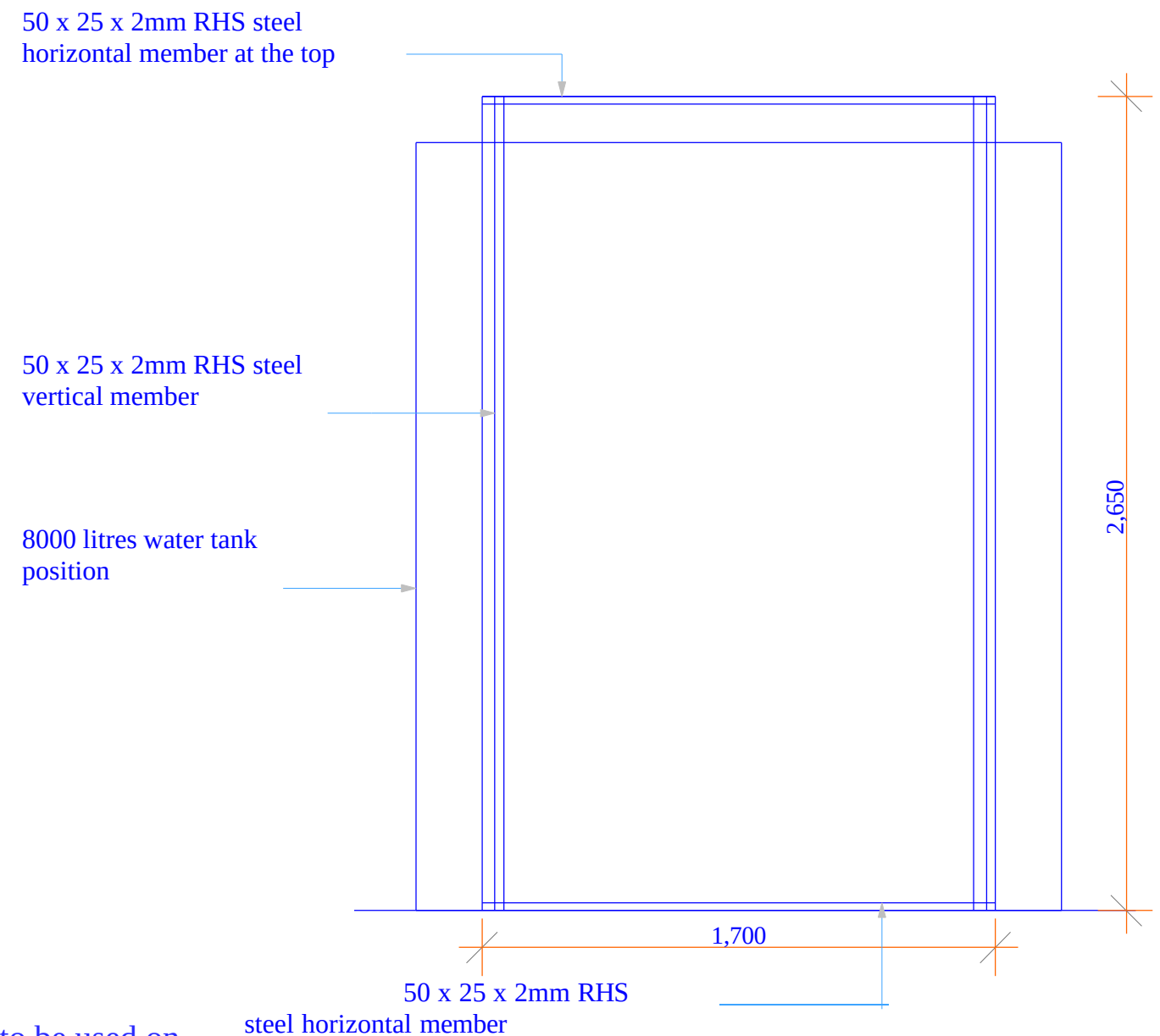
60x60x6mm ANGLE IRON (MILD STEEL)

09



TOP VIEW

NB the cage to be used on both 8000ltrs and 5000ltrs tanks



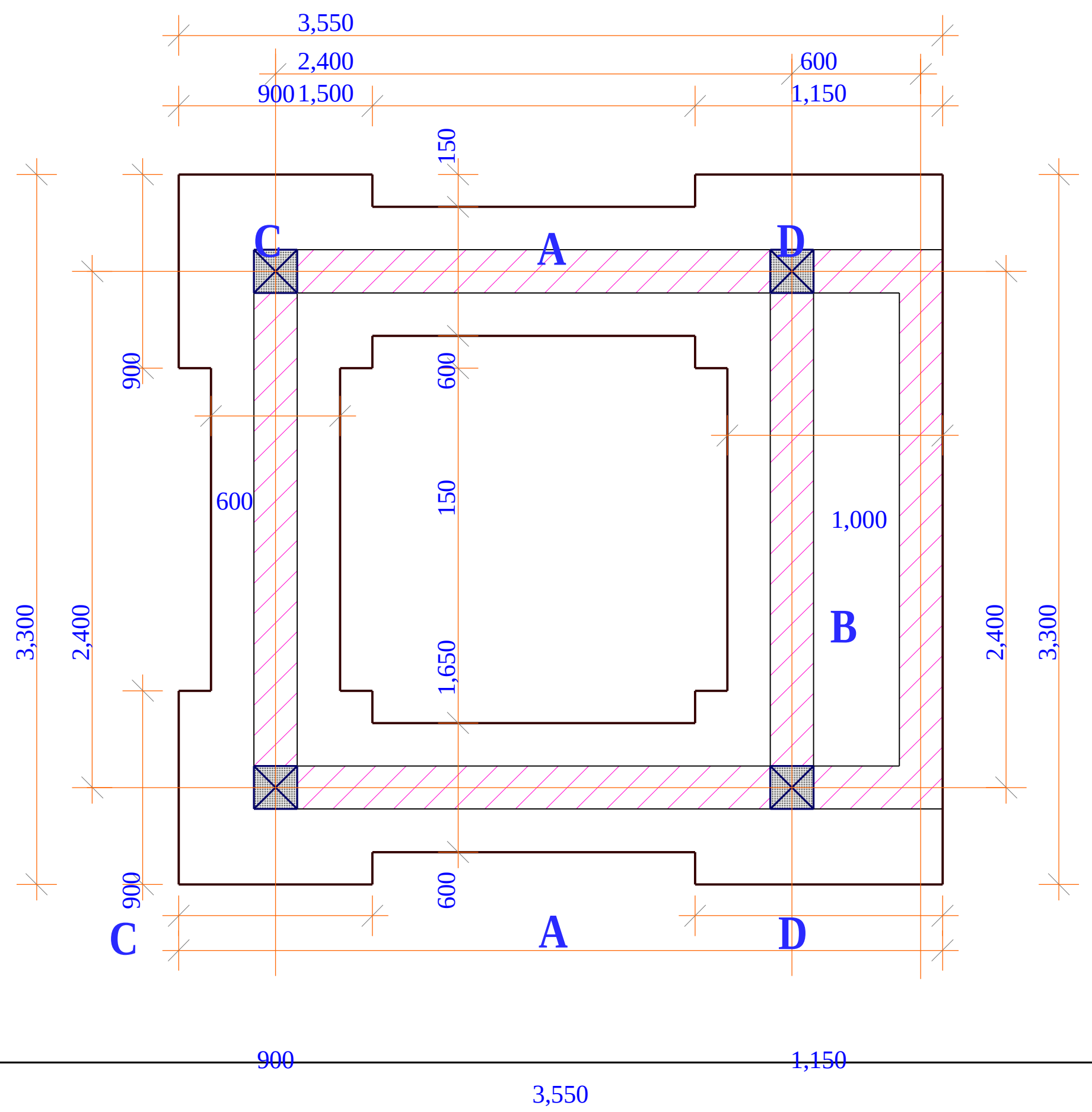
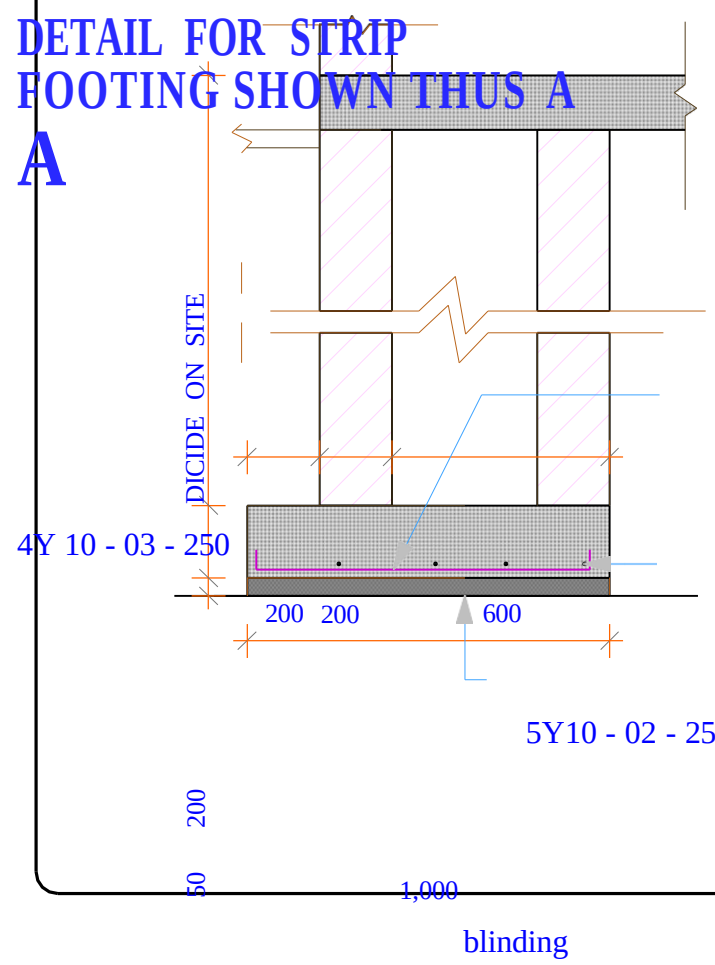
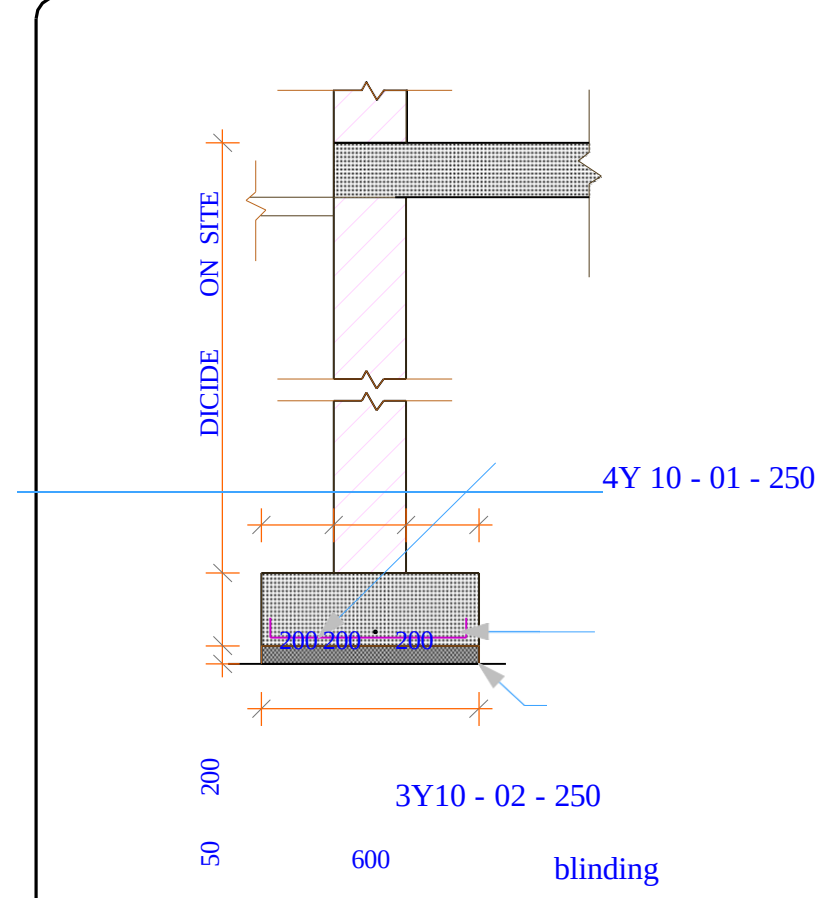
SIDE VIEW X - X

STEEL CAGE DETAIL

Project Title: WATER KIOSK (Type Closed)	Client: WATER SERVICES TRUST FUND (WSTF)	drw title: STEEL CAGE DETAIL	drw no: ARC 10	Consultant: Edward Kung'u	Checked By CEO - Water Services Trust Fund John Orwa Signature.....	Approved by	Scale 1 : 20 page 10
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STRUCTURAL
DRAWINGS

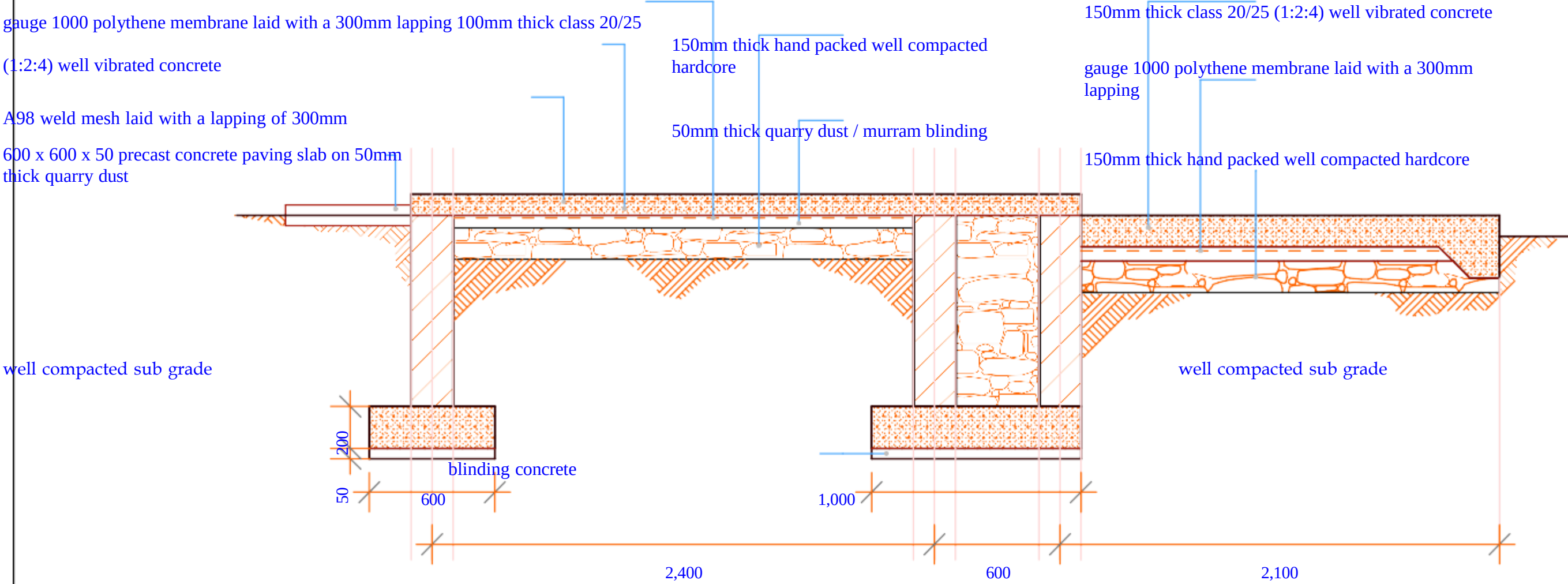
TABLE OF CONTENTS			
No.	Dwg. Title	Dwg. No.	Page
1	Foundation Plan	STR - 01	01
2	Foundation Section	STR - 02	02
3	Column Detail	STR - 03	03
4	Slab Reinforcement dtl	STR - 04	04
5	Slab Reinforcement Section	STR - 05	05
6	Beam Reinforcement dtl	STR - 06	06



DETAIL FOR STRIP FOOTING SHOWN THUS B

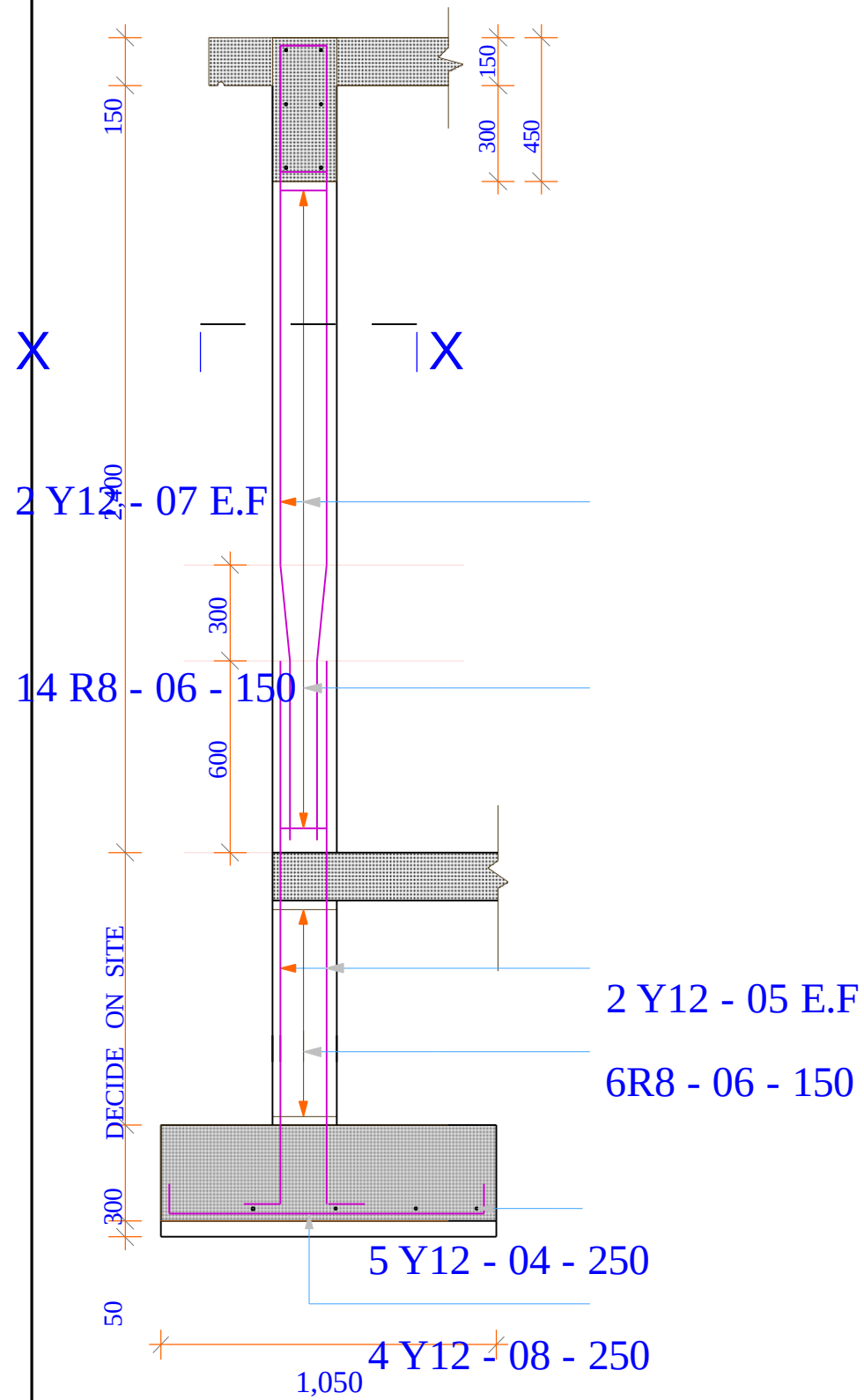
FOUNDATION PLAN

<u>Project Title:</u> WATER KIOSK (Type Closed)	<u>Client:</u> WATER SERVICES TRUST FUND (WSTF)	<u>drg title:</u> FOUNDATION PLAN	<u>drg no:</u> STR 01	<u>Consultant:</u> Edward Kung'u	<u>Checked By</u> CEO - Water Services Trust Fund John Orwa Signature.....	<u>Approved by</u>	<u>Scale</u> 1 : 20 <u>page</u> 01
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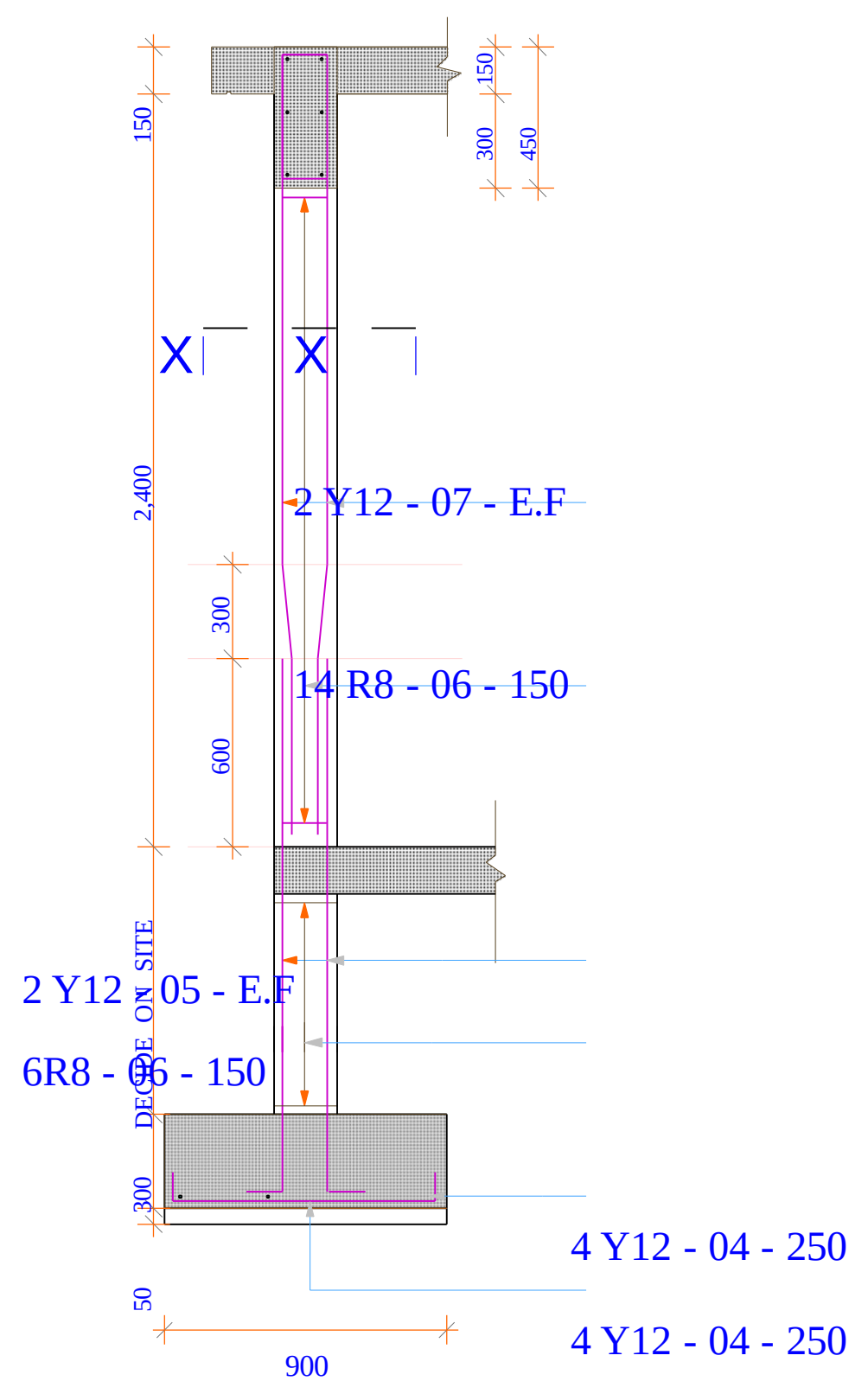
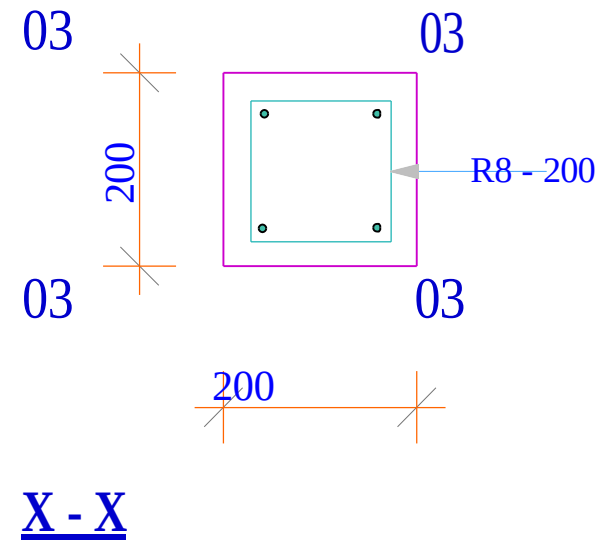


FOUNDATION SECTION

<u>Project Title:</u> WATER KIOSK (Type Closed)	<u>Client:</u> WATER SERVICES TRUST FUND (WSTF)	<u>drq title:</u> FOUNDATION SECTION	<u>drq no:</u> STR 02	<u>Consultant:</u> Edward Kung'u	<u>Checked By</u> CEO - Water Services Trust Fund John Orwa Signature.....	<u>Approved by</u>	<u>Scale</u> 1 : 20 <u>page</u> 02
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DETAIL FOR COLUMN & COL. BASE
SHOWN THUS D 2no.



DETAIL FOR COLUMN & COL. BASE
SHOWN THUS C 2no.

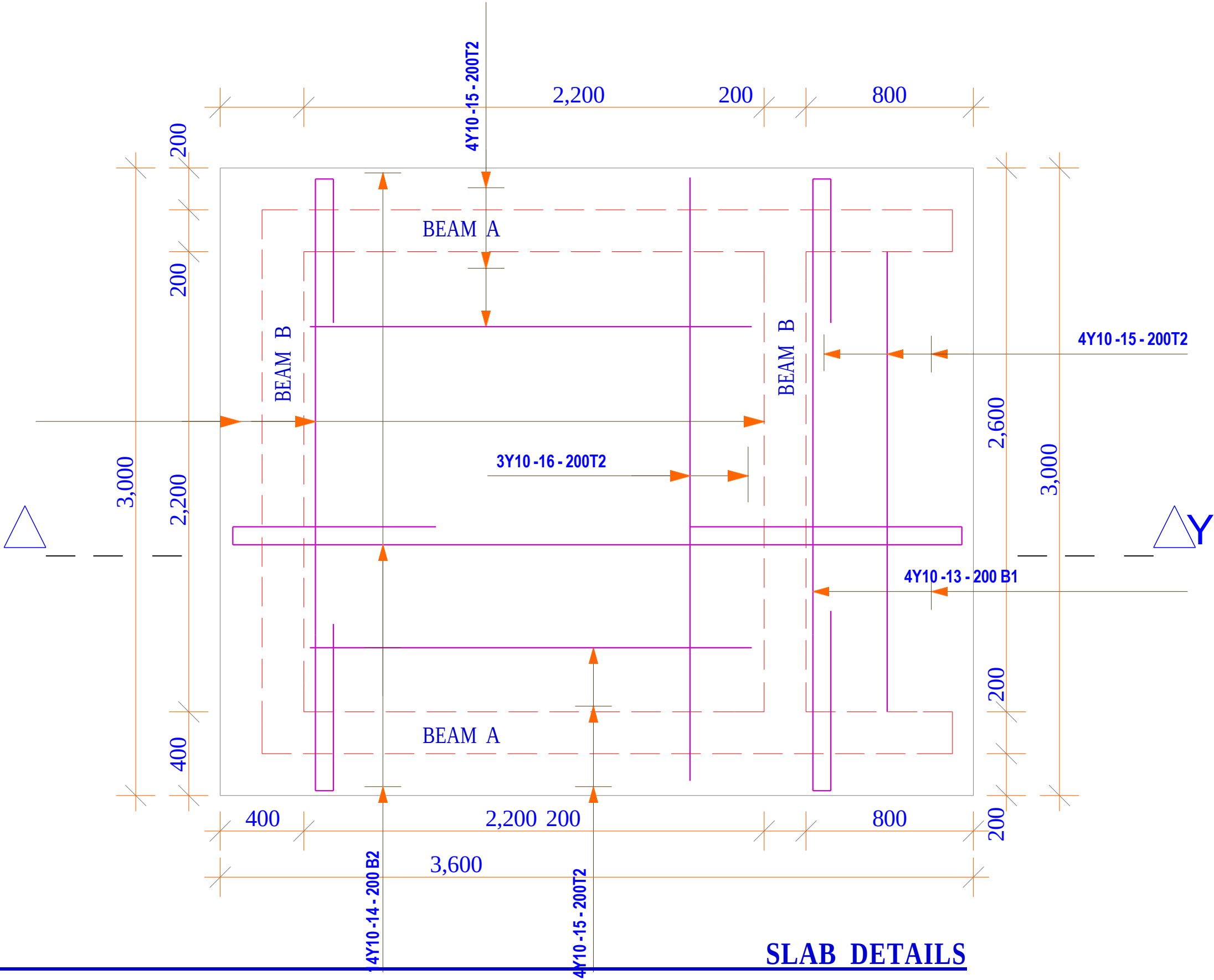
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400

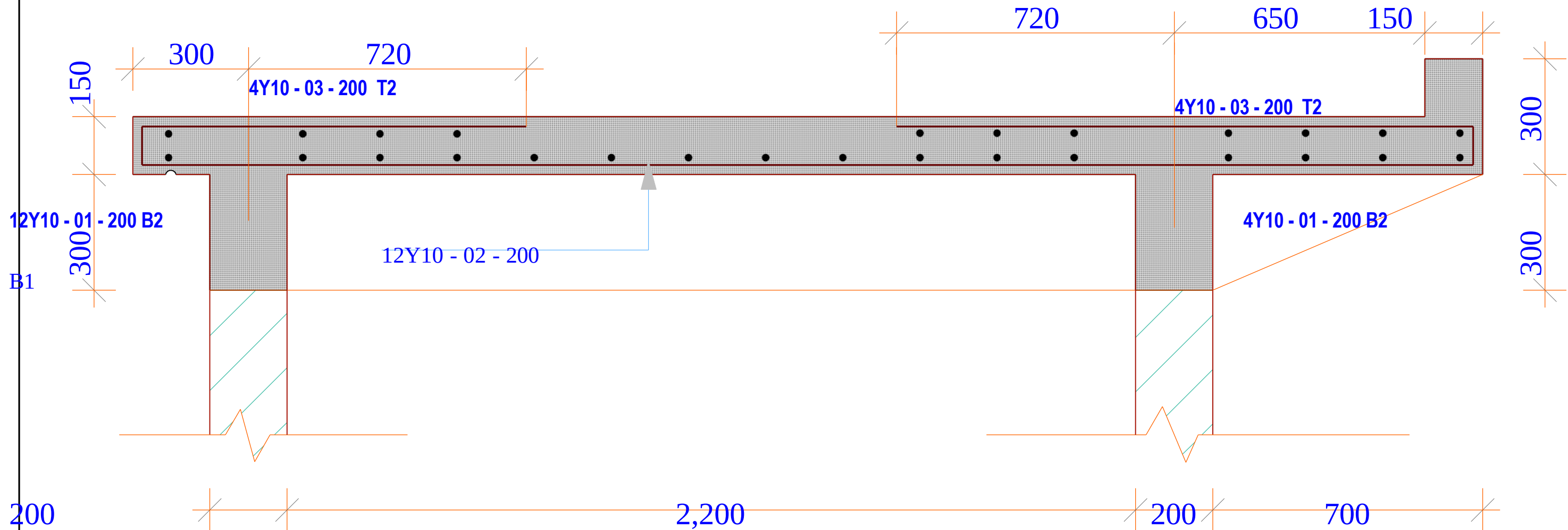
13Y10-13-200B1

Y

R. C.



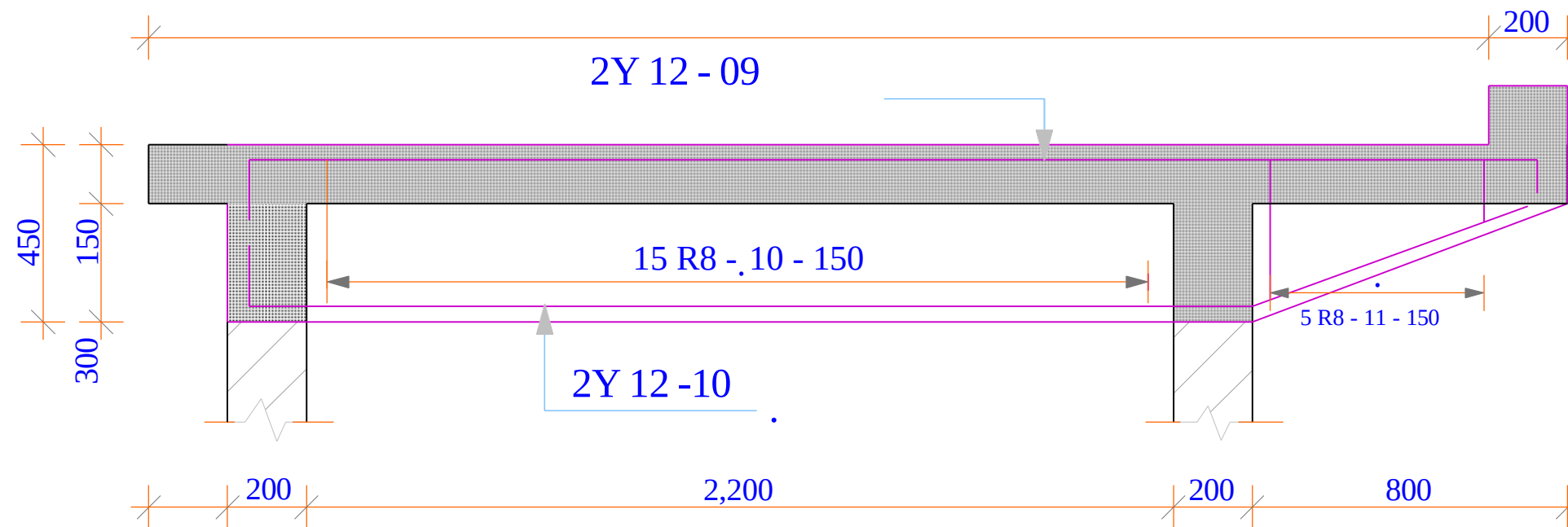
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R. C. SLAB SECTION Y-Y

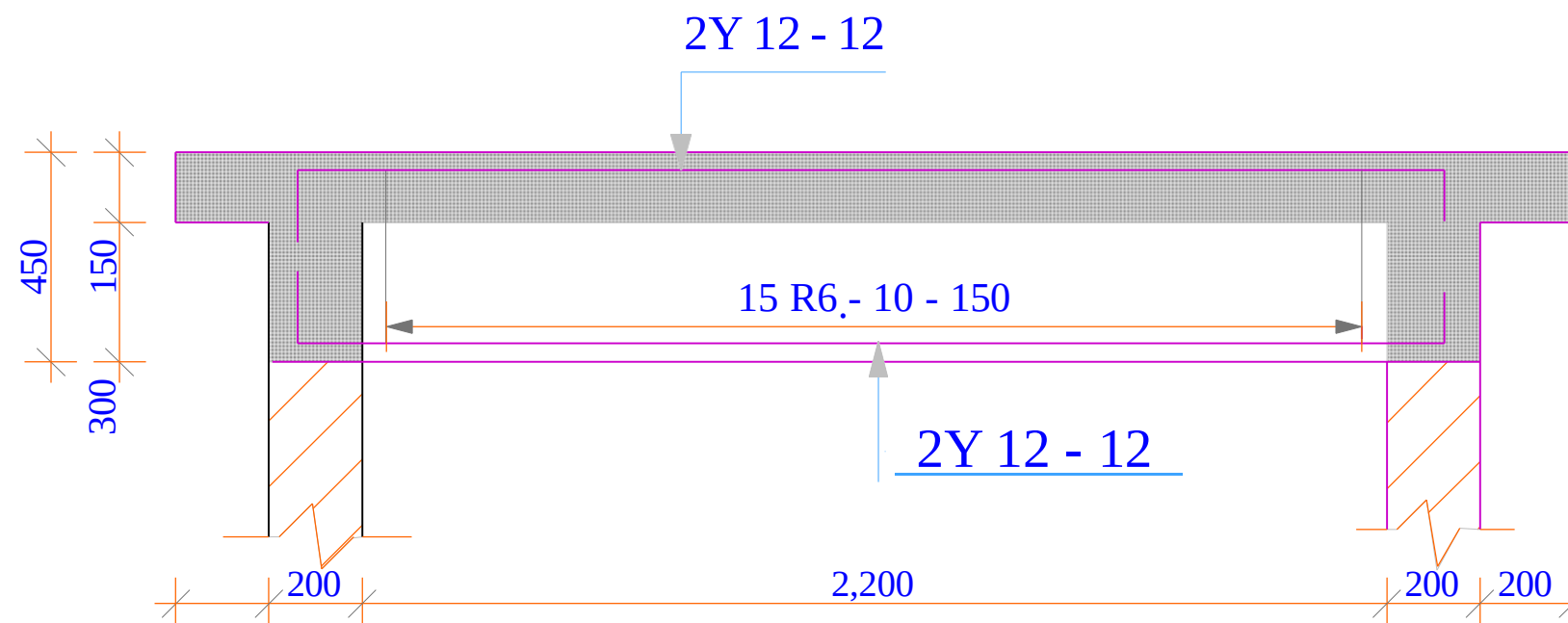
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3,400



200

BEAM A 2No.



200

BEAM B 2No.

Project Title:

WATER KIOSK
(Type Closed)

Client:

WATER SERVICES TRUST
FUND (WSTF)

drq title:

BEAMS REINFORCEMENT
DETAILS

drq no:

STR 06

Consultant:

Edward Kung'u

Checked By

CEO - Water Services Trust Fund
John Orwa

Signature.....

Approved by

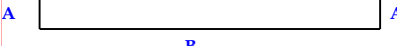
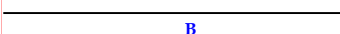
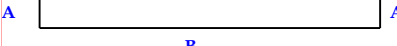
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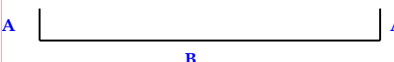
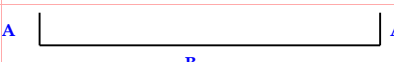
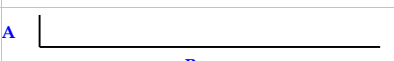
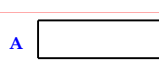
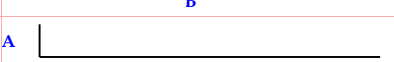
Page 06

BAR BENDING SCHEDULE

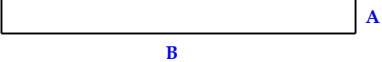
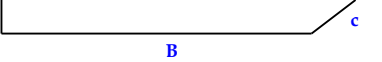
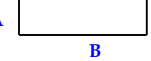
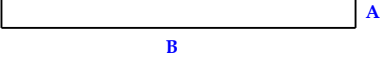
TABLE OF CONTENTS

No.	Dwg. Title	Dwg. No.	Page
1	Foundation Footings Columns	BBS - 01	01
2	Beams and Slab	BBS - 02	02

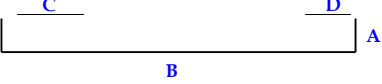
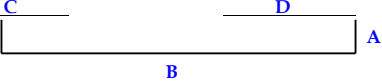
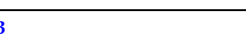
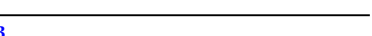
Item	Description	Bar type	Bar mark	Shape	Dimensions (mm)				Length (mm)	Number	Total length (mm)	
					A	B	C	D				
1	<u>Foundation Footing</u>	Y10	01		100	500			700	18	56700mm (6no. length)	
		Y10	02			2000			2000	14	28,000mm (4no. length)	
		Y10	03		100	1050			1250	7	8750mm (1no. length)	
Length of bar is estimated to be 12,000mm											<u>Total</u>	93,450

Item	Description	Bar type	Bar mark	Shape	Dimensions (mm)				Length (mm)	Number	Total length (mm)
					A	B	C	D			
1	<u>Columns</u>	Y12	04		100	800			1000	26	26,000
		Y12	08		100	1050			1250	10	10,000
		Y12	05		300	1800			2100	16	33,600
		R 8	06		100	100			500	80	40,000
		Y12	07		100	2250			2350	16	37,000
Length of bar is estimated to be 12,000mm											<u>Total</u> 146,600(13pcs)

<u>Project Title:</u> WATER KIOSK (Type Closed)	<u>Client:</u> WATER SERVICES TRUST FUND (WSTF)	<u>drw title:</u> BAR BENDING SCHEDULE	<u>drw no:</u> BBS 01	<u>Consultant:</u> Edward Kung'u	<u>Checked By</u> CEO - Water Services Trust Fund John Orwa Signature.....	<u>Approved by</u>	<u>Scale</u> <u>page</u> 01
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Item	Description	Bar type	Bar mark	Shape	Dimensions (mm)				Length (mm)	Number	Total length (mm)
					A	B	C	D			
1	<u>Beams</u>	Y12	09	A  A	100	3,350			3,550	2	7,100
		Y12	10	A  c	100	2,550	850		3,500	2	7,000
		R 8	11	A  B	150	400			1,200	35	42,000
		Y12	12	A  A	100	2,550			2,700	8	22,000

Length of bar is estimated to be 12,000mm

Item	Description	Bar type	Bar mark	Shape	Dimensions (mm)				Length (mm)	Number	Total length (mm)
					A	B	C	D			
1	<u>Slab</u>	Y10	13	A  A	100	2,950	1,000	1,000	5,050	14	70,700
		Y10	14	A  A	100	3,550	1,000	1,800	6,450	12	77,400
		Y10	15	B  B		2,200			2,200	12	26,400
		Y10	16	B  B		2,900			2,900	3	8,700

Length of bar is estimated to be 12,000mm

<u>Project Title:</u> WATER KIOSK (Type Closed)	<u>Client:</u> WATER SERVICES TRUST FUND (WSTF)	<u>drg title:</u> BAR BENDING SCHEDULE	<u>drg no:</u> BBS 02	<u>Consultant:</u> Edward Kung'u	<u>Checked By</u> CEO - Water Services Trust Fund John Orwa Signature.....	<u>Approved by</u>	<u>Scale</u> page 02
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SCHEDULE OF MATERIALS

TABLE OF CONTENTS

No.	Dwg. Title	Dwg. No.	Page	
1	Schedule of Material	SM - 01	01	
		SM - 02	02	
2	Labour Cost and cost summary	SM - 02	03	

**SCHEDULE OF MATERIALS
TYPICAL CLOSED KIOSK-SIZE 2600mm X2600mm**

No	Description	Unit	Qty	Unit Cost	Total Cost
A	Sub Structure & Pavement				
1	Fillings				
1.1	Hardcore	Ton	3		
1.2	Quarry dust/mumum	Ton	3		
1.3	Damp proof membrane (1000 gauge))	SM	12		-
2	Concrete & mortar				
2.1	Ballast	Ton	7		
2.2	Building sand	Ton	5		-
2.3	Ordinary Portland Cement (50kg bags)	No	25		-
3	Reinforcement Steel (12m lengths)				
3.1	Y12 (in columns)	No	6		-
3.2	Y10 (in strip footing)	No	11		-
3.3	R8 (in columns)	No	2		-
3.4	BRC A142 (in floor slab)	SM	12		-
3.5	50 x 50 x 3 mm thick angle sections (per 6 metres)	No	2		-
3.6	Binding Wire	Kg	2		-
4	Sawn Formwork				
4.1	150x25mm (in columns & floor slab edges)	LM	20		-
4.2	50mm dia props (in columns)	No	10		-
4	Sub wall				
4.1	200mm thick masonry or equivalent	SM	11		-
B	Superstructure				
1	Super Wall				
1.1	200mm wide underwall dpc	LM			-
1.2	200mm thick masonry or equivalent	SM	100		-
1.3	Hoop iron	Kg	10		-
2	Reinforcement Steel (columns, beams & roof slab)				
2.1	Y12	No	14		-
2.2	Y10	No	20		-
2.3	R8	No	9		-
2.4	Binding wire	Kg	5		-
3	Sawn Formwork (columns, beams & Slab)				
3.1	150x25mm (in columns & floor slab edges)	LM	300		-
3.2	50mm dia props (in columns)	No	10		-
4	Concrete (columns, beams & slab) Mix 1:2:4				
4.1	Ordinary Portland Cement	No	18		-
4.2	Building Sand	Ton	4		-
4.3	Ballast	Ton	5		-
Total on this Page					-

Project Title:

WATER KIOSK
(Type Closed)

Client:

WATER SERVICES TRUST
FUND (WSTF)

Drwg title:

Drwg no:

Consultant:

Edward Kung'u

Checked By

CEO - Water Services Trust Fund

John Orwa

Signature.....

Approved by

Scale

page
01

No	Description	Unit	Qty	Unit Cost	Total Cost
	Total Brought forward from page 1				-
5	Door, Window & Shelves				
5.1	Door to detail	No	1		-
5.2	Window to detail	No	1		-
5.3	Shelves to detail	No	3		-
6	Plaster, screed & keying				
6.1	Ordinary Portland Cement	No	15		-
6.2	Building Sand	Ton	7		-
7	Painting (inside walls, doors, windows etc)				
7.1	Assorted materials to prepare surface & brushes	Sum			-
7.2	Undercoat paint	Lts	10		-
7.3	Emulsion Paint	Lts	10		-
7	Pumbing (all GI)				
7.1	Pipe 25mm dia class B (6m lengths)	No	4		-
7.2	Gate valve 25mm dia (peglar)	No	2		-
7.3	Water meter 25mm dia	No	1		-
7.4	Heavy duty taps 25mm dia	No	3		-
7.5	Non Return Valve 25mm dia	No	1		-
7.6	Union 25mm dia	No	3		-
7.7	Nipple 25mm dia	No	11		-
7.8	Equal Tee 25 mm dia	No	5		-
7.9	Elbows 25 mm dia	No	3		-
7.10	Bend 25 mm dia	No	4		-
7.11	Long threaded nipple 25 mm dia	No	2		-
7.12	Black nut 25 mm dia	No	4		-
7.13	Boss white 400g	No	3		-
7.14	Hemp Thread	LM	2		-
8	Storage Tank				
8.1	Kentainer Tank 5000litres or equivalent	No	1		-
8.2	Ball valve 25mm dia	No	1		-
8.3	Metal grill to detail	No	1		-
8.4	Metal platform to receive the tank to detail	No	1		-
					-
9	Soak Pit				-
9.1	Heavy gauge PVC waste pipe 100mm dia	No	1		-
9.2	Precast concrete cover	No	1		-
9.3	Ordinary Portland Cement	No	2		-
9.4	Building sand	Ton	0.5		-
9.5	Ballast	Ton	0.25		-
9.6	Hardcore	Ton	0.5		-
9.7	Masonry stone 150mm thick or equivalent	SM	4		-
	Sub Total				-
	Allow 5% contingency				-
	Total Materials cost				-

NB All costs are in Ksh
The costs of labour is not included in this schedule of materials
The cost of earthworks for foundation are not part of this schedule

Project Title:

WATER KIOSK
(Type Closed)

Client:

WATER SERVICES TRUST
FUND (WSTF)

drq title:

drq no:

Consultant:

Edward Kung'u

Checked By

CEO - Water Services Trust Fund

John Orwa

Signature.....

Approved by

Scale

page
02

ANNEX T O SCHEDULE OF MATERIALS (LABOUR COST \$)
TYPICAL CLOSED KIOSK-SIZE 2600mm X2600mm

No	Description	Unit	Qty	Unit Cost	Total Cost
1	Excavation works Costs to include site clearance, excavations in normal soil for strip footing & column bases to depth not exceeding 1m, filling around walls and disposal of surplus spoil.	Sum	1		-
2	Substructure and Pavement Cost to include foundation footings and walls, hardcore packing and compacting, quarry dust blinding, casting of the floor slab and any other associate works necessary for satisfactory completion of works or as directed by the engineer	Sum	1		-
3	Super Structure Cost to include: Walling, columns, beams, roof slab, finishes as specified in the drg or directed by engineer, plumbing, installation of roof tank and all accessories specified in drg any other associated works necessary for satisfactory completion of the works or as directed by the engineer	Sum	1		-
	Sub Total				-
4	Allow 5% contingency				-
	Total Labour costs				-

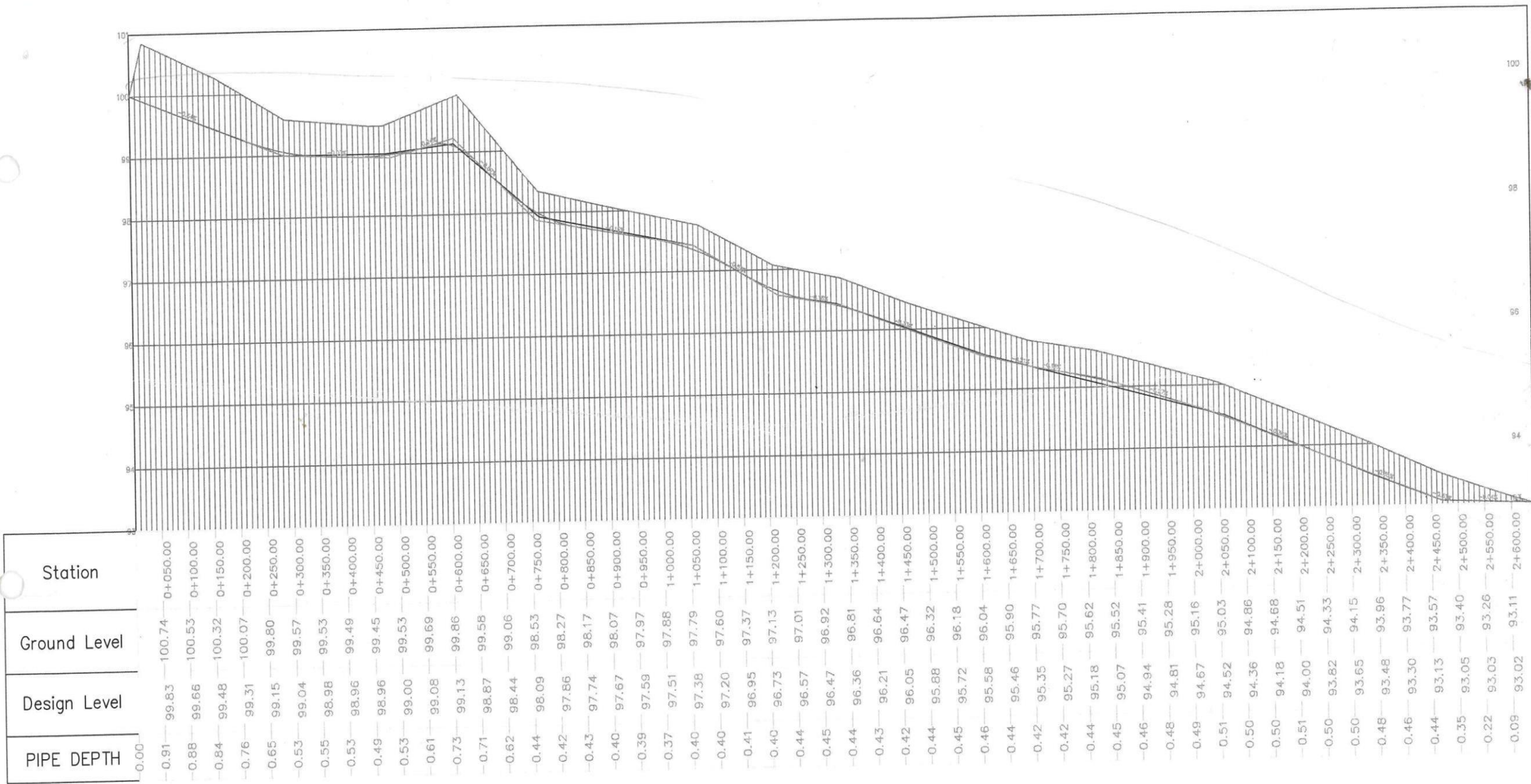
SUMMARY COST					
No	Description	Unit	Qty	Unit Cost	Total Cost
1	Material costs	Sum	1	-	-
2	Labour costs	Sum	1	-	-
	Grand Total				-

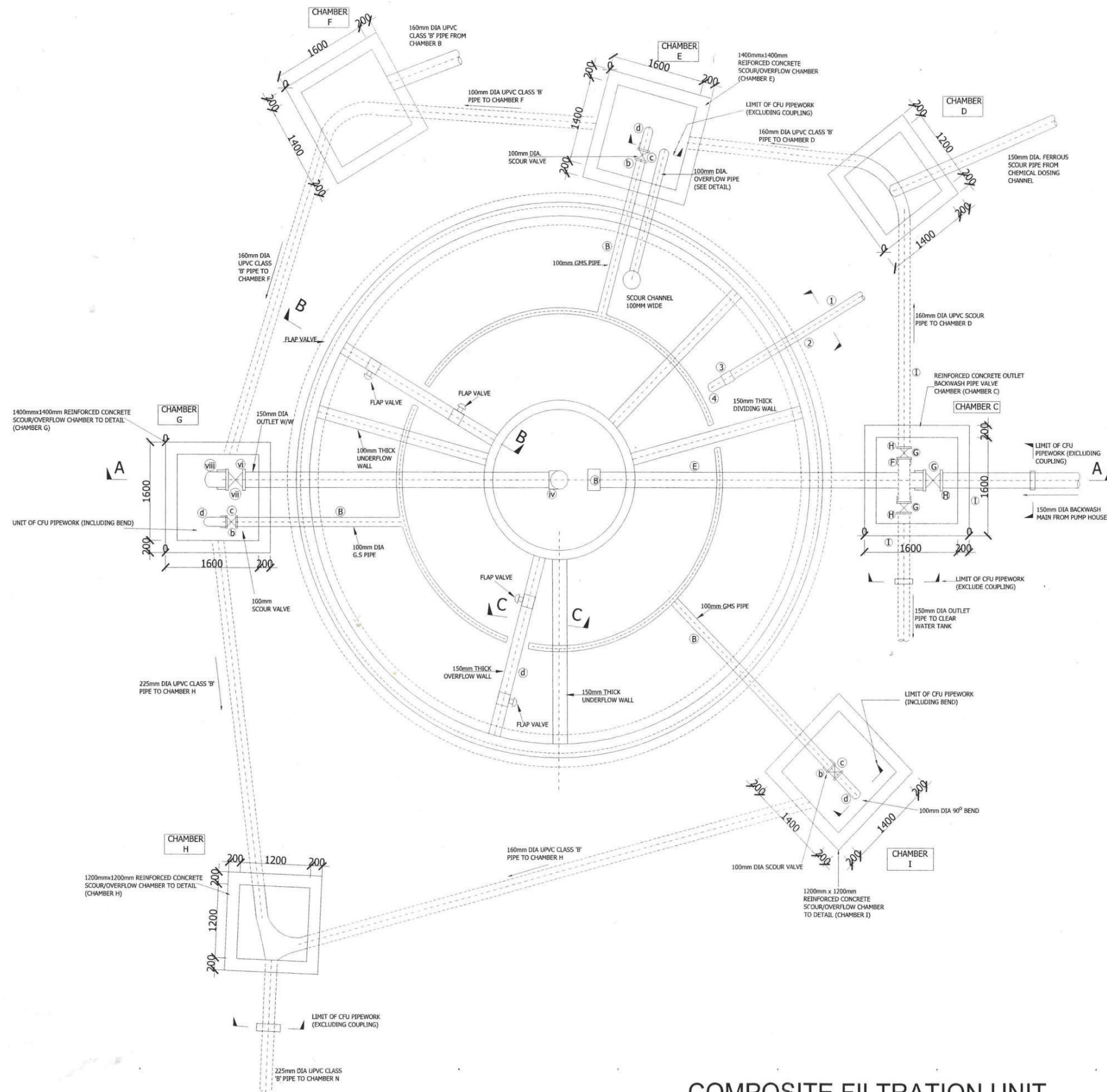
NB

All costs are in Ksh

Project Title: WATER KIOSK (Type Closed)	Client: WATER SERVICES TRUST FUND (WSTF)	drg title:	drg no:	Consultant: Edward Kung'u	Checked By CEO - Water Services Trust Fund John Orwa Signature.....	Approved by	Scale page 03
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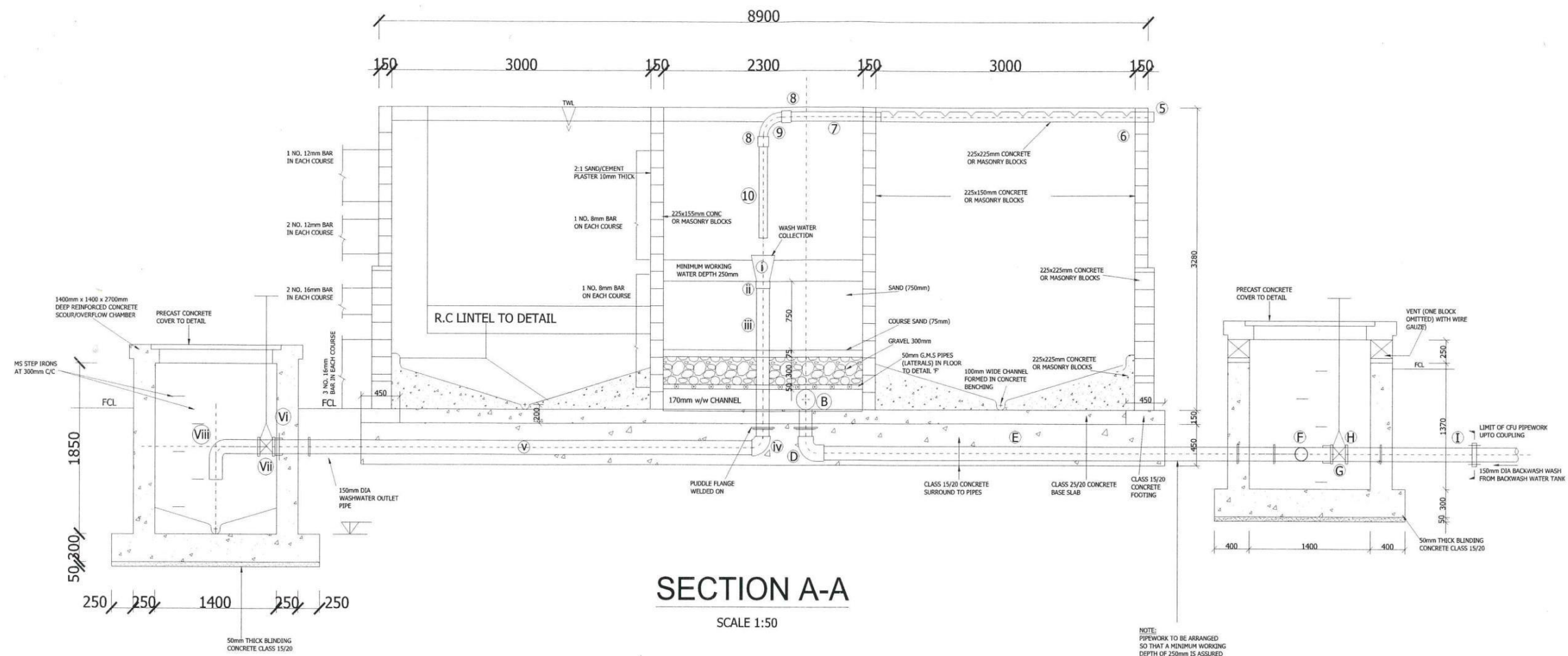
PIPELINE PROFILE





COMPOSITE FILTRATION UNIT
PLAN
SCALE 1:60

PROJECT: COMPOSITE FILTRATION DRAWINGS FOR RUIE WATER SUPPLY PROJECT		
CLIENT: KIRINYAGA WATER AND SANITATION COMPANY	TITLE: LAYOUT PLAN	SCALE:
	DESIGNED BY:	DATE: 12/2023
	DRAWN BY: G.G	DRAWING NO: 01/RWS.01/2023.01
	CHECKED BY:	DATE: 01.2023



FILTER MEDIA DETAILS

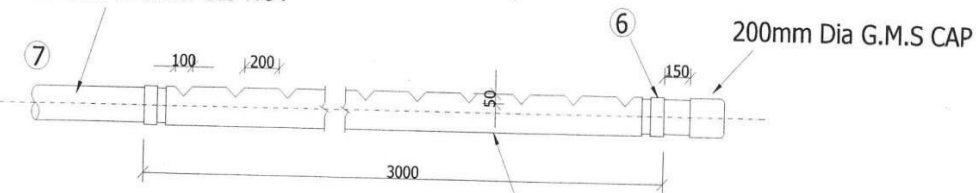
MATERIAL	DIAMETER (mm)	DEPTH IN	LOCATION
GRAVEL	38 - 20	75	BOTTOM
	20 - 12	75	-
	12 - 5	75	-
	5 - 2	75	-
COARSE SAND EFFECTIVE SIZE	1.0	75	MIDDLE
SAND EFFECTIVE SIZE	0.5		
UNIFORMITY COEFFICIENT	1.5	750	TOP
TOTAL THICKNESS OF FILTER BED		1125	

DETAILS OF LATERALS

50mm G.M.S PIPES REQUIRED		
OVERALL LENGTH	NO. OF HOLES PER PIPES	NO. REQUIRED
900	5	4
1300	7	2
1700	9	2
2100	11	4
REQUIRED 96 NOZZLES IN ALL		

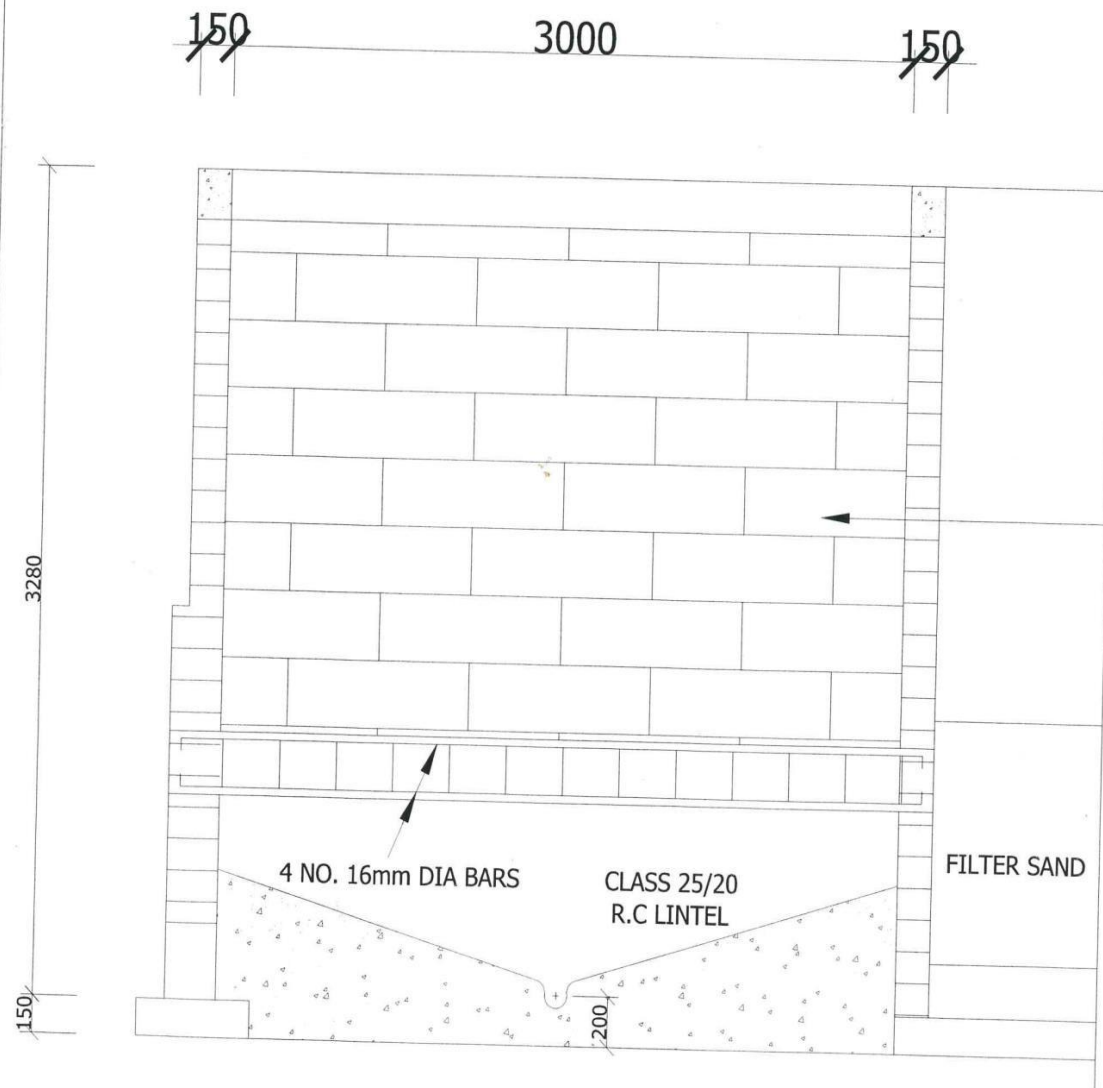
PROJECT COMPOSITE FILTRATION DRAWINGS FOR RUIE WATER SUPPLY PROJECT		
CLIENT KIRINYAGA WATER AND SANITATION COMPANY	TITLE CONSTRUCTION DETAILS - SECTION	SCALE
	DESIGNED BY	DATE 12/2023
	DRAWN BY G.G	DRAWN NO. 01/RWS.01/2023.01
	CHECKED BY	REV 01.2023

PIPE END THREADED TO
'T1' DIA 200mm G.S NUT



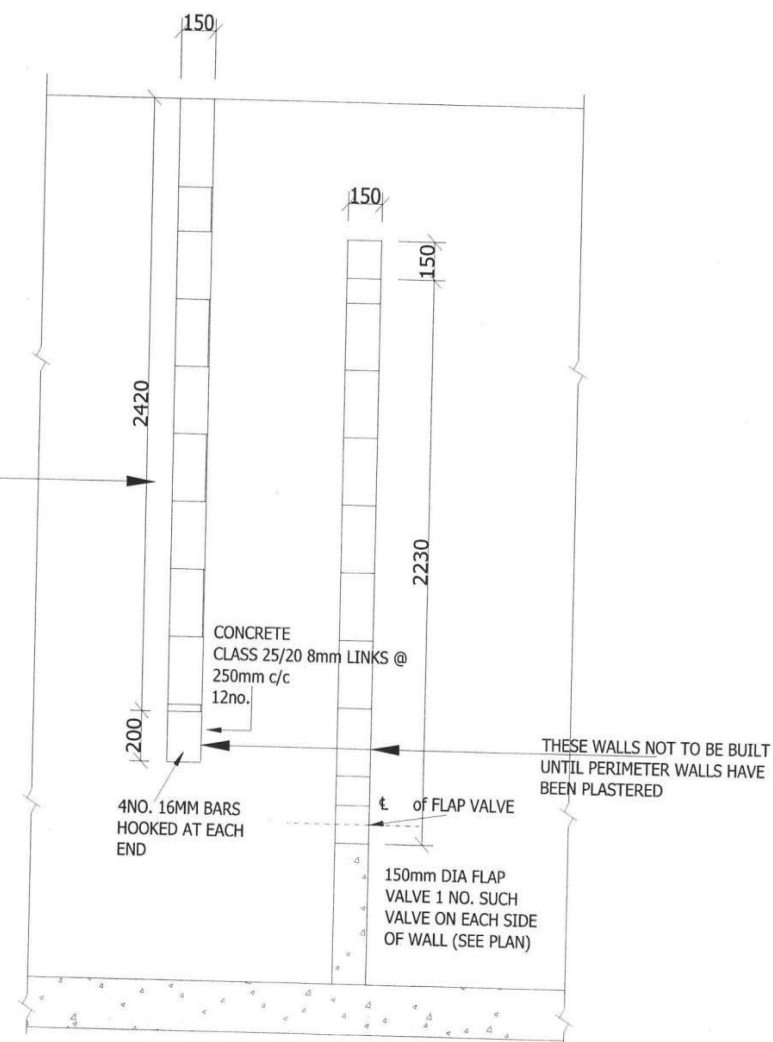
200x200mm G.M.S COLLECTION
WEIR TROUGH (PAINTED WITH 2
COATS OF APPROVED EPOXY PAINT)

COLLECTION WEIR
(INLET PIPE TO BE SET AT LEAST 25mm ABOVE OUTLET PIPE)



SECTION B-B

THESE WALLS NOT TO BE BUILT
UNTIL PERIMETER WALLS HAVE
BEEN PLASTERED



SECTION C-C

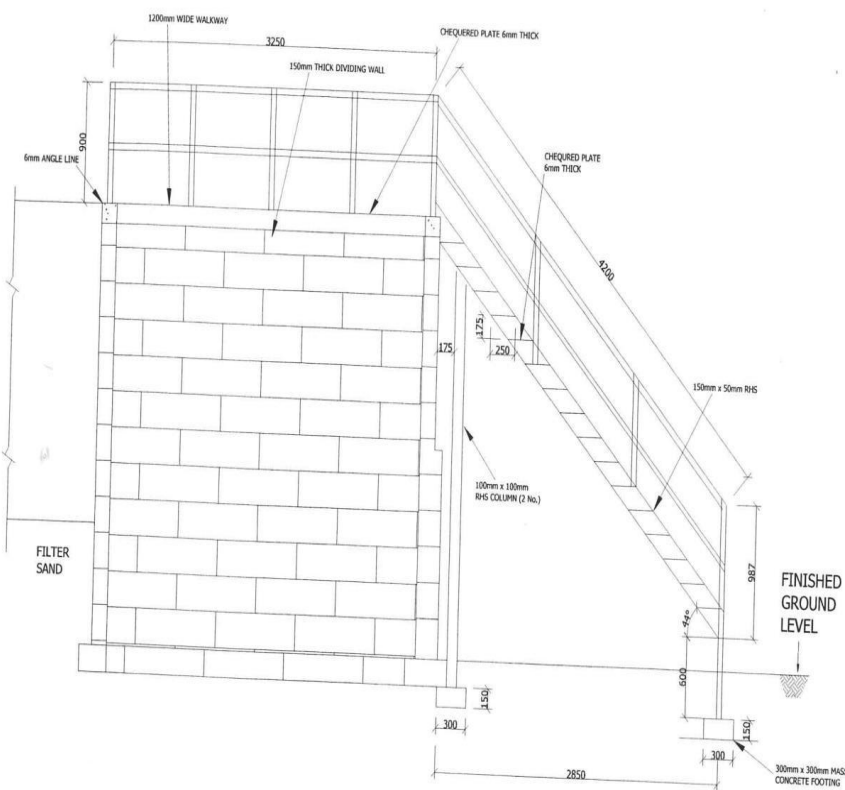
PROJECT COMPOSITE FILTRATION DRAWINGS FOR RUIE WATER SUPPLY PROJECT		
	DATE 12/2023	REVISION
	DESIGNED BY G.G	DATE 01/RWS.01/2023.01
	CHECKED BY	DATE 01.2023
	DRAWN BY G.G	



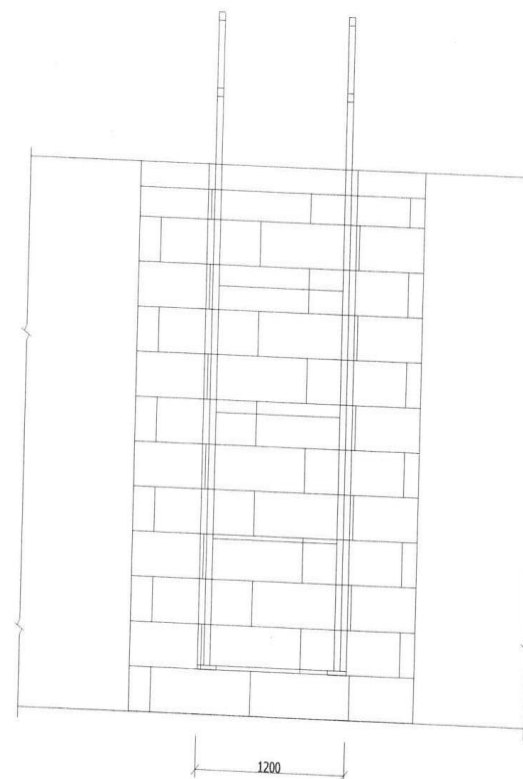
NOTE:
UNDERDRAIN PIPES AND CHANNELS TO BE
SECURED AS DIRECTED BY THE ENGINEER
WITH NO. 8 GAUGE WIRE STIRRUPS PRIOR
TO PLACEMENT OF MASS CONCRETE



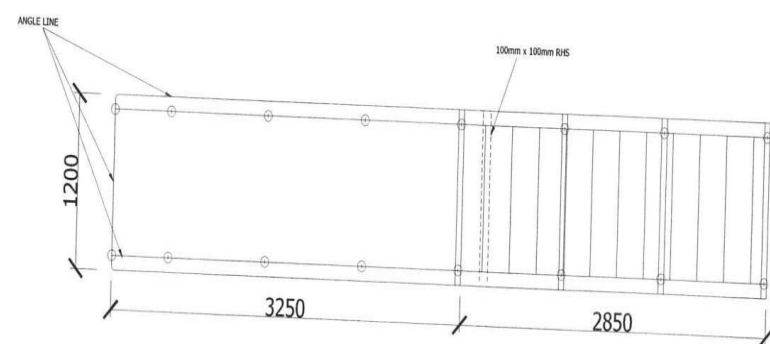
PROJECT:		COMPOSITE FILTRATION DRAWINGS FOR RURIE WATER SUPPLY PROJECT	
CLIENT:	KIRINYAGA WATER AND SANITATION COMPANY	TITLE:	CONSTRUCTION DETAILS
		DESIGNED BY:	DATE: 12/2023
		DRAWN BY:	DRAWING NO: 01/RWS.01/2023.01
		CHECKED BY:	REV: 01.2023



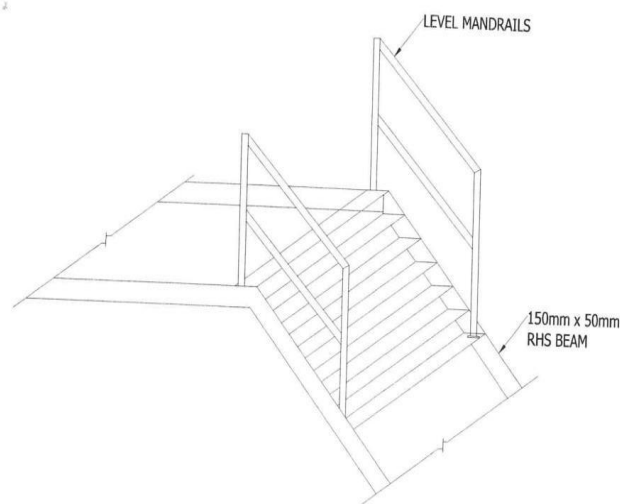
SECTION D-D



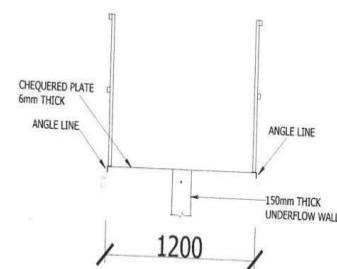
ELEVATION F



PLAN

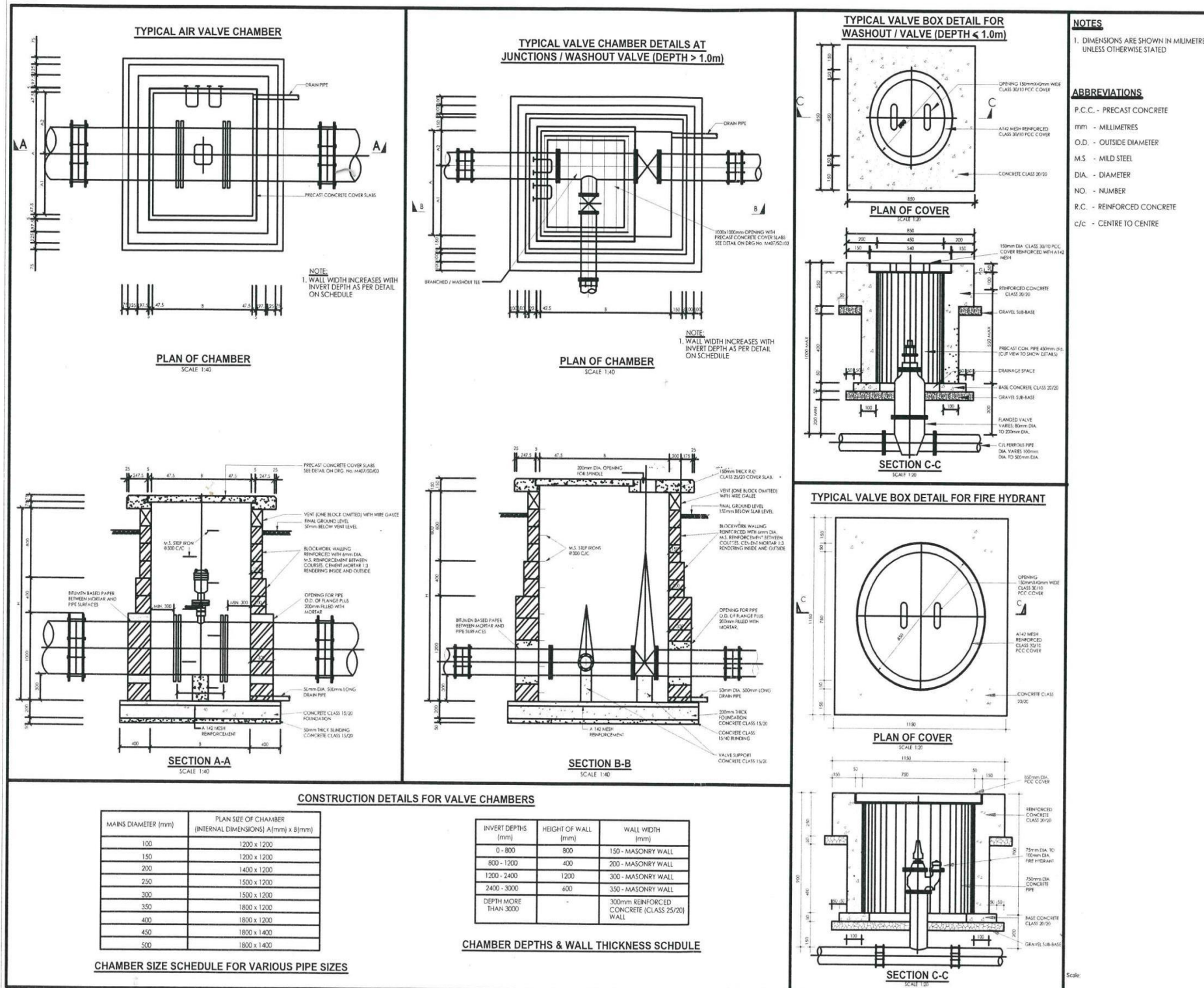


ELEVATION OF STAIRCASE



SECTION G-G

PROJECT: COMPOSITE FILTRATION DRAWINGS FOR RUIE WATER SUPPLY PROJECT		
CLIENT: KIRINYAGA WATER AND SANITATION COMPANY 	DATE: 12/2023	REVISION: 01
	DESIGNED BY: G.G	DATE: 01/RWS.01/2023.01
	CHECKED BY:	DATE: 01.2023
	CONSTRUCTION DETAILS:	

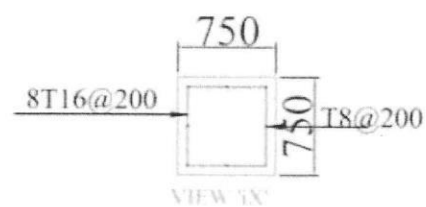
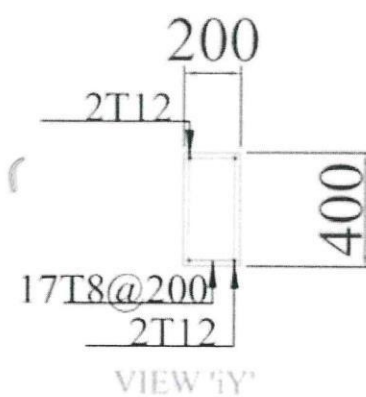


NOTES

1. DIMENSIONS ARE SHOWN IN MILLIMETRES UNLESS OTHERWISE STATED

ABBREVIATIONS

P.C.C. - PRECAST CONCRETE
mm - MILLIMETRES
O.D. - OUTSIDE DIAMETER
M.S. - MILD STEEL
DIA. - DIAMETER
NO. - NUMBER
R.C. - REINFORCED CONCRETE
C/C - CENTRE TO CENTRE

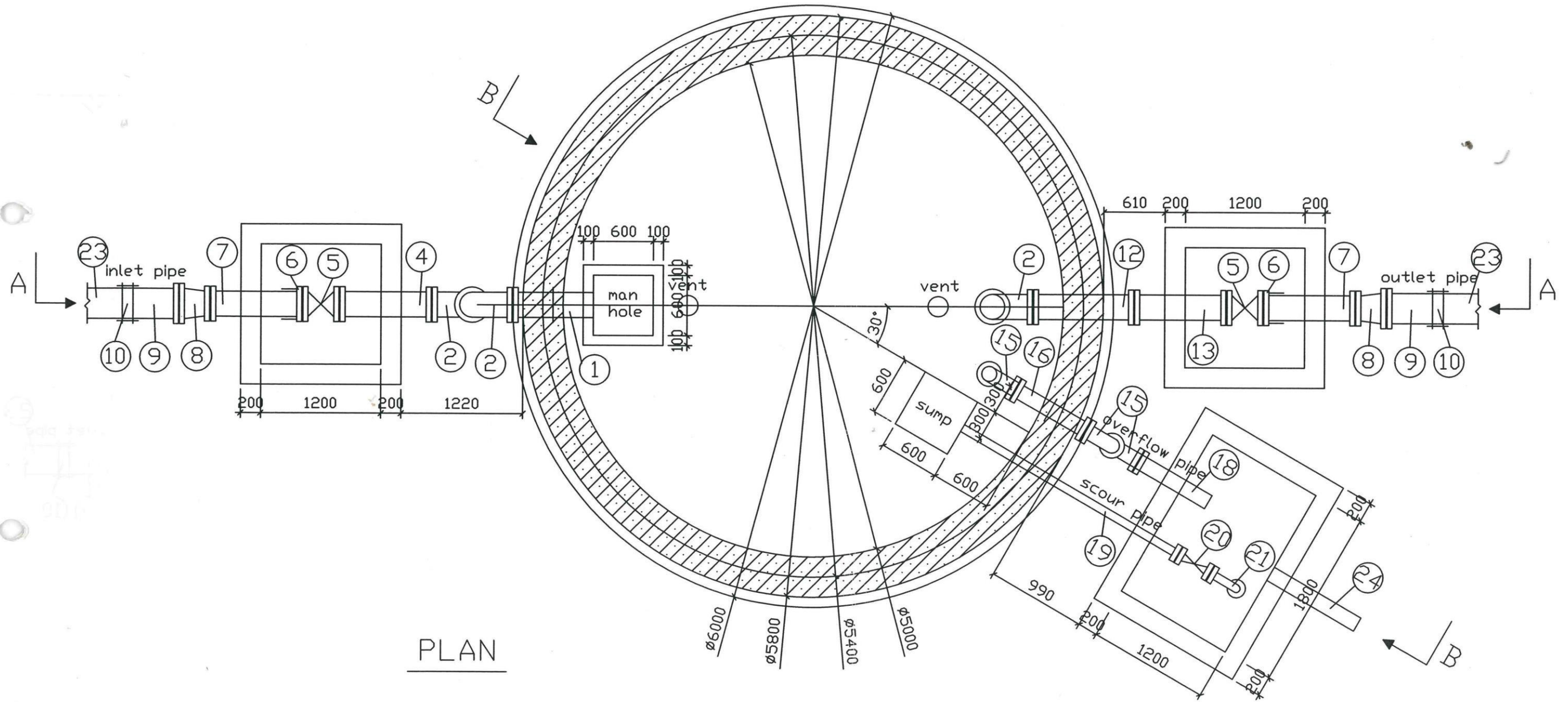


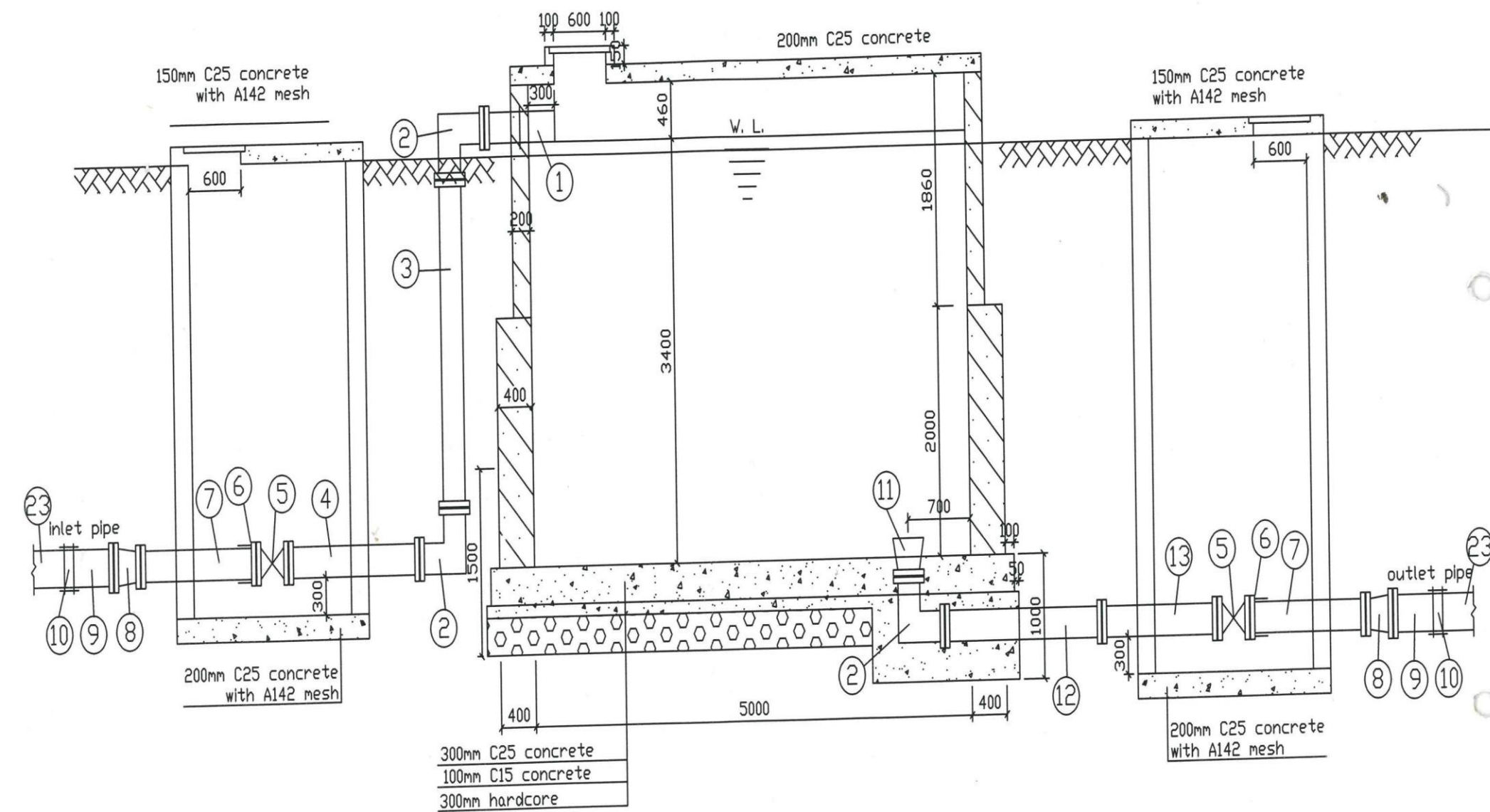
1. Base to be on stable undisturbed soil
2. Concrete to be grade 20 of mix ratio 1:2:4
3. Maximum aggregate size to be 20 mm diameter.
4. Bolts to be properly levelled before casting.
Nuts heads to be covered to avoid cement setting on threads.
5. Foundation to suite Structural Engineer's Details by others.

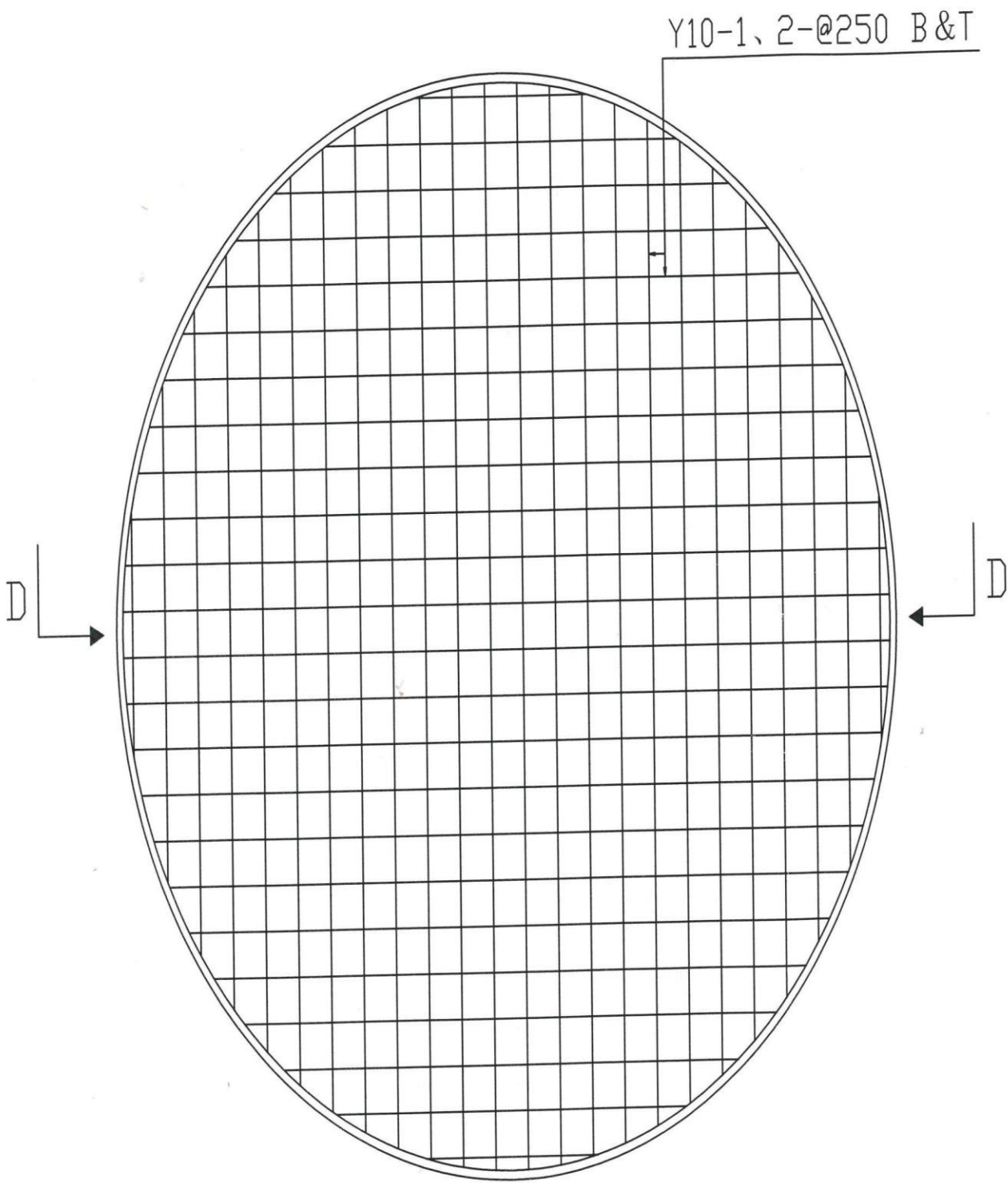
BASE GUSSET DETAILS: PLAN

ALL DIMENSIONS ARE IN MM UNLESS INDICATED OTHERWISE

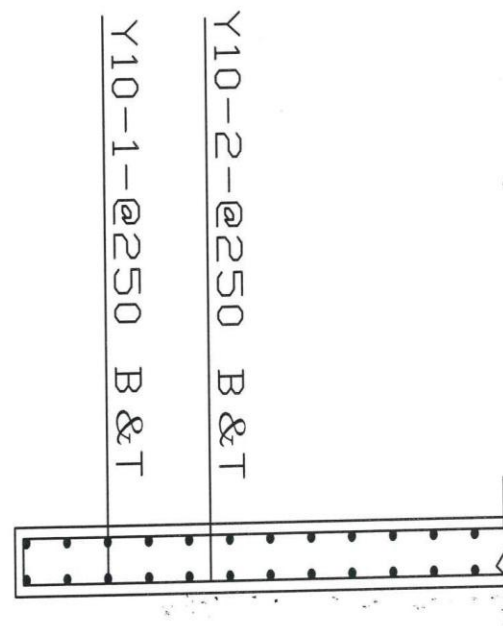
CFU CHAMBERS



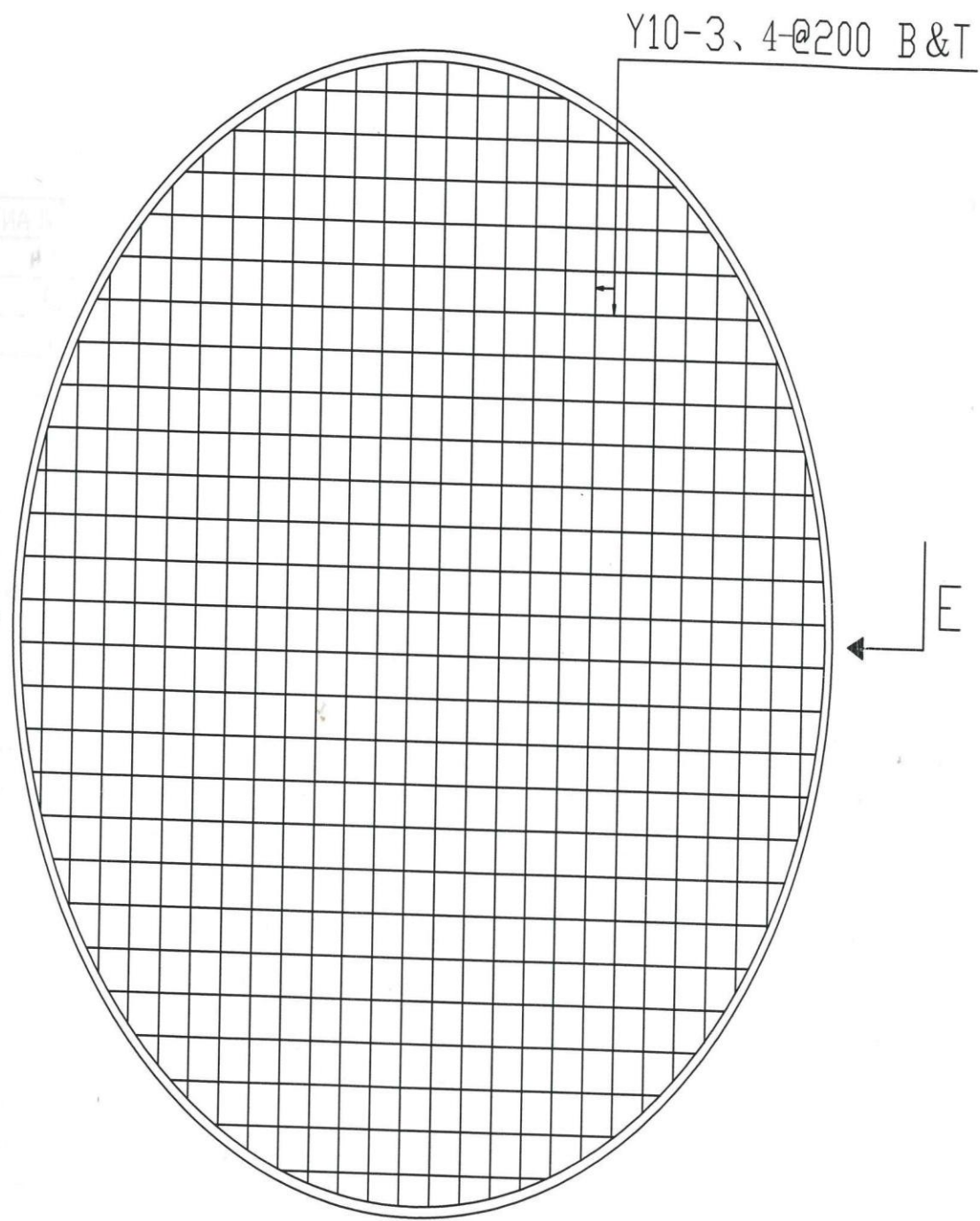




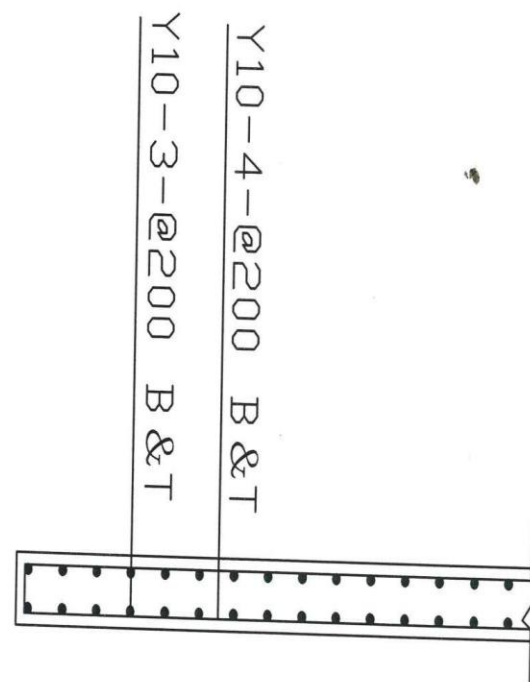
R.C DETAIL OF
FLOOR SLAB



SECTION D-D

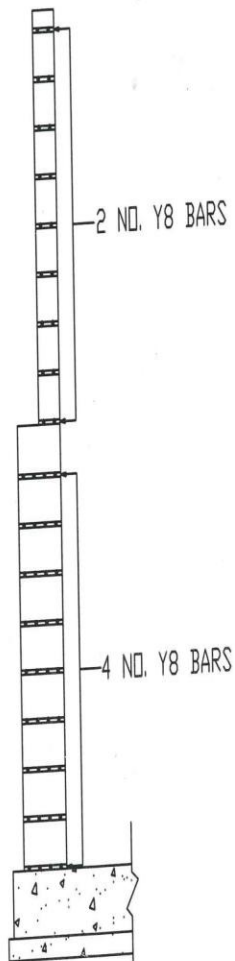


R.C DETAIL OF
ROOF SLAB



SECTION E-E

BPT PIPEWORK SCHEDULE



SECTION THRO' WALL

ITEM NO.	DESCRIPTION	DIA(mm)	LENGTH(mm)	QUANTITY
1	SINGLE FLANGED PIPE WITH PUDDLE FLANGED	80		1
2	90° DOUBLE FLANGED BEND	80		3
3	DOUBLE FLANGED PIPE	80		1
4	DOUBLE FLANGED PIPE	80		1
5	ALL FLANGED GATE VALVE	80		2
6	FLANGED ADAPTOR	80		2
7	SINGLE FLANGED PIPE	80		2
8	DOUBLE FLANGED CONCENTRIC TAPER	100*80	L=300	2
9	SINGLE FLANGED PIPE	100	L=500	2
10	V.J. STEPPED COUPLING	100/80		2
11	SINGLE FLANGED BELL MOUTH	100/80	L=300	1
12	SINGLE FLANGED PIPE	80	L=1000	1
13	DOUBLE FLANGED PIPE	80	L=910	1
14	DOUBLE FLANGED PIPE	150/250	L=300	1
15	SINGLE FLANGED BELL MOUTH	150	300*300	3
16	90° DOUBLE FLANGED BEND	150	L=800	1
17	DOUBLE FLANGED PIPE WITH PUDDLE FLANGED	150	L=1980	1
18	DOUBLE FLANGED PIPE	150	L=800	1
19	SINGLE FLANGED PIPE	80	L=2500	1
20	SINGLE FLANGED PIPE WITH PUDDLE FLANGED	80	L=360	1
21	ALL FLANGED GATE VALVE	80	300*300	1
22	90° DOUBLE FLANGED BEND	80		2
23	G.S. VENT	300		
24	UPVC PIPE	150		1
25	UPVC PIPE			

PART III – CONDITIONS OF CONTRACT AND CONTRACT FORMS

A. General

1. Definitions

1.1

- a) **The Accepted Contract Amount** means the amount accepted in the Letter of Acceptance for the execution and completion of the Works and the remedying of any defects.
- b) **The Activity Schedule** is a schedule of the activities comprising the construction, installation, testing, and commissioning of the Works in a lump sum contract. It includes a lump sum price for each activity, which is used for valuations and for assessing the effects of Variations and Compensation Events.
- c) **The Adjudicator** is the person appointed jointly by the Procuring Entity and the Contractor to resolve disputes in the first instance, as provided for in GCC 23.
- d) **Bill of Quantities** means the priced and completed Bill of Quantities forming part of the Bid.
- e) **Compensation Events** are those defined in GCC Clause 42 hereunder.
- f) **The Completion Date** is the date of completion of the Works as certified by the Project Manager, in accordance with GCC Sub-Clause 53.1.
- g) **The Contract** is the Contract between the Procuring Entity and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in GCC Sub-Clause 2.3 below.
- h) **The Contractor** is the party whose Bid to carry out the Works has been accepted by the Procuring Entity.
- i) **The Contractor's Bid** is the completed bidding document submitted by the Contractor to the Procuring Entity.
- j) **The Contract Price** is the Accepted Contract Amount stated in the Letter of Acceptance and thereafter as adjusted in accordance with the Contract.
- k) **Days** are calendar days; months are calendar months.
- l) **Day works** are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.
- m) **ADefect** is any part of the Works not completed in accordance with the Contract.
- n) **The Defects Liability Certificate** is the certificate issued by Project Manager upon correction of defects by the Contractor.
- o) **The Defects Liability Period** is the period **named in the SCC** pursuant to Sub-Clause 34.1 and calculated from the Completion Date.
- p) **Drawings** means the drawings of the Works, as included in the Contract, and any additional and modified drawings issued by (or on behalf of) the Procuring Entity in accordance with the Contract, include calculations and other information

- provided or approved by the Project Manager for the execution of the Contract.
- q) **The Procuring Entity** is the party who employs the Contractor to carry out the Works, **as specified in the SCC**, who is also the Procuring Entity.
 - r) **Equipment** is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.
 - s) **In writing” or “written”** means hand-written, type-written, printed or electronically made, and resulting in a permanent record;
 - t) The Initial Contract Price is the Contract Price listed in the Procuring Entity's Letter of Acceptance.
 - u) **The Intended Completion Date** is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is **specified in the SCC**. The Intended Completion Date may be revised only by the Project Manager by issuing an extension of time or an acceleration order.
 - v) **Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works.
 - w) **Plant** is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.
 - x) **The Project Manager** is the person **named in the SCC** (or any other competent person appointed by the Procuring Entity and notified to the Contractor, to act in replacement of the Project Manager) who is responsible for supervising the execution of the Works and administering the Contract.
 - y) **SCC** means Special Conditions of Contract.
 - z) **The Site** is the area of the works as **defined as such in the SCC**.
 - aa) **Site Investigation Reports** are those that were included in the bidding document and are factual and interpretative reports about the surface and subsurface conditions at the Site.
 - bb) **Specification** means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager.
 - cc) **The Start Date** is **given in the SCC**. It is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.
 - dd) **A Subcontractor** is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.
 - ee) **Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.
 - ff) **A Variation** is an instruction given by the Project Manager which varies the Works.
 - gg) **The Works** are what the Contract requires the Contractor to construct, install, and turn over to the Procuring Entity, **as defined in the SCC**.

2. Interpretation

- 2.1 In interpreting these GCC, words indicating one gender include all genders. Words indicating the singular also include the plural and words indicating the plural also include the singular. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Project Manager shall provide instructions clarifying queries about these GCC.

2.2 If sectional completion is specified in the SCC, references in the GCC to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).

2.3 The documents forming the Contract shall be interpreted in the following order of priority:

- a) Agreement,
- b) Letter of Acceptance,
- c) Contractor's Bid,
- d) Special Conditions of Contract,
- e) General Conditions of Contract, including Appendices,
- f) Specifications,
- g) Drawings,
- h) Bill of Quantities, and
- i) any other document **listed in the SCC** as forming part of the Contract

3. Language and Law

The language of the Contract is English Language and the law governing the Contract are the Laws of Kenya.

1.1 Throughout the execution of the Contract, the Contractor shall comply with the import of goods and services prohibitions in the Procuring Entity's Country when

- a) as a matter of law or official regulations, Kenya prohibits commercial relations with that country; or
- b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, Kenya prohibits any import of goods from that country or any payments to any country, person, or entity in that country.

4. Project Manager's Decisions

4.1 Except where otherwise specifically stated, the Project Manager shall decide contractual matters between the Procuring Entity and the Contractor in the role representing the Procuring Entity.

5. Delegation

5.1 Otherwise specified in the SCC, the Project Manager may delegate any of his duties and responsibilities to other people, except to the Adjudicator, after notifying the Contractor, and may revoke any delegation after notifying the Contractor.

6. Communications

6.1 Communications between parties that are referred to in the Conditions shall be effective only when in writing. A notice shall be effective only when it is delivered.

7. Sub-contracting

7.1 The Contractor may subcontract with the approval of the Project Manager, but may not assign the Contract without the approval of the Procuring Entity in writing. Subcontracting shall not alter the Contractor's obligations.

8. Other Contractors

8.1 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Procuring Entity between the dates given in the Schedule of Other Contractors, as referred to in the SCC. The Contractor shall also provide facilities and services for them as described in the Schedule. The Procuring Entity may modify the Schedule of Other Contractors, and shall notify the Contractor of any such modification.

9. Personnel and Equipment

9.1 The Contractor shall employ the key personnel and use the equipment identified in its Bid, to carry out the Works or other personnel and equipment approved by the Project Manager. The Project Manager shall approve any proposed replacement of key personnel and equipment only if their relevant qualifications or characteristics are substantially equal to or better than those proposed in the Bid.

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

9.3 If the Procuring Entity, Project Manager or Contractor determines, that any employee of the Contractor be determined to have engaged in Fraud and Corruption during the execution of the Works, then that employee shall be removed in accordance with Clause 9.2 above.

10. Procuring Entity's and Contractor's Risks

10.1 The Procuring Entity carries the risks which this Contract states are Procuring Entity's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.

11. Procuring Entity's Risks

11.1 From the Start Date until the Defects Liability Certificate has been issued, the following are Procuring Entity's risks:

a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to

- i. use or occupation of the Site by the Works or for the purpose of the Works, which is the unavoidable result of the Works or
- ii. negligence, breach of statutory duty, or interference with any legal right by the Procuring Entity or by any person employed by or contracted to him except the Contractor.

b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Procuring Entity or in the Procuring Entity's

design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.

11.2 From the Completion Date until the Defects Liability Certificate has been issued, the risk of loss of or damage to the Works, Plant, and Materials is a Procuring Entity's risk except loss or damage due to

- aa) a Defect which existed on the Completion Date,
- bb) an event occurring before the Completion Date, which was not itself a Procuring Entity's risk, or
- cc) the activities of the Contractor on the Site after the Completion Date.

12. Contractor's Risks

12.1 From the Starting Date until the Defects Liability Certificate has been issued, the risks of personal injury, death, and loss of or damage to property (including, without limitation, the Works, Plant, Materials, and Equipment) which are not Procuring Entity's risks are Contractor's risks.

13. Insurance

13.1 The Contractor shall provide, in the joint names of the Procuring Entity and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles stated in the SCC for the following events which are due to the Contractor's risks:

- a) loss of or damage to the Works, Plant, and Materials;
- b) loss of or damage to Equipment;
- c) loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and
- d) personal injury or death.

13.2 Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager for the Project Manager's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

13.3 If the Contractor does not provide any of the policies and certificates required, the Procuring Entity may effect the insurance which the Contractor should have provided and recover the premiums the Procuring Entity has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.

13.4 Alterations to the terms of an insurance shall not be made without the approval of the Project Manager.

13.5 Both parties shall comply with any conditions of the insurance policies.

14. Site Data

14.1 The Contractor shall be deemed to have examined any Site Data referred to in the SCC, supplemented by any information available to the Contractor.

15. Contractor to Construct the Works

15.1 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.

16. The works to be completed by the intended completion date

16.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program submitted by the Contractor, as updated with the approval of the Project Manager, and complete them by the Intended Completion Date.

17. Approval by the Project Manager

17.1 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Project Manager, for his approval.

17.2 The Contractor shall be responsible for design of Temporary Works.

17.3 The Project Manager's approval shall not alter the Contractor's responsibility for design of the Temporary Works.

17.4 The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.

17.5 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Project Manager before this use.

18. Safety

18.1 The Contractor shall be responsible for the safety of all activities on the Site.

19. Discoveries

19.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Procuring Entity. The Contractor shall notify the Project Manager of such discoveries and carry out the Project Manager's instructions for dealing with them

20. Possession of the site

20.1 The Procuring Entity shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date **stated in the SCC**, the Procuring Entity shall be deemed to have delayed the start of the relevant activities, and this shall be a Compensation Event.

21. Access to Site

21.1 The Contractor shall allow the Project Manager and any person authorized by the Project Manager access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.

22. Instructions, Inspections and Audits

22.1 The Contractor shall carry out all instructions of the Project Manager which comply

with the applicable laws where the Site is located.

22.2 The Contractor shall keep, and shall make all reasonable efforts to cause its Subcontractors and sub-consultants to keep, accurate and systematic accounts and records in respect of the Works in such form and details as will clearly identify relevant time changes and costs.

22.3 The Contractor shall permit and shall cause its subcontractors and sub-consultants to permit, the Procuring Entity and/or persons appointed by the Public Procurement Regulatory Authority to inspect the Site and/or the accounts and records relating to the procurement process, selection and/or contract execution, and to have such accounts and records audited by auditors appointed by the Public Procurement Regulatory Authority. The Contractor's and its Subcontractors' and sub-consultants' attention is drawn to Sub-Clause 25.1 (Fraud and Corruption) which provides, inter alia, that acts intended to materially impede the exercise of the Public Procurement Regulatory Authority's inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Public Procurement Regulatory Authority's prevailing sanctions procedures).

23. Appointment of the adjudicator

23.1 The Adjudicator shall be appointed jointly by the Procuring Entity and the Contractor, at the time of the Procuring Entity's issuance of the Letter of Acceptance. If, in the Letter of Acceptance, the Procuring Entity does not agree on the appointment of the Adjudicator, the Procuring Entity will request the Appointing Authority designated in the SCC, to appoint the Adjudicator within 14 days of receipt of such request.

23.2 Should the Adjudicator resign or die, or should the Procuring Entity and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract, a new Adjudicator shall be jointly appointed by the Procuring Entity and the Contractor. In case of disagreement between the Procuring Entity and the Contractor, within 30 days, the Adjudicator shall be designated by the Appointing Authority designated in the SCC at the request of either party, within 14 days of receipt of such request.

24. Settlement of Claims and Disputes

24.1 Contractor's Claims

24.1.1 If the Contractor considers itself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall give Notice to the Project Manager, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 30 days after the Contractor became aware, or should have become aware, of the event or circumstance.

24.1.2 If the Contractor fails to give notice of a claim within such period of 30 days,

the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Procuring Entity shall be discharged from all liability in connection with the claim. Otherwise, the following provisions of this Sub- Clause shall apply.

24.1.3 The Contractor shall also submit any other notices which are required by the Contract, and supporting particulars for the claim, all as relevant to such event or circumstance.

24.1.4 The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at another location acceptable to the Project Manager. Without admitting the Procuring Entity's liability, the Project Manager may, after receiving any notice under this Sub-Clause, monitor the record- keeping and/or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Project Manager to inspect all these records, and shall (if instructed) submit copies to the Project Manager.

24.1.5 Within 42 days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Project Manager, the Contractor shall send to the Project Manager a fully detailed claim which includes full supporting particulars of the basis of the claim and of the extension of time and/or additional payment claimed. If the event or circumstance giving rise to the claim has a continuing effect:

- a) this fully detailed claim shall be considered as interim;
- b) the Contractor shall send further interim claims at monthly intervals, giving the accumulated delay and/or amount claimed, and such further particulars as the Project Manager may reasonably require; and
- c) the Contractor shall send a final claim within 30 days after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the Contractor and approved by the Project Manager.

24.1.6 Within 42 days after receiving a Notice of a claim or any further particulars supporting a previous claim, or within such other period as may be proposed by the Project Manager and approved by the Contractor, the Project Manager shall respond with approval, or with disapproval and detailed comments. He may also request any necessary further particulars, but shall nevertheless give his response on the principles of the claim within the above defined timeperiod.

24.1.7 Within the above defined period of 42 days, the Project Manager shall proceed in accordance with Sub-Clause

24.1.8 [Determinations] to agree or determine (i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with Sub-Clause 8.4 [Extension of Time for Completion], and/or (ii) the additional payment (if

any) to which the Contractor is entitled under the Contract.

24.1.9 Each Payment Certificate shall include such additional payment for any claim as has been reasonably substantiated as due under the relevant provision of the Contract. Unless and until the particulars supplied are sufficient to substantiate the whole of the claim, the Contractor shall only be entitled to payment for such part of the claim as he has been able to substantiate.

24.1.10 If the Project Manager does not respond within the timeframe defined in this Clause, either Party may consider that the claim is rejected by the Project Manager and any of the Parties may refer to Arbitration in accordance with Sub-Clause 24.4 [Arbitration].

24.1.11 The requirements of this Sub-Clause are in addition to those of any other Sub-Clause which may apply to a claim. If the Contractor fails to comply with this or another Sub-Clause in relation to any claim, any extension of time and/or additional payment shall take account of the extent (if any) to which the failure has prevented or prejudiced proper investigation of the claim, unless the claim is excluded under the second paragraph of this Sub-Clause 24.3.

24.2 Amicable Settlement

24.1.1 Where a notice of a claim has been given, both Parties shall attempt to settle the dispute amicably before the commencement of arbitration. However, unless both Parties agree otherwise, the Party giving a notice of a claim in accordance with Sub-Clause 24.1 above should move to commence arbitration after the fifty-sixth day from the day on which a notice of a claim was given, even if no attempt at an amicable settlement has been made.

24.3 Matters that may be referred to arbitration

24.3.1 Notwithstanding anything stated herein the following matters may be referred to arbitration before the practical completion of the Works or abandonment of the Works or termination of the Contract by either party:

- a) The appointment of a replacement Project Manager upon the said person ceasing to act.
- b) Whether or not the issue of an instruction by the Project Manager is empowered by these Conditions.
- c) Whether or not a certificate has been improperly withheld or is not in accordance with these Conditions.
- e) Any dispute arising in respect of war risks or war damage.
- f) All other matters shall only be referred to arbitration after the completion or alleged completion of the Works or termination or alleged termination of the Contract, unless the Procuring Entity and the Contractor agree otherwise in writing.

24.4 Arbitration

- 24.4.1 Any claim or dispute between the Parties arising out of or in connection with the Contract not settled amicably in accordance with Sub-Clause 24.3 shall be finally settled by arbitration.
- 24.4.2 No arbitration proceedings shall be commenced on any claim or dispute where notice of a claim or dispute has not been given by the applying party within ninety days of the occurrence or discovery of the matter or issue giving rise to the dispute.
- 24.4.3 Notwithstanding the issue of a notice as stated above, the arbitration of such a claim or dispute shall not commence unless an attempt has in the first instance been made by the parties to settle such claim or dispute amicably with or without the assistance of third parties. Proof of such attempt shall be required.
- 24.4.4 The Arbitrator shall, without prejudice to the generality of his powers, have powers to direct such measurements, computations, tests or valuations as may in his opinion be desirable in order to determine the rights of the parties and assess and award any sums which ought to have been the subject of or included in any certificate.
- 24.4.5 The Arbitrator shall, without prejudice to the generality of his powers, have powers to open up, review and revise any certificate, opinion, decision, requirement or notice and to determine all matters in dispute which shall be submitted to him in the same manner as if no such certificate, opinion, decision requirement or notice had been given.
- 24.4.6 The arbitrators shall have full power to open up, review and revise any certificate, determination, instruction, opinion or valuation of the Project Manager, relevant to the dispute. Nothing shall disqualify representatives of the Parties and the Project Manager from being called as a witness and giving evidence before the arbitrators on any matter whatsoever relevant to the dispute.
- 24.4.7 Neither Party shall be limited in the proceedings before the arbitrators to the evidence, or to the reasons for dissatisfaction given in its Notice of Dissatisfaction.
- 24.4.8 Arbitration may be commenced prior to or after completion of the Works. The obligations of the Parties, and the Project Manager shall not be altered by reason of any arbitration being conducted during the progress of the Works.
- 24.4.9 The terms of the remuneration of each or all the members of Arbitration shall be mutually agreed upon by the Parties when agreeing the terms of appointment. Each Party shall be responsible for paying one-half of this remuneration

24.5 Arbitration with National Contractors

- 24.5.1 If the Contract is with national contractors, arbitration proceedings will be conducted in accordance with the Arbitration Laws of Kenya. In case of any claim or dispute, such claim or dispute shall be notified in writing by either party to the other with a request to submit it to arbitration and to concur in the appointment of an Arbitrator within thirty days of the notice. The dispute shall be referred to the arbitration and final decision of a person to be agreed between the parties. Failing agreement to concur in the appointment of an Arbitrator, the Arbitrator shall be appointed, on the request of the applying party, by the Chairman or Vice Chairman of any of the following professional institutions;
- i) Architectural Association of Kenya
 - ii) Institute of Quantity Surveyors of Kenya

- iii) Association of Consulting Engineers of Kenya
- iv) Chartered Institute of Arbitrators (Kenya Branch)
- v) Institution of Engineers of Kenya

24.5.2 The institution written to first by the aggrieved party shall take precedence over all other institutions.

24.6 Alternative Arbitration Proceedings

24.6.1 Alternatively, the Parties may refer the matter to the Nairobi Centre for International Arbitration (NCIA) which offers a neutral venue for the conduct of national and international arbitration with commitment to providing institutional support to the arbitral process.

24.7 Failure to comply with Arbitrator's Decision

24.7.1 The award of such Arbitrator shall be final and binding upon the parties.

24.7.2 In the event that a Party fails to comply with a final and binding Arbitrator's decision, then the other Party may, without prejudice to any other rights it may have, refer the matter to a competent court of law.

24.8 Contract operations to continue

24.8.1 Notwithstanding any reference to arbitration herein,

- a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
- b) the Procuring Entity shall pay the Contractor any monies due the Contractor.

25. Fraud and Corruption

25.1 The Government requires compliance with the country's Anti-Corruption laws and its prevailing sanctions policies and procedures as set forth in the Constitution of Kenya and its Statutes.

25.2 The Procuring Entity requires the Contractor to disclose any commissions or fees that may have been paid or are to be paid to agents or any other party with respect to the bidding process or execution of the Contract. The information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee.

B. Time control

26. Program

- 26.1 Within the time stated in the SCC, after the date of the Letter of Acceptance, the Contractor shall submit to the Project Manager for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works. In the case of a lump sum contract, the activities in the Program shall be consistent with those in the Activity Schedule.
- 26.2 An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.
- 26.3 The Contractor shall submit to the Project Manager for approval an updated Program at intervals no longer than the period stated in the SCC. If the Contractor does not submit an updated Program within this period, the Project Manager may withhold the amount stated in the SCC from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted. In the case of a lump sum contract, the Contractor shall provide an updated Activity Schedule within 14 days of being instructed to by the Project Manager.
- 26.4 The Project Manager's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Project Manager again at any time. A revised Program shall show the effect of Variations and Compensation Events.

27. Extension of Intended Completion Date

- 27.1 The Project Manager shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.
- 27.2 The Project Manager shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Project Manager for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

28. Acceleration

- 28.1 When the Procuring Entity wants the Contractor to finish before the Intended Completion Date, the Project Manager shall obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Procuring

Entity accepts these proposals, the Intended Completion Date shall be adjusted accordingly and confirmed by both the Procuring Entity and the Contractor.

- 28.2 If the Contractor's priced proposals for an acceleration are accepted by the Procuring Entity, they are incorporated in the Contract Price and treated as a Variation.

29 Delays Ordered by the Project Manager

- 29.1 The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.

30. Management Meetings

- 30.1 Either the Project Manager or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.
- 30.2 The Project Manager shall record the business of management meetings and provide copies of the record to those attending the meeting and to the Procuring Entity. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

31. Early Warning

- 31.1 The Contractor shall warn the Project Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works. The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.
- 31.2 The Contractor shall cooperate with the Project Manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Project Manager.

C. Quality Control

32. Identifying defects

32.1 The Project Manager shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Project Manager may instruct the Contractor to search for a Defect and to uncover and test any work that the Project Manager considers may have a Defect.

33. Tests

33.1 If the Project Manager instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect, the test shall be a Compensation Event.

34. Correction of defects

34.1 The Project Manager shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion, and is defined in the SCC. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

34.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Project Manager's notice.

35. Uncorrected Defects

35.1 If the Contractor has not corrected a Defect within the time specified in the Project Manager's notice, the Project Manager shall assess the cost of having the Defect corrected, and the Contractor shall pay this amount.

D. Cost Control

36. Contract Price

36.1 The Bill of Quantities shall contain priced items for the Works to be performed by the Contractor. The Bill of Quantities is used to calculate the Contract Price. The Contractor will be paid for the quantity of the work

accomplished at the rate in the Bill of Quantities for each item.

37. Changes in the Contract Price

- 37.1 If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25 percent, provided the change exceeds 1 percent of the Initial Contract Price, the Project Manager shall adjust the rate to allow for the change. The Project Manager shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 15 percent, except with the prior approval of the Procuring Entity.
- 37.2 If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.

38. Variations

- 38.1 All Variations shall be included in updated Programs produced by the Contractor.
- 38.2 The Contractor shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager. The Project Manager shall assess the quotation, which shall be given within seven (7) days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.
- 38.3 If the Contractor's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.
- 38.4 If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a compensation event.
- 38.5 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning
- 38.6 If the work in the Variation corresponds to an item description in the Bill of Quantities and if, in the opinion of the Project Manager, the quantity of work above the limit stated in Sub-Clause 39.1 or the timing of its execution do not cause the cost per unit of quantity to change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of work
- 38.7 Value Engineering: The Contractor may prepare, at its own cost, a value engineering proposal at any time during the performance of the contract. The value engineering proposal shall, at a minimum, include the following;

- a) the proposed change(s), and a description of the difference to the existing contract requirements;
- b) a full cost/benefit analysis of the proposed change(s) including a description and estimate of costs (including life cycle costs) the Procuring Entity may incur in implementing the value engineering proposal; and
- c) a description of any effect(s) of the change on performance/functionality.

38.8 The Procuring Entity may accept the value engineering proposal if the proposal demonstrates benefits that:

- a) accelerate the contract completion period; or
- b) reduce the Contract Price or the life cycle costs to the Procuring Entity; or
- c) improve the quality, efficiency, safety or sustainability of the Facilities; or
- d) yield any other benefits to the Procuring Entity, without compromising the functionality of the Works.

38.9 If the value engineering proposal is approved by the Procuring Entity and results in:

- a) a reduction of the Contract Price; the amount to be paid to the Contractor shall be the **percentage specified in the SCC** of the reduction in the Contract Price; or
 - b) an increase in the Contract Price; but results in a reduction in life cycle costs due to any benefit described in
- (a) to (d) above, the amount to be paid to the Contractor shall be the full increase in the Contract Price.

39. Cash Flow Forecasts

39.1 When the Program, is updated, the Contractor shall provide the Project Manager with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.

40. Payment Certificates

40.1 The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously.

40.2 The Project Manager shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.

40.3 The value of work executed shall be determined by the Project Manager.

40.4 The value of work executed shall comprise the value of the quantities of

work in the Bill of Quantities that have been completed¹².

40.5 The value of work executed shall include the valuation of Variations and Compensation Events.

40.6 The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

40.7 Where the contract price is different from the corrected tender price, in order to ensure the contractor is not paid less or more relative to the contract price (which would be the tender price), payment valuation certificates and variation orders on omissions and additions valued based on rates in the Bill of Quantities or schedule of rates in the Tender, will be adjusted by a plus or minus percentage. The percentage already worked out during tender evaluation is worked out as follows: *(corrected tender price – tender price)/tender price X 100*.

41. Payments

41.1 Payments shall be adjusted for deductions for advance payments and retention. The Procuring Entity shall pay the Contractor the amounts certified by the Project Manager within 30 days of the date of each certificate. If the Procuring Entity makes a late payment, the Contractor shall be paid interest on the late payment in the next payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the prevailing rate of interest for commercial borrowing for each of the currencies in which payments are made.

41.2 If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.

41.3 Unless otherwise stated, all payments and deductions shall be paid or charged in the proportions of currencies comprising the Contract Price.

41.4 Items of the Works for which no rate or price has been entered in shall not be paid for by the Procuring Entity and shall be deemed covered by other rates and prices in the Contract.

42. Compensation Events

42.1 The following shall be Compensation Events:

- d) The Procuring Entity does not give access to a part of the Site by the Site Possession Date pursuant to GCC Sub-Clause 20.1.
- e) The Procuring Entity modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract.

- f) The Project Manager orders a delay or does not issue Drawings, Specifications, or instructions required for execution of the Works on time.
- g) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.
- h) The Project Manager unreasonably does not approve a subcontract to be let.
- i) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to bidders (including the Site Investigation Reports), from information available publicly and from a visual inspection of the Site.
- j) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Procuring Entity, or additional work required for safety or other reasons.
- k) Other contractors, public authorities, utilities, or the Procuring Entity does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor.
- l) The advance payment is delayed.
- m) The effects on the Contractor of any of the Procuring Entity's Risks.
- n) The Project Manager unreasonably delays issuing a Certificate of Completion.

42.2 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Project Manager shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.

42.3 As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it shall be assessed by the Project Manager, and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Project Manager shall adjust the Contract Price based on the Project Manager's own forecast. The Project Manager shall assume that the Contractor shall react competently and promptly to the event.

42.4 The Contractor shall not be entitled to compensation to the extent that the Procuring Entity's interests are adversely affected by the Contractor's not having given early warning or not having cooperated with the Project Manager.

43. Tax

43.1 The Project Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the date 30 days before the submission of bids for the Contract and the date of the last Completion certificate. The adjustment shall be the change in the amount of tax payable by the Contractor, provided such changes are not already reflected in the Contract Price or are a result of GCC Clause 44.

44. Currency of Payment

44.1 All payments under the contract shall be made in Kenya Shillings

45. Price Adjustment

45.1 Prices shall be adjusted for fluctuations in the cost of inputs only if **provided for in the SCC**. If so provided, the amounts certified in each payment certificate, before deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amounts due in each currency. A separate formula of the type specified below applies:

$$P = A + B \frac{I_m}{I_o}$$

where:

P is the adjustment

factor for the portion of the Contract Price payable.

A and B are coefficients¹³ **specified in the SCC**, representing the non-adjustable and adjustable portions, respectively, of the Contract Price payable and I_m is the index prevailing at the end of the month being invoiced and I_o is the index prevailing 30 days before Bid opening for inputs payable.

45.2 If the value of the index is changed after it has been used in a calculation, the calculation shall be corrected and an adjustment made in the next payment certificate. The index value shall be deemed to take account of all changes in cost due to fluctuations in costs.

46. Retention

46.1 The Procuring Entity shall retain from each payment due to the Contractor the proportion stated in the **SCC** until Completion of the whole of the Works.

46.2 Upon the issue of a Certificate of Completion of the Works by the Project Manager, in accordance with GCC 53.1, half the total amount retained shall be repaid to the Contractor and half when the Defects Liability Period has passed and the Project Manager has certified that all Defects notified by the Project Manager to the Contractor before the end of this period have been corrected. The Contractor may substitute retention money with an “on demand” Bank guarantee.

47. Liquidated Damages

47.1 The Contractor shall pay liquidated damages to the Procuring Entity at

the rate per day stated in the **SCC** for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount defined in the SCC. The Procuring Entity may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.

- 47.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Project Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rate specified in GCC Sub-Clause 41.1.

48. Bonus

- 48.1 The Contractor shall be paid a Bonus calculated at the rate per calendar day **stated in the SCC** for each day (less any days for which the Contractor is paid for acceleration) that the Completion is earlier than the Intended Completion Date. The Project Manager shall certify that the Works are complete, although they may not be due to be complete.

49. Advance Payment

- 49.1 The Procuring Entity shall make advance payment to the Contractor of the amounts stated in the **SCC** by the date stated in the **SCC**, against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a bank acceptable to the Procuring Entity in amounts and currencies equal to the advance payment. The Guarantee shall remain effective until the advance payment has been repaid, but the amount of the Guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest shall not be charged on the advance payment.
- 49.2 The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Project Manager.
- 49.3 The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Bonuses, or Liquidated Damages.

50. Securities

50.1 The Performance Security shall be provided to the Procuring Entity no later than the date specified in the Letter of Acceptance and shall be issued in an amount **specified in the SCC**, by a bank or surety acceptable to the Procuring Entity, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The Performance Security shall be valid until a date 28 day from the date of issue of the Certificate of Completion in the case of a Bank Guarantee, and until one year from the date of issue of the Completion Certificate in the case of a Performance Bond.

51. Day works

51.1 If applicable, the Day works rates in the Contractor's Bid shall be used only when the Project Manager has given written instructions in advance for additional work to be paid for in that way.

51.2 All work to be paid for as Dayworks shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within two days of the work being done.

51.3 The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.

52. Cost of Repairs

52.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

E. Finishing the Contract

53. Completion

53.1 The Contractor shall request the Project Manager to issue a Certificate of Completion of the Works, and the Project Manager shall do so upon deciding that the whole of the Works is completed.

54. Taking Over

54.1 The Procuring Entity shall take over the Site and the Works within seven days of the Project Manager's issuing a certificate of Completion.

55. Final Account

55.1 The Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 56 days of receiving the Contractor's account if it is correct and complete. If it is not, the Project Manager shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Project Manager shall decide on the amount payable to the Contractor and issue a payment certificate.

56. Operating and Maintenance manuals

- 56.1 If “as built” Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the SCC.
- 56.2 If the Contractor does not supply the Drawings and/or manuals by the dates stated in the SCC pursuant to GCC Sub-Clause 56.1, or they do not receive the Project Manager's approval, the Project Manager shall withhold the amount **stated in the SCC** from payments due to the Contractor.

57. Termination

- 57.1 The Procuring Entity or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.
- 57.2 Fundamental breaches of Contract shall include, but shall not be limited to, the following:
 - a) the Contractor stops work for 30 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Project Manager;
 - b) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 30 days;
 - c) the Procuring Entity or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
 - d) a payment certified by the Project Manager is not paid by the Procuring Entity to the Contractor within 84 days of the date of the Project Manager's certificate;
 - e) the Project Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager;
 - f) the Contractor does not maintain a Security, which is required;
 - g) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be

paid, as **defined in the SCC**; or

- h) if the Contractor, in the judgment of the Procuring Entity has engaged in Fraud and Corruption, as defined in paragraph 2.2 a of the Appendix A to the GCC, in competing for or in executing the Contract, then the Procuring Entity may, after giving fourteen (14) days written notice to the Contractor, terminate the Contract and expel him from the Site.

57.3 Notwithstanding the above, the Procuring Entity may terminate the Contract for convenience.

57.4 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

57.5 When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under GCC Sub-Clause 56.2 above, the Project Manager shall decide whether the breach is fundamental or not

58. Payment upon Termination

58.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as specified in the SCC. Additional Liquidated Damages shall not apply. If the total amount due to the Procuring Entity exceeds any payment due to the Contractor, the difference shall be a debt payable to the Procuring Entity.

58.2 If the Contract is terminated for the Procuring Entity's convenience or because of a fundamental breach of Contract by the Procuring Entity, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.

59. Property

59.1 All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Procuring Entity if the Contract is terminated because of the Contractor's default.

60. Release from Performance

60.1 If the Contract is frustrated by the outbreak of war or by any other event

entirely outside the control of either the Procuring Entity or the Contractor, the Project Manager shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made.

SECTION IX - SPECIAL CONDITIONS OF CONTRACT

Except where otherwise specified, all Special Conditions of Contract should be filled in by the Procuring Entity prior to issuance of the bidding document. Schedules and reports to be provided by the Procuring Entity should be annexed.

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
A. General	
GCC 1.1 (q)	The Procuring Entity is, <i>Kirinyaga County Water and Sanitation PLC</i> <i>P.O BOX 360- 10300</i> <i>Kerugoya:</i> <u>Email</u> <u>managingdirector@kicowasco.co.ke</u> <i>Contacts: 0746555368/ 0715413591</i>
GCC 1.1 (u)	The Intended Completion Date for the whole of the Works shall be <i>6 months from the date of contract signing</i>

GCC 1.1 (x)	The Project Manager is, <i>Kirinyaga County Water and Sanitation PLC</i> <i>P.O BOX 360-10300</i> <i>Kerugoya</i> <i>Email:</i> managingdirector@kicowasco.co.ke <i>Contacts: 0746555368/ 0715413591</i>
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Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
GCC 1.1 (z)	The Site is located at <i>[Kimbimbi market, Nyagati ward, Mwea East, Kiirnyaga County</i>
GCC 1.1 (cc)	The Start Date shall be: <i>One month from the date of contract signing</i>
GCC 1.1 (gg)	The Works consist of: <i>Construction of 5652m pipeline extension, 100m3 elevated tank, 200m3 CFU, 1no. kiosk and supply of 200no. DN 15 consumer meters</i>
GCC 2.2	Sectional Completions are: <i>N/A</i>
GCC 5.1	The Project manager <i>may</i> delegate any of his duties and responsibilities.
GCC 8.1	Schedule of other contractors: <i>N/A</i>
GCC 9.1	Key Personnel GCC 9.1 is replaced with the following: 9.1 Key Personnel are the Contractor’s personnel named in this GCC 9.1 of the Special Conditions of Contract. The Contractor shall employ the Key Personnel and use the equipment identified in its Bid, to carry out the Works or other personnel and equipment approved by the Project Manager. The Project Manager shall approve any proposed replacement of Key Personnel and equipment only if their relevant qualifications or characteristics are substantially equal to or better than those proposed in the Bid. [insert the name/s of each Key Personnel agreed by the Procuring Entity prior to Contract signature.]

GCC 13.1	The minimum insurance amounts and deductibles shall be: (a) for loss or damage to the Works, Plant and Materials: <i>[insert amounts]</i>. (b) For loss or damage to Equipment: <i>[insert amounts]</i>. (c) for loss or damage to property (except the Works, Plant, Materials, and Equipment) in connection with Contract <i>[insert amounts]</i>. (d) for personal injury or death: (i) of the Contractor's employees: <i>[amount]</i>. (ii) of other people: <i>[amount]</i>.
GCC 14.1	Site Data are: <i>Bill of Quantities and Drawings</i>
GCC 20.1	The Site Possession Date(s) shall be: <i>14 days after contract signing</i>
GCC 23.1 &	Appointing Authority for the Adjudicator: Kirinyaga County Water and Sanitation PLC

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
GCC 23.2	Hourly rate and types of reimbursable expenses to be paid to the Adjudicator: Kshs 20,000
B. Time Control	
GCC 26.1	The Contractor shall submit for approval a Program for the Works within 28 days from the date of the Letter of Acceptance.
GCC 26.3	The period between Program updates is <i>[7]</i> days. The amount to be withheld for late submission of an updated Program is <i>[2% of contract price]</i>.
C. Quality Control	
GCC 34.1	The Defects Liability Period is: <i>[180]</i> days.
D. Cost Control	
GCC 38.9	If the value engineering proposal is approved by the Procuring Entity the amount to be paid to the Contractor shall be <i>_N/A_% (insert appropriate percentage. The percentage is normally up to 50%)</i> of the reduction in the Contract Price.
GCC 44.1	The currency of the Procuring Entity's Country is: <i>Kshs</i>

GCC 45.1	The Contract “<i>is not</i>” subject to price adjustment in accordance with GCC Clause 45, and the following information regarding coefficients “<i>does not</i>” apply. <i>[Price adjustment is mandatory for contracts which provide for time of completion exceeding 18 months]</i> The coefficients for adjustment of prices are: (a) <i>[insert percentage]</i> percent nonadjustable element (coefficient A). (ib) <i>[insert percentage]</i> percent adjustable element (coefficient B). (c) The Index I for shall be <i>[insert index]</i>.
GCC 46.1	The proportion of payments retained is: <i>10%</i>
GCC 47.1	The liquidated damages for the whole of the Works are <i>[0.7%]</i> per day. The maximum amount of liquidated damages for the whole of the Works is <i>[5%]</i> of the final Contract Price.
GCC 48.1	The Bonus for the whole of the Works is <i>[N/A]</i> per day. The maximum amount of Bonus for the whole of the Works is <i>[N/A]</i> of the final Contract Price.

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
GCC 49.1	The Advance Payments shall be: <i>[10%]</i> and shall be paid to the Contractor not later than <i>28 days of contract signing</i> .
GCC 50.1	The Performance Security amount is <i>2% of the tender bids</i> (a) Performance Security – Bank Guarantee: in the amount(s) of <i>[insert related figure(s)]</i> percent of the Accepted Contract Amount and in the same currency(ies) of the Accepted Contract Amount. (b) Performance Security – Performance Bond: in the amount(s) of <i>[insert related figure(s)]</i> percent of the Accepted Contract Amount and in the same currency(ies) of the Accepted Contract Amount.
E. Finishing the Contract	
GCC 56.1	The date by which operating and maintenance manuals are required is <i>[one month after end project handover]</i>. The date by which “as built” drawings are required is <i>one month after project handover</i>
GCC 56.2	The amount to be withheld for failing to produce “as built” drawings and/or operating and maintenance manuals by the date required in GCC 58.1 is <i>[0.01% of contract price]</i> .

GCC 57.2 (g)	The maximum number of days is: <i>30 days</i>
GCC 58.1	The percentage to apply to the value of the work not completed, representing the Procuring Entity's additional cost for completing the Works, is <i>[5%]</i> .

FORM No 1: NOTIFICATION OF INTENTION TO AWARD

This Notification of Intention to Award shall be sent to each Tenderer that submitted a Tender. Send this Notification to the Tenderer's Authorized Representative named in the Tender Information Form on the format below.

FORMAT

1. For the attention of Tenderer's Authorized Representative

- i) Name: *[insert Authorized Representative's name]*
- ii) Address: *[insert Authorized Representative's Address]*
- iii) Telephone: *[insert Authorized Representative's telephone/fax numbers]*
- iv) Email Address: *[insert Authorized Representative's email address]*

[IMPORTANT: insert the date that this Notification is transmitted to Tenderers. The Notification must be sent to all Tenderers simultaneously. This means on the same date and as close to the same time as possible.]

2. Date of transmission: *[email]* on *[date]* (local time)

This Notification is sent by *(Name and designation)* _____

3. Notification of Intention to Award

- i) Procuring Entity: *[insert the name of the Procuring Entity]*
- ii) Project: *[insert name of project]*
- iii) Contract title: *[insert the name of the contract]*
- iv) Country: *[insert country where ITT is issued]*
- v) ITT No: *[insert ITT reference number from Procurement Plan]*

This Notification of Intention to Award (Notification) notifies you of our decision to award the above contract. The transmission of this Notification begins the Standstill Period. During the Standstill Period, you may:

4. Request a debriefing in relation to the evaluation of your tender

Submit a Procurement-related Complaint in relation to the decision to award the contract.

a) The successful tenderer

i) Name of successful Tender _____

ii) Address of the successful Tender _____

iii) Contract price of the successful Tender Kenya Shillings _____
(in words) _____)

b) Other Tenderers

Names of all Tenderers that submitted a Tender. If the Tender's price was evaluated include the evaluated price as well as the Tender price as read out. For Tenders not evaluated, give one main reason the Tender was unsuccessful.

SNo	Name of Tender	Tender Price as read out	Tender's evaluated price (Note a)	One Reason Why not Evaluated
1				
2				
3				
4				
5				

(Note a) State NE if not evaluated

5. How to request for a debriefing

a) DEADLINE: The deadline to request a debriefing expires at midnight on [insert date] (local time).

b) You may request a debriefing in relation to the results of the evaluation of your Tender. If you decide to request a debriefing your written request must be made within three (5) Business Days of receipt of this Notification of Intention to Award.

- c) Provide the contract name, reference number, name of the Tenderer, contact details; and address the request for debriefing as follows:
 - i) Attention: *[insert full name of person, if applicable]*
 - ii) Title/position: *[insert title/position]*
 - iii) Agency: *[insert name of Procuring Entity]*
 - iii) Email address: *[insert email address]*
- d) If your request for a debriefing is received within the 3 Days deadline, we will provide the debriefing within five (3) Business Days of receipt of your request. If we are unable to provide the debriefing within this period, the Standstill Period shall be extended by five (3) Days after the date that the debriefing is provided. If this happens, we will notify you and confirm the date that the extended Standstill Period will end.
- e) The debriefing may be in writing, by phone, video conference call or in person. We shall promptly advise you in writing how the debriefing will take place and confirm the date and time.
- f) If the deadline to request a debriefing has expired, you may still request a debriefing. In this case, we will provide the debriefing as soon as practicable, and normally no later than fifteen (15) Days from the date of publication of the Contract Award Notice.

6. How to make a Complaint

- a) Period: Procurement-related Complaint challenging the decision to award shall be submitted by midnight, *[insert date]* (local time).
- b) Provide the contract name, reference number, name of the Tenderer, contact details; and address the Procurement-related Complaint as follows:
 - i) Attention: *[insert full name of person, if applicable]*
 - ii) Title/position: *[insert title/position]*
 - iii) Agency: *[insert name of Procuring Entity]*
 - iv) Email address: *[insert email address]*
- c) At this point in the procurement process, you may submit a Procurement-related Complaint challenging the decision to award the contract. You do not need to have requested, or received, a debriefing before making this complaint. Your complaint must be submitted within the Standstill Period and received by us before the Standstill Period ends.
- d) Further information: For more information refer to the Public Procurement and Disposals Act 2015 and its Regulations available from the Website info@ppra.go.ke or complaints@ppra.go.ke.
You should read these documents before preparing and submitting your complaint.
- e) There are four essential requirements:
 - i) You must be an 'interested party'. In this case, that means a Tenderer who submitted a Tender in this tendering process, and is the recipient of a

Notification of Intention to Award.

- ii) The complaint can only challenge the decision to award the contract.
- iii) You must submit the complaint within the period stated above.
- iv) You must include, in your complaint, all of the information required to support your complaint.

7. Standstill Period

- i) DEADLINE: The Standstill Period is due to end at midnight on [*insert date*] (local time).
- ii) The Standstill Period lasts ten (14) Days after the date of transmission of this Notification of Intention to Award.
- iii) The Standstill Period may be extended as stated in paragraph Section 5 (d) above.

If you have any questions regarding this Notification please do not hesitate to contact us. On behalf of the Procuring Entity:

Signature:_____ **Name:**_____

Title/position:_____ **Telephone:**____ **Email:**_____

FORM NO. 2 - REQUEST FOR REVIEW

FORM FOR REVIEW(r.203(1))

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 ofdated the...day of20.....in the matter of Tender No.....of20..... for (Tender description).

REQUEST FOR REVIEW

I/We.....,the above named Applicant(s), of address: Physical address..... P. O. Box 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.

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

- 1.
- 2.

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

FORM NO 3: LETTER OF AWARD

[letterhead paper of the Procuring Entity] [date]

To: *[name and address of the Contractor]*

This is to notify you that your Tender dated *[date]* for execution of the *[name of the Contract and identification number, as given in the Contract Data]* for the Accepted Contract Amount *[amount in numbers and words] [name of currency]*, as corrected and modified in accordance with the Instructions to Tenderers, is hereby accepted by*(name of Procuring Entity)*.

You are requested to furnish the Performance Security within 30 days in accordance with the Conditions of Contract, using, for that purpose, one of the Performance Security Forms included in Section VIII, Contract Forms, of the Tender Document.

Authorized Signature:.....

Name and Title of Signatory:.....

Name of Procuring Entity.....

Attachment: *Contract Agreement*.....

FORM NO 4: CONTRACT AGREEMENT

THIS AGREEMENT made the _____ day of _____, 20_____, between _____ of _____ (hereinafter “the Procuring Entity”), of the one part, and _____ of _____ (hereinafter “the Contractor”), of the other part:

WHEREAS the Procuring Entity desires that the Works known as _____ should be executed by the Contractor, and has accepted a Tender by the Contractor for the execution and completion of these Works and the remedying of any defects therein,

The Procuring Entity and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.
 - a) the Letter of Acceptance
 - b) the Letter of Tender
 - c) the addenda Nos _____ (if any)
 - d) the Special Conditions of Contract
 - e) the General Conditions of Contract;
 - f) the Specifications
 - g) the Drawings; and
 - h) the completed Schedules and any other documents forming part of the contract.
3. In consideration of the payments to be made by the Procuring Entity to the Contractor as specified in this Agreement, the Contractor hereby covenants with the Procuring Entity to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.

4. The Procuring Entity 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 hereto have caused this Agreement to be executed in accordance with the Laws of Kenya on the day, month and year specified above.

Signed and sealed by _____ (for the
Procuring Entity)

Signed and sealed by _____ (for the
Contractor).

FORM NO. 5 - PERFORMANCE SECURITY

[Option 1 - Unconditional Demand Bank Guarantee]

[Guarantor letterhead]

Beneficiary: _____ *[insert name and Address of Procuring*

Entity] **Date:** _____ *[Insert date of issue]*

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

1. We have been informed that _____
_____ (hereinafter called "the Contractor")
has entered into Contract No. _____ dated
_____ with (name of Procuring
Entity) _____ (the Procuring Entity as the
Beneficiary), for the execution of
_____ (hereinafter called "the Contract").

2. Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

3. At the request of the Contractor, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of

(in words),¹ such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without

the Beneficiary needing to prove or to show grounds for your demand or the sum

specified therein.

4. This guarantee shall expire, no later than the Day of, 2.², and any demand for payment under it must be received by us at the office indicated above on or before that date.
5. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed *[six months] [one year]*, in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.”

[Name of Authorized Official, signature(s) and seals/stamps].

Note: *All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.*

FORM No. 6 - PERFORMANCE SECURITY

[Option 2– Performance Bond]

[Note: Procuring Entities are advised to use Performance Security – Unconditional Demand Bank Guarantee instead of Performance Bond due to difficulties involved in calling Bond holder to action]

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: _____ *[insert name and Address of Procuring Entity]* **Date:** _____ *[Insert date of issue]*.

PERFORMANCE BOND No.: _____

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

1. By this Bond _____ as Principal (hereinafter called _____ “the Contractor”) and _____] as Surety (hereinafter called “the Surety”), are held and firmly bound unto _____] as Obligee (hereinafter called “the Procuring Entity”) in the amount of _____ for the payment of which sum well and truly to be made in the types and proportions of currencies in which the Contract Price is payable, the Contractor and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.
2. WHEREAS the Contractor has entered into a written Agreement with the Procuring Entity dated the _____ day of _____, 20 , for _____ in accordance with the documents, plans, specifications, and amendments thereto, which to the extent herein provided for, are by reference made part here of and are herein after referred to as the Contract.

3. NOW, THEREFORE, the Condition of this Obligation is such that, if the Contractor shall promptly and faithfully perform the said Contract (including any amendments thereto), then this obligation shall be null and void; otherwise, it shall remain in full force and effect. Whenever the Contractor shall be, and declared by the Procuring Entity to be, in default under the Contract, the Procuring Entity having performed the Procuring Entity's obligations thereunder, the Surety may promptly remedy the default, or shall promptly:
- 1) complete the Contract in accordance with its terms and conditions; or
 - 2) obtain a tender or tenders from qualified tenderers for submission to the Procuring Entity for completing the Contract in accordance with its terms and conditions, and upon determination by the Procuring Entity and the Surety of the lowest responsive Tenderers, arrange for a Contract between such Tenderer, and Procuring Entity and make available as work progresses (even though there should be a default or a succession of defaults under the Contract or Contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the Balance of the Contract Price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "Balance of the Contract Price," as used in this paragraph, shall mean the total amount payable by Procuring Entity to Contractor under the Contract, less the amount properly paid by Procuring Entity to Contractor; or
 - 3) pay the Procuring Entity the amount required by Procuring Entity to complete the Contract in accordance with its terms and conditions up to a total not exceeding the amount of this Bond.
4. The Surety shall not be liable for a greater sum than the specified penalty of this Bond.
5. Any suit under this Bond must be instituted before the expiration of one year from the date of the issuing of the Taking-Over Certificate. No right of action shall accrue on this Bond to or for the use of any person or corporation other than the Procuring Entity named herein or the heirs, executors, administrators, successors, and assigns of the Procuring Entity.
6. In testimony whereof, the Contractor has hereunto set his hand and affixed his seal, and the Surety has caused these presents to be sealed with his corporate seal duly attested by the signature of his legal representative, this day_of ____20____.

SIGNED ON _____ on behalf of By ____ in the
capacity of In the presence of

SIGNED ON _____ on behalf of By ____ in the
capacity of In the presence of

FORM NO. 7 - ADVANCE PAYMENT SECURITY

[Demand Bank Guarantee]

[Guarantor letterhead]

Beneficiary: _____ *[Insert name and Address of Procuring Entity]*

Date: _____ *[Insert date of issue]*

ADVANCE PAYMENT GUARANTEE No.: _____ *[Insert guarantee reference number]* **Guarantor:** _____ *[Insert name and address of place of issue, unless indicated in the letterhead]*

1. We have been informed that _____ (hereinafter called “the Contractor”) has entered into Contract No. _____ dated _____ with the Beneficiary, for the execution of _____ (hereinafter called “the Contract”).
2. Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum _____ *(in words)* is to be made against an advance payment guarantee.
3. At the request of the Contractor, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *(in words)* _____¹ upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating either that the Applicant:
 - a) has used the advance payment for purposes other than the costs of mobilization in respect of the Works; or
 - b) has failed to repay the advance payment in accordance with the Contract conditions, specifying the amount which the Applicant has failed to repay.

4. A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary's bank stating that the advance payment referred to above has been credited to the Contractor on its account number at_____.
5. The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor as specified in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that ninety (90) percent of the Accepted Contract Amount, less provisional sums, has been certified for payment, or on the ____ day of_____, 20____, whichever is earlier. Consequently, a demand for payment under this guarantee must be received by us at this office on or before that date.
6. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed *[six months]* *[one year]*, in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.

FORM NO. 8 - RETENTION MONEY SECURITY

[Demand Bank Guarantee]

[Guarantor letterhead]

Beneficiary: _____ *[Insert name and Address of Procuring Entity]*

Date: _____ *[Insert date of issue]*

Advance payment guarantee no. *[Insert guarantee reference number]*

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

1. We have been informed that _____ *[insert name of Contractor, which in the case of a joint venture shall be the name of the joint venture]* (hereinafter called "the Contractor") has entered into Contract No. _____ *[insert reference number of the contract]* dated _____ with the Beneficiary, for the execution of _____ *[insert name of contract and brief description of Works]* (hereinafter called "the Contract").
2. Furthermore, we understand that, according to the conditions of the Contract, the Beneficiary retains moneys up to the limit set forth in the Contract ("the Retention Money"), and that when the Taking-Over Certificate has been issued under the Contract and the first half of the Retention Money has been certified for payment, and payment of *[insert the second half of the Retention Money]* is to be made against a Retention Money guarantee.
3. At the request of the Contractor, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *[insert amount in figures]* _____ *([insert amount in words _____])'* upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Contractor is in breach of its obligation(s) under the Contract, without your needing to prove or show

grounds for your demand or the sum specified therein.

4. A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary's bank stating that the second half of the Retention Money as referred to above has been credited to the Contractor on its account number _____ at _____ [insert name and address of Applicant's bank].
5. This guarantee shall expire no later than the Day of, 2.....², and any demand for payment under it must be received by us at the office indicated above on or before that date.
6. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months] [one year], in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.

FORM NO. 9 BENEFICIAL OWNERSHIP DISCLOSURE FORM

INSTRUCTIONS TO TENDERERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE FORM

This Beneficial Ownership Disclosure Form ("Form") is to be completed by the successful tenderer. In case of joint venture, the tenderer must submit a separate Form for each member. The beneficial ownership information to be submitted in this Form shall be current as of the date of its submission.

For the purposes of this Form, a Beneficial Owner of a Tenderer is any natural person who ultimately owns or controls the Tenderer by meeting one or more of the following conditions:

- *Directly or indirectly holding 25% or more of the shares.*
- *Directly or in directly holding 25% or more of the voting rights.*
- *Directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Tenderer.*

Tender Reference No.: _____ [insert identification no] Name of the Assignment: _____ [insert name of the assignment] to: _____ [insert complete name of Procuring Entity]

In response to your notification of award dated _____ [insert date of notification of award] to furnish additional information on beneficial ownership: [select one option as applicable and delete the options that are not applicable]

- I) We here by provide the following beneficial ownership information.

Details of beneficial ownership

Identity of Beneficial Owner	Directly or indirectly holding 25% or more of the shares (Yes / No)	Directly or indirectly holding 25 % or more of the Voting Rights (Yes / No)	Directly or indirectly having the right to appoint a majority of the board of the directors or an equivalent governing body of the Tenderer (Yes / No)
<i>[include full name (last, middle, first), nationality, country of residence]</i>			

OR

- ii) *We declare that there is no Beneficial Owner meeting one or more of the following conditions: directly or indirectly holding 25% or more of the shares. Directly or indirectly holding 25% or more of the voting rights. Directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Tenderer.*

OR

We declare that we are unable to identify any Beneficial Owner meeting one or more of the following conditions. [If this option is selected, the Tenderer shall provide explanation on why it is unable to identify any Beneficial Owner]

Directly or indirectly holding 25% or more of the shares. Directly or indirectly holding 25% or more of the voting rights.

Directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Tenderer] ”

Name of the Tenderer:.....[insert complete name of the Tenderer]_____*

*Name of the person duly authorized to sign the Tender on behalf of the Tenderer: ** [insert complete name of person duly authorized to sign the Tender]*

Title of the person signing the Tender:.....[insert complete title of the person signing the Tender]

Signature of the person named above [insert signature of person whose name and capacity are shown above]

Date signed [insert date of signing] day of..... [Insert month], [insert year]

